

# AN ARCHAEOLOGICAL EVALUATION AT SILVER TOP QUARRY, HALLBANKGATE, BRAMPTON, CUMBRIA





March 2016

PRE-CONSTRUCT ARCHAEOLOGY

# DOCUMENT VERIFICATION

# AN ARCHAEOLOGICAL EVALUATION AT SILVER TOP QUARRY, HALLBANKGATE, BRAMPTON, CUMBRIA

Pre-Construct Archaeology Limited Quality Control									
Project Number	K4263								
Site Code	STB15								
Report Number	RN11058								

Task	Name	Signature	Date
Text prepared by:	Scott Vance		Dec. 2015
Text checked by:	Jennifer Proctor	Proch	15/03/2016
Graphics prepared by:	Jennifer Simonson		Dec. 2015, March 2016
Graphics checked by:	Josephine Brown	Josephine Brann	
Post-Excavation Manager sign-off:	Jennifer Proctor	Proch	15/03/2016

Revision No.	Date	Checked by	Approved by

Pre-Construct Archaeology Limited North Regional Office Unit N19a Tursdale Business Park Durham DH6 5PG

# An Archaeological Evaluation at Silver Top Quarry, Hallbankgate, Brampton, Cumbria

Central National Grid Reference: NY 58822 61034

Site Code: STB 15

Commissioning Client: W. & M. Thompson (Quarries) Limited Princess Way Low Prudhoe Northumberland NE42 6PL



Tel: 01661 832 422

Contractor: Pre-Construct Archaeology Limited Northern Office Unit N19a Tursdale Business Park Durham DH6 5PG



Tel: 0191 377 1111

#### © Pre-Construct Archaeology Limited March 2016

This report is protected by copyright. The report and the information contained herein are and remain the sole property of Pre-Construct Archaeology Limited and are provided on a single site multi-user basis. If provided in paper form, the report may be utilised by a number of individuals within a location, but copying is prohibited under copyright. If provided in an electronic form, the report may be utilised in a shared server environment, but copying or installation onto more than one computer is prohibited under copyright and printing from electronic form is permitted for own, single location, use only. Multiple printing from electronic form for onward distribution is prohibited under copyright. Further distribution and uses of the report either in its entirety or part thereof in electronic form is prohibited without prior consent from Pre-Construct Archaeology Limited.

Pre-Construct Archaeology Limited has made every effort to ensure the accuracy of the content of this report. However, Pre-Construct Archaeology Limited cannot accept any liability in respect of, or resulting from, errors, inaccuracies or omissions herein contained.

# CONTENTS

# List of Figures and Plates

1.	NON-TECHNICAL SUMMARY	1
2.	INTRODUCTION	3
3.	PROJECT AIMS AND RESEARCH OBJECTIVES	10
4.	METHODOLOGIES	12
5.	EVALUATION RESULTS: THE ARCHAEOLOGICAL SEQUENCE	14
6.	CONCLUSIONS AND RECOMMENDATIONS	25
7.	BIBLIOGRAPHY AND SOURCES CONSULTED	26
8.	ACKNOWLEDGEMENTS AND CREDITS	28

# Appendices

Appendix A	Stratigraphic Matrices
Appendix B	Context Index
Appendix C	Palaeoenvironmental Assessment
Appendix D	Plates

# CONTENTS

# List of Figures and Plates

1.	NON-TECHNICAL SUMMARY	1
2.	INTRODUCTION	3
3.	PROJECT AIMS AND RESEARCH OBJECTIVES	10
4.	METHODOLOGIES	12
5.	EVALUATION RESULTS: THE ARCHAEOLOGICAL SEQUENCE	14
6.	CONCLUSIONS AND RECOMMENDATIONS	25
7.	BIBLIOGRAPHY AND SOURCES CONSULTED	26
8.	ACKNOWLEDGEMENTS AND CREDITS	28

# Appendices

Appendix A	Stratigraphic Matrices
Appendix B	Context Index
Appendix C	Palaeoenvironmental Assessment
Appendix D	Plates

#### 1. NON-TECHNICAL SUMMARY

- 1.1 An archaeological evaluation was undertaken in November 2015 by Pre-Construct Archaeology ahead of a proposed extension to Silver Top Quarry, Hallbankgate, Brampton, Cumbria. The work was commissioned by Thompsons of Prudhoe, who operate the quarry for limestone extraction. Thompsons of Prudhoe currently has permission for the extraction of limestone at Silver Top quarry until 2042. Permission has been conditionally granted for the quarry to be extended, which would see extraction taking place in a phased manner over the course of a number of years before subsequent restoration of the land.
- 1.2 The site, centred at National Grid Reference NY 58822 61034, is located directly north of the existing quarry, north of the A689 at Hallbankgate. Silver Top Quarry is located *c*. 5.5km east of Brampton and *c*. 1km north-east of Hallbankgate on the A689, Cumbria. The northern extension area lies approximately 500m to the north of the existing workings.
- 1.3 A condition of the planning consent for the extension to Silver Top Quarry required a programme of archaeological work to be undertaken prior to the commencement of development. An archaeological desk-based assessment of the site was undertaken in 2013 prior to the Phase 1 extension to the west of the current workings (PCA 2013). This concluded that the site had low potential for prehistoric remains, moderate potential for Roman remains, low potential for Anglo-Saxon remains, high potential for remains related to the use of the site as agricultural land in the medieval and post-medieval periods, and moderate potential for other post-medieval activity, such as quarrying and associated infrastructure. A map regression exercise indicated that the study site has never been previously developed. The site lies very close to the defined boundary of the buffer zone of the Hadrian's Wall World Heritage Site. A trial trenching evaluation of the Phase 1 area recorded two gullies from which no dating evidence was recovered. The 2013 evaluation therefore established that archaeological remains of low significance were situated in in the southern part of the Phase 1 quarry extension
- 1.4 The archaeological evaluation of the Phase 2 extension area in November 2015 aimed to identify the archaeological potential of this part of the site by trial trenching, with a 5% trenching sample being investigated. To this end, eighteen machine-excavated trenches (Trenches 1-18), each measuring *c*. 50m x 2m, were investigated.
- 1.5 Natural geological material which comprised limestone bedrock was only exposed in the north-western corner of the site, the highest part of the site, in Trench 1. This was overlain by deposits of Devensian till, of varying composition. A sub-soil was recorded intermittently across the trenches at the base of the slope in the south-east part of the development area. (Trenches 7, 9 & 18)

- 1.6 Archaeological features were recorded in Trenches 1, 13, 14, 15 & 17. These comprised parts of two interconnected enclosures defined by a ditch and bank of probable post-medieval date in the western part of the site (Trenches 1, 13, & 15) and shallow gullies and ditches (Trenches 13, 14,15, & 17). A single sherd of pottery dating from the 16th/17th century was recovered from a ditch in Trench 14. The form and infill of the features indicate that they are likely to be post-medieval drainage features associated with the agricultural use of the land. Topsoil formed the current ground surface.
- 1.7 The evaluation established that archaeological remains of low significance were situated in the western part of the area proposed for the quarry extension.

## 2. INTRODUCTION

#### 2.1 Project Background

- 2.1.1 This report details the methodology and results of an archaeological evaluation undertaken by Pre-Construct Archaeology Limited (PCA) at Silver Top Quarry, Hallbankgate, Cumbria (Figure 1). The work was commissioned by Thompsons of Prudhoe (the Client) as part of a planning condition attached to permission for a northern extension (Phase 2) to the quarry covering 3.9 ha.
- 2.1.2 An archaeological desk-based assessment of the site and trial trenching was undertaken in 2013 prior to the Phase 1 extension to the west of the current workings (PCA 2013). Archaeological remains of low significance comprising two gullies which did not produce any datable material were recorded in two trenches located in the southern part of the Phase 1 area.
- 2.1.3 The archaeological evaluation of the Phase 2 extension area comprised trial trenching in order to identify any surviving archaeological remains within the area. A 5% sample was investigated by a series of mechanically-excavated trenches (Trenches 1-18), each measuring *c*. 50m x 2m at ground level (Figure 2).
- 2.1.4 The overall project was undertaken on the recommendation of the Historic Environment Service of Cumbria County Council's Environment Unit. A Project Design compiled by Pre-Construct Archaeology was approved by the Historic Environment Service ahead of the work (PCA 2015).
- 2.1.5 The **O**nline **A**cces**S** to the Index of Archaeological Investigation**S** (OASIS) reference number of the project is: preconst1-233556.

#### 2.2 Site Location and Description

- 2.2.1 Silver Top Quarry lies off the A689 at Hallbankgate within the parish of Farlam, Cumbria (Figure 1). The towns of Brampton and Haltwhistle lie *c*. 5.5 km to the west and *c*. 12.5 km to the east, respectively. The A69 runs roughly east–west *c*. 2 km to the north of the site. The central National Grid Reference for the northern extension area to the quarry is NY 58822 61034.
- 2.2.2 At the time of the investigations the area of the proposed quarry extension comprised undeveloped agricultural land covering *c*. 3.9 hectares (Figure 2). It is bounded in all directions by pastoral farmland. The site lies within the '*Carlisle Character Area*' as defined by the Cumbria Historic Landscape Characterisation Project (Cumbria County Council 2009), with the landscape broadly described as an urbanised and suburbanised area overlying an historic landscape with its medieval origins still reflected within the outlying common arable fields. The site lies on the north-western boundary of the North Pennines Area of Outstanding Natural Beauty (AONB) and to the south of the 'buffer zone' of the Hadrian's Wall portion of the transnational 'Frontiers of the Roman Empire' World Heritage Site (WHS).
- 2.2.3 The quarry extension site occupies a south-facing slope. Existing field boundaries are formed by dry stone walls.



© Crown copyright 1997/2010. All rights reserved. License number 36110309 © Pre-Construct Archaeology Ltd 2016 15/03/16 JS

Figure 1 Site Location 1:2,000,000 & 1:25,000 at A4



- Policy DC11 Historic Environment: Proposes that....b) damage, obscure or remove important archaeological sites or other historic features....will not be permitted unless it is demonstrated that the need for and benefits of the development decisively outweigh these interests. Proposal should be accompanied by an assessment of any impacts on the historic environment, including an appropriate level of field investigation if necessary.
- 2.4.7 Chapter 6 'Local Environment' of the *Carlisle District Local Plan 2001-2016* (adopted 2008) contains various policies with regards to the historic environment, the most relevant of which are:
  - Policy LE8 Archaeology on Other Sites: On land for which there is no archaeological information, but where there are reasonable grounds for believing remains to be present, the City Council will ensure that the archaeological aspects of development proposals are examined and evaluated before planning applications are determined. Planning permission will not be granted without adequate assessment of the archaeological implications.
  - Policy LE10 Archaeological Field Evaluation: On all scheduled and other nationally important monuments, sites of archaeological significance and other sites of high archaeological potential, the City Council will ensure that the archaeological aspects of development proposals are examined and evaluated either before planning applications are determined or in exceptional circumstances by the use of a condition. Planning permission will not be granted without adequate assessment of the archaeological implications.
- 2.4.8 In accordance with the planning condition a Project Design, including a Written Scheme of Investigation (WSI), was compiled by PCA and submitted to and approved by the Historic Environment Officer (Development Control) before work commenced.

#### 2.5 Archaeological and Historical Background

- 2.5.1 The desk-based assessment established that no designated or non-designated heritage assets were present at the site, but six are recorded within the 1.5km search radius of the DBA (PCA 2013). With the exception of the Hadrian's Wall buffer zone, these consist of post-medieval Listed Buildings, with all but one of these located towards the southern margin of the wider study area, the exception being New Garth, which lies *c*. 0.3km to the west of the study site. The northern half of the wider study area lies within the defined zone of Hadrian's Wall WHS, with the study site lying immediately to the south of the buffer zone; the Wall itself is situated c 4.5 km to the north.
- 2.5.2 The overall extension site has never been previously developed and the assessment concluded that it had: low to moderate potential for prehistoric archaeological remains; low to moderate potential for Roman remains and; moderate to high potential for archaeological remains related to medieval and post-medieval agricultural usage of the site. In broad terms though, this location is not considered to be particularly sensitive with regard to medieval and post-medieval archaeological remains, since evidence of ploughing, improved agricultural soils, drainage features and former land boundaries of these eras would be of low significance, with potential to contribute only to, at best, local research objectives.

- 2.5.3 The first evidence for occupation around Silver Top Quarry is a single HER entry from the various prehistoric eras within the study area, this located *c*. 0.9 km to the south of the quarry extension to the immediate south of Hallbankgate. Hallbankgate Mound is recorded as a possible Bronze Age barrow (with evidence of later quarrying), although there is some uncertainly about whether this may actually be a natural feature.
- 2.5.4 There are indications of prehistoric activity in the wider landscape with barrows (HER 546 and 573) located just over 1.5 km to the south-west of the site and the Tortie Stone cup and ring marks (HER 6058) located *c*. 2.5 km to the south. Excavations carried out in the vicinity of that site in 2011 produced a collection of flints that dated from between *c*. 7000-2000 BC (information from the North Pennines website). The low density of these sites however suggests only limited exploitation of the wider area in prehistory.
- 2.5.5 It is for the Roman period that the study site is considered to have the most potential. As previously mentioned the Hadrian's Wall buffer zone crosses the northern half of the wider study area, almost bounding the extension site to the north. There are two further Roman period HER entries located within the wider study area.
- 2.5.6 The Reverend G. Rome Hall mentioned Carnetley Temporary Camp within a publication of 1882, although the precise location of this site remains unknown.
- 2.5.7 A Roman altar was found at Moss Hill, *c*. 0.5 km south-west of the study site. The HER entry states that two sculptured stones which may represent the figures of Janus and Silvanus (Roman gods of uncultivated land, doorways and beginnings) were walled into a house. They were said to have been in perfect condition in the 1880s, though their present location is unknown.
- 2.5.8 There are no HER entries from the early medieval/Anglo-Saxon period on the study site or within the wider study area, the closest being that of the aforementioned Tower Tye Ringwork, situated beyond the 1.5 km wider search area radius.
- 2.5.9 There are no HER entries from the medieval period on the study site, the closest being the Church of St. Thomas (HER 574) located *c*. 1.8 km to the WSW of the study site. This was replaced in 1860 by the current Church of St. Thomas-a-Becket (LEN 1335604), a Grade II Listed Building.
- 2.5.10 There are 16 post-medieval period heritage assets within the wider study area, although none lie within the boundaries of study site. These broadly reflect the industrialisation of the wider area in later post-medieval period and consist of various quarries, waggonways, railways and associated buildings. Two quarries, Craigwood located *c*. 1.1 km north-east of the study site (Figure 3; Ref. 5), and Carnetley, *c*. 0.5 km north, are the only assets within the northern half of the wider study area. There is little specific information for these quarries, although the scars of this activity can still be seen on aerial photographs.
- 2.5.11 Aside from the previously mentioned designated heritage assets, two further buildings are located within the wider study area. A former Wesleyan Chapel and School, which is now a private dwelling, lies c. 0.7 km to the SSW of the study site in Hallbankgate. First erected in 1856, funded by Henry and Mary Pears of Williamgill (Kelly 1858), it was enlarged in 1883. The final building is Lord Carlisle's Railway Engine House, located c. 0.7 km south of the study site. This was built in c. 1840, originally as a unique two-road locomotive shed, and was later

converted for agricultural use. The railway serviced by this engine shed began as a waggonway running between Brampton and Midgeholm, the alignment of which was later developed into the Brampton and Hartleyburn Railway. The embankment from this railway survives at Hallbankgate and is used as a public footpath.

- 2.5.12 Two further railways connect to the main Brampton to Hartleyburn line, these being the Blacksike Railway and an unnamed railway associated with Coalfell Mining Remains. The Blacksike Railway ran from the Brampton to Hartley Burn Railway southwards to connect the Blacksike Colliery to Foresthead Quarry (HER 10181) *c*. 2.5 km south of the study site. Within the vicinity of Foresthead the remains of Blacksike Railway are scheduled (LEN 1021017) as part of the Foresthead lime kilns, quarry and associated buildings complex. The junction of this railway within the wider study area can still be seen as an earthwork. The unnamed railway associated with the Coalfell mining remains are in the area of an old tramway embankment and earthworks.
- 2.5.13 The remaining HER entries within the wider study area also related to the development of the railways and industrialisation of the area in the post-medieval period. Mosshill Mine, located *c*. 0.3 km south of the study site, was already disused by the time of the first edition Ordnance Survey map of 1868. Clement Leazes Lime Kiln, located *c*. 1.1 km south of the study site, although shown on the first edition Ordnance Survey map, is annotated 'Old Lime Kiln' on the 2nd edition in 1900.

# 3. PROJECT AIMS AND RESEARCH OBJECTIVES

#### 3.1 Project Aims

- 3.1.1 The project was threat-led with potential to destroy important buried archaeological remains of the Roman period in particular, due to its proximity to the Hadrian's Wall corridor.
- 3.1.2 Hadrian's Wall was inscribed as a UNESCO WHS in 1987. An initial management plan for Hadrian's Wall identified three distinct areas; the 'archaeological core' of the Wall and Vallum (the WHS), the surrounding 'buffer zone' and the outer 'visual envelope' (English Heritage 1996). In 1997 the extent of the WHS and its buffer zone in its rural sections was agreed with the World Heritage Committee. In 2005, UNESCO amalgamated Hadrian's Wall and the German Limes WHS into the transnational 'Frontiers of the Roman Empire' WHS, with the Antonine Wall inscribed as part of the new WHS in 2008.
- 3.1.3 An updated management plan describes how, in rural parts of the WHS, the buffer zone of the WHS is mapped as a visual envelope agreed by local authorities and extending between 1 km and 6 km from the WHS, depending on the topography (Hadrian's Wall Country 2009, part 2.3, 8). Silver Top Quarry lies immediately to the south of the WHS buffer zone as it is currently mapped by English Heritage (depicted on the MAGIC website).
- 3.1.4 The project aims to fulfill the requirements of the local authority by undertaking an appropriately specified scheme of archaeological work which will integrate the results of an earlier desk-based assessment undertaken by PCA in 2013 with a further programme of trial trenching evaluation of the northern extension of the quarry, with subsequent reporting on the findings. A Project Design was produced by PCA (2015) and approved by Cumbria County Council prior to the work commencing.
- 3.1.5 The broad aim of the project is to provide 'an examination of the existence of any remains of archaeological or historical interest within the site and to decide on any action to be required for the preservation, protection, examination or recording of such remains', stated as the reason for the aforementioned planning condition. This aim was primarily targeted through a programme of archaeological fieldwork.

#### 3.2 Research Objectives

- 3.2.1 The work at Silver Top Quarry was carried out with reference to the following archaeological research frameworks:
  - The Archaeology of North West England: An Archaeological Research Framework for the North West Region. Volume 1 Resource Assessment (Brennand et al. 2006);
  - Research and Archaeology in North West England: An Archaeological Research Framework for North West England. Volume 2 - Research Agenda and Strategy (Brennand et al. 2007);
  - Frontiers of Knowledge: A Research Framework for Hadrian's Wall, Part of the Frontiers of the Roman Empire World Heritage Site. Volume I - Resource Assessment (Symonds and Mason, eds. 2009);

- Frontiers of Knowledge: A Research Framework for Hadrian's Wall, Part of the Frontiers of the Roman Empire World Heritage Site. Volume 2 - Agenda and Strategy (Symonds and Mason, eds. 2009).
- 3.2.2 The North West Research Framework sets out initiatives for all periods of the past, allowing commercial contractors to demonstrate how their fieldwork relates to wider regional and national priorities for the study of archaeology and the historic environment. The following initiatives within the North West Research Agenda are of particular relevance to this project:

#### Romano British Agenda:

- Identification of new sites: Initiative 3.6: Proactive programmes of fieldwork and air reconnaissance are required if we wish to see significant new understanding of rural society and economies, particularly in the uplands, during the Roman period.
- Identification of new sites: Initiative 3.7: Absence of known distributions should not be regarded as genuine gaps and should be addressed positively through site assessments and evaluations.
- 3.2.3 The WHS Research Framework identifies and prioritises an agenda of key themes for further research and sets out a strategy by which this initial set of objectives may be achieved. The following themes within the WHS Research Strategy have some relevance to this project:
  - S.2. The Pre-Roman Archaeology of the Tyne-Solway Isthmus
  - S.6. Landscape and Environment
  - S.7. Production and Procurement
  - S.8. Life and Society

### 4. ARCHAEOLOGICAL METHODOLOGY

#### 4.1 Trial Trenching Evaluation

- 4.1.1 The fieldwork was undertaken in accordance with the standards and guidelines set out by the Chartered Institute for Archaeologists (2014). PCA is a ClfA Registered Archaeological Organisation. The work was carried out between 2nd-17th November 2015.
- 4.1.2 A total of 18 evaluation trenches were set-out using a Leica Viva Smart Rover Global Navigation Satellite System (GNSS), with pre-programmed co-ordinate data determined by an office-based CAD operative. The 18 trenches comprised a 5% sample of the area; all trenches measured *c*. 50m x 2m at ground level. Trenches 7, 8 and 9 were moved slightly from the original locations as set out in the Project Design (PCA 2015) due to ground obstructions.
- 4.1.3 Ground level in the trenches was reduced using a tracked mechanical excavator utilising a wide blade, toothless ditching bucket. Successive spits of no more than 0.25m depth were removed until either the top of the first significant archaeological horizon or the top of the natural geological sub-stratum was reached. All ground reduction was carried out under archaeological supervision.
- 4.1.4 The investigation of archaeological levels was by hand, with cleaning, examination and recording both in plan and in section, where appropriate. Investigations within the trenches followed the normal principles of stratigraphic excavation and were conducted in accordance with the methodology set out in the field manual of PCA (PCA 2009).
- 4.1.5 Deposits and cut features were individually recorded on the *pro-forma* 'Trench Recording Sheet' and 'Context Recording Sheet'. All site records were marked with the unique-number 'Site Code' (STB 15). All archaeological features were excavated by hand tools and recorded in plan at 1:20 or in section at 1:10 using standard 'single context recording' methods. The height of all principal strata and features was calculated in metres above Ordnance Datum (m AOD) and indicated on appropriate plans and sections.
- 4.1.6 A detailed photographic record of the evaluation was prepared using SLR cameras (35mm film black and white prints and colour transparencies for archive purposes) and by digital photography. All detailed photographs included a legible graduated metric scale. The photographic record illustrated both in detail and general context archaeological exposures and specific features in all trenches.

#### 4.2 Post Excavation

- 4.2.1 The stratigraphic data generated by the evaluation is represented by the written, drawn and photographic records. A total of 73 archaeological contexts were defined in the 18 trenches (Appendix B). Post-excavation work involved checking and collating site records, grouping contexts and phasing the stratigraphic data (Appendix A). A written summary of the archaeological sequence was then compiled, as described in Section 5.
- 4.2.2 During the evaluation a single sherd of post-medieval pottery was recovered. No other artefactual or ecofactual material was recovered from the evaluation trenches.
- 4.2.3 The palaeoenvironmental sampling strategy of the project was to recover bulk samples where appropriate, from well-dated (where possible) stratified deposits covering the main periods or

phases of occupation and the range of feature types represented, with specific reference to the objectives of the evaluation. Samples (<1>, <2>, & <3>) were taken from a dark deposit within the bank of which one was processed (<1>).

- 4.2.4 The complete Site Archive, in this case comprising only the written, drawn and photographic records (including all material generated electronically during post-excavation) will be packaged for long term curation. In preparing the Site Archive for deposition, all relevant standards and guidelines documents referenced in the Archaeological Archives Forum guidelines document (Brown 2007) will be adhered to, in particular a well-established United Kingdom Institute for Conservation (UKIC) document (Walker, UKIC 1990) and the most recent ClfA publication relating to archiving (ClfA 2014b). The depositional requirements of the body to which the Site Archive will be ultimately transferred will be met in full.
- 4.2.5 At the time of writing the Site Archive was housed at the Northern Office of PCA, Unit N19a Tursdale Business Park, Durham, DH6 5PG. When complete, the Site Archive will be deposited with Tullie House Museum, Castle Street, Carlisle, under the site code STB 15. The Site Archive will be organised as to be compatible with the other archaeological archives produced in the county. A completed transfer of title deed will accompany the Site Archive on deposition.

#### 5. EVALUATION RESULTS: THE ARCHAEOLOGICAL SEQUENCE

During the evaluation, separate stratigraphic entities were assigned unique and individual 'context' numbers, which are indicated in the following text as, for example [123]. The archaeological sequence is described by placing stratigraphic sequences within broad phases, assigned on a site-wide basis in this case. An attempt has been made to add interpretation to the data, and correlate these phases with recognised historical and geological periods. A selection of plates can be found within Appendix D.

#### 5.1 Phase 1: Natural Sub-stratum

- 5.1.1 Phase 1 represents the solid and superficial geological material of the site, as described in Section 2.3.1
- 5.1.2 Limestone bedrock, often fragmented at the surface, was observed within Trench 1 which was located in the highest part of the site in the north-western corner. It was recorded at a highest level of 245.68m AOD within the north-eastern end of Trench 1.
- 5.1.3 Superficial geological material was variable throughout the area investigated with various compositions of clays, silts, and sands observed. Within Trench 3, the superficial geology was observed at a depth of 0.30m below ground level at a height of 251.35m AOD, directly overlain by topsoil. The level of the superficial geology followed the natural sloping topography of the ground and at its lowest point, within Trench 16 in the south-western corner of the investigated area, it was observed at a depth of 0.34m below ground level at a height of 236.41m AOD.

#### 5.2 Phase 2.1: Post-Medieval

- 5.2.1 Phase 2.1 is represented by a shallow gully [1403] observed within Trench 14 which was located close to the western boundary of the site (Figure 6; Figure 9, Section 3). The gully was orientated roughly east–west and was located at the north-east end of the trench. It had a sharp break of slope at top, gradual break of slope at the base and a concave base (Plate 1). The feature was visible for 2.8m to the limit of excavation and was 0.43m wide and 0.13m deep. A single fill comprised soft dark brownish grey sandy clay [1402]. One sherd of post-medieval pottery was recovered from the fill. This was a relatively fine, oxidised fabric with traces of glaze visible on the interior, and dates from the early post-medieval period, 16th/17th century (Vaughan 2015 pers. comm. 15th December).
- 5.2.2 The gully was overlain by topsoil and recorded at a maximum height of 240.32m AOD.

#### 5.3 Phase 2.2: Undated. Post-Medieval?

- 5.3.1 Remains assigned to Phase 2.2 comprise subsoil deposits recorded in Trenches 7,9 & 18; a peaty deposit within Trench 7; a ditch and bank that ran through Trenches 1, 13, & 15; a posthole in Trench 13 and two linear features recorded in Trenches 15 and 17 (see Figures 2–9). A field drain was also observed within Trench 17. No datable material was recovered from any of the linear features and their period of origin therefore remains uncertain. The form and the nature of their fills, however, suggest that they may be of post-medieval origin.
- 5.3.2 A subsoil deposit was observed within Trenches 7, 9, & 18. Subsoil was not recorded in the higher northern part of the site and its deposition therefore may have been due in part to colluvial action. Where encountered, the subsoil predominantly comprised soft, mid brownish

grey silty clay, up to 0.41m thick, and was recorded at a highest level of 241.01m AOD at the south-eastern end of Trench 9.

- 5.3.3 A posthole [1306] was observed in Trench 13 at a height of 241.50m AOD. The posthole had a diameter of 0.30m and survived to a depth of 0.28m (Figure 9: Section 6). A single fill [1305] comprised soft, mid greyish brown clayey silt. The feature was directly overlain by a bank (Figure 3) that ran across the western part of the site.
- 5.3.4 The bank (Figure 3; Figure 9: Sections 1, 6 & 8; Plate 2) ran north-north-west/south-south-east for 132.58m before returning west-south-west for 45.4m. A second return of the bank also followed this alignment for 45.02m. Within the limits of investigation the bank therefore delimited the western side of one enclosure and part of the western side of an interconnected enclosure to the north (Figure 3). The bank does not appear on the early Ordnance Survey map so it is likely that it predates the dry stone wall boundaries that form the limits of the site, perhaps dating from the early enclosure acts within the post-medieval period. The bank was intersected within Trenches 1, 13, & 15 (Figure 9: Section 1, 6, & 8). The northernmost return was not observed within the western end of Trench 13 due to modern truncation from geotechnical pits.
- 5.3.5 Running parallel to the eastern edge of the bank was a ditch which was recorded within Trenches 1, 13, & 15 (Figure 4, 5, 7 & 9: Section 1, 6, & 8). The bank was likely to have been formed by the up-cast from this ditch; the ditch then performing a secondary function of draining water away from the banked enclosures.
- 5.3.6 Within Trench 1 the bank survived to a height of 0.61m at 242.37m AOD and was 5.10m wide (Figure 4; Figure 9: Section 1; Plate 3). This width, however, is not a true representation of the bank as the trench intersected the feature at an oblique angle. The bank comprised light yellowish brown sandy clay [106], mid bluish grey silty sand [105], a thin band of dark greyish brown clayey silt [108], and finally mid greyish brown sandy clay [104]. The flanking ditch [103] (Figure 4 & 9: Section 1&2) was exposed for a distance of 2.5m to the limit of excavation and was 1.22m wide and 0.30m deep. The ditch had a sharp break of slope at top and base, with a concave base (Plate 3). A single fill [102] was observed which comprised mid greyish brown sandy clay with occasional sub-rounded pebble inclusions.
- 5.3.7 The bank in Trench 13 was recorded at a height of 0.43m at 242.00m AOD and was 2.76m wide (Figure 5; Figure 9: Section 6; Plate 4). The bank was composed of light grey orange silty clay [1307], dark greyish brown clayey silt [1304], dark greyish brown clayey silt [1311] and mid orange brown clayey silt [1303]. The flanking ditch [1302] (Figure 5; Figure 9: Section 4&6) was uncovered for a distance of 3m to the limit of excavation, and measured 2.66m wide and 0.15m deep. It had a gradual break of slope at top and base, with a slightly concave base in profile (Plate 4). It contained a single greyish brown clayey silt fill [1301].
- 5.3.8 Within Trench 15 the bank survived to a height of 0.29m at 239.69m AOD and was 3.33m wide (Figure 7; Figure 9: Section 15; Plate 5). The bank comprised mid brownish grey silty clay [1502], plastic dark greyish brown band of clayey silt [1507] and mid orange brown silty clay [1501]. Ditch [1504] (Figure 7 & 9: Section 8&9) was revealed for a distance of 3.8m to the limit of excavation and was 2.04m wide and 0.28m deep. The ditch had a sharp break of slope at

top and base with an irregular base (Plate 5) and contained a single mid brownish grey silty clay fill [1503].

- 5.3.9 Bulk soil samples (<1>, <2>, and <3>) were taken from a dark deposit within the bank which may have been in the early stages of peat formation. Sample <1> was processed with the aim of recovering material that could be suitable for AMS dating (Young 2016; Appendix C). Charcoal was recorded in low to moderate quantities in both the flot and residue, whilst a poorly preserved charred cereal grain (*Hordeuml Triticum* type, barley/wheat) was identified within the residue. No waterlogged wood or seeds were identified within the sample. Mollusca, bone and insects (with the exception of modern insect eggs and larvae) were also absent. The charred seed was poorly preserved and on its own was unlikely to be of sufficient mass for radiocarbon dating. However, the low to moderate quantities of identifiable charcoal were found in both the flot and residue from sample <1>. If suitable shrub/tree taxa can be identified from this assemblage, these fragments may be of sufficient mass for radiocarbon dating. Detailed assessment of the charcoal fragments would establish the suitability of these fragments for dating. It is noted that no waterlogged taxa typical of blanket peat formation was identified within the sample.
- 5.3.10 A gully [1506] recorded in Trench 15 ran on a north-north-west/south-south-east alignment and was visible for 3.30m in length within the limits of the trench (Figure 7 & 9:Section 10;Plate 6). It had a gentle break of slope at top and base and a concave base. It measured 0.48m wide and 0.10m deep and was recorded at a maximum height of 239.24m AOD. This feature also contained a single fill [1505] which comprised soft, mid brownish grey silty clay.
- 5.3.11 A ditch [1708] recorded in Trench 17 ran on a west-north-west/east-south-east alignment and was visible for 2.38m to the limits of excavation (Figure 8; Figure 9, Section 7; Plate 7). It had a sharp break of slope at top and base and a concave base. It measured 0.51m wide and 0.19m deep and was recorded at a maximum height of 238.62m AOD. The feature was filled by soft light brownish grey sandy clay [1703]. A re-cut [1704] ran on the same alignment and had a sharp break of slope at top, gentle break of slope at base and a concave base (Plate 7). It measured 1.3m wide and 0.37m deep and was recorded at a maximum height of 238.92m AOD. The re-cut was filled by a natural silting fill [1702], comprising soft dark brownish grey clayey silt.
- 5.3.12 The ditch within Trench 17 was truncated by a field drain [1707], with ceramic drain [1706] and mid greyish brown sandy clay backfill [1705] (Figure 8).
- 5.3.13 A further peaty deposit was observed in Trench 17 (Figure 9, Section 7) which comprised plastic dark reddish brown peat [702] visible for 10.51m north-west/south-east at a maximum heat of 239.35m AOD. This deposit directly overlay subsoil deposit [701].
- 5.3.14 The composition of the fills of these gullies & ditches and the alignment of the bank in relation to the long-established field boundaries suggests an early origin for these features and it is possible that they are of early post-medieval origin.

#### 5.4 Phase 3: Modern

5.4.1 Topsoil, which was on average 0.30m thick across the investigated area, comprised soft, mid greyish brown sandy silt. The existing ground surface ranged from a maximum of 251.63m AOD at the north-eastern extent of Trench 3 to a minimum of 236.21m AOD at the north-western end of Trench 16.



0 25m © Pre-Construct Archaeology Ltd 2016 15/03/16 JS

Figure 3 Plan of Bank 1:625 at A4





Figure 5 Trench 13 Plan 1:200 at A4

![](_page_24_Figure_0.jpeg)

Figure 6 Trench 14 Plan 1:200 at A4

![](_page_25_Figure_0.jpeg)

Figure 7 Trench 15 Plan 1:200 at A4

![](_page_26_Figure_0.jpeg)

Figure 8 Trench 17 Plan 1:200 at A4

![](_page_27_Figure_0.jpeg)

241.41m OD	[1301]	241.41m OD
	ditch [1302]	
Section 4 Trench 13 South Facin	g	
SW	NE	
238.92m OD	238.92 [02] ditch re-cut [1]	<u>?m OD</u> 704]
	- aitch [1708]	

Section 7 Trench 17 Southeast Facing

W

SW

NE

Е

<u>239.24m OD</u>

[1505] <u>239.28m OD</u> <u>239.28m OD</u>

gully [1506]

Section 10 Trench 15 Southeast Facing

SE

<u>239.21m OD</u>

Figure 9 Sections 1 - 11 1:50 at A3

# 6. CONCLUSIONS AND RECOMMENDATIONS

#### 6.1 Conclusions

- 6.1.1 Geological, as well as archaeological deposits and features were encountered during the trial trenching evaluation have been assigned to three phases of activity:
  - Phase 1 natural sub-stratum; limestone bedrock was observed in the highest part of the site in Trench 1, overlain by varying superficial geological deposits. Natural deposits were observed at a highest level of 245.68m AOD at the northern end of the investigated area, falling to a minimum height of 236.12m AOD at the southern end.
  - Phase 2.1 Post-medieval; represented by a shallow gully [1403] observed within Trench 14. The gully was roughly orientated east-west and was located at the northeast end of the trench. One sherd of post-medieval pottery of 16th/17th-century date was recovered from this feature.
  - Phase 2.2- undated, Post-medieval?; Remains assigned to Phase 2.2 comprise various deposits interpreted as subsoil recorded in Trenches 7, 9 & 18; a peat deposit within Trench 7; a ditch and bank that ran through Trenches 1, 13, & 15; a posthole in Trench 13 and two linear features recorded in Trenches 15 and 17. A field drain was also observed within Trench 17. The ditch and bank delimited the western side of one enclosure and part of the western side of an interconnected enclosure to the north, located in the western side of the site and continuing beyond the investigated area. These enclosures do not appear on the early Ordnance Survey map so it is likely that they predate the dry stone wall boundaries that form the limits of the site, perhaps dating from the post-medieval enclosure acts. No datable material was recovered from any of the linear features and their period of origin therefore remains uncertain. Their form and the nature of their infills, however, suggest that they may be of post-medieval origin.
  - Phase 3 Topsoil was recorded across all trenches, this forming the present ground surface, which dropped from a height 251.63m AOD in the north to 236.21m AOD at the southern limits of the investigated area.
- 6.1.2 It is concluded that no features of archaeological significance were recorded within any of the trenches investigated.

#### 6.2 Recommendations

6.2.1 No further work is required on the information recovered during the watching brief, with the Site Archive, including this report, forming the permanent record of the strata encountered.

#### 7. BIBLIOGRAPHY AND SOURCES CONSULTED

#### Bibliography

- Cumbria County Council, 2009. A Guide to Using the Cumbria Historic Landscape Characterisation Database for Cumbria's Planning Authorities, Cumbria County Council.
- Brennand, M., Chitty, G. and Nevell, M., 2006. The Archaeology of North West England: An Archaeological Research Framework for the North West Region. Volume 1 -Resource Assessment, Archaeology North West.
- Brennand, M, Chitty, G. and Nevell, M., 2007. Research and Archaeology in North West England: An Archaeological Research Framework for North West England. Volume 2 - Research Agenda and Strategy, Archaeology North West.
- Brown, D.H. 2007. Archaeological Archives. A guide to best practice in creation, compilation transfer and curation, Archaeological Archives Forum.
- Chartered Institute for Archaeologists, 2014a. Standard and guidance for archaeological field evaluation, ClfA.
- Chartered Institute for Archaeologists, 2014b. Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives, ClfA.
- Department for Communities and Local Government, 2012. National Planning Policy Framework, TSO.
- English Heritage, 1996. Hadrian's Wall World Heritage Site Management Plan, English Heritage.
- Hadrian's Wall Country, 2009. Frontiers of the Roman Empire World Heritage Site, Hadrian's Wall Management Plan 2008-2014, Hadrian's Wall Heritage Limited.
- Kelly, 1858. Post Office Directory of Cumberland, Kelly and Co.
- PCA, 2009. Fieldwork Induction Manual, PCA Operations Manual I, PCA.
- PCA, 2013. Archaeological Desk-Based Assessment and Evaluation Silver Top Quarry, Hallbankgate, Brampton, Cumbria, unpublished document, PCA.
- PCA, 2015. Project Design for an Archaeological Evaluation at Silver Top Quarry, Hallbankgate, Brampton, Cumbria, unpublished document, PCA.
- Symonds, M. and Mason, D., 2009. Frontiers of Knowledge A Research Framework for Hadrian's Wall, Part of the Frontiers of the Roman Empire World Heritage Site. Durham University and English Heritage.
- Walker, K., 1990. Guidelines for the Preparation of Excavation Archives for Long-term Storage, Archaeology Section, United Kingdom Institute for Conservation.
- Young, S., 2016. Silver Top Quarry: Environmental Archaeological Rapid Assessment. Quaternary Scientific (QUEST), School of Human and Environmental Sciences, University of Reading. Unpublished.

## **Online Sources**

The British Geological Survey website: www.bgs.ac.uk.

The Cumbria County Council website: www.cumbria.gov.uk/planning.

The MAGIC website: www.magic.gov.uk/website/magic/.

The North Pennines website: www.northpennines.org.uk

# 8. ACKNOWLEDGEMENTS AND CREDITS

#### Acknowledgements

Pre-Construct Archaeology would like to thank Thompsons of Prudhoe for commissioning the archaeological investigations herein described. The liaison role of Ryan Molloy, Development and Environmental Manager, is acknowledged. The on-site assistance of Eddie Collins is also acknowledged.

The role of Jeremy Parsons, Historic Environment Officer for Cumbria County Council, is acknowledged.

#### **PCA Credits**

Project Manager: Paul G. Johnson

Post-excavation Manager: Jennifer Proctor

Fieldwork: Scott Vance (Site Supervisor) and Danni Parker

Report: Scott Vance

Illustrations: Jennifer Simonson

# APPENDIX A STRATIGRAPHIC MATRICES

![](_page_33_Figure_1.jpeg)

#### STB 15: STRATIGRAPHIC MATRICES

![](_page_34_Figure_1.jpeg)

# APPENDIX B CONTEXT INDEX

# STB 15: CONTEXT INDEX

Context	Trench	Phase	Туре 1	Туре 2	Interpretation
100	1	3	Deposit	Layer	Topsoil
101	1	1	Deposit	Layer	Natural
102	1	2.2	Deposit	Fill	Fill of ditch [103]
103	1	2.2	Cut	Linear	Ditch
104	1	2.2	Deposit	Layer	Bank material
105	1	2.2	Deposit	Layer	Bank material
106	1	2.2	Deposit	Layer	Bank material
107	1	2.2	Deposit	Layer	Bedrock
108	1	2.2	Deposit	Layer	Bank material
200	2	2.2	Deposit	Layer	Topsoil
201	2	1	Deposit	Layer	Natural
300	3	3	Deposit	Layer	Topsoil
301	3	1	Deposit	Layer	Natural
400	4	3	Deposit	Layer	Topsoil
401	4	1	Deposit	Layer	Natural
500	5	3	Deposit	Layer	Topsoil
501	5	1	Deposit	Layer	Natural
600	6	3	Deposit	Layer	Topsoil
601	6	1	Deposit	Layer	Natural
700	7	3	Deposit	Layer	Topsoil
701	7	2.2	Deposit	Layer	Subsoil
702	7	2.2	Deposit	Layer	Peat deposit
703	7	1	Deposit	Layer	Natural
800	8	3	Deposit	Layer	Topsoil
801	8	1	Deposit	Layer	Natural
900	9	3	Deposit	Layer	Topsoil
901	9	2.2	Deposit	Layer	Subsoil
902	9	1	Deposit	Layer	Natural
1000	10	3	Deposit	Layer	Topsoil
1001	10	1	Deposit	Layer	Natural
1100	11	3	Deposit	Layer	Topsoil
1101	11	1	Deposit	Layer	Natural
1200	12	3	Deposit	Layer	Topsoil
1201	12	1	Deposit	Layer	Natural
1300	13	3	Deposit	Layer	Topsoil
1301	13	2.2	Deposit	Fill	Fill of ditch [1302]
1302	13	2.2	Cut	Linear	Cut of ditch
1303	13	2.2	Deposit	Layer	Bank material
1304	13	2.2	Deposit	Layer	Bank material
1305	13	2.2	Deposit	Fill	Fill of posthole [1306]
1306	13	2.2	Cut	Discrete	Posthole
1307	13	2.2	Deposit	Layer	Bank material
1308	13	1	Deposit	Layer	Natural
1309	13	2.2	Deposit	Fill	Fill of gully [1310]
1310	13	2.2	Cut	Linear	Gully
1311	13	2.2	Deposit	Layer	Bank material
1400	14	3		∟ayer	I OPSOII
1401	14	1	Deposit	Layer	Natural
1402	14	2.1	Deposit	F111	Fill of gully [1403]
1403	14	2.1	Cut	Linear	
1500	15	3	Deposit	Layer	
1501	15	2.2	Deposit	Layer	Bank material
1502	15	2.2		Layer	Bank material
1503	15	2.2			Fill of altch [1504]
1504	15	2.2		Linear	Dillon Fill of multy [4500]
1505	15	2.2			Fill of guily [1506]
1506	15	2.2		Linear	Gully Deple meterial
1507	15	Z.Z		Layer	
1000	10	1	Deposit	Layer	
1600	10	ა 1		∟ayer	i opsoli Natural
1001	10	1		Layer	
1700	17	3	Deposit	∟ayer	I OPSOII

# STB 15: CONTEXT INDEX

Context	Trench	Phase	Туре 1	Туре 2	Interpretation
1701	17	1	Deposit	Layer	Natural
1702	17	2.2	Deposit	Fill	Fill of ditch recut [1704]
1703	17	2.2	Deposit	Fill	Fill of ditch [1708]
1704	17	2.2	Cut	Linear	Ditch recut
1705	17	2.2	Deposit	Fill	Fill of field drain [1707]
1706	17	2.2	Deposit	Drain	Ceramic field drain
1707	17	2.2	Cut	Linear	Field drain
1708	17	2.2	Cut	Linear	Ditch
1800	18	3	Deposit	Layer	Topsoil
1801	18	2.2	Deposit	Layer	Subsoil
1802	18	1	Deposit	Layer	Natural

# APPENDIX C PALAEOENVIRONMENTAL ASSESSMENT

# SILVER TOP QUARRY, HALLBANKGATE, BRAMPTON, CUMBRIA (SITE CODE: STB15): ENVIRONMENTAL ARCHAEOLOGICAL RAPID ASSESSMENT

### D. S. Young

Quaternary Scientific (QUEST), School of Human and Environmental Sciences, University of Reading, Whiteknights, PO Box 227, Reading, RG6 6AB, UK

## INTRODUCTION

This report summarises the findings arising out of the environmental archaeological rapid assessment undertaken by Quaternary Scientific (University of Reading) of a sample from Silver Top Quarry, Hallbankgate, Brampton, Cumbria (Site Code: STB15; National Grid Reference NY 58822 61034). An archaeological evaluation comprised of 18 machine-excavated trenches (Trenches 1-18) was undertaken in November 2015 by Pre-Construct Archaeology, ahead of a proposed extension to Silver Top Quarry. During these investigations archaeological features likely of post-medieval date were recorded in Trenches 1, 13, 14, 15 and 17, including a ditch and bank enclosure (Trenches 1, 13 , & 15) and shallow gullies and ditches (Trench 13, 14,15, & 17) that may have been used for drainage. Samples (<1>, <2> and <3>) were taken from a dark deposit within the bank (Sections 1, 6 and 8); the results of the rapid assessment of sample <1> (108) are presented here.

#### **METHODS**

#### Rapid assessment

One bulk sample (sample <1>) was processed by flotation by Pre-Construct Archaeology Ltd using 1mm and 300-micron mesh sizes, producing a flot and residue. The sample was rapidly assessed for macrofossil remains using a low power zoom-stereo microscope at x7-45 magnification, and the quantities and preservation of each class of macrofossil in each sample recorded (Table 1). Preliminary identifiactions of the seed remains were made using Cappers *et al.* (2006) and Martin & Barkley (2000).

# **RESULTS OF THE RAPID ASSESSMENT**

#### Sample <1>

Charcoal of <2mm, 2-4mm and >4mm in diameter was recorded in low to moderate quantities in both the flot and residue, whilst a poorly preserved charred cereal grain (*Hordeum/Triticum* type, barley/wheat) was identified within the residue. No waterlogged wood or seeds were identified within the sample. Mollusca, bone and insects (with the exception of modern insect eggs and larvae) were also absent.

# CONCLUSIONS AND RECOMMENDATIONS

The charred seed identified in sample <1> is poorly preserved, and on its own is unlikely to be of sufficient mass for radiocarbon dating. However, low to moderate quantities of identifiable charcoal were found in both the flot and residue from sample <1>. If suitable shrub/tree taxa can be identified from this assemblage, these fragments may be of sufficient mass for radiocarbon dating. Detailed assessment of the charcoal fragments would establish the suitability of these fragments for dating. However, it is noted that no waterlogged taxa typical of blanket peat formation were identified within the sample.

# REFERENCES

Cappers, R.T.J., Bekker R.M. & Jans J.E.A. (2006) *Digital Seed Atlas of the Netherlands. Groningen Archaeological Series 4*. Barkhuis, Netherlands

Martin, A.C. and Barkley, W.D. (2000) *Seed Identification Manual*. The Blackburn Press, New Jersey.

							Cha	arred		-	, -	Unc	harred	Bor	ne			- /				
Sample number	Context number	Context description	Size of context sampled (%)	Total volume processed (I)	Flot weight (g)	Fraction (e.g. flot, residue, >300µm)	Charcoal (>4mm)	Charcoal (2-4mm)	Charcoal (<2mm)	Seeds	Chaff	Μοοά	Seeds	Large	Small	Fragments	Insects	Pottery	CBM	Daub	Artefacts	Mollusca
1	108	Soft black clavev silt	25-50	N/A	5.1	Flot	2	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-
		(possible peat formation)			N/A	Residue	2	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-

 Table 1: Results of the rapid assessment of flots and residues from sample <1>, Silver Top Quarry (Site Code: STB15)

Key: 0 = Estimated Minimum Number of Specimens (MNS) = 0; 1 = 1 to 25; 2 = 26 to 50; 3 = 51 to 75; 4 = 76 to 100; 5 = 101+

APPENDIX D PLATES

![](_page_43_Picture_0.jpeg)

Plate 2. Earthwork bank in western part of site, looking north-east

![](_page_44_Picture_0.jpeg)

Plate 3. Bank and ditch [103], Trench 1, looking north-west (2m scale)

![](_page_44_Picture_2.jpeg)

Plate 4. Bank, ditch [1302] and posthole [1306], Trench 13, looking south-east (2m scale)

![](_page_45_Picture_0.jpeg)

Plate 5. Bank and ditch [1503], Trench 15, looking south-west (2m scale)

![](_page_45_Picture_2.jpeg)

Plate 6. Gully [1506], Trench 15, looking north (0.5m scale)

![](_page_46_Picture_0.jpeg)

Plate 7. Ditch [1708] & recut [1704], Trench 17, looking west (2m scale)

# PCA

#### PCA SOUTH

UNIT 54 BROCKLEY CROSS BUSINESS CENTRE 96 ENDWELL ROAD BROCKLEY LONDON SE4 2PD TEL: 020 7732 3925 / 020 7639 9091 FAX: 020 7639 9588 EMAIL: info@pre-construct.com

#### PCA NORTH

UNIT 19A TURSDALE BUSINESS PARK DURHAM DH6 5PG TEL: 0191 377 1111 FAX: 0191 377 0101 EMAIL: <u>info.north@pre - construct.com</u>

#### **PCA CENTRAL**

THE GRANARY, RECTORY FARM BREWERY ROAD, PAMPISFORD CAMBRIDGESHIRE CB22 3EN TEL: 01223 845 522 FAX: 01223 845 522 EMAIL: <u>info.central@pre-construct.com</u>

#### **PCA WEST**

BLOCK 4 CHILCOMB HOUSE CHILCOMB LANE WINCHESTER HAMPSHIRE SO23 8RB TEL: 01962 849 549 EMAIL: <u>info.west@pre - construct.com</u>

#### PCA MIDLANDS

17-19 KETTERING RD LITTLE BOWDEN MARKET HARBOROUGH LEICESTERSHIRE LE16 8AN TEL: 01858 468 333 EMAIL: <u>info.midlands@pre-construct.com</u>

![](_page_47_Picture_11.jpeg)