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Castleford Bus Station, Castleford, West Yorkshire

Archaeological Evaluation



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**Castleford Bus Station,
Castleford,
West Yorkshire**

**Archaeological Evaluation
Detailed Interim Report**

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Summary

Wessex Archaeology were commissioned by Metro (hereafter 'the Client') to undertake a program of archaeological evaluation on the site of the existing bus station in Castleford, West Yorkshire (hereafter 'the Site' NGR SE 4247 2554), to inform a planning application for redevelopment of the bus station.

The archaeological potential of the Site was outlined in a previous desk-based assessment, with particular focus on the Roman and Post-Medieval periods. The Site is thought to lie within the known area of the Roman *vicus* of Castleford. Much later, from the 1850s to the 1890s, the Site was occupied by the Albion glassworks and contemporary housing.

The evaluation comprised the excavation of six trenches (**Trenches 1-6**) in available areas of the working bus station, through the tarmac surface and underlying reinforced concrete. This revealed good preservation of particularly 19th century structures relating to the former glassworks, and adjacent housing. In addition, there was an isolated area of earlier Romano-British activity, encountered in trenches where there was noticeably less disturbance from the 19th century glassworks and later features.

The archaeological features identified by the evaluation can be assigned to three main phases of occupation pre-dating the modern bus station. The earliest activity was Roman in date and consisted of features most likely associated with the *vicus* identified by previous excavations in the vicinity of the Site. The Romano-British features included a ditch, a possible beam slot or ditch and a pit in **Trench 3** and possibly a ditch and animal burial identified at the same level in **Trench 4**. A second main phase of activity dated to the 19th century and comprised structures and deposits associated with the former Albion glassworks and adjacent housing on the former Wainwright Street, Wainwright's Yard and Albion Place (**Trenches 3, 4, 5 and 6**). A possibly earlier boundary ditch, matching the position and alignment of a boundary on the 1852 OS mapping, was also identified in **Trench 1**. A third main phase dated to the late 19th century/ early 20th century and consisted of modern alterations to housing fronting the former Wainwright's Yard (**Trench 1**).

The majority of finds recovered from the Site are post-medieval in date, with a small Romano-British component also present. The post-medieval finds are largely waste from pottery manufacture and glass-working on, or in the vicinity of, the Site. These are likely to have been derived from the Eagle pottery (built in 1853) and the subsequent Eagle glassworks (1872-76/7) and Albion glassworks (1860s-1894). The Eagle glassworks, located to the west of the Site, was thought to have been incorporated into the Albion glassworks in the late 1870s. Other finds probably represent domestic refuse.

Post-excavation analysis of the finds is ongoing and a more detailed report will be submitted in due course. The archive resulting from the fieldwork is currently stored at Wessex Archaeology's Sheffield office under project code 88920 and will be deposited with Wakefield Museums in due course.



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Acknowledgements

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The excavation was carried out by Sam Fairhead, assisted by Dane Wright, Jonathan Buttery and Andrew Reid. Environmental samples were processed by Steve Winterton and assessed by Sarah F. Wyles. Finds assessment was carried out by Lorraine Mephram.

The report was compiled by Sam Fairhead with illustrations by Chris Breeden and Linda Coleman. The project was managed for Wessex Archaeology by Richard O'Neill.



Castleford Bus Station, Castleford, West Yorkshire

Archaeological Evaluation Detailed Interim Report

1 INTRODUCTION

1.1 Project background

- 1.1.1 Wessex Archaeology were commissioned by Metro (hereafter 'the Client') to undertake a program of archaeological evaluation on the site of the existing bus station in Castleford, West Yorkshire (hereafter 'the Site' NGR SE 4247 2554), in advance of the development of a new bus station (**Figure 1**).
- 1.1.2 The program involved the excavation of six trenches targeted over buildings identified on historic mapping associated with the Albion Glassworks, and to test 'blank areas as the Site is located within the known area of the Roman *vicus* of Castleford.

1.2 The Site

- 1.2.1 The development lies in the centre of the town of Castleford. The site is bounded to the north by Albion Street, to the east by Booth Street, a Sunday school and the Salvation Army Citadel and to the south and partially to the west by Enterprise Way (**Figure 1**). The Site is currently occupied by the bus station, which will be replaced by the proposed development. The bus station remained in use over the term of the evaluation work. The current ground covering of the site is hard standing concrete and tarmac. The site is level at 20m O.D.
- 1.2.2 The geology of the site is Pennine Middle Coal Measures Formation which consists of Mudstone, Siltstone and Sandstone. This is overlain by slow permeable seasonally wet acid loams and clays.

2 ARCHAEOLOGICAL BACKGROUND

2.1 Introduction

- 2.1.1 The site lies approximately 130m southwest of the defences of the Roman fort, within the civilian area (*vicus*) that grew up around it, and 110m west of the Roman road which ran north to south past the fort.
- 2.1.2 The development site itself occupies the site of a former glassworks active during the latter half of the 19th century.

2.2 Recent investigations in the area

- 2.2.1 A significant amount of archaeological investigations have taken place in Castleford since the 1960's revealing evidence of intensive Roman occupation associated with a fort and

vicus (civilian occupation), as well as limited evidence for medieval occupation and post-medieval industrial activity. The following is summarised from the desk based assessment (ASWYAS 2012).

- 2.2.2 Excavations were carried out between 1963 and 1966 near the corner of Albion Street and Carlton Street as part of the construction of the existing bus station, revealing Roman construction trenches along with drains, limestone blocks and column bases.
- 2.2.3 Excavations at the east side of Welbeck Street, to the east of the Site revealed remains of Roman structures dating to between the 1st and 4th centuries, in addition to a disturbed cremation and evidence of glassworking.
- 2.2.4 Further excavations on the west side of Welbeck Street, and between Booth Street and Dixon Street identified the remains of a Roman road as well as evidence of earlier Roman settlement in the form of ovens and the wall of a large timber building which was later rebuilt in stone.

2.3 Recent investigations in the wider landscape

- 2.3.1 Extensive excavations have been undertaken within the area of the fort itself identifying elements of the defensive circuit, remains of barrack blocks and a granary, and the well preserved remains of the military bath house on the north side of the fort. A large midden was also excavated, producing remains of leather artefacts, writing materials, bone artefacts and fragments of tents.
- 2.3.2 A number of stake holes and pits together with Roman pottery discovered at West Street suggest that the settlement may have extended 225m west of the fort's defences.

3 METHODOLOGY

3.1 Aims and objectives

3.1.1 The general aims of the project were:

- to identify the presence or absence of any archaeological deposits within the Site;
- to determine the extent, condition, character, significance and date of any archaeological deposits encountered;
- to accurately record any revealed archaeological deposits;
- to recover artefacts disturbed by the Site works;
- to prepare a comprehensive archive, record and report of any archaeological deposits disturbed by the Site works;
- to aid the production of a mitigation strategy for the Site.

3.2 Fieldwork methodology

3.2.1 The evaluation comprised the excavation of six trenches of varying sizes covering c.376m². Due to the requirement to keep the bus station operational, the trenches were opened, recorded and re-instated one or two at a time in order to keep at least three bus stands open at any one time (**Figure 1**). The trenches were located by means of a RTK GPS system and tied into the OS grid (within 0.1m).



- 3.2.2 All potential trench locations were scanned using a CAT to check for uncharted services prior to machining. Trenches were located to avoid predominantly existing services but also access in and out of the working bus station. None of the originally proposed trenches under pavements could be excavated because all overlay existing services.
- 3.2.3 Tarmac and concrete were removed using a floor saw and mechanical excavator fitted with a pecker. Overburden was removed using a mechanical excavator fitted with a toothless ditching bucket, working under the continuous direct supervision of a suitably experienced archaeologist. Overburden was removed in a series of level spits down to the level of the upper archaeological horizon, or the level of the natural geology, whichever was reached first.
- 3.2.4 All trenches were hand-cleaned to clarify the extent of revealed archaeological remains. Where archaeological features and deposits were encountered, excavation was carried out by hand. A sufficient sample of each layer/feature type was excavated in order to establish the date, nature, extent and condition of the archaeological remains.
- 3.2.5 All recording took place in accordance with standard Wessex Archaeology methodologies and the specification (WYAAS 2012). All works were undertaken in accordance with the relevant Institute for Archaeologists' (IfA) Standard and Guidance, the IfA Code of Conduct, and other current and relevant best practice and standards and guidance (IfA 2008a and b).
- 3.2.6 The trenches were backfilled with arisings and stone then resurfaced once WYAAS was satisfied that the excavation had been carried out to an appropriate standard.

3.3 Monitoring

- 3.3.1 Regular monitoring visits were made by David Hunter (WYAAS).

3.4 Recording

- 3.4.1 All archaeological features and deposits encountered were recorded using Wessex Archaeology *pro forma* recording sheets and a continuous unique numbering system. A stratigraphic matrix will be compiled to record the relationships between features and deposits. Plans were prepared at appropriate scales showing the areas investigated and their relation to more permanent topographical features. The plans show the location of contexts observed and recorded in the course of the investigation. Other plans, sections and elevations of archaeological features and deposits were drawn as necessary at 1:10, 1:20 and 1:50 as appropriate. All drawings were made in pencil on permanent drafting film.
- 3.4.2 The spot height of all principal features and levels were calculated in metres relative to Ordnance Datum, correct to two decimal places. Plans, sections and elevations were annotated with spot heights as appropriate.
- 3.4.3 Photographs were taken as necessary to produce a photographic record consisting of 35mm monochrome prints and colour transparencies. Digital images were taken to support report preparation.

3.5 Finds and Samples

- 3.5.1 Finds were treated in accordance with the relevant guidance (UKIC 2001; MGC 1992; English Heritage 2005, 2006; IfA 2008b) and the WSI (WYAAS 2012). All artefacts from

excavated contexts were retained, except those from features or deposits of obviously modern date.

- 3.5.2 All sealed and stratified archaeological contexts were considered for standard environmental sampling. Bulk soil samples for plant macro-fossils, small animal and fish bones and other small artefacts were taken from appropriate well-sealed and dated/datable archaeological deposits. The collection and processing of environmental samples was undertaken in accordance with English Heritage guidelines (English Heritage 2011).
- 3.5.3 Bulk environmental soil samples were processed by flotation and scanned to assess the environmental potential of deposits. The residues and sieved fractions will be recorded and retained with the project archive.

4 ARCHAEOLOGICAL RESULTS

4.1 Introduction

- 4.1.1 The following is a summary of the results of the evaluation. Detailed context descriptions are provided in **Appendix 1**.

4.2 Results

Trench 1

- 4.2.1 A large number of brick structures were identified in **Trench 1**, at and below c.16.40mOD, the majority of which were walls or floor/yard surfaces. These structures appeared to fall into two main phases, the first being associated with the remains of the Albion glassworks, and the second with later alterations to housing fronting the former Wainwright's Yard (**Figure 2**), as shown on the 1890 OS map.
- 4.2.2 The structures associated with the glassworks were all located in the southwestern half of the trench, with the modern features to the northeast. A layer of industrial waste and demolition rubble, **1003**, lay over all the structures in the southwestern area and was typically 0.4m thick. **1003** was most likely associated with the final demolition and levelling of the glassworks. This layer, present over the whole southwestern half of **Trench 1**, ended abruptly at floor **1022** and appeared to be cut by it (**Plate 1, Figure 5**). The floor and the structures to the northeast of it were constructed of modern frogged bricks and were overlain by a layer of red crush, **1002**, which also lay over the demolition layer **1003**, and extended the full length of **Trench 1**. The existing bus station surface was built on top of this crush layer.
- 4.2.3 The earlier structures consisted of a number of two skin red brick walls, the majority running north to south across the trench, two of which (**1011** and **1021**) had associated floor/yard surfaces (**1010** and **1020** respectively) (**Plate 3**). A further surface, **1008**, was constructed of yellow firebrick. The floor/yard surfaces in particular appear to be constructed of re-used bricks.
- 4.2.4 Between walls **1014** and **1015** the demolition layer, **1003**, was much deeper than elsewhere in **Trench 1**, filling a possible cellar (**Plate 2, Figure 5**) and including a large quantity of glassworking waste, kiln spacers, pottery, brick fragments and one complete Codd bottle.

4.2.5 The only feature in **Trench 1** that may have pre-dated the glassworks was a ditch (**1028**), at 15.80mOD, cut into the natural clay **1004** (**Plate 3, Figure 6**). No finds were recovered from the fill, though the ditch appears to match up with a field boundary visible on the 1852 maps.

4.2.6 The natural clay in Trench 1 was typically encountered at 0.8m below ground level (bgl).

Trench 2

4.2.7 **Trench 2** revealed a number of brick walls and floor surfaces, at and below c.16.30mOD, concentrated in the northeastern half of the trench (**Figure 2**) and most likely associated with the glassworks.

4.2.8 A north-south oriented wall, **2011** (**Plate 4**) was constructed of three skins of red brick, thicker than other walls observed in the trench. The structures to the east of **2011** (**2005-2010**) formed a series of floors and possible bases (**Plate 5**) with what appear to be dividing walls (**2006** and possibly **2008**, though this may be a step).

4.2.9 To the west of **2011**, a north-south wall with an east-west return (**2012**) butted a re-used firebrick yard surface (**2013**). It seems likely that these were external structures, while those to the east of **2011** were internal, **2011** being an outer wall.

4.2.10 The internal features, as well as the outer wall, **2011**, were overlain by **2003**, a rubble layer 0.32m thick and apparently resulting from the demolition of the building of which **2011** was the outer wall.

4.2.11 The external features were overlain by **2016**, which was very similar to **1003** in **Trench 1**, and probably related to the final demolition and levelling of the glassworks.

Trench 3

4.2.12 Three features 3006, 3008 and 3004 of probable Roman date were identified in Trench 3 (**Figure 7**), at around c.16.20mOD, all of which produced Romano-British ceramics.

4.2.13 A large pit **3006** was revealed towards the eastern end of the trench, protruding from the southern section (**Plate 6**). The feature was 2.2m across and 0.5m deep and filled by deposits **3007** and **3018**, the lower fill of which (**3007**) contained several sherds of Romano-British pottery.

4.2.14 A possible beamslot or ditch **3008** was identified approximately 5m to the southwest of the pit, running north to south across the trench (**Plate 7**). The feature was 0.92m in width and 0.23m deep with sharp sloping sides. The secondary fill contained Romano-British ceramic (**3009**).

4.2.15 A further feature was a ditch (**3004**) at the southwestern end of the trench, running northwest to southeast (**Plate 8**). The ditch was 1.92m in width and 0.38m in depth and contained Romano-British pottery and a fragment of Romano-British CBM.

4.2.16 All the Roman features were cut into the natural clay **3003**, and were sealed by buried soil **3011/ 3015**. The buried soil also contained a small quantity of Romano-British ceramic.

4.2.17 Only two other features were identified in Trench 3, **3010** and **3012**, both north-south red brick walls, at 16.82mOD and 16.71mOD respectively, and two skins wide. These are

most likely associated with terraced housing fronting the former Wainwright Street and backing onto Wainwright's Yard, visible on the 1890 OS map (**Figure 3**).

Trench 4

- 4.2.18 The earliest feature in Trench 4 was initially thought to be the burial of a young cow (**4032, ABG 1**), identified at c.16.10mOD and cut into the natural clay **4003 (Plate 9)**. However, the dating of ceramics assigned to the fill of the burial suggest it may be post-medieval in date. The burial was located towards the northeast end of the trench, at the same level as Romano-British features in **Trench 3**, and the bone was very poorly preserved.
- 4.2.19 Immediately to the southwest of the burial was a north-south ditch **4025**. No finds were recovered from the ditch to date the feature but again the feature was located at a similar level to the Roman features in **Trench 3**. Environmental preservation in the fill of the ditch was poor.
- 4.2.20 Later activity was represented by a large number of brick structures (**Figure 3**), at and below c.16.60mOD. The fabric and construction of these structures indicates that they were largely contemporary with those in the other trenches and associated with the glassworks. In addition, it was noticeable that a number were heat affected indicating potential flues or kilns in the vicinity.
- 4.2.21 At the southwestern extreme of the trench was a curvilinear structure, **4004**, made up of two parallel rows of red brick bedded on a clay layer **4034**, the latter an apparent levelling deposit visible across much of the Site and overlying the natural clay. The bricks and surrounding clay were heavily heat affected suggesting **4004** may be the remains of a flue (**Plate 10**). A similar but much more heavily damaged structure (**4005**) was identified approximately 2m to the northeast.
- 4.2.22 Towards the eastern extent of the trench was a red brick surface, **4013**, which also showed signs of heat damage and possible evidence of burning on the surface. **4013** was raised up from adjacent floor surface **4012**, suggesting it may be a platform or base.
- 4.2.23 A substantial wall, **4011**, ran west from **4012** and bounded a possible cellar, backfilled with a deposit of industrial waste and rubble (**4029 (Plate 11)**). In addition to filling this area, the deposit **4029 / 4031** overlay all the structures in **Trench 4**, and is identical to **1003 (Trench 1)**, **2016 (Trench 2)**, **3014 (Trench 3)**, **5019 (Trench 5)** and **6005 (Trench 6)**.
- 4.2.24 In the centre of **Trench 4** was a structure (**4015**) constructed of an assortment of re-used bricks (mainly firebrick), and consisting of a floor or platform surface which stepped up to the northeast (**Plate 12**). This part of the structure was visible only in section. The structure was built over a deposit of industrial waste and rubble, **4028**, similar to the overlying demolition layer **4031 (Figure 8)**. To the northeast of **4015** was a series of single skin red brick walls (**4018-4021**) which appear to be internal dividing walls. These latter walls may have been associated with buildings and later alterations to buildings fronting Wainwright's yard on the 1890 OS map.

Trench 5

- 4.2.25 **Trench 5** produced similar structures and deposits to the previous trenches, at and below c.16.66mOD, though with a lower density of features, and was probably located on the perimeter of the glassworks (**Figure 4**), with structures to the northeast possibly fronting the former Wainwright's Yard.

- 4.2.26 Structure, **5005**, identified at the southwest end of the trench, consisted of four brick walls surrounding a brick base, **5006**. The structure had a ceramic pipe built into it and was lined with white clay suggesting it was related to water management or a service access (**Plate 13**) within the former yard of the Albion Works.
- 4.2.27 To the northeast of **5005** was a heavily truncated remnant of a possible low drystone wall (**5008**), constructed of irregular stone blocks. This was the only structure on the Site which was not brick built (**Plate 14**). Further structures to the northeast were almost certainly associated with housing fronting the former Wainwright's Yard, as shown on the 1890 OS map.
- 4.2.28 In the centre of **Trench 5** a very large, very deep deposit of rubbish and industrial waste and rubble was encountered (**Plate 15**). This deposit, **5021**, produced huge quantities of glass slag, cullet, kiln furniture, sagger fragments and pottery, similar to **4028** (Trench 4). This apparent rubbish dump had been capped off with a layer of clay, **5020** (**Figure 9**).
- 4.2.29 As with the other trenches, the majority of structures were all cut into a clay layer, **5018**, which overlay the natural. This layer was probably an initial levelling layer deposited prior to the glassworks and housing construction. The layer was identical to **1036** (Trench 1), **3017** (Trench 3), **4034** (Trench 4) and **6006** (Trench 6). The structures in **Trench 5** all lay beneath a demolition layer, **5019**.

Trench 6

- 4.2.30 Comparatively few features were identified in this trench. A brick yard surface, **6008**, and four red brick walls **6009-6012** appeared to match up with features identified on the 1890 OS map (**Plate 16, Figure 4**), probably Wainwright's Yard and terraced housing fronting Albion Place and Wainwright Street. Structures were encountered at and below c.17.41mOD.
- 4.2.31 The stratigraphic sequence was similar to the other trenches with the structures cut into a clay layer **6006/6007**, overlying the natural clay **6004**. The structures lay beneath a demolition layer, **6005**.
- 4.2.32 A tree throw, **6013**, was identified at the northeast end of the trench, but produced no finds (**Figure 9**).

5 ARTEFACTUAL EVIDENCE

5.1 Introduction

- 5.1.1 A moderate quantity of finds was recovered from the Site. Apart from a small Romano-British component, all this material is post-medieval, and a large proportion represents waste from pottery manufacture and glass-working on or in the vicinity of the Site. This material is most likely derived from the Eagle pottery (built in 1853) and the subsequent Eagle glassworks (1872-76/7) and Albion glassworks (1860s-1894). Other finds probably represent domestic refuse. Quantities of finds by material type and by context are given in **Appendix 2**.

5.2 Ceramics

- 5.2.1 This category encompasses pottery, ceramic building material and other ceramics. Of most interest here is the evidence for pottery manufacture on the Site, in the form of

wasters (biscuit wares and finished wares with firing faults) and kiln furniture (saggars and spacers).

Biscuit wares

- 5.2.2 Biscuit wares form the largest group within this category. These are the unfinished wares, fired once but which had not gone through the second, glaze firing. There is a considerable range of vessel forms, comprising flatwares (plates, dishes, oval and subrectangular serving dishes) and hollow-wares (tea cups, cylindrical mugs, larger cylindrical tankards, small flared bowls, larger rounded bowls, small and large rounded jugs, teapots and their lids, decorative jars). The larger jugs and bowls are likely to have made up washing stand sets. Various decorative treatments are apparent: transfer-printing (used particularly on flatwares); banded decoration in blue slip, generally separated by narrow bands of beading in relief, and with some examples also carrying sprigged (applied) motifs (used on flared bowls, cylindrical tankards and decorative jars); and relief moulded decoration (used on large jugs).
- 5.2.3 One probable yellow ware was identified, with applied blue and white banded decoration. Otherwise these biscuit wares appear to represent only whitewares.
- 5.2.4 The largest quantities of biscuit wares were recovered from **Trenches 4** and **5**, with much smaller quantities from **Trenches 1, 2** and **6**.

Pottery

- 5.2.5 The majority of the pottery, particularly the groups from **Trenches 4** and **5**, appears to represent the finished wares of which the first stage of manufacture is evident in the biscuit wares. The range of forms is almost identical, but the decorative treatments are more apparent: transfer-printing, although mainly in blue and white, was also seen in green and white, and blue sponging was also used. Teapots were covered in an overall deep blue glaze.
- 5.2.6 Probable wasters are present amongst the refined whitewares - at least one sponged ware jug and one blue-slipped tankard.
- 5.2.7 One base has a stamped rosette mark on the underside, but perhaps the most interesting pieces are two flatware rims, each with a transfer-printed backstamp on the underside. This is in the form of a bird with spread wings, and the initials 'H Mc' below, which can be identified as the mark of the Eagle pottery, operated by Hugh MacDowall in the 1860s. These backstamps provide the evidence that at least some (and probably all) of the kiln waste, and a large proportion of the finished wares found on the Site derive from the Eagle pottery operating from 1853 to 1872, when it was converted to a small bottle glasworks.
- 5.2.8 A small group of white-slipped redware bowls (found unstratified) may also be wasters - one has firing faults, and several appear to have been burnt, or have adhering burnt residues.
- 5.2.9 Other pottery seems to be standard domestic waste - further refined whitewares and redwares (teapots, including hand-painted and lustre-decorated), stonewares with feldspathic glaze (mostly cylindrical preserve jars in varying sizes, at least one flagon), earlier salt-glazed stonewares, and porcelain/bone china.

Kiln furniture

- 5.2.10 Kiln furniture occurs in two main types: spacers and saggars, both used during the firing process.
- 5.2.11 The saggars are all of the same forms: thick-walled, squat, cylindrical vessels made of a coarse, refractory clay. Glaze from the firing process is present on both internal and external surfaces. There are at least two complete profiles from **Trench 5**. These vessels would have been used to contain (and protect) small fineware vessels during firing.
- 5.2.12 A range of different spacer forms is present: bars, stilts (including tripod forms), spurs, and small flat, rounded pieces probably simply formed from flattened balls of clay. All would have performed the function of supporting and separating vessels when stacked in the kiln for firing. While some of the spacers are glazed (and therefore presumably were used during the second, glost firing), most are not, and probably therefore relate to the first, biscuit firing.

5.3 Ceramic Building Material (CBM)

- 5.3.1 One piece of CBM from **Trench 3** has been identified as Romano-British. This is an undiagnostic flat fragment, identified on fabric grounds, and cannot be assigned to specific tile or brick type.
- 5.3.2 Five fragments from **Trench 4**, and one from **Trench 2**, are from firebricks most likely used in flues from the glassworks. All are heavily affected by the extremes of temperature.
- 5.3.3 Remaining fragments are from roof tiles, mainly curved pantiles but also including some flat fragments.

5.4 Glass

- 5.4.1 This category includes vessels, waste from glassworking, and window glass. As with the pottery, a large proportion of this evidence derives from manufacture in the vicinity of, or on the Site, in this case by the successors to the Eagle pottery - the Eagle glassworks (1872-1876/7) and Albion glassworks (1860s-1894).
- 5.4.2 Raw material is represented here by fragments of cullet, while other waste occurs in the form of melted droplets and dribbles. Some pieces were observed adhering to ceramic, probably furnace lining.
- 5.4.3 Most of vessel glass belongs to bottles and jars in pale greenish (aqua) glass. Soda bottles are particularly well represented, and bottles with patent Codd closures are much in evidence, identifiable from the distinctive neck/shoulder formation; there are also a few separate marble closures.
- 5.4.4 One complete soda (Codd) bottle (complete with glass marble stopper), is embossed on both sides, combining the marks of both bottle manufacturer (Sykes Macvay & the Codd Bottle Company) and contents manufacturer (John Roberts, late Allport of Castleford). The Albion glassworks was sold to Sykes Macvay and Company in 1864. This particular bottle must date later than the merger of this company with the Codd Company in the 1880s, and also later than 1881, when John Allport is listed as an 'aerated water manufacturer' in a trade directory (Kelly's Directory of the West Riding of Yorkshire, 1881). There is at least one other bottle with John Roberts' mark, two more from the 'Crystal Aerated Water Works' of Castleford, and two jar stoppers embossed 'Sykes Macvay & Co / Albion Glass Works Castleford'. The Albion works seem to have been making soda

bottles (amongst other forms) for a range of local manufacturers, until the demolition of the works in 1894.

5.5 Slag

5.5.1 Dense, vitreous slag recovered from **Trenches 4 and 5** relates to glassworking, and presumably derives from the Eagle and/or Albion glassworks formerly on the Site, but there are also some pieces which may represent metalworking.

5.6 Metalwork

5.6.1 The few metal objects include iron nails and miscellaneous strip fragments; a lead strip; a copper alloy tube of uncertain function; and a composite iron/wooden object (heavily corroded) which may be a scale-tang knife (or other cutlery item) with a wooden handle.

5.7 Other Finds

5.7.1 Other finds comprise a small quantity of animal bone; a few fragments of clay tobacco pipe (plain stems and part of a 19th century bowl); and one oyster shell. Animal bone included a cow burial from **Trench 4**, ABG 1, which appears to be that of a fairly young animal. The bone was in very poor condition.

5.8 Potential and further recommendations

5.8.1 Of particular interest within this finds assemblage are the Romano-British components and those relating to much later 19th century pottery manufacture and glassworking on, or in the vicinity of, the Site. The 19th century material is most likely derived from the Eagle pottery, Eagle glassworks and Albion glassworks – pottery in the form of biscuit wares and finished wares; kiln furniture (saggars and spacers); and glassworking slag. The Romano-British material will assist in the dating of this earlier phase of activity in relation to previous work on the *vicus* in Castleford. The 19th century material warrants further analysis in order to determine in more detail the range of pottery and glass vessel forms produced here and to discuss this evidence in the context of what is known of pottery manufacture and glassworking in 19th century Castleford and Yorkshire.

6 ENVIRONMENTAL EVIDENCE

6.1 Introduction

6.1.1 Five bulk samples were taken from post-med boundary ditch **1028** in **Trench 1**, from Romano-British phase ditch **3004** and pit **3006** in **Trench 3**, and from ditch **4025** and layer **4035** in **Trench 4**, to evaluate the presence and preservation of palaeo-environmental remains. The samples were processed for the recovery and assessment of charred plant remains and wood charcoal and the results are provided in **Appendix 3**.

6.2 Charred plant remains

6.2.1 The bulk samples were processed by standard flotation methods; the flot retained on a 0.5 mm mesh, residues fractionated into 5.6 mm, 2mm and 1mm fractions and dried. The coarse fractions (>5.6 mm) were sorted, weighed and discarded. The flots were scanned under a x10 – x40 stereo-binocular microscope and the preservation and nature of the charred plant and wood charcoal remains recorded in **Appendix 3**.



6.2.2 The flots varied in size with low numbers of roots and modern seeds that may be indicative of stratigraphic movement and the possibility of contamination by later intrusive elements. Charred material was poorly preserved.

6.2.3 No charred plant remains were recovered from the post-med boundary ditch **1028** and only a few indeterminate grain fragments were recorded from the Romano-British ditch **3004** and pit **3006**, and a fragment of hazelnut shell (*Corylus avellana*) from undated layer **4035**. There was also no evidence of any waterlogged plant material within pit **3006**.

6.3 Wood charcoal

6.3.1 Wood charcoal was noted from the flots of the bulk samples and is recorded in **Appendix 3**. Very small quantities of wood charcoal fragments greater than 4 mm were retrieved from the two samples from Trench 3.

6.4 Potential and further recommendations

6.4.1 There is no potential for detailed analysis to provide any information due to the paucity of charred plant remains and small quantity of wood charcoal recovered.

7 DISCUSSION

7.1 Summary

7.1.1 The evaluation identified archaeological features which can be assigned to three main phases of activity pre-dating the construction of the modern bus station.

Phase 1

7.1.2 The earliest activity was Roman in date and consisted of features in **Trenches 3** (ditch, possible beam slot or ditch and pit) and possibly **Trench 4** (undated ditch and animal burial), most likely associated with the *vicus* identified by previous excavations in the vicinity of the Site. Within the five features assigned to this phase, three contexts **3004**, **3006**, and **3008** produced Romano-British ceramic. Romano-British ceramic was also recovered from a layer **3015** overlying these features in Trench 3. Environmental preservation from the features in this phase was poor.

Phase 2

7.1.3 A second main phase of activity dated to the 19th century and comprised of structures and deposits associated with the Albion glassworks, identified on the 1890 Ordnance Survey (OS) map, and occupying the Site from the 1850s to 1894 (**Trenches 1, 2, 4 and 5**). A large quantity of post-medieval finds was recovered from this phase, largely waste from pottery manufacture and glass-working on, or in the vicinity of, the Site. This material is likely to have been derived from the Eagle pottery (built in 1853) and the subsequent Eagle glassworks (1872-76/7) and Albion glassworks (1860s-1894). The Eagle glassworks, located to the west of the Site, was thought to have been incorporated into the Albion glassworks in the late 1870s. There was some evidence that much of the pottery manufacturing waste material was being redeposited on the Site, possibly for levelling, particularly in **Trench 5**. Structures associated with contemporary housing fronting Albion Place, Wainwright Street and Wainwright's Yard, as shown on the 1890 OS map, were identified in **Trenches 3, 4, 5 and 6**. A possibly earlier boundary ditch, matching the position and alignment of a boundary on the 1852 OS mapping, was also identified in **Trench 1**.



Phase 3

- 7.1.4 A third phase dated to the late 19th century/ early 20th century and consisted of features associated with more modern alterations to housing shown fronting Wainwright's Yard on the 1890 OS map. Structures in the northeast of **Trench 1** were assigned to this later phase as they were constructed in more modern brick and were not sealed by the demolition deposit which covers the Phase 2 structures in other trenches.

7.2 Conclusions

- 7.2.1 The evaluation identified good preservation beneath the bus station surface of particularly 19th century structures relating to the former Albion glassworks occupying the site from the 1850s to the 1890s, and adjacent housing fronting the former Albion Place, Wainwright Street and Wainwright's Yard. In addition there was an isolated area of earlier Romano-British activity, encountered in **Trench 3** and possibly **Trench 4**, where there was noticeably less disturbance from the 19th century glassworks and later features.
- 7.2.2 Post-excavation analysis of the finds is ongoing and a more detailed report will be submitted in due course.
- 7.2.3 The archive resulting from the fieldwork is currently stored at Wessex Archaeology's Sheffield office under project code 88920 and will be deposited with Wakefield Museums in due course.

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9 APPENDICES

APPENDIX 1: CONTEXT DESCRIPTIONS

Trench 1		
Context	Description	Interpretation
1001	Thin tarmac surface, overlaying a concrete raft, all bedded over a yellow crushed levelling layer	Bus station surface
1002	Crushed red brick spread	Levelling layer
1003	Demolition rubble layer	Demolition of glassworks
1004	Yellow silty clay, with occasional blue mottling. No inclusions	Natural
1005	Red bricks bonded by a white lime mortar with charcoal inclusions	Wall
1006	Single course of red brick bonded by a white lime mortar with charcoal inclusions	Wall
1007	Red bricks bonded by a white lime mortar with charcoal inclusions. Two skin wall, with alternating stretchers and headers	Possible garden wall
1008	Single course of yellow brick bonded by lime mortar with charcoal inclusions	Floor surface
1010	Single course of red brick bonded by a lime mortar	Wall - constructed from reused glasswork demolition material
1011	Single course of red brick bonded by a lime mortar	Wall - possibly structural
1012	Single course of red brick, with no bonding material	Floor surface
1013	Red bricks bonded by a white lime mortar with charcoal inclusions. Some bricks frogged, constructed with alternating stretchers and headers	Wall - possibly associated with glasswork outbuildings
1014	Red bricks bonded by a white lime mortar with charcoal inclusions. Two skin wall, with an English garden wall bond (headers every 3/4 courses)	Wall - possibly related to 1015
1015	Red bricks, some frogged others unfrogged, bonded by a white lime mortar with charcoal inclusions. Two skin wall, with the upper two courses stretchers and the third course headers	Wall - possibly associated with glasswork outbuildings
1016	Red bricks, some frogged	Drain
1017	Straight, vertical sided cut	Drain
1018	Mixed yellow, brown and black, clay and medium sized/ crushed gravel	Backfill within drain cut 1017
1019	Two courses of red brick, bonded by a grey lime mortar with charcoal inclusions. Two skin wall, lower course consists of one header and one stretcher, with the upper course headers	Wall
1020	Red brick and fire brick	Floor surface
1021	Red brick, bonded by a grey lime mortar	Wall – possibly associated with 1020
1022	Frogged red brick, machine cut, with 'castleford' stamped into fabric	Floor
1023	Red brick, bonded by a grey lime mortar with large charcoal	Wall – possibly associated with



	inclusions. Courses predominantly stretcher in structure, with a singular course of headers forming the upper second course	later housing
1024	Modern machine cut, frogged, red bricks. Bonded by a white lime mortar with large charcoal inclusions. One skin.	Wall – associated with modern buildings
1026	Modern machine cut, frogged, red bricks. Bonded by a white lime mortar with large charcoal inclusions.	Manhole
1028	Ditch cut. Full extent unknown, due to disturbance	Boundary ditch
1029	Light greenish yellow firm sandy clay loam, with a clear horizon. 1% of rare medium well rounded and well sorted stone inclusions	Secondary fill of boundary ditch 1028
1030	Construction cut, cutting the top of boundary ditch [1028]	Construction cut
1031	Dark brown black, loose/ friable coarse slag and construction rubble, with a mixed horizon. Angular slag and brick rubble forming 60% of component material. Ceramic and glass also abundant	Backfill of construction cut 1030
1032	Modern cut for a ceramic pipe, containing wooden shoring	Modern service cut
1033	Yellowish green firm sandy clay, mixed with black industrial waste and slag. 40% frequent mixed stone and slag inclusions, with non-abraded ceramic archaeological components	Backfill of service cut
1034	Dark brown loose sandy clay, with a mixed horizon. 30% frequent angular stones, moderately well sorted. Context also contains an abundant volume large angular fragments of slag	Possible bedding layer
1036	Light brownish yellow clay	Levelling layer
1037	Straight sided vertical cut for wall construction	Construction cut
1038	Black loose gravel and crushed rubble. Contains some red brick fragments and slag	Backfill of construction cut 1037
1039	Straight sided vertical cut for wall construction	Construction cut
1040	Black loose gravel and crushed rubble. Contains some red brick fragments and slag	Backfill of construction cut 1039
1041	Straight sided steep sloped cut, heavy disturbance from later demolition and levelling	Construction cut
1042	Dark greyish black loose/friable sandy clay, with a mixed horizon. 50% abundant angular poorly sorted stone inclusions, with angular brick fragments as well whole bricks a frequent component. Slag and non-abraded ceramic also frequent.	Backfill of 1041
1043	Light greyish green compact sandy clay, with a clear horizon. 20% frequent mortar and slag inclusions	Backfill of foundation cut 1044
1044	Straight sided vertical cut for wall construction	Construction cut
1045	Straight sided vertical cut through demolition layer	Construction cut
1046	Straight sided vertical cut for wall construction	Construction cut
1047	Mid grey clay, containing red brick fragments and charcoal flecking throughout	Backfill of 1046
1048	Straight sided vertical cut	Possible demolition cut
1049	Black rubble and medium fine gravel. Contains red brick fragments and slag.	Backfill of 1048
1050	Cut for modern features at E end of trench	Construction cut



Trench 2		
Context	Description	Interpretation
2001	Tarmac and concrete covering site	Bus station surface
2002	Yellow gravel crush layer	Levelling layer
2003	Mix of red brick rubble, slag, pottery and glass	Demolition of glassworks
2004	Yellow silty clay, with no inclusions	Natural
2005	Handmade red brick, bonded by a grey lime mortar with large charcoal inclusions.	Floor surface
2006	Handmade red brick, bonded by a grey lime mortar with large charcoal and lime inclusions.	Wall – possibly an internal structural wall of glassworks
2007	Handmade red brick, no bonding agents	Floor surface
2008	Handmade red brick, bonded by a grey lime mortar with large charcoal and lime inclusions.	Wall – possibly an internal structural wall of glassworks
2009	Handmade red brick, bonded by a grey lime mortar with large charcoal inclusions.	Floor surface
2010	Handmade red brick, bonded by a grey lime mortar with large charcoal inclusions.	Possible pillar base
2011	Handmade red brick, bonded by a grey lime mortar with large charcoal and lime inclusions.	Wall - possibly the W external wall of main glassworks building
2012	Handmade red brick, bonded by a grey lime mortar with large charcoal inclusions. Two skins	Wall - possibly associated with glasswork outbuildings
2013	Yellow fire brick, with sandstone slabs	Floor surface
2014	Yellow fire brick, with sandstone slabs	Floor surface
2015	Red brick, with a ceramic drainpipe and sandstone slabs	Drain
2016	Black rubble, slag and industrial waste with ceramic and glass inclusions	Demolition layer

Trench 3		
Context	Description	Interpretation
3001	Thin tarmac surface, overlaying a concrete raft, all bedded over a yellow crushed levelling layer	Bus station surface
3002	Crushed red brick spread	Levelling layer
3003	Yellow silty clay, with occasional blue mottling. No inclusions	Natural
3004	Wide steep irregular sided ditch	Ditch
3005	Yellowish grey firm silty clay, with a mixed horizon. 5% sub angular well sorted stone inclusions, with some animal none and non-abraded pottery	Secondary fill of ditch 3004
3006	A stepped convex steep sided cut.	Pit cut
3007	Dark grey brown friable silty clay loam, with a clear horizon. 5% small sub angular well sorted stone inclusions, as well as	Primary fill of pit cut 3006



	frequent components of charcoal and some non-abraded ceramics	
3008	Straight steep sided linear cut with a flat base	Possible beam slot
3009	Light yellowish grey firm sandy clay, with a mixed horizon. 1% angular well sorted small stone inclusions	Secondary fill of possible beam slot 3009
3010	Two courses of red brick, bonded by a lime mortar. Two skins thick	Wall – possible boundary wall
3011	Light greyish brown firm silt clay, with a clear horizon. Some charcoal flecking present	Buried soil/ upper horizon of 3015
3012	Handmade red brick, bonded by a lime mortar with large charcoal and lime inclusions. Two skins thick, with multiple bonding structures within coursing	Wall
3013	Cross shaped widen structure, inserted with steel spikes	Post base
3014	Black loose coarse gravel, with a clear horizon. 30% large angular stone inclusions, with glass, slag and red brick frequent components	Demolition layer
3015	Dark greyish brown mottled silty clay loam. 5% small angular stone inclusions, with sparse fired clay and abundant charcoal flecking as components	Buried soil/ lower horizon of 3011
3016	Dark grey firm silty clay loam, with a clear horizon. 1% well sorted rounded stone inclusions, with charcoal flecking and non-abraded ceramic components	Primary fill of possible beam slot 3008
3017	Dark grey compact sandy clay, with a clear horizon. 30% angular stone inclusions, with abundant charcoal flecking and sparse non-abraded ceramic components	Levelling layer over 3011
3018	Orangey yellow compact sandy clay, with a mixed horizon	Secondary fill of pit cut 3006
3019	Shallow irregular cut	Irregular cut, possibly natural
3020	Vertical straight sided cut for wall construction	Construction cut

Trench 4		
Context	Description	Interpretation
4001	Tarmac and concrete covering site	Bus station surface
4002	Red gravel / crush	Levelling layer
4003	Yellow silty clay, with no inclusions	Natural
4004	Red brick, bonded by a lime mortar. Brick shows signs of heavy ware and heat damage. Single skin	Possible flue
4005	Red brick and fire brick, bonded by a grey lime mortar. Brick shows signs of heavy ware and heat damage. Single skin	Flue
4006	Un-frogged Red brick and limestone slabs	Floor surface
4007	Red brick, frogged, bonded by a black concreted mortar, possibly asphalt. Three skins thick	Wall
4008	Red brick and fire brick, bonded by a white lime mortar with charcoal inclusions	Wall
4009	Red brick, with a single limestone slab in centre of context, bonded by a white lime mortar	Floor surface



4010	Red brick and fire brick, bonded by a white lime mortar with charcoal inclusions. Bedded into a lime mortar layer	Wall
4011	Red brick, bonded by a grey lime mortar with charcoal inclusions. Three skins thick. Some heat damage present on brickwork	Wall
4012	Red brick, un-bonded, with some heat damage present on brickwork	Floor
4013	Red brick, bonded by a grey lime mortar with charcoal inclusions. Two courses, upper course headers and the lower course stretchers. Some heat damage present on brickwork	Base
4014	Red brick, bonded by black asphalt. Two skins thick	Wall
4015	Mix of re-used fire brick and re-used red brick, frogged and un-frogged, bonded by black asphalt. Both glass and slag components found on fire brick surface	Wall
4016	Mix of re-used fire brick and re-used red brick, frogged and un-frogged, bonded by black asphalt. Two skins thick	Wall
4017	Red brick, bonded by a grey lime mortar with charcoal inclusions. Two skins thick, with alternating headers and stretchers forming course structure	Wall – possibly load bearing external wall
4018	Red brick, bonded by a grey lime mortar. Two skins thick	Wall
4020	Red brick, bonded by a white lime mortar. One skin thick	Wall – possible internal structural wall
4021	Red brick, bonded by a grey lime mortar with charcoal inclusions. One skin thick	Wall – possible internal structural wall
4022	Red brick, bonded by a grey lime mortar with charcoal inclusions. Two skins thick	Wall
4023	Frogged red brick, machine cut, with 'castleford' stamped into fabric. A sandstone curb lines the W side of the red brickwork	Floor surface
4025	A shallow linear cut with moderately sloped sides	Ditch – possible field boundary
4026	Light greyish blue compact silty clay, with a clear horizon. 3% small well sorted angular stone inclusions	Secondary fill of ditch 4025
4027	Red brick, bonded by a white lime mortar with charcoal inclusions. One skin thick	Wall
4028	Black clinker, slag and rubble, with red brick fragments, glass, ceramic and saggars fragments frequent components	Demolition / levelling layer
4029	Black rubble and clinker, with red brick fragments, slag, glass and ceramic fragments frequent components	Demolition layer
4030	Mixed industrial waste and clay, with ceramic, slag and red brick fragments frequent components	Made ground
4031	Black rubble and industrial waste with patches of greyish red. Red brick, slag, glass and ceramic fragments frequent components	Demolition layer
4032	Concave steep sided irregular shaped cut	Cut for animal burial
4033	Dark brownish grey compact sandy clay loam, with a mixed horizon. 3% small angular and sub-angular stone inclusions, with sparse non-abraded ceramic components. Animal burial ABG1 within context	Fill of cut 4032
4034	Light grey brown friable sandy silt, with a clear horizon. 3% small angular stone inclusions	Layer, possible levelling



4035	Dark greyish blue compact silty clay, with a clear horizon	Layer, possible buried soil below 4027
ABG1	Bovine remains found in cut [4032], primary fill (4033). Highly degraded.	Animal burial

Trench 5		
Context	Description	Interpretation
5001	Red tarmac and grey concrete layer	Bus station surface
5002	Red gravel crush	Levelling layer
5003	Yellow silty clay, with no inclusions	Natural
5004	Red brick, bonded by white lime mortar	Wall
5005	Red brick and fire brick slabs, bonded by white lime mortar. Running bond structure with the foundation course of structured by headers. Lined with clay	Possible water tank
5006	Red brick, bonded by white lime mortar	Floor surface
5007	Yellow fire brick, not bonded	Floor surface
5008	Mudstone blocks, not bonded	Wall
5009	Red brick, bonded by a white lime mortar, with some bricks showing signs of re-use. Two skins thick	Wall
5010	Red brick, bonded by a white lime mortar. Two skins thick	Wall
5011	Red brick, bonded by a white lime mortar, with some bricks showing signs of re-use	Wall
5012	Red brick, bonded by a white lime mortar	Wall
5013	Red brick, not bonded	Floor surface
5014	Red brick, bonded by a grey lime mortar. One skin thick. Keyed into 5012 and 5015	Wall
5015	Red brick, bonded by a white lime mortar. Two skins thick. Alternating courses of stretchers and headers. Keyed into 5012 and 5014	Wall
5016	Red brick, bonded by a grey limestone mortar, with a limestone slabs lining the W side. Two skins thick	Wall
5017	Orangey red rubble, predominantly red brick and fire brick fragments. Some ceramic and saggars components	Demolition layer
5018	Greyish brown clay, with charcoal flecking	Placed deposit, levelling/damp proofing
5019	Black clayey silty, with red brick rubble inclusions. Slag, ceramic, saggars, clay pipes and metal fragments also form components	Demolition layer
5020	Brown slightly silty clay, with some ceramic building material inclusions	Possible levelling layer
5021	Black silty gravel. 30% small angular stone inclusions, with ceramic, saggars and clay pipe components	Rubbish layer



Trench 6		
Context	Description	Interpretation
6001	Red tarmac and grey concrete layer	Bus station surface
6002	Yellow gravel crush	Levelling layer
6003	Red gravel crush	Levelling layer
6004	Yellow silty clay, with no inclusions	Natural
6005	Black clayey silt, with red brick rubble inclusions. Ceramic, slag, saggars, clay pipes and metal fragment components	Demolition layer
6006	Dark grey slightly silty clay. <1% sub rounded gravel pebble inclusions, with a pottery component	Clay layer, levelling/damp proofing
6007	Light brown slightly silty clay. <1% sub rounded limestone inclusions, with a pottery component	Clay layer, levelling/damp proofing
6008	Red brick, bonded by a grey lime mortar	Floor surface
6009	Red brick, bonded by a grey lime mortar	Wall
6010	Red brick, bonded by a grey lime mortar, with varying structures for each course	Wall
6011	Red brick, bonded by a grey lime mortar. Two courses stretchers and two courses headers	Wall
6012	Red brick, bonded by a grey lime mortar. Two courses stretchers and one course headers. Buts 6011	Wall
6013	Irregular cut	Tree throw
6014	Light greyish brown silty clay	Fill of tree throw 6013



APPENDIX 2: FINDS ALL FINDS BY CONTEXT (NUMBER / WEIGHT IN GRAMMES)

Context	Animal Bone	CBM	Glass	Metal	CERAMICS				Slag	Other finds
					RB pottery	Post-med pottery	Biscuit wares	Other ceramic		
1003			66/3080	1 Cu; 19 Fe		67/3662	7/346	44/294		
1019						6/48	4/62	36/1369		1 clay pipe
2003			4/244				3/44		1/24	
2016		1/1745		1 Fe		2/22			6/774	
3005	22/148	1/152			12/56					
3007	2/14				7/74					
3009	4/18				15/110					
3015					3/32					
3016	14/26									
3018	4/68					11/50				
3019	5/46					7/84				
4004	1/2		8/184			1/4		2/10		
4005			3/28			1/4	3/108	11/86		1 clay pipe
4028			1/16	1 Fe		15/556	48/1637	52/1730	3/672	
4029		7/10,598	35/364			26/1707	162/4069	121/33,358	20/6500*	
4030							4/384	5/2502	2/1040	
4033	22/326					7/144				
5008									14/6349	
5019		13/1766	38/877	9 Fe; 1 Pb		29/841	77/1715	24/3638	1/129	1 shell
5021			4/404			24/1577	87/6424	78/8666		
6005			3/166			3/54	1/100		1/62	2 clay pipe
6007						4/30				
U/S	1/126	7/678	54/1864			15/2202	2/134	2/298		
TOTAL	75/774	29/14,939	216/7227	1 Cu; 30 Fe; 1 Pb	37/272	218/10,985	398/15,023	375/51,951	48/15,550	

CBM = ceramic building material; Cu = copper alloy; Fe = iron; Pb = lead

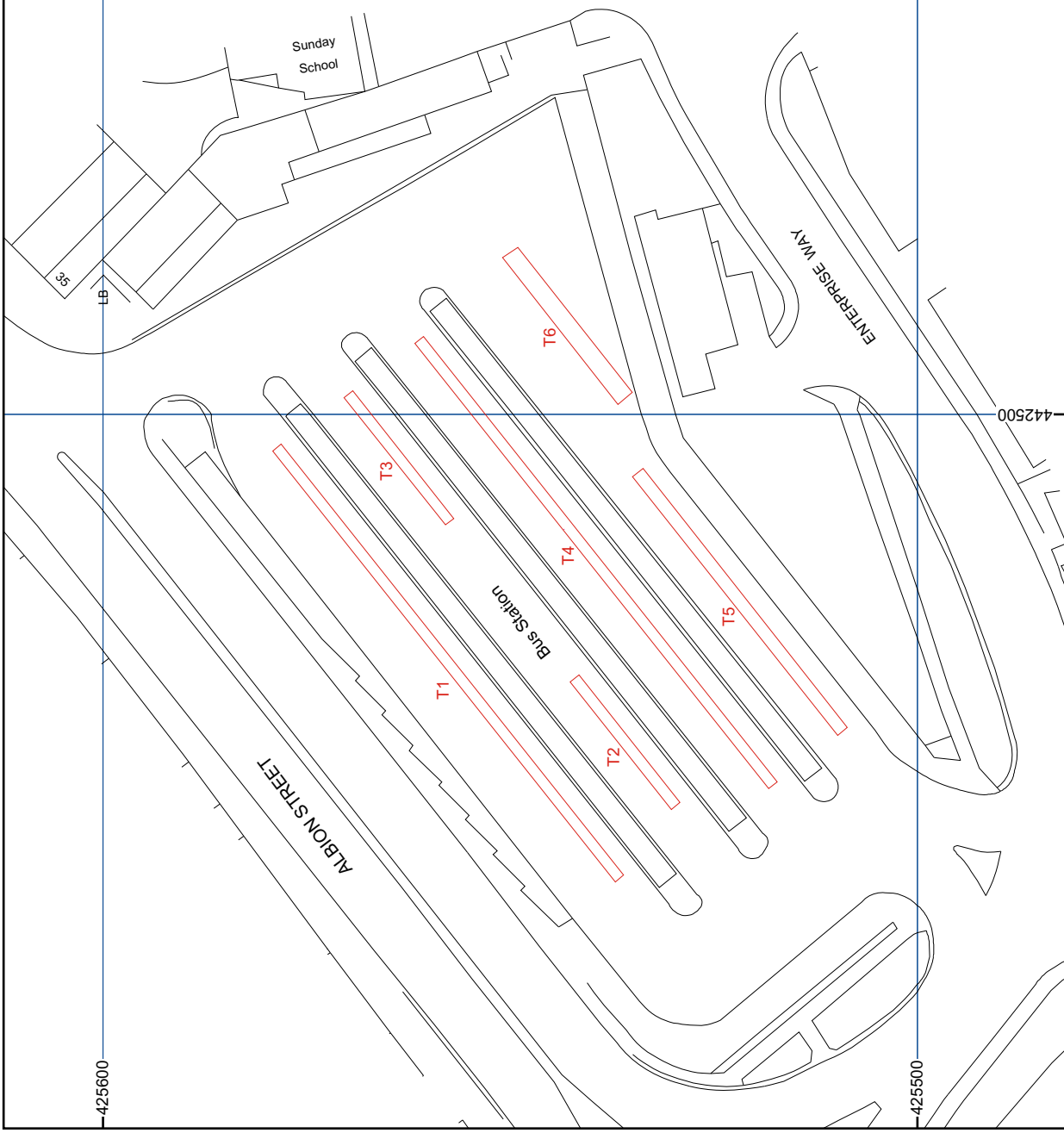
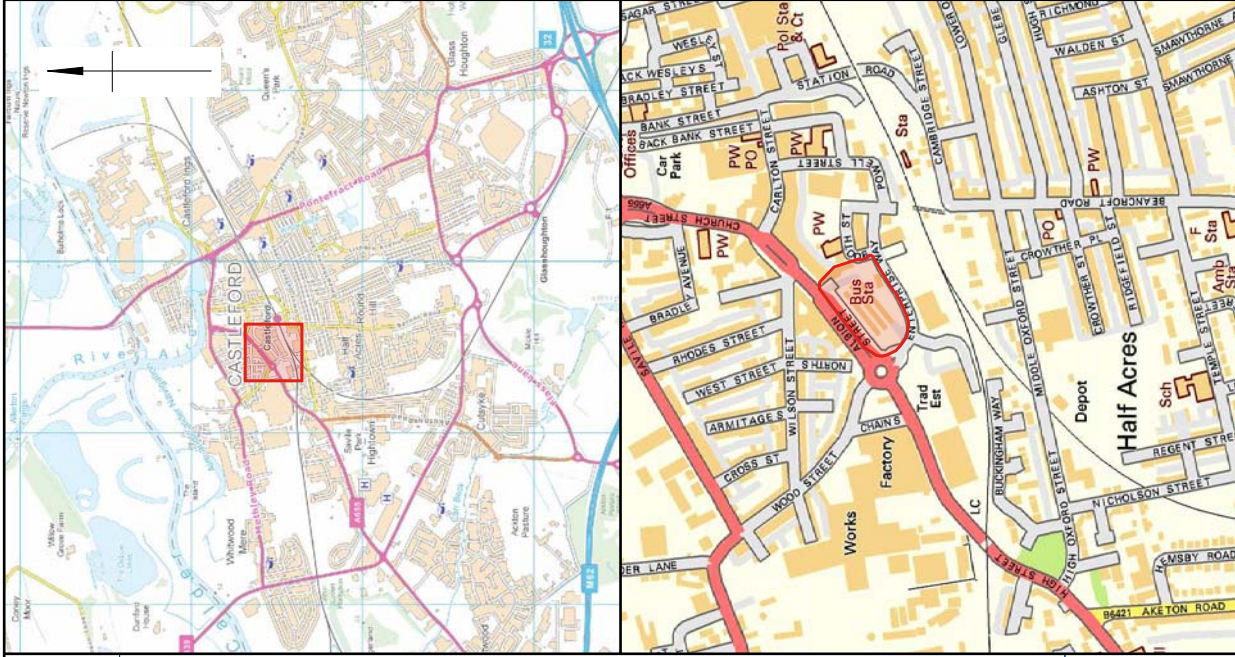
* excluding 11.6kg of slag unprocessed at time of writing




APPENDIX 3: ASSESSMENT OF THE CHARRED PLANT REMAINS AND CHARCOAL

Samples				Flot								
Feature	Context	Sam ple	Vol. Ltrs	Flot (ml)	% roots	Charred Plant Remains				Charcoal >4/2mm	Other	Anal ysis
						Grain	Chaff	Other	Comments			
Trench 1												
Post-med Boundary Ditch												
1028	1029	6	10	40	5	-	-	-	-	-	coal	-
Trench 3												
Romano-British Ditch												
3004	3005	7	10	10	5	C	-	-	Indet. grain frag	1/1 ml	coal	-
Romano-British Pit												
3006	3007	8	8	60	5	C	-	-	Indet. grain frag	2/5 ml	coal	-
Trench 4												
Undated Ditch												
4025	4026	14	10	10	10	-	-	-	-	0/<1 ml	coal	-
Undated Layer												
	4035	15	10	60	7	-	-	C	<i>Corylus avellana</i> shell frag	0/<1 ml	coal	-

Key: A*** = exceptional, A** = 100+, A* = 30-99, A = >10, B = 9-5, C = <5;

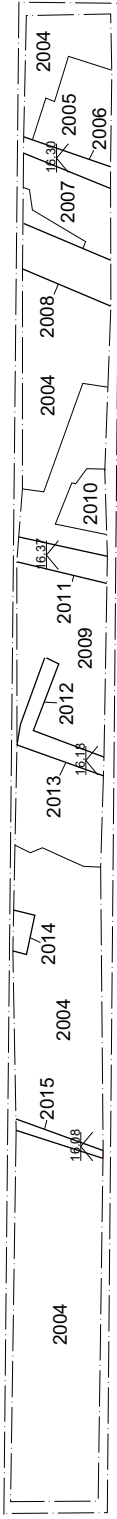
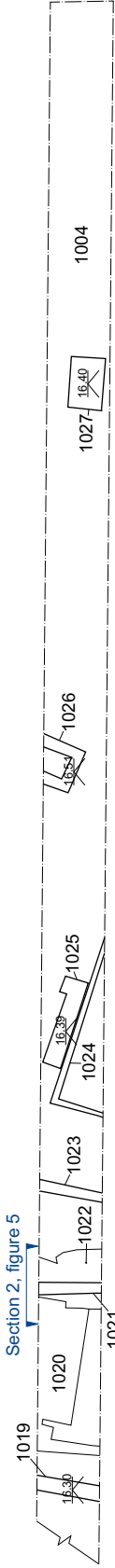
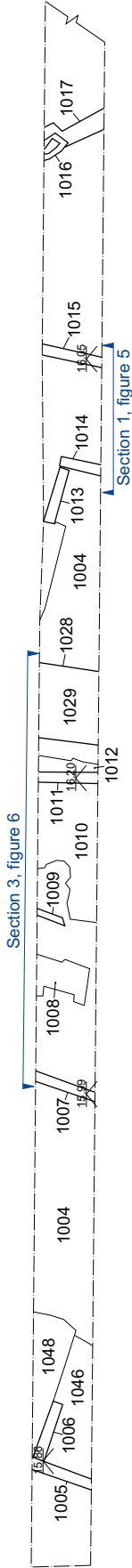
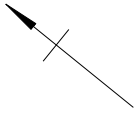



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Site location

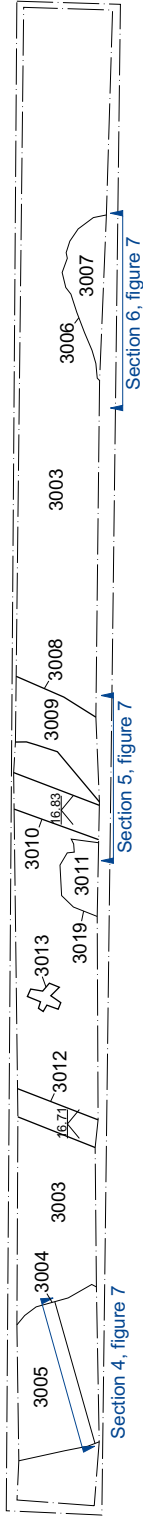
Figure 1



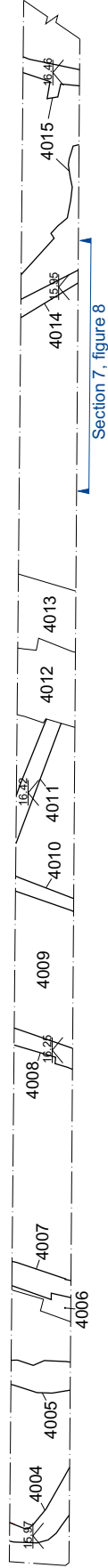
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Trenches 1 and 2


Figure 2



Trench 3 1:100

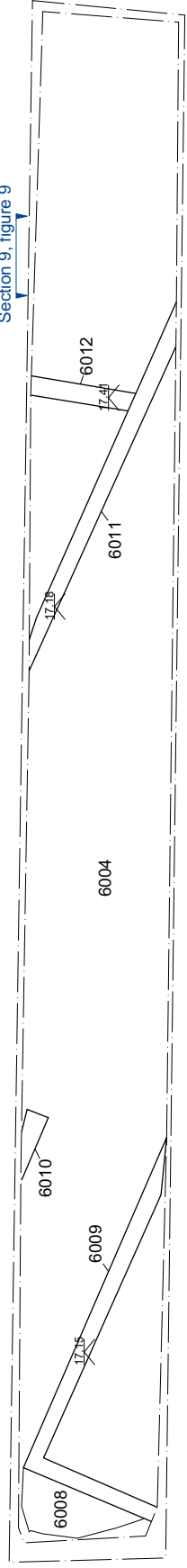
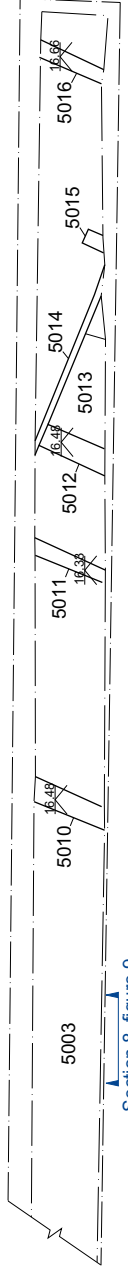
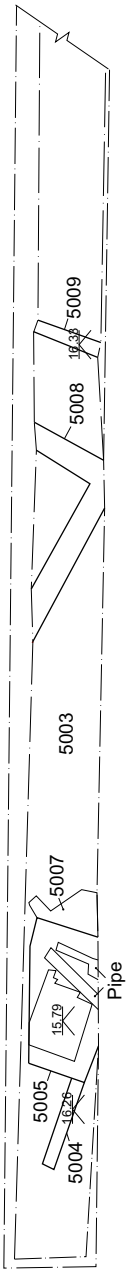
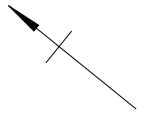


Trench 4 1:150

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Trench 3 and 4

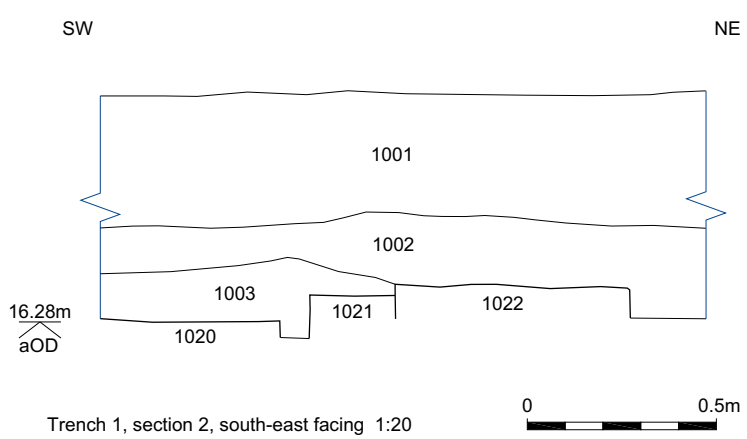
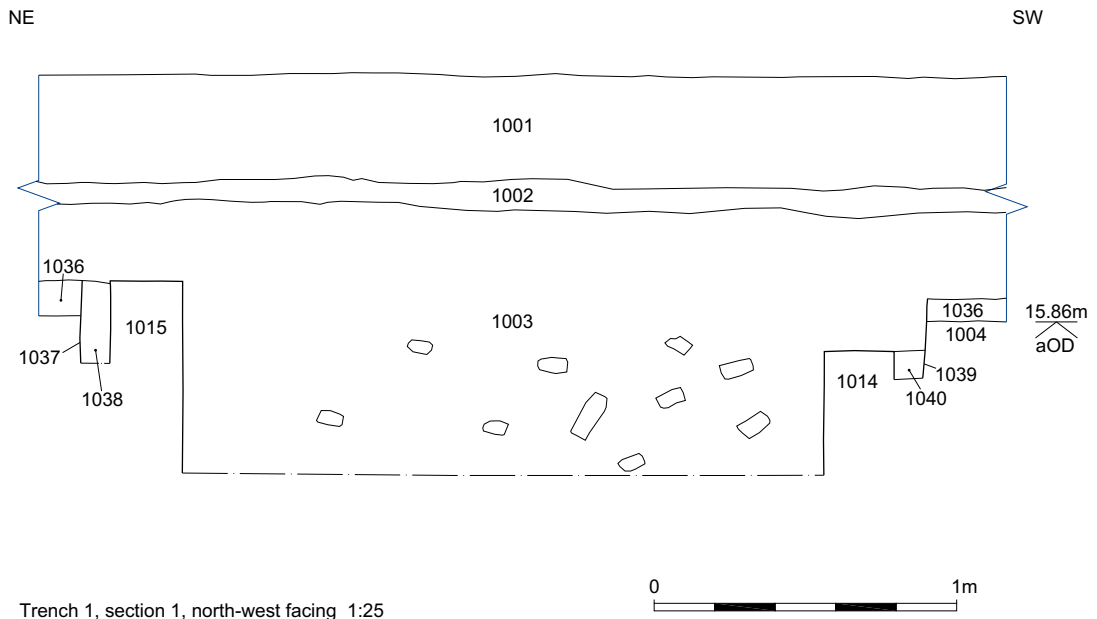
Figure 3



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Trench 5 and 6

Figure 4



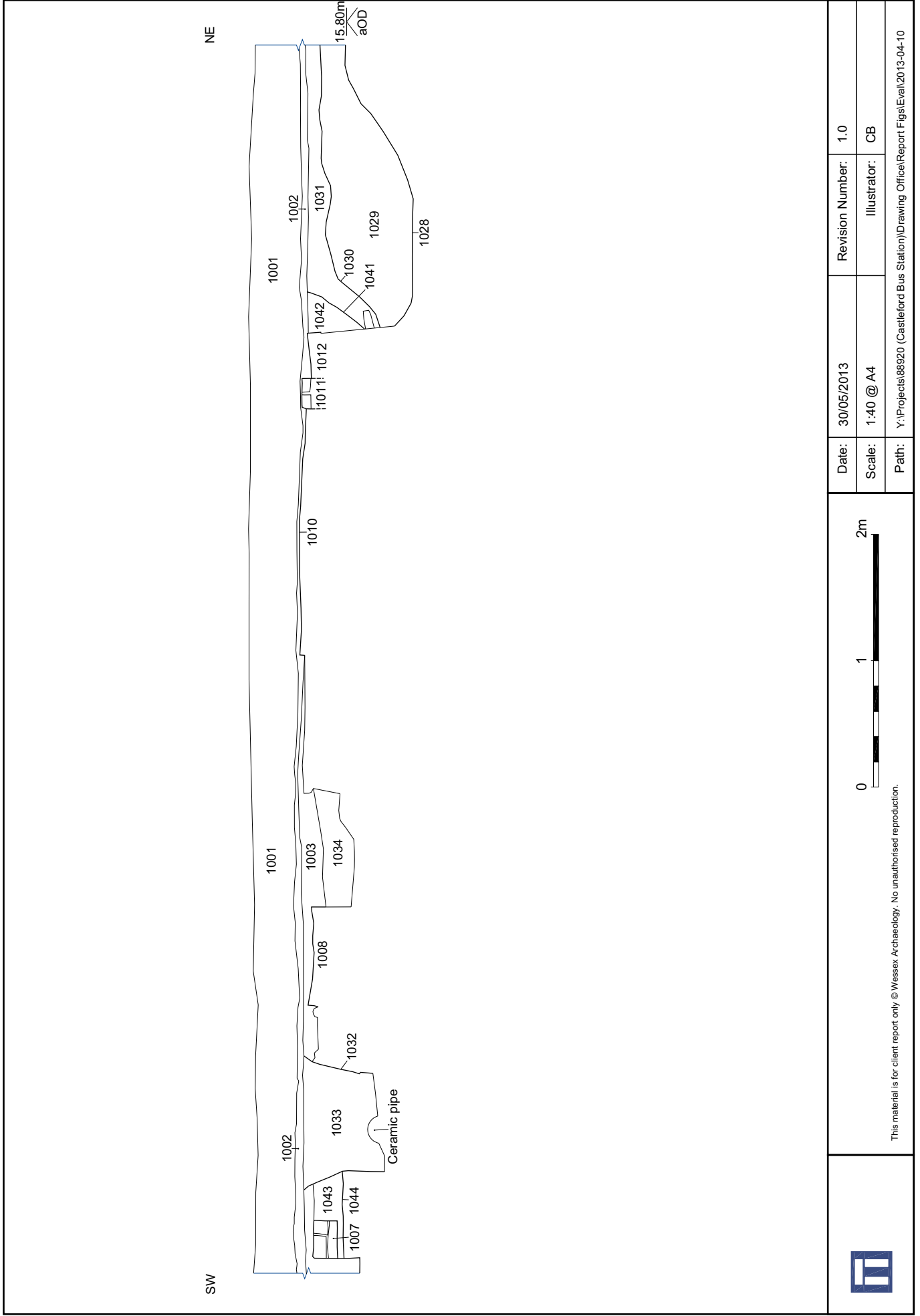
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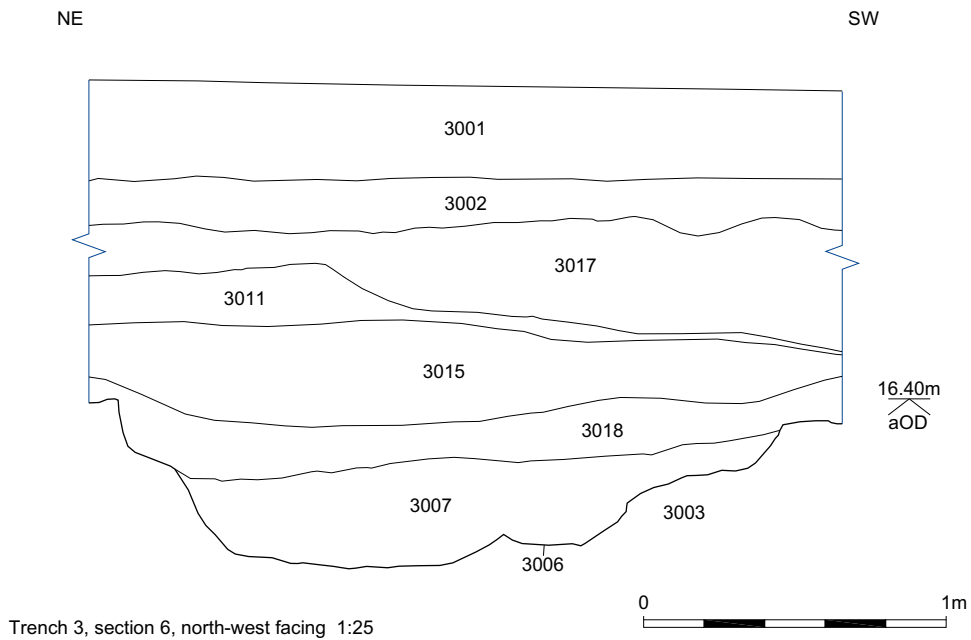
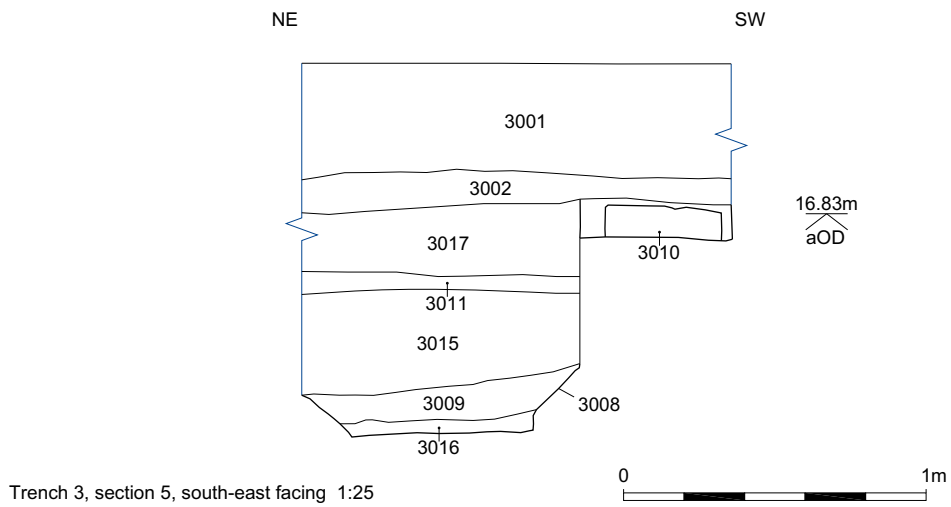
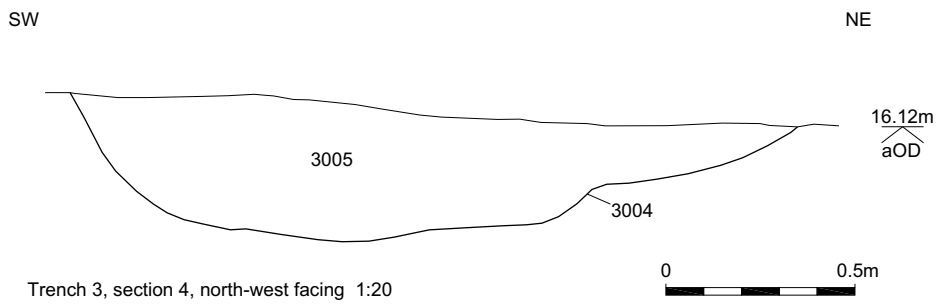
Trench 1, sections 1 and 2

Figure 5



Trench 1, section 3

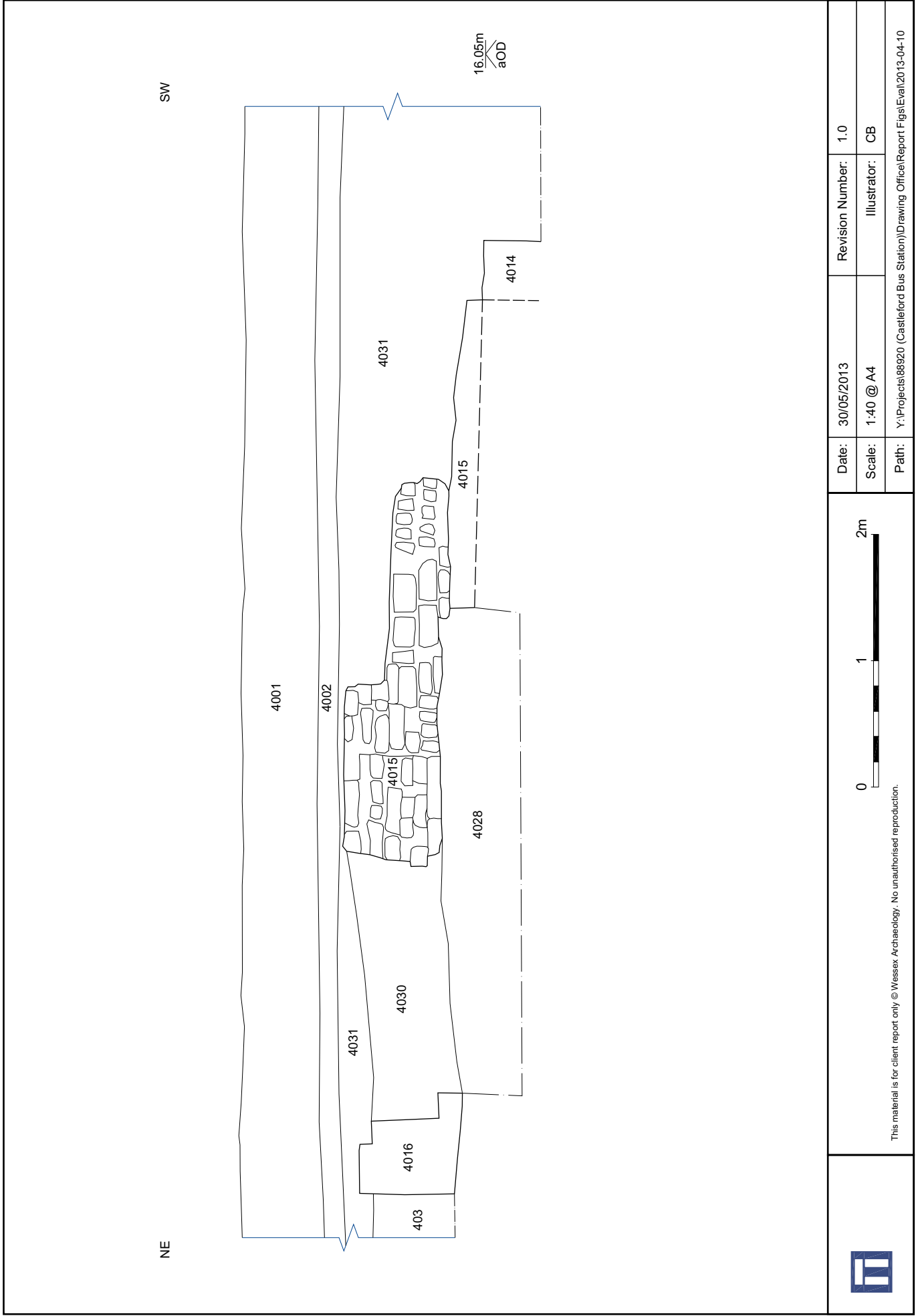
Figure 6



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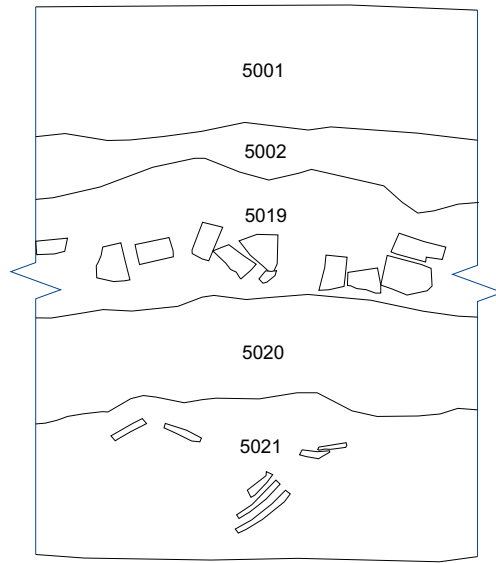


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Trench 4, section 7

Figure 8

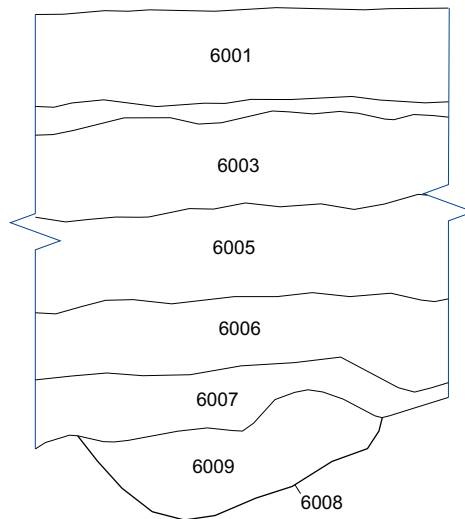
NW SE



Trench 5, section 8, south-east facing 1:20



SW NE



Trench 6, section 9, south-east facing 1:20



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Plate 1: **Trench 1**, demolition layer 1003 truncated by floor **1022**, from southeast



Plate 2: **Trench 1**, walls **1014** and **1015** and possible cellar, from northwest.


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Plate 3: **Trench 1**, structures **1010** and **1011** plus field boundary **1028**, from southwest



Plate 4: **Trench 2**, wall **2011** from east.


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Plate 5: **Trench 2**, Structures **2005-2010** forming floor and possible base, from southwest



Plate 6: **Trench 3**, pit **3006** from northwest.


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Plate 7: **Trench 3**, ditch and beamslot **3008** and wall **3010**, from north.



Plate 8: **Trench 3**, ditch **3004** from northwest.


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Plate 9: **Trench 3**, Cow inhumation **4032** (ABG1).



Plate 10: **Trench 4**, possible flue **4004**, from east.


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Plate 11: **Trench 4**, wall **4011** and possible cellar, from southwest.



Plate 12: **Trench 4**, Firebrick structure **4015**, from southwest.


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Plate 13: **Trench 5**, possible water tank **5005**, from southwest.



Plate 14: **Trench 5**, wall **5008**, from northwest.



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Plate 15: **Trench 5**, northwest facing section of Trench 5 showing rubbish deposit **5021**.



Plate 16: **Trench 6**, general view of Trench 6, from northeast.

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