LAND SOUTH-EAST OF FORMER A46, SYERSTON, NOTTINGHAMSHIRE

ARCHAEOLOGICAL EVALUATION REPORT

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Planning Ref.:	15/00912/FULM
PCAS job no.	1633
Site code:	SYNE 16
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Prepared for

J. H. Walter LLP

by

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Summary

A programme of archaeological evaluation consisting of two evaluation trenches and ten test pits was undertaken on land east of the former A46 at Syerston, Nottinghamshire, in order to inform a forthcoming planning application for the construction of a new agricultural yard containing two storage sheds.

Early prehistoric flints and medieval/post-medieval artefacts have been recovered from the site and the surrounding area, and the western boundary of the site is defined by the former A46, which roughly corresponds with the Roman Fosse Way. The site is directly adjacent to the designated battlefield of Stoke Field, the concluding engagement of the Wars of the Roses.

Geophysical and metal-detecting surveys were carried out as the first part of a programme of archaeological works: the geophysical survey suggested limited archaeological potential, identifying a possible cluster of pits and a small number of isolated anomalies, while metal-detecting recovered mainly late medieval/post-medieval tool and horseshoe fragments

The results of the archaeological evaluation indicate that the archaeological potential of the site is low, with the majority of the interventions proving to be archaeologically negative. The only archaeological feature identified on site was a large feature of uncertain form, provisionally interpreted as a pond for the use of livestock, which occupied much of Trench 11 and extended beyond it. The date of this feature remains uncertain, as no artefactual evidence was recovered and a radiocarbon date for charcoal from its fill is still being processed.

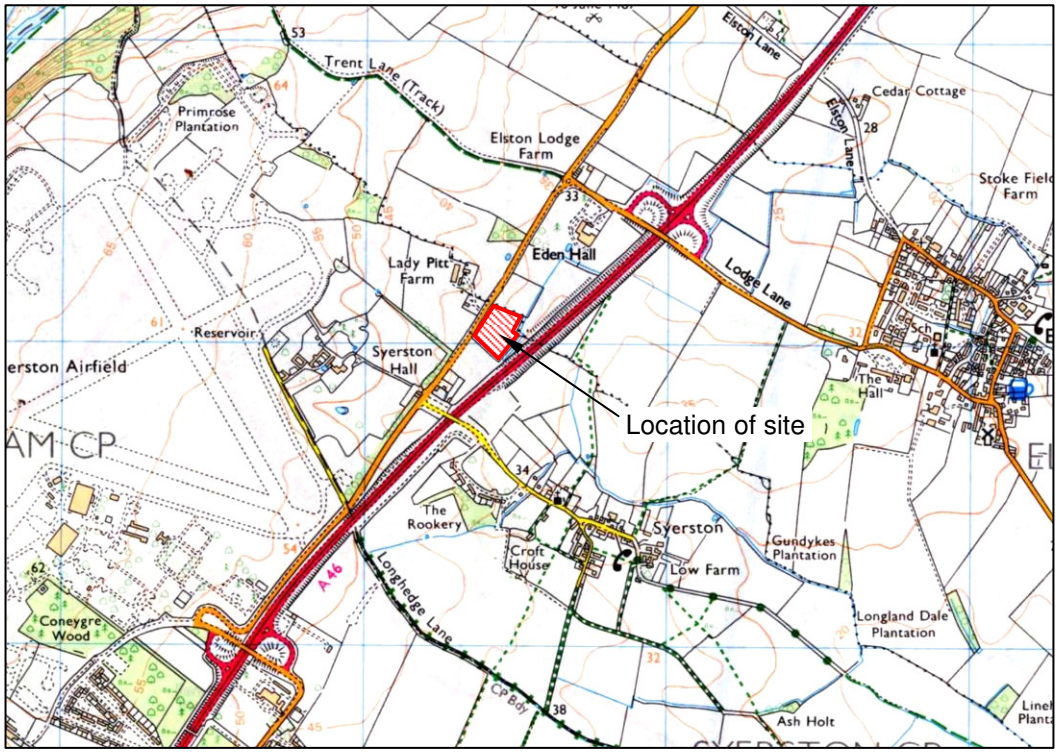

Figure 1: Location plan of the site at scale 1:25,000. The position of the proposed development site is marked in red. OS mapping © Crown copyright. All rights reserved. PCAS licence no. 100049278.

1.0 Introduction

Pre-Construct Archaeological Services Ltd (PCAS) was requested by J.H.Walter LLP to undertake a scheme of archaeological evaluation on land east of the former A46 at Syerston, Nottinghamshire. Conditional planning permission for the construction of a new yard and two new storage sheds has been granted for the site by Newark and Sherwood District Council, app ref: 15/00912/FULM.

Early prehistoric flints and medieval/post-medieval artefacts have been recovered from the site and the surrounding area, and the western boundary of the site is defined by the former A46, which roughly corresponds with the Roman Fosse Way. Immediately north-west lies the designated site of the 15th century Battle of Stoke Field, the concluding engagement of the Wars of the Roses.

A geophysical survey of the site was completed by Pre-Construct Geophysics in November 2015, and a metal-detecting survey of the site was undertaken at the same time (PCAS, report no. 1582), in compliance with the recommendations of the Historic England (formerly English Heritage) Inspector of Ancient Monuments. Geophysical survey suggested limited archaeological potential with a cluster of pits and a small number of isolated anomalies the only potential archaeological features identified, and metal detecting has recovered mainly late medieval/post-medieval tool and horseshoe fragments. The results of these surveys formed part of the background to the design of this evaluation trenching scheme.

To investigate these results, and the potential for surviving buried archaeological remains, a programme of archaeological investigation comprising the excavation of ten test-pits, followed by two evaluation trenches targeted on the geophysics and the development layout, was undertaken. The archaeological evaluation was carried out according to current best practice and appropriate national guidance including:

- NPPF, National Planning Policy Framework, 2012;
- CIFA Code of Conduct (2014 as revised);
- CIFA Standards and Guidance for Archaeological Evaluations (2014);
- Management of Research Projects in the Historic Environment (MoRPHE v1.1, English Heritage 2009)

This trenching design and methodology was subject to the approval of the Senior Archaeological Officer for NCC. The results of the evaluation will be used to design and inform a strategy for any further archaeological mitigation that may be required in association with the construction of the new yard and buildings.

2.0 Location and Description (figs. 1 and 2)

The village of Syerston lies near the southern boundary of the Newark and Sherwood district of the county of Nottinghamshire, approximately 9km to the north-north-east of the town of Bingham and 2km to the south-east of the River Trent. It is sited on the south-east side of the A46, whose former course broadly follows the line of the Fosse Way, a major Roman road, although the current course of the A46 now deviates from this line in several places; one such deviation occurs near Syerston, with the older course of the road continuing as the local road to the village of East Stoke while the new road layout takes a more easterly course to bypass it.

The proposed development site lies between the old and new roads at the central National Grid Reference of SK 74399 48041, with the modern course of the A46 forming its south-eastern boundary, the old Fosse Way as its north-western boundary (plates 1 and 2), and the Syerston parish boundary on the north-east side. It is a roughly rectangular area of cultivated land with an area of 0.73 hectares, and is bounded on all sides by hedges with open drains. The proposed development site occupies the south-west corner of a larger field of some 1.6 hectares (outlined blue in fig. 2), opposite Lady Pitt Farm on the other side of the A46. The field has previously been under arable cultivation, but was under pasture at the time of the evaluation.

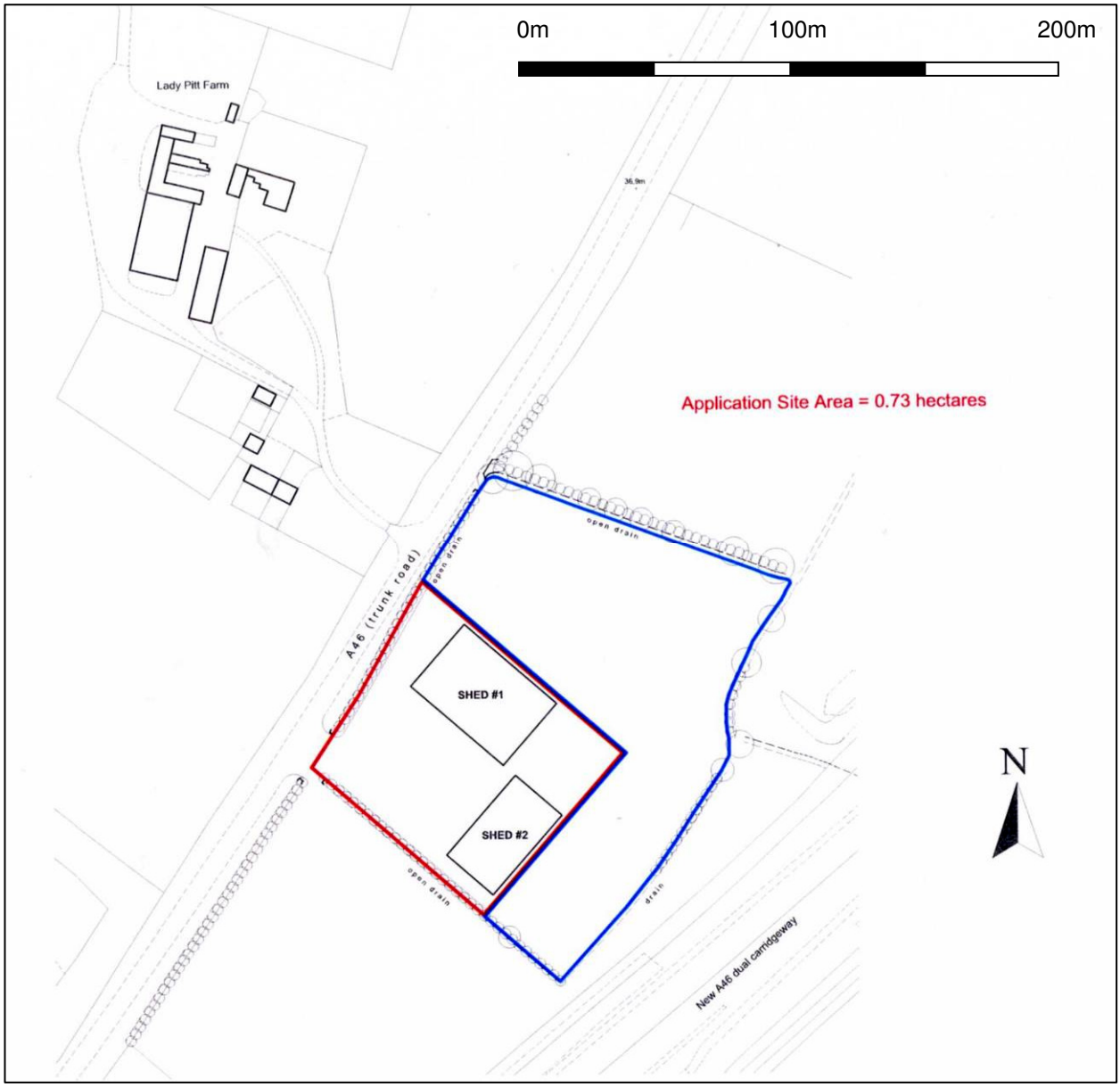

Figure 2: As-proposed plan of the site at scale 1:2500. The proposed development site is outlined in red. Plan supplied by client.

Plate 1: General shot of the site, looking north-east from a point near the site access in the west corner, showing the site's proximity to the Fosse Way, visible at the upper left.

Plate 2: General shot of the site following the excavation of the test pits, looking north-west from the south-east corner towards the Fosse Way.

3.0 Topography and Geology

Syerston is situated on a broad ridge between the valleys of the Rivers Trent and Devon, with the Fosse Way running along the ridge. The general topography of the area is characterised by a slight slope to the south-east from the crest of the ridge, on the far side of the Fosse Way. The field slopes gently southwards from the crest of the ridge that marks the southern edge of the Trent Trench, a diversionary course of the river cutting across the dipslope of the Mercia Mudstone between Nottingham and Newark. The construction of the new dual carriageway immediately to the south of the field boundary has removed part of the topographic feature; the area would have formed part of a small natural basin formed by the action of groundwater and glacial meltwater (Appendix 5). The site appears generally level, with the embankment of the old road lying outside its boundary, although the standing water that collected along its eastern side during the project indicated that this portion of the site was lower-lying than the rest (plate 3). The approximate level of the site is 37m OD; there are no recorded benchmarks in the area around the site.

Plate 3: General shot of the site looking south-west from the north-east corner, showing the standing water accumulated along the eastern side of the site.

The bedrock solid geology of the proposed site is Edwalton Member Mudstone, formed in the Triassic period in a hot desert setting. The mudstone Edwalton Member Siltstone is also recorded in the area, but not within the site itself. The Edwalton Member deposits are described as red-brown and greenish grey, with beds of indurated, variably dolomitic siltstone and very fine-grained sandstone common in the lower half and finely disseminated

gypsum common in the upper half (bgs.ac.uk). British Geological Survey mapping indicated that a drift geology of alluvial clay, silt, sand and gravel might be present towards the north-east corner of the site (*ibid.*); clay, silt and sand layers encountered in a number of trenches and test-pits suggested that alluvial deposits were in fact present across the majority of the site.

4.0 Planning Background

A planning application for the construction of two new agricultural buildings has been submitted to and conditionally approved by Newark and Sherwood District Council, application ref: 15/00912/FULM. The designed layout of the new buildings sites them in the southwest of the field, with new access from the corner with Fosse Road into a yard area in front of the buildings. The site will be surrounded by new security fencing and gates (fig. 2).

The application was not supported by archaeological investigations of the site, and the site lies in close proximity to the Roman Fosse Way, and the site of the Battle of Stoke Field (1487). The decision notice therefore includes a requirement for archaeological investigations and mitigation measures to undertaken and designed as appropriate as part of the design and construction of the site.

8 - No development shall take place within the application site until the results of a Written Scheme for Archaeological Investigation, a detailed metal detector survey and area specific ground investigations which is to be agreed in writing by the Local Planning Authority together with mitigation measures have been submitted to and approved in writing by the Local Planning Authority. Thereafter, the scheme shall be implemented in full accordance with the approved details.

Reason: To ensure that satisfactory account is taken of the potential archaeological interest of the site.

5.0 Archaeological and Historical Background

Evidence for prehistoric activity around the site is limited: the Nottinghamshire HER records isolated late upper Palaeolithic flints that were recovered from the site and the fields to the north, although the only grid-reference for these finds available at the time of writing places these finds in the field to the north of the site (NHER ref. L1640; Macnab, 2006, ref. 174; Kinsley and Knight, 1992). An isolated flint point was found a little further to the north (Macnab, 2006, ref. A175). Historic England PastScape records the findspot of a Bronze Age looped spearhead found close to the site (ref. 894605). These finds may be indicative of transient activity through the area along the east bank of the River Trent, possibly following a prehistoric trackway; however, it is also thought possible that these are evidence of an early prehistoric land-surface, preserved in the area.

The site borders on the historic Fosse Way, which follows the route of the Roman road whose north end connected the major Roman settlements of Lincoln and Leicester. The route of the early road is indicated by cropmarks which are seen along the old A46; linear cropmarks seen on aerial photographs parallel to and on the west side of the old A46 some 150m south of the site are interpreted as evidence of the Roman road (Macnab 2006, ref A170). However, no remains of the Roman road or other finds from this period have yet been recorded in the neighbourhood of the site. The Roman settlement of Ad Pontem lies adjacent to the Fosse Way at East Stoke, some 2km north of the site.

The Domesday Survey of AD 1086 records Syerston as a small manor belonging to the Norman landowner Berengar de Tosny, but sub-infeudated to a man with the Saxon name of Godwine; it was occupied by only three households, and its arable and pasture land had a taxable value of 20 shillings. A still smaller manorial holding at Syerston, also with three households farming arable and pasture land, is also recorded among the manors of the thegns at the end of the Nottinghamshire Domesday; this is recorded as having belonged to Thorfridh before the Norman Conquest, but now being the king's land. A small amount of arable land also formed an outlying possession of the Bishop of Lincoln's manor of Newark (Williams and Martin, 2003, pp. 763, 779, 783).

In 1487, the Battle of Stoke Field, at which the army of King Henry VII defeated a rebel army supporting the pretender Lambert Simnel, led by the Yorkists John, Earl of Lincoln and Francis, Lord Lovell, was fought directly to the north of Syerston and the neighbouring village of East Stoke. This battle, two years after the death of King Richard III at Bosworth Field, is taken to be the final engagement of the Wars of the Roses, in which the last of the Yorkist leaders were killed or finally put to flight. Contemporary accounts of the battle are contradictory, but it has been deduced that the rebel forces were drawn up on the higher ground near Burnham Furlong, having crossed the Trent by a ford which then existed at Fiskerton, while the king's army approached along the Fosse Way, passing Syerston village; the survivors of the defeated army are believed to have fled back northwards across the Trent (EH, 1995; fig. 3). The extent of the battlefield is indicated by the discovery of a burial pit in a field to the west of the Fosse Way and opposite Foss Way Farm in Farndon, some 6km to the north-east of Syerston, during the widening of the modern A46. The pit contained the entangled remains of at least 11 articulated inhumation burials which are thought to date to the time of the battle (Mr. O. Scott, Conservation Officer, planning comment). Four other mass graves have been recorded in the neighbourhood of East Stoke, and finds of human bones with coins and other relics in the fields to the south of East Stoke were recorded by a 19th-century historian. The boundary of the currently designated Historic Battlefield defines the outer reasonable limit of the battle, taking into account the assumed positions of the opposing forces at the outset and the focal area of the battle itself; it does not include areas over which fighting took place subsequent to the main battle (EH, 1995).

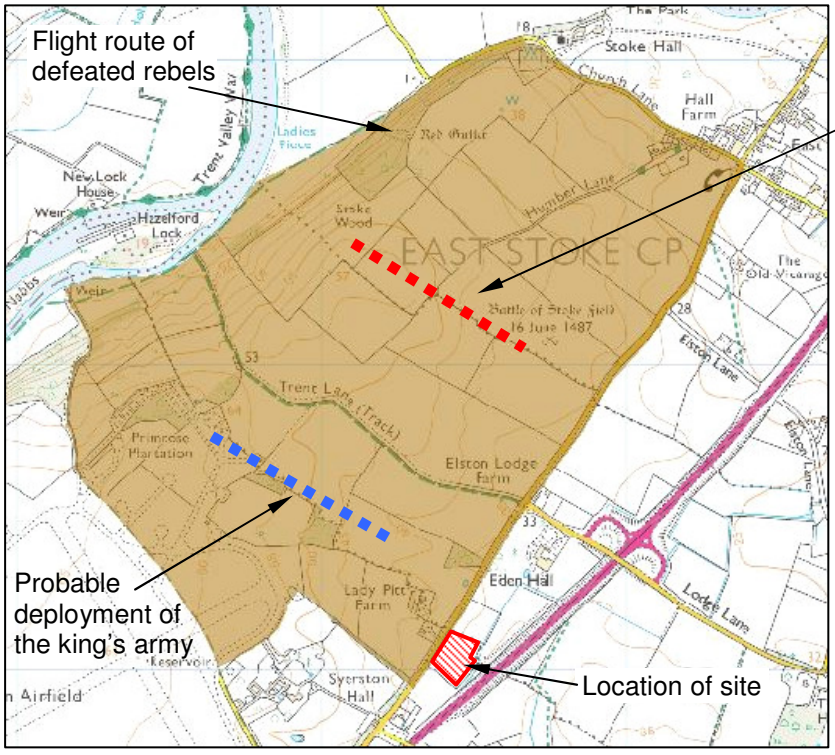

Figure 3: Plan showing the relationship of the proposed development site (hatched red) to the designated battlefield area (light brown), at scale 1:25,000. OS mapping © Crown copyright; all rights reserved; PCAS licence no. 100049278. Battlefield mapping supplied by Historic England.

The grounds of Syerston Hall, directly to the west of the site on the north-west side of the old Fosse Way, are recorded as a historic park/garden by the Nottinghamshire Historic Environment Record, but are not designated. The hall itself is a Grade II Listed Building: it was originally built at the end of the 18th century, with rear extensions and associated outbuildings, also Grade II Listed, from the beginning of the 19th century (NHLfE list entry refs. 1045563-4, 1178904).

The geophysical survey undertaken by Pre-Construct Geophysics in November 2015 surveyed the whole of the field within which the proposed development site lies. It identified magnetic anomalies that are thought to indicate modern land drains, with the majority crossing the site on a NW-SE alignment following the slope of the field. In the north-east corner of the field, outside the boundaries of the proposed yard, two strong parallel responses were interpreted as being of recent origin: the previous landowner is known to have constructed additional land drainage features in wet areas by excavating trenches and partially back-filling them with rubble, and it seems likely that this pair of features were created in this way. A cluster of discrete anomalies that may represent pits of possible archaeological origin lie on the northern boundary of the site, with a single, isolated possible pit lying slightly to the east, again with the development site (Bunn, 2015).

A metal-detecting survey of the site was carried out in November 2015 by Pre-Construct Archaeological Services Ltd. A total of 34 objects were recovered from across the field, all iron artefacts including a number of nails, tool fragments, horseshoes and metal sheet fragments. Not all objects could be accurately dated: some may have been late medieval, but the majority of the items that could be dated were post-medieval or modern. A possible awl is similar to examples found in Roman contexts, but comparable types of medieval and early post-medieval date are also known. None of the very small number of medieval or potentially medieval finds had any indication of a military function from which an association with Stoke Field might have been deduced. The presence of a number of chisel fragments, which may have been used by a blacksmith, as well as the number of horseshoes and a couple of horse bits that were recovered, may indicate the presence of a blacksmith or farrier in the vicinity in the late to post-medieval period, although no smithy was present in the area recently enough to appear on historic Ordnance Survey mapping; the side of a main road connecting two cities would certainly be a plausible place for a blacksmith or wheelwright to be found (Savage, 2016).

6.0 Methodology (fig. 4)

The Senior Archaeological Officer for Nottinghamshire County Council advised that archaeological evaluation was required to investigate and confirm the results of the geophysics and metal-detecting survey, and to investigate the potential for archaeological activity such as the potential presence of an early prehistoric land-surface indicated by the Palaeolithic flints found around the site; the possibility of Roman burials in their traditional position alongside the road, or indeed the Roman road itself; or the possibility of inhumations or other features or artefacts associated with the Battle of Stoke Field to the north-west. The scheme was to include test-pitting followed by evaluation trenching, both to take place on the site prior to any construction groundworks.

The first phase of intrusive archaeological evaluation on the site consisted of the hand excavation of ten 1m x 1m test pits. Eight of the test pits were positioned around the site and its immediate vicinity to investigate those areas where construction impacts were anticipated, while the remaining two were sited within the footprints of the proposed evaluation trenches to ensure that machine excavation of the trenches would not impact any unidentified prehistoric surfaces. The aim of the test-pitting was to investigate the potential presence of early prehistoric flint artefacts, some of which have been recorded in this area, and any

associated surfaces or additional artefacts and features that may have been associated with them.

Figure 4: Plan of test pit and trench locations at scale 1:1250, superimposed on the greyscale geophysics results (Bunn, 2015). The boundaries of the proposed new yard are marked in yellow, and the footprints of the proposed agricultural buildings in green.

Test-pits were located using GPS and excavated by hand by an experienced archaeologist, removing successive layers to either the surface of the natural geology or the maximum safe working depth. All excavated material from the test-pits, including topsoil and subsoil, was dry-sieved through a 10mm mesh to ensure the highest likelihood of artefact recovery.

Evaluation trenching aimed to investigate the geophysical survey results, and the potential for encountering buried archaeological remains that would be impacted by the proposals. Two 15m x 2m trenches were excavated within the proposed footprints of the new buildings, targeted on the geophysical survey anomalies.

The trenches were opened mechanically under archaeological supervision. Ground conditions were conducive to the use of a wide, toothless blade on the machine, ensuring a smooth surface for initial identification of any archaeological remains. Machine excavation progressed in spits no greater than 200mm and ceased either at the first significant archaeological horizon, the natural substrate or the maximum safe working depth, whichever was encountered first.

Where archaeological features were present, these were sample excavated and drawn in section at scales of 1:20 or 1:10 as appropriate; where no features were encountered, a sample section of the trench baulk was drawn. The drawn record was supplemented by a photographic record on colour slide film and in digital format: a sequence of photographs was taken for each test pit, showing the successive deposits. Deposits were recorded on standard PCAS context record sheets and trench record sheets, and an excavation site diary was also kept. Finds were stored in labelled bags prior to their removal to the offices of PCAS for initial processing; the washed and marked finds, with the environmental samples, were either assessed in-house or dispatched to appropriate specialists for assessment and reporting. The pottery and ceramic building material (CBM), almost all of which proved to be post-Roman, was assessed by Jane Young (Appendix 2), while the other finds were assessed and catalogued in-house (Appendix 3). Environmental samples were processed and reported on by Archaeological Services, Durham University (Appendix 4).

The evaluation took place between 31st March and 22nd April 2016 and was supervised by Phil Chavasse and Richard Mandeville. Weather conditions were generally favourable, but ground conditions were wet, with a high water table and an impermeable solid geology leading to flooding in most of the pits and trenches. The site was visited on 7th April by geomorphologist Andy Howard, who made a study of the deposits exposed in the test pits (Appendix 5).

7.0 Results

A full context summary list appears as Appendix 1.

The geoarchaeological assessment noted that the test pits all displayed a similar sequence of deposits. The natural solid geology was exposed at the base of the pits, overlain by silty clays considered to be largely alluvial in origin, with variations in colour reflecting the local water table; these were sealed by the modern topsoil (Appendix 5).

7.1 Trenches containing archaeological remains

7.1.1 Trench 11 and Test Pit 3

Test Pit 3 was opened within the proposed footprint of Trench 11. No features were observed and no stratified finds were retrieved, but the geoarchaeological assessment noted the presence of a layer that potentially indicated prehistoric activity.

Test Pit 3 encountered the natural solid geology at a depth of 0.94m below existing ground level (EGL). The base of the pit displayed a west to east downward slope, which would be shown following the extension of the test pit into Trench 11 to be the cut of large feature [1105], but was not recognised as such within the confines of the test pit (fig. 6; plate 4). The natural geology was overlain by two silty deposits, (301) and (302). The geoarchaeological

study noted that layer (302) was potentially significant, as the basal part of this deposit was blackened and contained large charcoal fragments and numerous pebbles of local sandstone and siltstone, some of which might have been heat-affected. The features noted and their context were considered to be reminiscent of sites that had revealed burnt mounds (Appendix 5). As with the remainder of the test pits, finds were retrieved only from the topsoil: a very small fragment of pottery from topsoil (300) may have been Roman or medieval, and three sherds of 17th and 18th-century pottery were also retrieved (Appendix 2)

Plate 4: The stratigraphic sequence in Test Pit 3, later extended into Trench 11.

Trench 11, which overlay and extended Test Pit 3, measured 15m x 2m and was orientated east-west (plate 5). It was positioned in order to investigate geophysical anomalies which had been interpreted as a possible cluster of pits. A single large feature was discovered, extending well beyond the confines of the trench: it is currently undated, and may have been a recent pond.

Plate 5: Trench 11 after excavation, looking west-north-west, with the flooded 'pond' area in the foreground.

As with TP3, the natural clay substrate (1104) was encountered at a depth of approximately 0.95m below original ground level. The natural was overlain by deposit (1103), a dark grey organic layer 0.14m thick, which had not been observed in the test pit, and may have corresponded to the peat horizon (205) seen in TP2.

The only feature exposed in Trench 11 was the large, relatively shallow feature [1105] identified in the eastern half of the trench. The size and form of this feature in plan could not be ascertained: the geophysical survey suggests that it was sub-circular rather than linear, and if so, it was extremely large, as it occupied some 11.5m of the trench without any part of its further side being encountered (fig. 5; plate 6). Feature [1105] appeared to have had a stepped profile, with a break of slope approximately 1.5m from its exterior edge; this portion had been removed during machining before the presence of a feature was suspected. The lower portion survived to a depth of some 0.65m; where exposed, the base had a very shallow slope, presumably towards a centre lying outside the trench. Neither of its two silty clay features produced any dating evidence: an environmental sample from upper fill (1106) produced a single charred wheat grain with another charred grain of an indeterminate cereal, and fragments of charcoal (Appendix 5). The cereal remains could not be drawn on to suggest a date for the feature; a sample of the charcoal has been sent for radiocarbon-dating, but results are still pending. A thin layer of sandstone fragments up to 50mm in size, apparently running parallel to the edge of the feature, was exposed on the surface of upper fill (1106): although this layer was distinct enough to be separately recorded as context

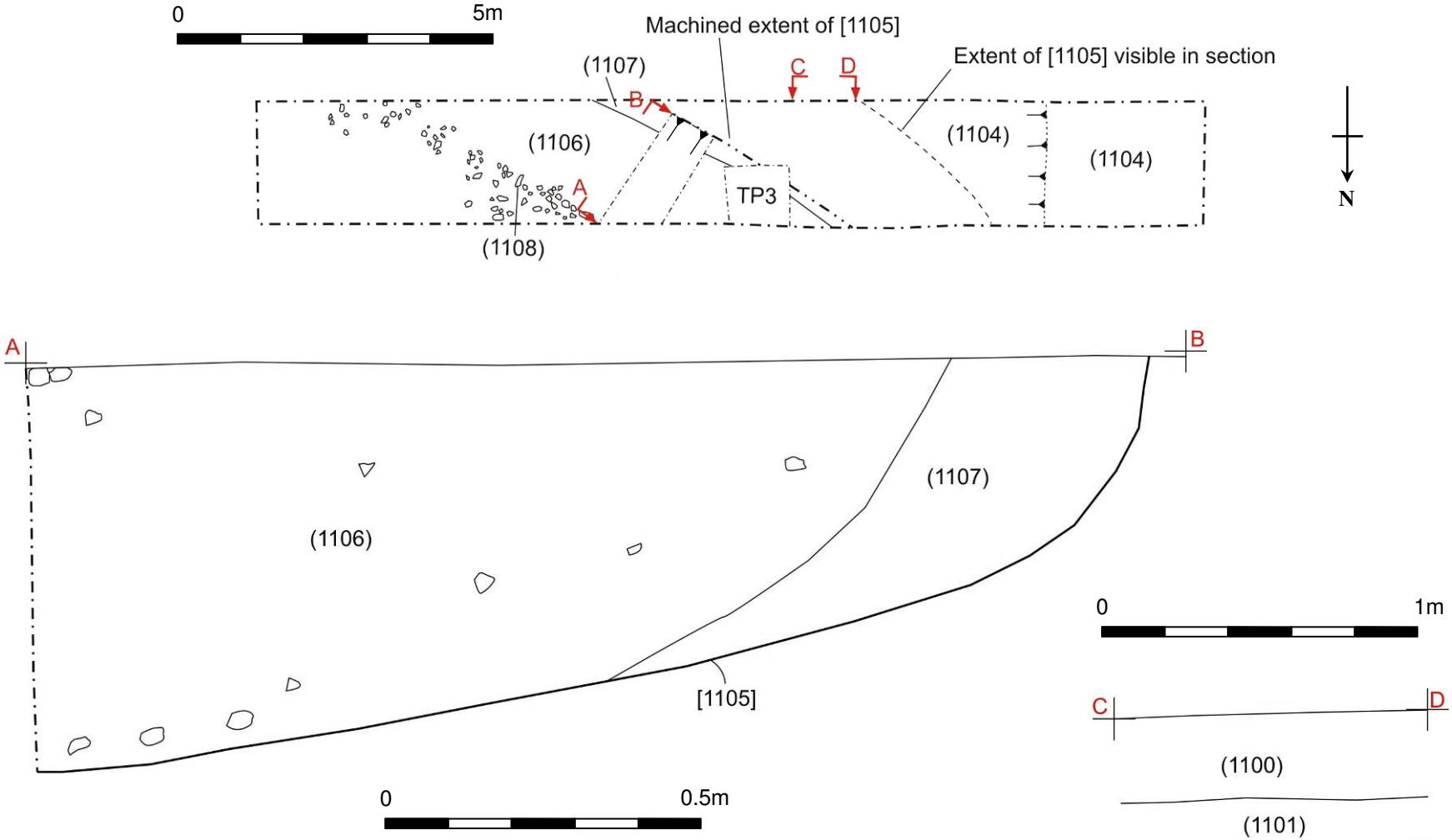

Figure 5: Plan of Trench 11 at scale 1:100, with a section through feature [1105] at scale 1:10 and a sample section at scale 1:20.

(1108), the stones were not closely-set or firmly bedded enough to suggest that they had been deliberately placed, and the position of this layer above, rather than below, the fills also suggests that it did not represent a hard surface or metalled trackway (plate 7). No heat-affected material was observed. The geophysical responses for the Trench 11 area was indicative of a cluster of pits rather than a single large feature, suggesting that [1105] is likely to be irregular in depth and form. It is possible that it was a pond for the use of livestock, although the assessment of the environmental sample from fill (1106) suggests that environmental conditions were not permanently waterlogged (Appendix 6), and consequently, that if the feature was a pond, it is most likely to have been a seasonal dewpond.

Plate 6: Section through the possible pond in Trench 11, looking south-east.

Plate 7: Stony deposit (1108) within possible pond [1105], looking north-east.

Feature [1105] was sealed beneath alluvial clay layer (1102), which was overlain by orange-brown colluvium (1101), recorded as subsoil, and the modern topsoil (1100). No finds were retrieved from any of these layers.

7.2 Trenches and test pits containing no archaeological remains (fig. 6)

No remains of archaeological interest were exposed in Test Pits 1, 2 and 4-10 or Trench 12 (which overlay and extended Test Pit 8). These pits and the evaluation trench typically contained several layers of alluvial silts and clays overlying the natural solid geology, and were sealed by topsoil; a subsoil layer was identified in many, but not all (plates 8 and 9). A possible degraded peat horizon 0.10m deep was recorded in Test Pit 2 as layer (205), directly above the natural and overlain by a sequence of alluvial deposits (plate 10).

Plate 8: Typical deposit sequence exposed in Test Pit 5, looking north.

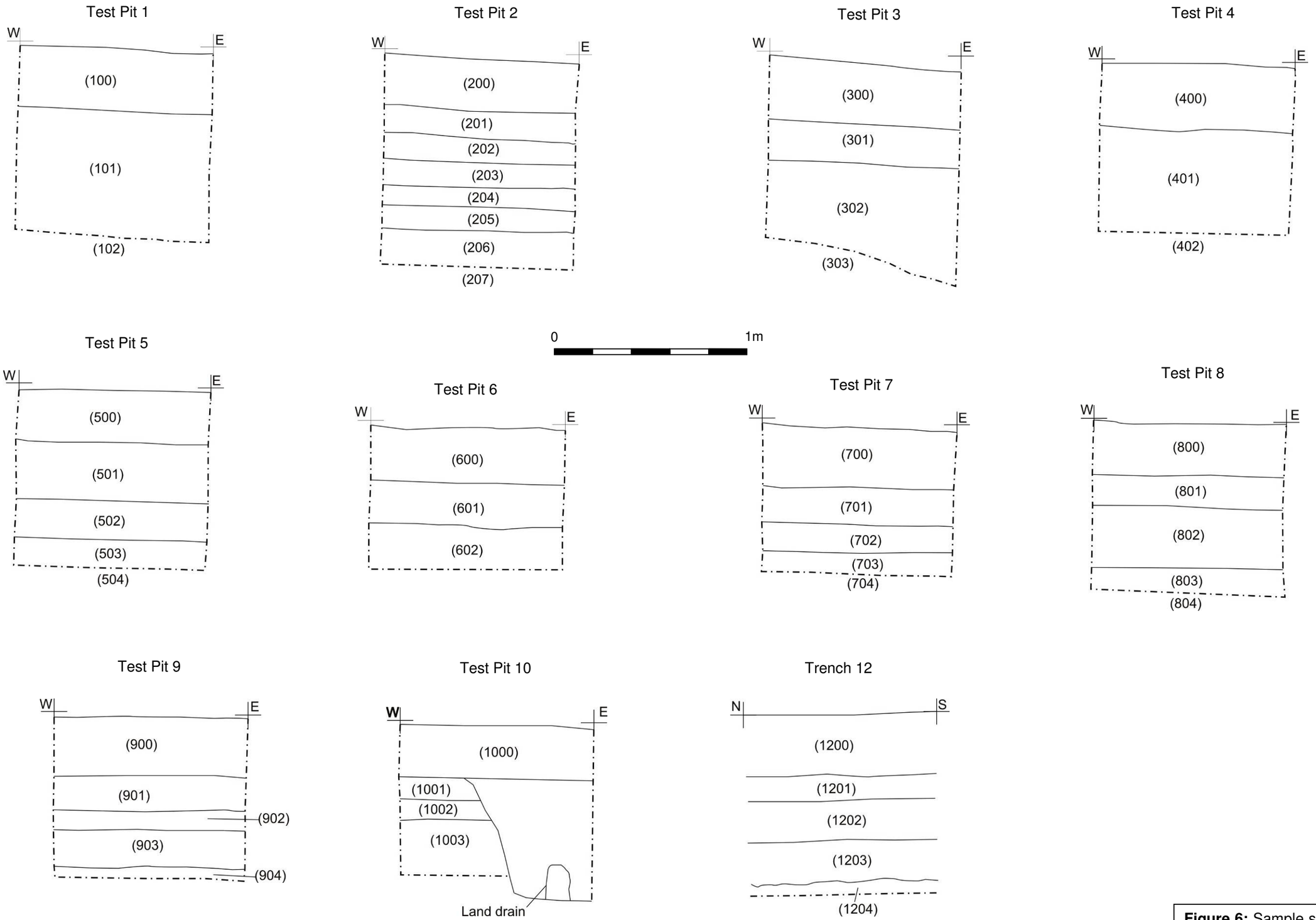

Figure 6: Sample sections of the negative test pits and trenches, all at scale 1:20.

Plate 9: Trench 12, looking north: no archaeological features were encountered.

Where finds were present, they were recovered only from the topsoil in all cases. A sherd of Roman or medieval pottery and a flake of CBM that might have been medieval or early modern were retrieved from topsoil (800) in Test Pit 8, while a sherd of pottery from topsoil (500) in Test Pit 5 could be dated to the 13th to 15th century; the finds were otherwise post-medieval or modern in date (Appendices 2 and 3).

Plate 10: Possible degraded peat layer at the base of Test Pit 2, looking north.

8.0 Discussion and Conclusions

The results of the archaeological evaluation indicate that the archaeological potential of the site is low, with the majority of the interventions proving to be archaeologically negative. Geoarchaeological study of the site indicated that the deposits encountered were unlikely to be associated with the Upper Palaeolithic (Appendix 5), although the possibility of remains from this period had been of particular interest for this site.

The only archaeological feature identified on site was a large feature of uncertain form, provisionally interpreted as a pond for the use of livestock, which occupied much of Trench 11 and extended beyond it. The date of this feature remains uncertain, as no artefactual evidence was recovered and a radiocarbon date for charcoal from its fill is still being processed. The environmental report noted that the absence of preserved organic material that had not been burnt or charred, together with the heavy mineralisation and poor state of preservation of the charred remains, suggested that the feature had not been permanently water-filled, as these qualities are typical of wetland environments with fluctuating aerobic and anaerobic conditions (Appendix 4). It is possible that this feature was a seasonal dewpond, deliberately back-filled in order to make the field suitable for arable cultivation: a series of dumps of different materials filling one large feature, some including heat-affected stone and other burnt material, might account for the variable geophysical response that gave the impression of a cluster of pits.

9.0 Effectiveness of Methodology

Intrusive evaluation following on from geophysical survey was an appropriate method for gathering further information about the archaeological potential of the site, which can now be assessed as low. The body of data produced by this evaluation will suffice to inform the planning and development process.

10.0 Project Archive

The project archive, consisting of the site recording and the finds, will be deposited with printed copies of this report and the associated interim report at the Civil War Centre in Newark-on-Trent. Following deposition, the archive will be available for consultation under the Newark and Sherwood Museums Service accession number 2016.3. A copy of the full report will also be uploaded to the Archaeology Data Service OASIS (Online AccesS to the Index of archaeological investigationS) database, where it will be publicly accessible online.

11.0 Acknowledgements

Pre-Construct Archaeological Services would like to thank J. H. Walter LLP for this commission.

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Appendix 1: Context Summary

Context	Type	Description	Finds/dating
Test Pit 1			
100	Layer	Topsoil. Mid brown grey clay silt with rare small pebbles. 0.33m deep.	Late 18th to 19th-century pottery, post-medieval to modern CBM
101	Layer	Subsoil. Mid orange brown. Compact mottled clay silty. 0.66m deep.	
103	Layer	Compact mid orange grey clay. Natural substrate.	
Test Pit 2			
200	Layer	Topsoil. Same as (100). 0.28m deep.	
201	Layer	Mid orange brown mottled fine sandy clay silt. Contained rare small pebbles throughout deposit. 0.14m deep.	
202	Layer	Compact mid blue grey clay silt. 0.14m deep.	
203	Layer	Same as (201), however sealed by (202). 0.11m deep.	
204	Layer	Same as (202), however sealed by (203). 0.1m deep.	
205	Layer	Degraded peat horizon. Firm but friable dark brown grey sandy silt. 0.1m deep.	
206	Layer	Natural stony interface with clay. Mid brown grey coarse gritty sand with frequent weathered limestone fragments.	
Test Pit 3			
300	Layer	Topsoil. Same as (100). 0.33m deep.	Possible Roman or medieval pottery; post-medieval pottery
301	Layer	Compact orange brown clay silt. 0.2m deep.	
302	Layer	Compact dark brown grey silt, with moderate small stone fragments throughout. Same as (1106). 0.5m deep.	
303	Layer	Natural substrate. Red brown clay. Same as (1104).	
Test Pit 4			
400	Layer	Topsoil. Same as (100). 0.35m deep.	Post-medieval to modern pottery and CBM, Clay pipe
401	Layer	Turned over subsoil deposit. Compact mid orange brown mottled clay silty with rare small stones throughout deposit. 0.55m deep.	
402	Layer	Natural substrate. Compact mid red brown clay with small to medium sized sub-angular limestone fragments throughout.	
Test Pit 5			
500	Layer	Topsoil. Same as (100). 0.3m deep.	13th to 15th-century pottery, iron nail, post-medieval to modern CBM
501	Layer	Subsoil. Same as (401). 0.3m deep.	
502	Layer	Compact blue grey silt clay with rare small pebbles.	
503	Layer	Dark band of silty sand above natural substrate. Friable, mid brown grey. Rare small stones throughout deposit. 0.18m deep.	
504	Layer	Natural substrate. Same as (402).	
Test Pit 6			
600	Layer	Topsoil. Same as (100). 0.35m deep.	19th to 20th century CBM
601	Layer	Subsoil. Same as (401). 0.25m deep.	
602	Layer	Mottled, compact, mid blue grey clay silt. Rare small stones throughout. 0.26m deep.	

Context	Type	Description	Finds/dating
603	Layer	Compact yellow brown clay silt with moderate sub angular limestone fragments.	
Test Pit 7			
700	Layer	Topsoil. Same as (100). 0.34m deep.	Post-medieval to modern pottery
701	Layer	Compact orange brown fine sandy clay. 0.18m deep.	
702	Layer	Compact sterile blue grey clay. 0.16m deep.	
703	Layer	Dark brown humic layer overlying the natural substrate. 0.11m deep.	
704	Layer	Natural substrate. Compact red clay with limestone fragments throughout.	
Test Pit 8			
800	Layer	Topsoil. Same as (100). 0.29m deep.	Roman or medieval pottery, medieval - early modern CBM
801	Layer	Subsoil. Same as (701). 0.15m deep.	
802	Layer	Same as (702). 0.34m deep.	
803	Layer	Same as (703). 0.14m deep.	
804	Layer	Natural substrate. Same as (704).	
Test Pit 9			
900	Layer	Topsoil. Same as (100). 0.3m deep.	18th to mid-20th-century CBM
901	Layer	Subsoil. Same as (701). 0.2m deep.	
902	Layer	Same as (702). 0.1m deep.	
903	Layer	Same as (703). 0.18m deep.	
904	Layer	Natural substrate. Same as (704).	
Test Pit 10			
1000	Layer	Topsoil. Same as (100). 0.3m deep.	Late 18th to 19th-century pottery
1001	Layer	Subsoil. Same as (701). 0.12m deep.	
1002	Layer	Same as (703). 0.11m deep.	
1003	Layer	Natural substrate. Same as (704).	
Trench 11			
1100	Layer	Topsoil. Same as (100). 0.28m deep.	
1101	Layer	Subsoil. Same as (301). 0.15m deep.	
1102	Layer	Alluvium. Compact mid grey clay. 0.23m deep.	
1103	Layer	Dark grey humic layer. Some small pebble inclusions throughout deposit. 0.14m deep.	
1104	Layer	Natural substrate. Same as (303).	
1105	Cut	Cut of probable pond. Moderately sloped sides, with a flat base. Appears to be circular in plan. 0.65m deep.	
1106	Fill	Secondary fill of pond [1105]. Dark grey brown silt clay with occasional small stones throughout deposit. Same as (302).	Environmental sample
1107	Fill	Primary fill of pond [1105]. Orange brown sandy silt clay. Fairly loose and wet, with occasional sub-angular fragments of stone.	
1108	Layer	Thin layer of sandstone across top of deposit (1106). Most likely deposited during backfilling of pond, rather than being a surface.	
Trench 12			
1200	Layer	Topsoil. Same as (100). 0.32m deep.	18th-century pottery
1201	Layer	Subsoil. Same as (801). 0.13m deep.	
1202	Layer	Same as (802). 0.24m deep.	
1203	Layer	Same as (803). 0.2m deep.	
1204	Layer	Natural substrate. Same as (804).	
1200	Layer	Topsoil. Same as (100). 0.32m deep.	Pot

Appendix 2: The Post-Roman Ceramic Material

by Jane Young

Introduction

Fifteen sherds of post-Roman pottery and nine fragments of ceramic building material were recovered during archaeological investigation at Syerston. The material was quantified by three measures: number of sherds/fragments, weight and vessel/CBM count within each context and has been fully archived (Appendix 2.1-2) to the standards for acceptance to a museum archive within the guidelines laid out in Slowikowskki, *et al*. (2001) and the Archaeological Ceramic Building Materials Group (2001). Visual fabric identification of was undertaken by x20 binocular microscope. The data was entered on an access database using fabric codenames (see Tables 1 and 2) developed for the Lincoln Ceramic Type Series (Young, Vince and Nailor 2005) and the preliminary Nottingham Type Series (Nailor and Young 2001)

Condition

The material is in a mixed slightly to very abraded condition with sherd/fragment size varying between 1gram and 69grams.

The pottery and ceramic building material

The identifiable pottery ranges in date from the medieval to early modern periods (Table 2) whilst the identifiable ceramic building material is entirely of early modern date. One unidentifiable flake from a ridge tile (RID) found in 800 could date to anywhere between the medieval and early modern periods (Table 1).

Table 1 Ceramic building material types with total quantities by fragment count

Codename	Full name	Total fragments	Total weight in grams
BRK	Brick	6	151
PANT	Pantile	1	7
PNR	Peg, nib or ridge tile	1	37
RID	Unidentified ridge tile	1	70

Table 2 Pottery types with total quantities by sherd and vessel count

Codename	Full name	Earliest date	Latest date	Total sherds	Total vessels
BL	Black-glazed wares	1550	1750	2	2
CREA	Creamware	1770	1830	3	3
LERTH	Late earthenwares	1750	2000	1	1
MEDLOC	Medieval local fabrics	1150	1450	1	1
MISC	Unidentified types	400	2000	2	2
NCBW	19th-century Buff ware	1800	2000	1	1
NOTS	Nottingham stoneware	1690	1800	2	2
PEARL	Pearlware	1770	1850	3	3

In Test pit 1 Topsoil layer **100** produced a tiny sherd of late 18th to mid 19th century Creamware (CREA) and a small flake from an 18th to mid 20th century brick (BRK) and a fragment from a 19th or 20th century flat roof tile (PNR). Four sherds of pottery were recovered from topsoil layer **300** in Test pit 3. Two of the sherds come from Black-glazed Earthenware (BL) vessels. One sherd is from a tankard of early/mid to late 17th century date whilst the other piece is from a hollow form of mid 17th to 18th century date. A Nottingham Stoneware (NOTS) sherd is from an 18th century jar with machine decoration. The other tiny (1gram) very abraded sherd is of potential Roman or medieval date (MISC). Subsoil layer **400** in test pit 4 produced four sherds of early modern pottery and two pieces of 18th to mid 20th century brick. The small sherds include Creamware (CREA), Nineteenth Century Buff ware (NCBW) and two Pearlware vessels (PEARL) of late 18th to mid 19th century date. In Test pit 5 a sherd from a local medieval (MEDLOC) jug or jar of 13th to 15th century date and a piece of 18th to mid 20th century handmade brick were recovered from topsoil layer **500**. Topsoil layer **600** in Test pit 6 contained a single fragment from a pantile (PANT) of 19th or 20th century date. Two early modern sherds were recovered from topsoil layer **700** in Test pit 7. The sherds come from a late 18th to mid 19th century Pearlware plate and an un-glazed earthenware sherd (LERTH) of late 17th to 19th century date. A small badly burnt sherd recovered from topsoil layer **800** in Test pit 8 is likely to be of Roman or medieval date. This layer also produced a flake from a ridge tile (RID) of medieval to early modern date. Two flakes from bricks of 18th to mid 20th century date were recovered from topsoil layer **900** in Test pit 9. In Test pit 10 a minute sherd of late 18th century Creamware was recovered from topsoil layer **1000** whilst the base of a small 18th century Nottingham Stoneware bowl was found in topsoil layer **1200** in Test pit 12.

Discussion and recommendations

The recovered material suggests that most of the activity in the area of the test pits is of late medieval to early modern date. A single identifiable medieval sherd was found in Test pit 5 and a heavily burnt unidentifiable sherd of potential Roman or medieval date came from Test pit 8. A ridge tile also found in this Test pit could date to anywhere between the medieval and early modern periods.

The early modern pottery and ceramic building material has been discarded but the remaining material should be retained for possible future study.

References

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Appendix 2.1: Pottery Archive

Trench	Context	Cname	Sub Fabric	Form Type	Sherds	Vessels	Weight	Decoration	Part	Action	Description	Date
Test Pit 01	0100	CREA		?	1	1	1		BS	discarded		late 18th to mid 19th
Test Pit 03	0300	MISC	orange fine sandy	?	1	1	1		BS		very abraded;abundant fine quartz below 0.2mm;Roman or medieval	Roman or medieval
Test Pit 03	0300	NOTS		jar	1	1	6	machine decorated	BS			18th
Test Pit 03	0300	BL	orange fine sandy	hollow	1	1	12		BS		red ext slip;int glaze;mid 17th to 18th	mid 17th to 18th
Test Pit 03	0300	BL	orange-red to purple fine sandy	tankard ?	1	1	20		base		int & ext glaze;early/mid to late 17th	early/mid to late 17th
Test Pit 04	0400	NCBW		?	1	1	4		BS	discarded		19th to 20th
Test Pit 04	0400	PEARL		small jug ?	1	1	2	blue sponged	BS	discarded		late 18th to mid 19th
Test Pit 04	0400	CREA		?	1	1	1		BS	discarded		late 18th to mid 19th
Test Pit 04	0400	PEARL		chamber pot ?	1	1	8	blue sponged	rim	discarded		late 18th to mid 19th
Test Pit 05	0500	MEDLOC	OX/R/OX med sandy	jug/jar ?	1	1	4		BS		abraded	13th to 15th
Test Pit 07	0700	LERTH	orange-red fine	hollow	1	1	2		BS		ext red slip	late 17th to 19th
Test Pit 07	0700	PEARL		plate ?	1	1	1	blue feather edged rim	rim	discarded		late 18th to mid 19th

Trench	Context	Cname	Sub Fabric	Form Type	Sherds	Vessels	Weight	Decoration	Part	Action	Description	Date
Test Pit 08	0800	MISC	fine oxid ?	small hollow ?	1	1	3		BS		burnt with part glassy slag incl over break;Roman CC or medieval	Roman or medieval
Test Pit 10	1000	CREA		?	1	1	1		BS	discarded		late 18th to mid 19th
Test Pit 12	1200	NOTS		small bowl ?	1	1	13		base		footring base;low fired	18th

Appendix 2.2: Ceramic Building Material Archive

Trench	Context	Cname	Fabric	Frags	Weight	Action	Description	Date
Test Pit 01	0100	BRK	coarse orange-red	1	17	discarded	handmade; flake	18th to mid 20th
Test Pit 01	0100	PNR	fine-med orange-red sandy	1	37	discarded	flat roofer	19th to 20th
Test Pit 04	0400	BRK	coarse orange	1	19	discarded	hand made; sand moulded; flake	18th to mid 20th
Test Pit 04	0400	BRK	coarse orange	1	32	discarded	hand made; sand moulded; flake	18th to mid 20th
Test Pit 05	0500	BRK	coarse orange	1	69		hand made; sand moulded; flake	18th to mid 20th
Test Pit 06	0600	PANT	med orange sandy	1	7	discarded		19th to 20th
Test Pit 08	0800	RID	coarse orange	1	70		inner flake; abraded	medieval to early modern
Test Pit 09	0900	BRK	fine orange + fe	1	4	discarded	flake	18th to mid 20th
Test Pit 09	0900	BRK	coarse orange	1	10	discarded	hand made; sand moulded; flake	18th to mid 20th

Appendix 3: Catalogue of Other Finds

Context	Material	No.	Weight (g)	Description	Date	Action
100	Clay Tobacco Pipe	2	1g	Stem frags	Modern	Discard
200	Clay Tobacco Pipe	1	0.5g	Bowl, flake	Modern	Discard
500	Fe	1	17g	Nail , 100mm long	Modern	Discard
600	Clay Tobacco Pipe	1	1g	Stem, frag	Modern	Discard

Appendix 4: Palaeoenvironmental Assessment

by Archaeological Services, Durham University

Summary

The project

This report presents the results of palaeoenvironmental assessment of a single bulk sample taken during archaeological works at Syerston, Nottinghamshire.

The works were commissioned by Pre-Construct Archaeological Services Ltd (PCAS), and conducted by Archaeological Services Durham University.

Results

The sample contained two poorly preserved charred cereal grains and small quantities of fragmented charcoal including oak and Maloideae (Hawthorn, apple, whitebeams). Two fragments of fired clay were also present. Low numbers of charred crop remains alongside limited charcoal assemblages is typical of domestic hearth waste. Evidence for permanently waterlogged conditions was absent.

Recommendations

No further analysis is required for these samples, but the preservation of charred plant remains (albeit limited) indicates that other features on the site may have the potential to provide further information about diet and crop husbandry practices. If additional work is undertaken at the site, the results of this assessment should be added to any further palaeoenvironmental data produced.

The flot should be retained as part of the physical archive of the site. The residue was discarded following examination.

Project background

Location and background

Archaeological works were conducted by PCAS at Syerston, Nottinghamshire on land between Fosse Road (the former A46) and the new A46. This report presents the results of palaeoenvironmental assessment of a single bulk sample recovered from the secondary fill of a possible pond of unknown origin.

Objective

The objective of the scheme of works was to assess the palaeoenvironmental potential of the sample, establish the presence of suitable radiocarbon dating material, and provide the client with appropriate recommendations.

Dates

The sample was received by Archaeological Services on 9th June 2016. Assessment and report preparation was conducted between 10th and 14th June 2016.

Personnel

Assessment and report preparation was conducted by Dr Carrie Armstrong. Sample processing was by Stephanie Piper.

Archive

The site code is **SYNE16**, for **Sy**erston **N**ottinghamshire **E**valuation 20**16**. The flot and finds are currently held in the Palaeoenvironmental Laboratory at Archaeological Services Durham University awaiting collection. The charred plant remains will be retained at Archaeological Services Durham University.

Methods

The bulk sample was manually floated and sieved through a 300μm mesh. The residue was examined for shells, fruitstones, nutshells, charcoal, small bones, pottery, flint, glass and industrial residues, and was scanned using a magnet for ferrous fragments. The flot was examined at up to x60 magnification for charred and waterlogged botanical remains using a Leica MZ6 stereomicroscope. Identification of these was undertaken by comparison with modern reference material held in the Palaeoenvironmental Laboratory at Archaeological Services Durham University. Plant nomenclature follows Stace (2010). Habitat classifications follow Preston *et al.* (2002).

Selected charcoal fragments were identified, in order to provide material suitable for radiocarbon dating. The transverse, radial and tangential sections were examined at up to x600 magnification using a Leica DMLM microscope. Identifications were assisted by the descriptions of Schweingruber (1990) and Hather (2000), and modern reference material held in the Palaeoenvironmental Laboratory at Archaeological Services Durham University.

The works were undertaken in accordance with the palaeoenvironmental research aims and objectives outlined in the regional archaeological research framework (Monckton 2006).

Results

The sample produced a small flot comprising small quantities of fragmented charcoal and two charred cereal grains. Further fragmented and heavily mineralised charcoal occurred in the residue and a small number of fire-cracked stones and two fragments of fired clay were also observed. The charcoal was generally indeterminate due to poor preservation, however a few fragments were identifiable as oak and Maloideae (Hawthorn, apple, whitebeams). Material suitable for radiocarbon dating is available for the sample, however there may be insufficient weight of carbon due to the level of mineral inclusions present. The results are presented in Appendix 4.1.

Discussion

The absence of uncharred seeds or vegetative material suggests permanently waterlogged preservation conditions were absent in the deposit. However, the charred remains were noted to be poorly preserved, with heavy red-orange mineralisation preventing species identification for a number of charcoal fragments. The iron oxides causing such mineralisation typically occur in wetland environments with fluctuating aerobic and anaerobic conditions (Tiner 1999).

The charred plant macrofossil assemblage was small, comprising of a single wheat grain and an indeterminate cereal grain. The presence of low numbers of charred crop remains alongside limited charcoal assemblages is typical of domestic hearth waste. The absence of diagnostic chaff limits further conclusions about the date of the deposit.

The presence of oak and Maloideae charcoal suggests that these taxa were a readily available resource although the small fragment size and heavy mineralisation of the charcoal prevents any further conclusions, with many fragments unidentifiable to species.

Recommendations

No further analysis is required for these samples, but the preservation of charred plant remains (albeit limited) indicates that other features on the site may have the potential to provide further information about diet and crop husbandry practices. If additional work is undertaken at the site, the results of this assessment should be added to any further palaeoenvironmental data produced.

The flot should be retained as part of the physical archive of the site. The residue was discarded following examination.

Sources

Hather, J G, 2000 *The identification of the Northern European Woods: a guide for archaeologists and conservators*. London

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Tiner, R W, 1999 *Wetland indicators: A guide to wetland identification, delineation, classification and mapping*. Boca Raton

Appendix 4.1: Data from palaeoenvironmental assessment

Sample		**2**
Context		**1106**
Feature		**?Pond**
Material available for radiocarbon dating		(✓)
Volume processed (l)		33.5
Volume of flot (ml)		60
Residue contents		
Charcoal		+
Cracked stones	burnt	++
Fired clay		+
Flot matrix		
Charcoal		++
Coal / coal shale		(+)
Insect / beetle		(+)
Roots (modern)		+
Uncharred seeds		(+)
Charred remains (total count)		
(c) Cerealia indeterminate	grain	1
(c) *Triticum* sp (Wheat species)	grain	1
Identified charcoal (✓presence)		
Maloideae (Hawthorn, apple, whitebeams)		✓
Quercus sp (Oaks)		✓

©: cultivated. (+): trace; +: rare; ++: occasional; +++: common; ++++: abundant
(✓) may be unsuitable for dating due to size or species]

Appendix 5: Geoarchaeological Assessment

by Landscape Research and Management

Ten test pits opened in a field adjacent to the old A46 at Syerston, Nottinghamshire were examined by Dr Andy Howard to examine the sedimentary sequences exposed. The site is a few kilometres west of the Upper Palaeolithic flint scatter recorded at Farndon Fields (Newark on Trent) and a key aim of the fieldwork by PCAS is to consider whether similar remains may be located in the area.

The field is under grass and slopes gently southwards from the crest of the ridge that marks the southern edge of the Trent Trench, a diversionary course of the river cutting across the dipslope of the Mercia Mudstone between Nottingham and Newark. The construction of the new dual carriageway immediately to the south of the field boundary has removed part of the topographic feature; the area would have formed part of a small natural basin (linear depression). During the last Ice Age, this area was beyond the limits of icesheets and such depressions would have been initiated by meltwater enhanced drainage incising through the sloping bedrock geology, which would have been affected by regional permafrost (freezing the upper few metres of sediment). Unlike the Farndon Fields site, which is situated on an elevated, well-drained gravel terrace above an alluvial basin associated with the River Devon, a tributary of the main Trent, this depression would have been much wetter and carrying water during the Upper Palaeolithic and less favourable for temporary encampment. During field inspection, 8 of the 10 test pits showed evidence for significant water ingress reflecting the impermeable nature of the underlying mudstone bedrock; the two that were largely free of water had been freshly excavated explaining its absence.

The British Geological Survey (BGS) have mapped a small tongue of superficial sediment classified as alluvium within this depression, overlying the Edwalton Formation of the Mercia Mudstone Group (bedrock geology; red brown and greenish grey mudstones with harder bands of greenish grey dolomitic siltstone and sandstone). Elsewhere within the general immediate area, the BGS have also mapped colluvial deposits infilling similar depressions (e.g. immediately north-east of Syerston village).

All 10 test pits exhibited a similar tri-partite stratigraphy* above Mercia Mudstone bedrock:

1. Dark brown topsoil (7.5. YR 3/2).

2. Red brown silty clay with significant evidence of iron panning and manganese precipitation giving the unit a gritty texture (5YR 4/3). Largely stoneless. Basal lower contact, irregular and often gradational and merging.

3. Grey to greenish grey silty clay with significant evidence of iron panning and manganese precipitation giving the unit a gritty texture (5YR 4/2). With the exception of Test Pit 3, this unit was also generally stoneless and blacker bands become more prolific with depth, reflecting a combination of manganese precipitation and an increased organic content preserved through waterlogging (humic silty clay); however, organic accumulation is minimal and no visible macroscopic remains were noted, suggesting the palaeoenvironmental potential of this material is generally low (though note Test Pit 3 description). The basal contact was generally not observed due to water ingress.

4. Bedrock (Mercia Mudstone).

* This division of stratigraphy differs slightly from that recorded by the archaeologists in some test pits since geoarchaeologists divide units on the basis of mode of genesis (e.g. alluvial,

colluvial, glacial etc), not on descriptive characteristics that do not necessarily reflect origin and may reflect post-depositional modification.

The red brown and greenish grey silty clays (and any variations of it recorded by PCAS) are essentially the same unit with variations in colour simply reflecting local water table conditions. The red-brown colours are more prolific further upslope reflecting slightly drier (oxidising) conditions whereas the greenish gley colours are more common in the lower-lying parts of the site reflecting waterlogging, reducing environments and gleying. In general the silty clays are stoneless and homogeneous suggesting that they are more likely to be largely alluvial in origin as opposed to colluvial, though given the topographic position, some fine-grained soil erosion from further upslope must be expected to have contributed to sediment accumulation. The character of the sediments suggests that they are unlikely to date to the Lateglacial period; no blown sands were recorded within the test pit sections (or blown sands reworked in alluvial environments), which are a common feature of Lateglacial landscapes associated with Upper Palaeolithic open air sites, including those around Farndon Fields.

Test Pit 3

Test Pit 3 was notable since the basal part of the lower greenish grey silty clay was blackened and contained large charcoal fragments and numerous pebbles of local sandstone and siltstone. A significant number of individual clasts were weathered (friable), fractured and reddened, possibly through heating (i.e. fire cracked pebbles?). This test pit is close to a slight break of slope and it is suggested this area merits further investigation; the features noted and context are reminiscent of sites that have revealed burnt mounds.

Summary Conclusion

The context of this site, likely formation history and nature of the sediments encountered suggest that they are unlikely to be associated with the Upper Palaeolithic. However, other later prehistoric features may be present in this area, which merit further investigation.

Appendix 6: OASIS Summary

OASIS DATA COLLECTION FORM: England

List of Projects | Manage Projects | Search Projects | New project | Change your details | HER coverage | Change country | Log out

Land South-East of Former A46, Syerston - Pre-Construct Archaeological Services Ltd

OASIS ID - preconst3-255270

Versions

View	Version	Completed by	Email	Date
View 1	1	Mrs. R. D. Savage	rachel@pre-construct.co.uk	17 June 2016
View 2	2	Mrs. R. D. Savage	rachel@pre-construct.co.uk	23 June 2016

Completed sections in current version

Details	Location	Creators	Archive	Publications
No	Yes	Yes	Yes	1/1

Validated sections in current version

Details	Location	Creators	Archive	Publications
No	No	No	No	0/1

File submission and form progress

Grey literature report submitted?	No	Grey literature report filename/s	
Boundary file submitted?	No	Boundary filename	
HER signed off?		NMR signed off?	

Grey literature | Upload images | Upload boundary file | Update project entry | Request record re-opened | Printable version

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OASIS:

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