

**GRANGE FARM
OLD CASSOP
COUNTY DURHAM**



**ARCHAEOLOGICAL
EVALUATION REPORT
CP. No: 10626
06/12/2013**



WARDELL ARMSTRONG ARCHAEOLOGY
COCKLAKES YARD,
CUMWHINTON,
CARLISLE,
CUMBRIA,
CA4 0BQ
TEL: 01228 564820
FAX: 01228 560025
WWW.WA-ARCHAEOLOGY.COM

WARDELL ARMSTRONG ARCHAEOLOGY

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Quality Assurance

This report covers works as outlined in the brief for the above-named project as issued by the relevant authority, and as outlined in the agreed programme of works. Any deviation to the programme of works has been agreed by all parties. The works have been carried out according to the guidelines set out in the Institute for Archaeologists (IfA) Standards, Policy Statements and Codes of Conduct. The report has been prepared in keeping with the guidance set out by Wardell Armstrong Archaeology on the preparation of reports.

REVISION SCHEDULE			
	01	02	03
PREPARED BY:	Scott Vance		
POSITION:	Assistant Supervisor		
DATE:	11/11/13		
EDITED BY:	Martin Railton		
POSITION:	Project Manager		
DATE:	28/11/13		
APPROVED BY:	Frank Giocco		
POSITION:	Technical Director		
DATE:	28/11/13		

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SUMMARY

Wardell Armstrong Archaeology were commissioned by John Elves Associates, on behalf of Haswell Moor Developments Ltd to undertake a Heritage Asset Statement and archaeological evaluation at Grange Farm, Old Cassop, County Durham (NGR NZ 3372 3948). The findings of the archaeological evaluation will be submitted with a planning application for a proposed residential development at Grange Farm. The proposed development involves the demolition and conversion of agricultural buildings associated with Grange Farm and the construction of new homes on the site of former modern sheds, to the west of the present farmhouse, and around the site a late 18th/early 19th century Hemmel. The proposed development site was also situated in Old Cassop Conservation Area, and within a landscape which contains evidence for medieval and post-medieval settlement and agricultural practices.

Recent archaeological work in the form of a topographic survey has indicated that the earthworks which surround the Hemmel on the north side of the road from Grange Farm are most likely associated with the former farmstead on the site (NPA 2010a). A subsequent archaeological watching brief, however, has shown that there may have been earlier buildings on the site pre-dating this farmstead, as a well was revealed during reconstruction of one of the Hemmel piers (NPA 2010b).

The archaeological evaluation was undertaken over five days between the 28th October to the 1st November 2013. The evaluation involved the excavation of 5 trenches, totalling 108m². Archaeological remains were identified in Trenches 1, 2, 3 & 5. A wall was observed within Trench 1 and a tile surface, doorsill and wall were observed within Trench 3. The remains in Trenches 1 & 3 appeared to relate to the former post-medieval farmstead that occupied the site. Two pits were observed within Trench 2, post medieval pot was recovered from one. The function of the pits remains unknown but it is likely that they were associated with the farmstead. Two phases of buildings were observed within Trench 5 that were most likely the demolished remains of an extension of Grange Farm. Three pits were observed within Trench 5. The purpose of two of the pits remains unclear as no dating evidence was recovered. The third pit contained the remains of butchered sheep and cattle.

ACKNOWLEDGEMENTS

Wardell Armstrong Archaeology would like to thank John Elves of John Elves Associates, for commissioning the project, on behalf of Haswell Moor Developments Ltd, and to Paul Graham of Grange Farm for providing access onto the site. Wardell Armstrong Archaeology would also like to thank Clare Henderson at Durham County Council, for her assistance throughout the project. Further thanks are extended to the staff at the County Record Office in Durham for their help during this project.

The desk-based assessment and visual survey was undertaken by Fiona Wooler. The archaeological evaluation was undertaken by Scott Vance, Kevin Horsley and Sean Johnson. The report was written by Scott Vance and the drawings were produced by Adrian Bailey. The project was managed by Martin Railton, Senior Project Manager for WAA. The report was edited by Frank Giecco, Technical Director for WAA.

1 INTRODUCTION

1.1 CIRCUMSTANCES OF THE PROJECT

- 1.1.1 In October 2013, Wardell Armstrong Archaeology were invited by John Elves Associates, on behalf of their clients, Haswell Moor Developments Ltd, to undertake a archaeological evaluation at Grange Farm, Old Cassop, County Durham, (NGR NZ 3372 3948; Figure 1), prior to the development of residential properties. The proposed works lie within the immediate vicinity of the Old Cassop Conservation Area, and within a landscape which contains evidence for medieval and post-medieval settlement and agricultural practices. Recent archaeological work in the form of a topographic survey has indicated that the earthworks which surround the Hemmel on the north side of the road from Grange Farm are most likely associated with the former farmstead on the site (NPA 2010a). A subsequent archaeological watching brief, however, has shown that there may have been earlier buildings on the site pre-dating this farmstead, as a well was revealed during reconstruction of one of the Hemmel piers (NPA 2010b).
- 1.1.2 As a result, Clare Henderson, Senior Archaeologist at Durham County Council requested a programme of archaeological investigation, prior to the development taking place. This is in line with government advice as set out in Section 12 of the National Planning Policy Framework (NPPF 2012). The archaeological evaluation was undertaken following approved standards and guidance (IfA 2008a), and was consistent with the specification provided by Wardell Armstrong Archaeology (Railton 2013) and generally accepted best practice.
- 1.1.3 This report outlines the evaluation works undertaken on-site, the subsequent programme of post-fieldwork analysis, and the results of this scheme of archaeological works.

2 METHODOLOGY

2.1 PROJECT DESIGN

2.1.1 A project design was submitted by Wardell Armstrong Archaeology in response to a request by John Elves Associates, on behalf of Haswell Moor Developments Ltd for an archaeological evaluation of the study area. Following acceptance of the project design by Clare Henderson, County Archaeologist at Durham County Council, Wardell Armstrong Archaeology was commissioned by the client to undertake the work. The project design was adhered to in full, and the work was consistent with the relevant standards and procedures of the Institute for Archaeologists (IfA), and generally accepted best practice.

2.2 RESEARCH FRAMEWORK

2.2.1 In terms of project specific research objectives, the work had the potential to make a significant contribution to archaeological knowledge of the area. *Shared Visions: The North-East Regional Research Framework for the Historic Environment* (NERRF 2012), highlights the importance of research as an important element of development-led archaeological work and sets out key research priorities so that all elements of commercial archaeological work can be related to wider regional and national priorities for the study of archaeology and the historic environment.

2.2.2 In view of the possible medieval origin for Old Cassop, the investigation was carried out with reference to the following research priorities, as set out in the NERRF Research Agenda for the 'Later Medieval' (MD):

- MDi. Settlement;
- MDii. Landscape;
- MDvii. Medieval Ceramics and Other Artefacts;
- MDviii. Other Medieval Industries;
- MDxi. The Medieval to Post-Medieval Transition;

2.3 THE FIELD EVALUATION

2.3.1 The evaluation consisted of the excavation of 5 trenches covering 108m² of the proposed 1.2ha development area. The purpose of the evaluation was to establish the nature and extent of below ground archaeological remains within the vicinity. The Trenches were located to focus on areas of archaeological interest as identified in the previous phases of work at the site, targeting

identified earthworks recorded during the previous topographic survey, as well as providing a broad sample of the whole of the proposed development area (Figure 2). All work was conducted according to the recommendations of the Institute for Archaeologists (2008a).

2.3.2 In summary, the main objectives of the field evaluation were:

- to establish the presence/absence, nature, extent and state of preservation of archaeological remains and to record these where they were observed;
- to establish the character of those features in terms of cuts, soil matrices and interfaces;
- to recover artefactual material, especially that useful for dating purposes;
- to recover palaeoenvironmental material where it survives in order to understand site and landscape formation processes.

2.3.3 Turf and topsoil was removed by mechanical excavator under close archaeological supervision. The trial trenches were subsequently cleaned by hand and all features were investigated and recording according to the Wardell Armstrong Archaeology standard procedure as set out in the Excavation Manual (Giecco 2012).

2.3.4 All finds encountered were retained, including those from excavated topsoil, and were cleaned and packaged according to standard guidelines, and recorded under the supervision of Megan Stoakley, WWA Finds Officer (Section 5).

2.3.5 All suitable deposits encountered were retained for environmental sampling, and the analysis can be seen in Section 6.

2.3.6 The 5 evaluation trenches were all backfilled on the 1st November 2013, following excavation and recording.

2.3.7 The fieldwork programme was followed by an assessment of the data as set out in the Management of Archaeological Projects (2nd Edition, 1991).

2.4 THE ARCHIVE

2.4.1 A full professional archive has been compiled in accordance with the specification, and according to the Archaeological Archives Forum recommendations (Brown 2011). The archive will be deposited within Bowes Museum, with copies of the report sent to the County Historic Environment Record at Durham County Council available upon request. The archive can be accessed under the unique project identifier WAA13, GFD-A, CP 10626.

2.4.2 Wardell Armstrong Archaeology, and Durham County Council, support the **Online AccesS to the Index of Archaeological InvestigationS (OASIS)** project. This project aims to provide an on-line index and access to the extensive and expanding body of grey literature, created as a result of developer-funded archaeological work. As a result, details of the results of this project will be made available by Wardell Armstrong Archaeology, as a part of this national project. The OASIS reference for this project is wardella2-164146.

3 BACKGROUND

3.1 LOCATION AND GEOLOGICAL CONTEXT

- 3.1.1 Old Cassop is a small village located approximately 7km to the south-east of Durham, and 1km to the north-west of Cassop. The village is situated on a hill that rises from Cassop Vale and forms a rough horseshoe shape bounded by Running Waters at the east side of the village, and around buildings to the west, now associated with Grange Farm (Figures 1 & 2). The site lies at a height of approximately 150m AOD.
- 3.1.2 Geologically the hill on which Old Cassop is located forms part of the boundary of the East Durham Plateau where it starts to merge with the Wear Lowlands and comprises a small detached section of the magnesian limestone belt that runs from South Shields to Ferrybridge. The underlying geology is Raisby Formation Dolostone sedimentary bedrock with overlying Devensian-Diamicton Till formed up to 2 million years ago (British Geological website). The overlying soils are slowly permeable, seasonally wet and slightly acidic but base rich clayey and loamy soil (Land Information System Website).
- 3.1.3 At present, Old Cassop contains two farms and houses of varying ages, styles and types. The combination of working farms and houses within a relatively small area gives the village a character that is distinct from many other villages in the area, which have either become residential or undergone significant urban expansion in the last century.

3.2 HISTORICAL CONTEXT

- 3.2.1 *Introduction:* this historical background is compiled mostly from secondary sources, and is intended only as a brief summary of historical developments specific to the study area. References to the County Historic Environment Record (HER) are included where known.
- 3.2.2 *Medieval:* Etymological evidence for the medieval origins of the proposed development area lie within the two possible meanings for the place name 'Cassop'. The second syllable derives from the Old English 'hop' meaning valley, whilst the first is either the Saxon personal name 'casa' (Casa's Valley) or the Old English cattes meaning 'wildcat' (Valley of the Wildcats). There are two settlements, the original now called Old Cassop, and the more recent village 'Cassop' which developed around the colliery (Robinson 1998, 23).
- 3.2.3 The first written evidence of medieval activity in the area around Old Cassop dates to 1183 when an entry in Boldon Book attributes William de Kent in owning four oxgangs (measure of land) and served in the Bishop's 'embassies'

(Surtees 1816-1840 , 74). This gives a total estate around Old Cassop of c.60 acres in size in the control of the Bishops of Durham. The manor was still c.60 acres at the time of Bishop Hatfield's survey in 1377, at which time there were six tenants who farmed a total of c.330 acres, in addition to the 60 acres of the manor or original holding. A lease document of 1587 again mentions only six tenants, each holding only a small area of land. All these sources suggest that the original village of Cassop was a small one, which may have been due to some of the surrounding land being reserved for the hunting grounds of the Prince Bishops (Durham County Council 2009, 5).

- 3.2.4 Even though there are no medieval buildings standing in the village, it is the period 1066-1540 AD that gives Old Cassop its layout and basic identity. The simple plan of the village, a single street off which lead four lanes, is characteristic of a medieval street village. Ridge and Furrow earthworks in the fields north of the Hemmel (HER H5811) are evidence of medieval farming whilst the small size of the settlement reflects the size of Cassop in the documentary records (Durham County Council 2009, 5-6).
- 3.2.5 *Post-medieval and Modern:* Late 18th century mapping provided an indication of the location of some of the buildings in Old Cassop, and layout and names of fields. A map dating to c.1790 relating to land and buildings associated with 'Cassop Farm' appears to show a cluster of structures in the field to the north of the present Grange Farm, at 'Cassop Town'. The Hemmel, if it existed at this date, may have formed part of a northern range of one of these buildings. A building that is listed as 'a cottage in ruins' is shown to lie to the west of Grange Farm within the proposed development area.
- 3.2.6 A Plan and Valuation of an estate in the Township of Cassop dating to 1795 appears to be associated with the site of Grange Farm, on the south side of the road, although this map has been drawn with south to the top. Cassop Smithy (labeled Cassop Smiddy), is shown at the bottom of the map, however in reality is to the north of Old Cassop. The buildings which existed at Grange Farm at this date were L-shaped in plan with the town of Cassop represented as a rectangular space. The map does not show the Hemmel as it was not associated with Grange Farm at this date.
- 3.2.7 Farming was the principle occupation of the village up to the 1830s when the first coal mines were sunk in the area. In 1828, Cassop was described as '*a hamlet and township four miles south-east of Durham, containing a few farm houses, scattered on the declivity of a hill, and commanding a beautiful view to the north and west*' (Wooler 2013). A plan of the township of Cassop dating to 1839 shows the settlement of either side of the road with carriage roads shown entering from the west and north. Several buildings are shown to occupy the proposed development area each side of the road, and to the east. Even at this date, the buildings to the north side of the road appear to have represented one farm,

whilst those to the south represented another. Grange Farm is shown as an extant farmstead of courtyard plan.

- 3.2.8 By the end of the 19th century it would appear that some of the buildings associated with Cassop Farm, located on the north side of the road, had been removed suggesting that it may have gone out of use, with further buildings to the east also having been demolished by this date. The 1939 Ordnance Survey map shows that there had been considerable changes to the buildings at Grange Farm. The courtyard plan is no longer shown, and instead new buildings had been constructed to the east, forming a U-shaped plan. The structures associated with Cassop Farm, on the north side of the road, have all disappeared apart from the Hemmel.
- 3.2.9 The 20th century has seen the number of Farms in the village reduced to two whilst conversions and new houses have introduced a stronger residential character. Even with these changes the village has retained its small compact scale and its history and age can be read through its remaining buildings, boundaries, field patterns and earthworks (Durham County Council 2009, 6).

3.3 PREVIOUS WORK

- 3.3.1 An archaeological watching brief was maintained by Northern Archaeological Associates in 2001 during the installation of new water mains along the road between Old Cassop and the A181 to the north. Excavation was carried out by machine and a series of short trenches were dug at 100m intervals. The water main had the potential to disturb remains associated with earthworks and crop mark sites. No significant archaeological deposits were observed during the watching brief (HER Ref. H6596).
- 3.3.2 In June 2010, North Pennines Archaeology Ltd undertook a scheme of archaeological works as part of a management plan for the restoration of the Hemmel, located to the north side of Grange Farm. The work consisted of a rapid desk-based assessment, a building survey of the Hemmel and a topographic survey of the field in which the Hemmel stands, as well as land to the north where ridge and furrow earthworks have been identified. The desk-based assessment noted that documentation dating to the late 18th century provide evidence for a farmstead to have been formerly located in the field in which the Hemmel stands. Mid 19th century mapping showed the farmstead being consisted of two ranges, with the Hemmel forming the northern range. The topographic survey identified the remains of a possible building to the south of the Hemmel, possibly the former farmhouse, with the centre of the site containing earthworks representing terracing for the farmstead. In the field to the north, possible medieval activity was identified in the form of ridge and furrow and possible former field boundaries (NPA 2010a).

3.3.3 During reconstruction works associated with the restoration of the Hemmel, an archaeological watching brief was maintained by North Pennines Archaeology Ltd in November 2010. The watching brief monitored the hand excavation of three holes along the line of the south elevation of the Hemmel for the reconstruction of the piers. No archaeology was observed within Holes 1 and 2, however Hole 3 revealed part of the circular plan of a well which had been constructed of masonry but with upper courses of brick. The well pre-dated the Hemmel, although no artefacts were recovered which may have aided dating (NPA 2010b).

4 ARCHAEOLOGICAL EVALUATION RESULTS

4.1 INTRODUCTION

4.1.1 The evaluation was undertaken between 28th October - 1st November 2013 and lasted 5 days. All Trenches were machined by a JCB 3cx with a back-hoe. Trench locations can be found within Figure 2 while a Context Index and Stratigraphic Matrix can be found in Appendices 1 & 2.

4.2 RESULTS

4.2.1 *Trench 1 (Figure 2 & 3):* Trench 1 was located toward the north-west corner of the proposed development site, to the west of the Hemmel and was aligned west-north-west/east-south-east. The trench was excavated to a maximum depth of 1.11m revealing limestone bedrock (108) below c.0.46m of light yellow fragmented limestone with a matrix of coarse sand (109) and c.0.34m of dark brownish grey clayey silt topsoil (100). Post-medieval pottery was recovered from the topsoil, for the discussion refer to Section 5. A subsoil was observed in the north facing section that consisted of a dark greyish brown clayey silt (107) (Plate 1).

4.2.2 A wall was observed running west-north-west/east-south-east along the north facing section {102}. The wall consisted of random coursed, roughly hewn limestone masonry. The upper courses were bonded with a light grey lime mortar with inclusions of ceramic building material and gravel. The lower foundation courses of the wall were bonded with a mid grey lime mortar with few inclusions. The wall measured 5.76m in length before returning into section and measured 0.75m in height. The wall was within construction cut [103] that was backfilled with a dark brownish grey silty coarse sand with frequent inclusions of sub-angular limestone fragments and mortar (101). A culvert {105} was observed bonded into wall [102] that ran north-south. The culvert consisted of roughly hewn limestone masonry and bonded with a light grey lime mortar. A construction cut [106] was observed for the culvert that was backfilled by a dark brownish grey clayey silt with frequent inclusions of sub-angular limestone fragments (104).

4.2.3 Wall {102} most likely represented the northern wall of the east-west range of the farmstead that previously occupied the site, of which the Hemmel was the central structure.



Plate 1: Wall {102} Looking south-west.

- 4.2.4 Trench 2 (Figure 2 & 4):** Trench 2 was located toward the north-east corner of site, to the east of the Hemmel and was aligned north-north-east/south-south-west. (Figure 2). The trench was excavated to a maximum depth of c0.56m revealing fragmented limestone with a matrix of coarse sand (206) below c.0.28m of dark brownish grey silty topsoil (100) (Plate 2).
- 4.2.5** Two pits were observed within Trench 2 and both were found within the west facing section (Plate 2). The southern pit was square in plan with vertical sides [203] and was filled by, a dark greyish brown silt (202), and a mid greyish yellow sandy gravel (201). A sample was collected from (201), however, no significant remains were recovered. The pit was 0.77m deep and 0.71m north-south and 0.44m east-west to the limit of excavation.
- 4.2.6** The northern pit was sub-square in plan with vertical sides [205] and was filled by a mid greyish yellow silty coarse sand (204). An environmental sample was taken from the fill (204) (see section 6 for analysis) which contained a low number of charred grains. Post-medieval pottery and ceramic building material was also recovered from (204) (see Section 5 for analysis). The pit measured 0.81m deep, 0.50m north-south and 0.56m east-west to the limit of excavation. The pits most likely relate to the former farmstead that was located on the proposed development site.



Plate 2: Pit [205] & [203]. 1m scale. Looking east.

- 4.2.7 Trench 3 (Figure 2 & 5):** Trench 3 was located in the centre of site, to the south of the Hemmel and was aligned north-north-east/south-south-west. (Figure 2). The trench was excavated to a maximum depth of c0.60m revealing fragmented limestone with a matrix of coarse sand (301) below c.0.20m of dark brownish grey silty topsoil (300). An iron nail and a sherd of post medieval pottery was recovered from topsoil deposit (300) (for analysis refer to Section 5).
- 4.2.8** A demolition deposit was observed that ran the length of the trench and measured c0.35m thick. The deposit consisted of dark grey coarse sand with frequent inclusions of fragmented brick and limestone with occasional flecks of lime mortar (307).
- 4.2.9** A wall was observed in the west facing section of Trench 3, that consisted of a roughly hewn limestone that was bonded with a light yellow sand mortar {305}. The wall measured 0.65m high and 3.6m north-south. The wall was covered in a render that comprised a creamy yellow plaster (304), c.20mm thick. The height of the plaster up the face of the wall ranged from 50mm – 300mm (Plate 3).



Plate 3: Wall {305} with plaster render (304). Looking east. 1m scale

- 4.2.10 The plastered wall was butted by a limestone doorsill {303} and tile floor surface {302} (Plate 4). The doorsill {303} was rectangular in shape and measured 1.2m x 0.24m and 0.23m high. Two square door jamb recesses were observed on the top of the sill that measured 80x80mm and 20mm deep. The doorsill represents the threshold into the farmstead that would have occupied the proposed development site.
- 4.2.11 The tile floor surface {302} consisted of two sizes of red ceramic tile (refer to Section 5 for tile analysis). The larger tiles measured 230mm² and 50mm thick, while the smaller measured 230 x 120mm and 50mm thick. The complete surface measured 4.2m north-south and 1.4m east-west. The surface was set on two bedding deposits, a loose black fly ash (308), c.40mm thick and mid yellow fine sand (309), that measured c.170mm. Pottery was recovered from leveling deposit (308), and glass and ceramic building material from leveling deposit (309) (refer to Section 5 for analysis).



Plate 4: Tile floor surface {302} & doorsill {303}. Looking south. 2 x 1m scales

4.2.12 Below the bedding deposits a metallised surface (310) was observed that consisted of compacted rounded pebbles (Plate 5). The metallised surface measured 3.2m north-south and varied in width from 0.8m in the north to 1.3m in the south. The metallised surface was set on top of the natural superficial geology (301) and represented an earlier surface that pre-dated the tile surface.



Plate 5: Metalled surface (310). Looking south. 2x1m scales.

4.2.13 Trench 4 (Figure 2): Trench 4 was located toward the western corner of the proposed development site and was aligned north-south (Figure 2). The trench was excavated to a maximum depth of 0.6m revealing fragmented limestone with a matrix of coarse sand (400) below c.0.32m of dark brownish grey clayey silt topsoil (401). No archaeological features were noted (Plate 6).



Plate 6: Trench 4. Looking south. 2 x 1m scales.

4.2.14 Trench 5 (Figures 2, 6 & 7): Trench 5 was located toward the south-west corner of site, to the west of Grange Farm and comprised of a T-shaped trench that was aligned north-south and east-west (Figure 2). The trench was excavated to a maximum depth of c.1m revealing fragmented limestone with a matrix of coarse sand (518) below c.0.40m of dark greyish brown subsoil (509) and 0.45m of dark brownish grey silty topsoil (500). Pottery, clay pipe and ceramic building material were recovered from the topsoil within Trench 5 and are all dated to the post-medieval period (refer to Section 5 for analysis).

4.2.15 Within the north-south axis of Trench 5 two pits were observed, [513] & [515]. The eastern pit [513] was oval in plan with steep sides and was filled by (512), a dark brownish grey clayey silt, (511), a mid greyish brown clayey silt and (510), a dark brownish grey silty clay. The pit was 0.45m deep and 0.96m north-south and 0.84m east-west to the limit of excavation (Plate 7, Figure 6 & 7). No artefacts were recovered from the fill of [513] but a small assemblage of charred

cereal grain was recovered from (511), with a larger assemblage recovered from (512); as discussed in the Environmental Archaeology Section 6.



Plate 7: Pit [513]. Looking east. 1m scale.

4.2.16 The western pit [515] was oval in plan with steep sides and was filled by (514), a dark brownish grey sandy clay. The pit was 0.79m deep and measured 1.3m north-west/south-east and 0.82m north-east/south-west (Plate 8). The remains of cattle and sheep were recovered from within the pit as well as a low number of charred grains (discussed within Section 6). The assemblage suggests that the pit was excavated to dispose of the remains of a butchered animal.



Plate 8: Pit [515]. Looking north-west. 1m scale.

4.2.17 Within the east-west axis of Trench 5 a number of archaeological features were observed. A pit [517] was uncovered towards the western end of the trench that measured c.0.5m in diameter and had a depth of 0.22m and was filled with a mid greyish brown silty clay (516) (Plate 9). No artefacts were recovered within fill (516) so the purpose and date of pit [517] remain unknown. An environmental sample was taken of the fill of a small assemblage of charred grains were uncovered (discussed within Section 6).



Plate 9: Pit [517]. Looking east. 1m scale.

4.2.18 Towards the eastern end of trench, a field drain [504] was observed that ran north-south across the trench and butted the side of wall {505}. Wall {505} consisted of roughly hewn random coursed limestone masonry that was bonded with a light brownish yellow lime mortar. The wall ran north-south 1.5m and was 0.45m high. The wall was only visible in the west facing section of the east-west axis of Trench 5 and was within construction cut [519] that truncated demolition deposit (506), a dark greyish brown silty clay with frequent inclusions of brick, limestone and flecks of mortar. The demolition deposit measured 1.5m north-south and 1.4m and was observed within demolition cut [520] (Plate 10).

4.2.19 The demolition cut truncated an earlier structure {507} on the site (possible the cottage shown in the 1790 map (Wooler 2013) (referred to in section 3.2.5). The structure consisted of four sandstone slabs (ranging in size from 620x520x50mm to 500x260x50mm) that were bonded with a light yellow mortar and measured 1.5m by 0.84m. Due to the limited area of excavation it was unclear whether {507} represented a floor surface or possible threshold into the structure (Plate 10, Figure 6 & 7).



Plate 10: Wall {505} & Structure {507}. Looking east. 1m scale.

4.2.20 The remains of a dry stone wall {508} were observed to the west of structure {507} that comprised one course of roughly hewn and unworked limestone masonry. The wall was aligned north-south and most likely represented the enclosure boundary to Grange Farm on the western side of the farmhouse shown in Figure 8 (Plate 11).



Plate 11: Dry stone wall {508}. Looking north. 1m scale.

5 FINDS

5.1 FINDS ASSESSMENT

- 5.1.1 A total of 31 artefacts, weighing 6092g, were recovered from seven contexts during an archaeological evaluation on land at Grange Farm, Old Cassop, County Durham.
- 5.1.2 All finds were dealt with according to the recommendations made by Watkinson & Neal (1998) and to the Institute for Archaeologists (IfA) Standard & Guidance for the collection, documentation, conservation and research of archaeological materials (2008b). All artefacts have been boxed according to material type and conforming to the deposition guidelines recommended by Brown (2011) and Bowes Museum.
- 5.1.3 The material archive has been assessed for its local, regional and national potential and further work has been recommended on the potential for the material archive to contribute to the relevant research frameworks.
- 5.1.4 Quantification of finds by context is visible in Table 1.

Cxt	Material	Qty	Wgt (g)	Date	Notes
204	CBM	5	56	PM	Tile fragments
302	CBM	1	4500	PM	Complete floor tile – mid-late 19 th C?
309	CBM	2	1158	PM	1 x brick, 1 x tile
500	CBM	1	56	PM	Brick fragment
500	Clay Pipe	1	9	PM	Mid to late 17 th C
309	Glass	1	122	PM - M	Base of bottle – later 19 th C
300	Iron	1	34	PM - M	Nail
100	Pottery	5	63	PM	
204	Pottery	2	14	PM	Coarse red earthenware
300	Pottery	1	4	PM	Tin-glazed white earthenware
308	Pottery	7	49	PM	Tin-glazed white earthenware
500	Pottery	4	27	PM	Coarse red earthenware & refined white earthenware

Table 1: Quantification of Finds by Context

5.2 POST-MEDIEVAL POTTERY

- 5.2.1 A total of 14 sherds of Post-medieval pottery, weighing 94g, were recovered from five deposits (Table 1). The sherds are in very good condition and exhibit little abrasion or damage.

- 5.2.2 Sherds of tin-glazed white earthenware were recovered from deposits (308) and (500) and coarse red earthenware was recovered from deposits (500) and (204). Refined white earthenware was recovered from deposits (100) and (500).
- 5.2.3 All of the pottery sherds are of mid to late 19th Century date. Of particular note is the presence is a rim sherd of a possible chamber pot recovered from deposit (100).
- 5.2.4 The pottery assemblage is likely indicative of domestic activity at the farmstead.

5.3 CLAY PIPE

- 5.3.1 A single, undecorated clay tobacco pipe stem fragment, weighing 9g and measuring 62.58mm in length, was recovered from deposit (500) (Table 1). The stem fragment is in relatively good condition, although exhibits evidence of burning.
- 5.3.2 The stem-hole diameter measures c.2.56mm Ø. According to Binford's Pipestem Chronology (Table 2), this would give the fragment a probable date of mid to late 17th Century (1650 – 1680 AD).

Stem-Hole Ø (in/XX)	Conversion (mm) 1 inch = 25.4mm 1/64 (inch) = 0.4mm	Dates
9/64	9 x 0.4mm = 3.6	1590 – 1620
8/64	8 x 0.4mm = 3.2	1620 – 1650
7/64	7 x 0.4mm = 2.8	1650 – 1680
6/64	6 x 0.4mm = 2.4	1680 – 1720
5/64	5 x 0.4mm = 2	1720 – 1750
4/64	4 x 0.4mm = 1.6	1750 - 1800

Table 2: Binford's Pipestem Chronology (Kipfer 2008, 8)

5.4 CERAMIC BUILDING MATERIAL

- 5.4.1 A total of nine fragments of ceramic building material, weighing 5770g, were recovered from four deposits (Table 1).
- 5.4.2 The fragments are generally in good condition, comprising a mid to light orange oxidised clay matrix of dense, hard compaction with abundant fine sand inclusions along with some iron panning inclusions. Evidence of cream-white render/plaster is evident on two of the fragments.
- 5.4.3 The fragments comprise tile and brick, of probable later Post-medieval date. Artefacts of note within the small assemblage include a large, square complete

floor tile probable 19th Century date recovered from (302) and a fragment of 19th Century pan-tile recovered from (309).

5.4.4 The ceramic building material recovered from the archaeological evaluation would likely have been associated with the buildings or outbuildings at Grange Farm.

5.5 GLASS

5.5.1 A single fragment of glass, weighing 122g, was recovered from deposit (309) (Table 1).

5.5.2 The fragment comprises a light-green to translucent bottle base with the stamp "CS & Co Ltd" visible on the base. It is possible that the stamp represents the logo for Cannington Shaw & Co (1892 – 1913), a company based in Merseyside. The bottle may have contained either lemonade or liquid condiments/sauce.

5.6 METALWORK

5.6.1 A single fragment of iron, weighing 34g and measuring 161mm (L) x 7.95mm Ø, was retrieved from a single deposit (300) (Table 1). The artefact is in poor condition and exhibits a large amount of rust corrosion.

5.6.2 It is likely of later Post-medieval date and likely comprises a large masonry or roofing nail.

5.7 STATEMENT OF POTENTIAL

5.7.1 Although 13 artefacts were recovered from topsoil deposits (100), (300), & (500), the small assemblage provides dating evidence for mid-17th to 19th Century domestic activity at the farmstead at Grange Farm. The assemblage is of moderate archaeological potential.

6 ENVIRONMENTAL ANALYSES

6.1 ARCHAEOBOTANY INTRODUCTION

- 6.1.1 During the course of the archaeological evaluation six samples were taken which were processed to assess their archaeobotanical potential. The samples were taken to extract material that may aid the understanding of the depositional history of the site. This could include evidence of human activity that may have left preserved archaeological material during the prehistoric or historic periods. As well as anthropogenic evidence, the remains of wild plants may allow inferences to be made regarding the local environment.
- 6.1.2 The methodology employed required that the whole earth samples be broken down and split into their various different components: the flot, the residue, the clay-silt and the sand-silt. The sample was manually floated and sieved through a 'Siraf' style flotation tank. In this case the residue and the flot are retained while the sand-silt-clay components are filtered out. The sample was floated over a 0.5mm plastic mesh, into which the residue was collected, then air-dried and sorted by eye for any material that may aid our understanding of the deposit. Charcoal fragments if larger than 1cm x 1cm were retained for later analysis. The residue samples were also scanned with a hand magnet to retrieve forms of magnetic material. This was done to retrieve residues of metallurgical activity, in particular hammer scale, spheroid hammer scale, fuel-ash slag and vitrified material which might be indicative of other high temperature non-metallurgical processes (though in this particular case only naturally occurring magnetic minerals were recovered). Processing procedures and nomenclature follows the conventions set out by the English Heritage Centre for Archaeological Guidelines publication (2001) and the Historic Metallurgy Society (Bayley et. Al 2008). An experienced environmental archaeologist examined all of the dried residues for artefactual material. All of the heavy residues were then re-flotted in order to maximize the retrieval of this material as it was felt eye-sorting alone would be time consuming and may not allow an accurate retrieval of the smaller, more delicate charred remains. These remains were archived but not examined at this time.
- 6.1.3 The washover (flot) was recovered in a 250-micron geological sieve, dried slowly and scanned at x40 magnification for charred and uncharred botanical remains. Identification of these was undertaken by comparison with reference material held in the Environmental Laboratory at Wardell Armstrong Archaeology and by reference to relevant literature (Cappers et al. 2010, Beijerinck 1947, Jacomet 2006). Plant taxonomic nomenclature follows Stace (2010).

- 6.1.4 Favourable preservation conditions can lead to the retrieval of organic remains that may produce a valuable suite of information, in respect of the depositional environment of the material, thus enabling assessment of anthropogenic activity, seasonality and climate and elements of the economy associated with the features from which the samples are removed. In this case it was apparent that the sandy, well drained nature of the soil would most likely favour the preservation of charred remains only.
- 6.1.5 Table 3 (Appendix 4) contains the details of the analysis on a sample by sample basis. For material from the residue the relative abundance is based on a scale from 1 (lowest) to 3 (highest), unless it is stated that total counts or weights were used to record the presence of such material. Cereals are counted in terms of the total number of individuals. The other plant remains have been recorded on a scale from A-E. This is calculated as; A=1, B=2-10, C=11-30, D=30-100, E=c.100+; the exception being unidentified seeds, where the numbers of unidentified species is given, rather than their relative abundance.

6.2 DISCUSSION OF THE PLANT REMAINS

- 6.2.1 The results from the examination of these samples showed that charred cereal grains were recovered from five of the six samples in various frequencies (none were recovered from <5> (201). All samples came from pit features. Those from samples <3> (514), <4> (516), and <6> (204) produced low numbers of charred grains; between 1-5 grains. However, those from samples <1> (511) and <2> (512) produced a large number of charred grains.
- 6.2.2 Sample <1> (511) produced a small charcoal flot which had infrequent herbaceous material. The charred grains consisted of c.19 oat type grains, with three barley type grains and four compact bread-wheat type grains (*Triticum aestivo-compactum*). The absence of chaff and the heavily charred nature of these grains means it was difficult to make a firm identification based solely on grain morphology. Approximately forty grains were classed in indeterminate types. Charred vetch type seeds were also recovered, as well as low numbers of charred sedge seeds.
- 6.2.3 Sample <2> (512) produced a small charcoal flot which had infrequent herbaceous material. This sample consisted of an assemblage of over 340 charred grains of various types. This consisted of 25 barley grains, as well as a further 10 grains which could be more clearly be identified as being hulled barley types. Forty-five oat type grains were recovered, though only two floret bases were recovered to confirm the presence of cultivated oats. Almost 260 indeterminate types were recovered.

6.3 ARCHAEOBOTANY CONCLUSIONS AND RECOMMENDATIONS

6.3.1 It is recommended that the secondary flots be processed to maximise the amount of information available for these features. In the absence of other dating evidence it is recommended that radiocarbon dates be sought from samples <1> and <2> in order to assess when these features may have been created. This would allow the information to be integrated with other studies in this region. It would be provisionally suggested that these features may be medieval and would provide an interesting contrast to the remains recovered from medieval layers in Durham City.

6.4 ZOOARCHAEOLOGY INTRODUCTION

6.4.1 During the course of an archaeological evaluation animal bones were collected by the excavation team from three contexts (**309; 500; 514**). All bones were collected by hand. The hand collection strategy should be considered when interpreting the list of measured recovered remains presented in Table 4, Appendix 4. Measurements are based on standardised methodology (von Dreisch 1976). Identifications were undertaken using reference material held by the analyst as well as standard texts (Schmitt 1972). References to bone orientation follow Hillson 1996.

6.4.2 The purpose of this study is to:

- Quantify the bones collected from the excavation by deducing their anatomical position and the Genus of the animal from which they originate (if possible). This is done by comparing the material with reference material held at the Environmental Laboratory at Wardell Armstrong Archaeology, Carlisle.
- To assess the presence of butchery evidence on all bones.
- To assess evidence which may allow comments to be made regarding the pathology of the original animal population and other factors such as age at death and sex of animals.
- To assess the taphonomic history of the bone from the creation of the death assemblage to their examination for this report.

6.5 ASSESSMENT RESULTS

6.5.1 Deposit (**309**) produced two animal bones; one sheep bone and one chicken bone. These bones seemed to be more recent in origin than the other bones in this assemblage due to their better preservation, absence of surface flaking, and their colour. It is unlikely to be a case of differential

preservation as the geological conditions across the site were broadly similar.

6.5.2 Deposit (500) produced a midshaft fragment of cattle tibia.

6.5.3 The largest deposit of bones came from (514). This consisted of sheep and cattle elements. The sheep elements were limited to a number of longbone fragments, while the cattle bone seemed to consist of a deposit with the complete skull and distal legs (metapodials and phalanges) of a single animal. A mandible exhibited the T.W.S. (f;k;g;g), corresponding to a M.W.S of 51 (Grant 1982). Six proximal phalanges, six intermediate phalanges and five distal phalanges were recovered from this deposit, suggesting they are associated with the recovered metapodials. The assemblage suggests that these remains represent the remains of a butchered animal where the metapodials and skull had been removed prior to the dismemberment of the carcass. This is interpreted due to the lack of ribs, vertebra, and other longbones. What is not clear is whether the rest of the carcass was used for human consumption.

6.6 ZOOARCHAEOLOGY CONCLUSIONS AND RECOMMENDATIONS

6.6.1 No further work is recommended on the material from this site at this time.

7 CONCLUSIONS AND RECOMMENDATIONS

7.1 CONCLUSIONS

- 7.1.1 During the archaeological field evaluation at Grange Farm, Old Cassop, 5 trenches were excavated, covering 108m² of the proposed 1.2ha development area. The purpose of the evaluation was to establish the nature and extent of below ground archaeological remains within the vicinity. The Trenches were located to focus on areas of archaeological interest as identified in the previous phases of work at the site, targeting identified earthworks recorded during the previous topographic survey, as well as providing a broad sample of the whole of the proposed development area (Figure 2). All trenches were excavated down to the top of the natural substrate.
- 7.1.2 Archaeological remains were identified in Trenches 1, 2, 3 & 5. A wall was observed within Trench 1 and a tile surface, threshold and wall were observed within Trench 3. The remains in Trenches 1 & 3 appeared to relate to the former farmstead that occupied the site. Two pits were observed within Trench 2, post medieval pot was recovered from one. The function of the pits remains unknown but it is likely that they were associated with the farmstead.
- 7.1.3 Two phases of building were observed within Trench 5 that were most likely the demolished remains of an extension of Grange Farm and the foundations of a cottage that once occupied the site. Three pits were observed within Trench 5. The purpose of two of the pits remains unclear, however, charred cereal grains were recovered from the fill. The third pit contained the remains of a cow that was likely disposed of by a local farmer.
- 7.1.4 The assemblage of the cattle and sheep bones represented a butchered animal where the metapodials and skull had been removed prior to the dismemberment of the carcass. This is interpreted due to the lack of ribs, vertebra, and other longbones. What is not clear is whether the rest of the carcass was used for human consumption.
- 7.1.5 Although 13 artefacts were recovered from topsoil deposits (100), (300), & (500), the small assemblage provides dating evidence for mid-17th to 19th Century domestic activity at the farmstead at Grange Farm. The assemblage is of moderate archaeological potential.
- 7.1.6 The results obtained during the present evaluation, and from previous archaeological investigations suggest that the study area has not been intensively used within the medieval period. There were, however, significant remains of post-medieval activity across the site in the form of a demolished farmstead. The earthworks across the proposed development site were

discovered to be buried walls from farmsteads shown on the 1857 Map (overlaid in blue in Figure 8). Trench 1 has located the rear wall of the north range of the farmstead that the Hemmel was associated with. Trench 2 uncovered two pits that most likely could be structural supports from the eastern range of the farmstead. The threshold into the southern range of the farmstead was observed within Trench 3 as well as an earlier metalled surface that predated the tile floor surface (Figure 5).

- 7.1.7 Figure 8 shows the original layout of Grange Farm as well as a boundary enclosure to the west that was depicted on the First Edition Ordnance Survey map, surveyed in 1857. The extension of Grange Farm was uncovered and represented by wall {505}. The boundary enclosure was represented in Trench 5 by dry stone wall {508}.

7.2 RECOMMENDATIONS

- 7.2.1 It is recommended that the secondary flots from pit [513] be processed to maximise the amount of information available for these features. In the absence of other dating evidence it is recommended that radiocarbon dates be sought from samples <1> and <2> in order to assess when these features may have been created. This would allow the information to be integrated with other studies in this region. It would be provisionally suggested that these features may be medieval and would provide an interesting contrast to the remains recovered from medieval layers in Durham City.
- 7.2.2 As this archaeological evaluation was conducted in association with a housing development, any further work at Grange Farm should be guided by discussion from Durham County Council.

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6.2 ONLINE SOURCES

British Geological Survey website: <http://www.bgs.ac.uk>.

Land Information System Website: <http://www.landis.org.uk>.

6.3 CARTOGRAPHIC SOURCES

Survey of Lands, Cassop Farm c.1790

Plan and Valuation of an Estate in the Township of Cassop 1795

Plan of the Township of Cassop in the Parish of Kelloe in the County of Durham 1839

Fourth Edition Ordnance Survey Map, 1939, 25" to 1 mile scale, Sheet 27.12

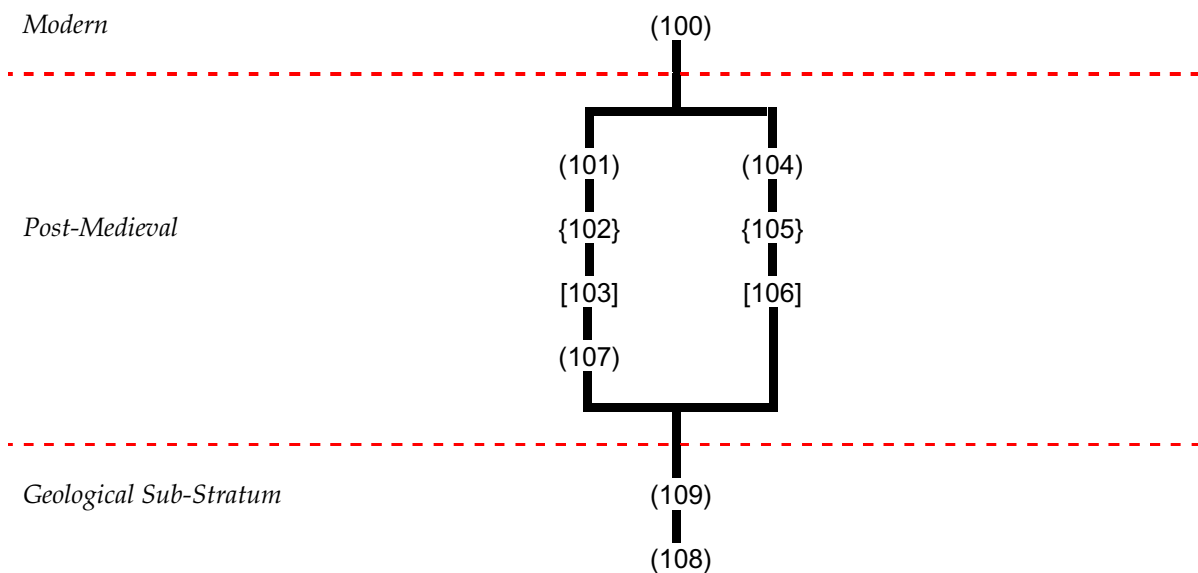
APPENDIX 1: CONTEXT TABLE

Trench Number	Context Number	Context Type	Description
1	100	Deposit	Topsoil
	101	Fill	Fill of [103]
	102	Masonry	Wall within [103]
	103	Cut	Construction Cut for Wall {102}
	104	Fill	Fill of [106]
	105	Masonry	Culvert within [106]
	106	Cut	Cut for Culvert {106}
	107	Deposit	Subsoil
	108	Deposit	Natural Geology- Bedrock
2	109	Deposit	Natural Geology
	200	Deposit	Topsoil
	201	Fill	Secondary Fill of [203]
	202	Fill	Primary Fill of [203]
	203	Cut	Pit
	204	Fill	Fill of Pit [205]
	205	Cut	Pit
	206	Deposit	Natural
	300	Deposit	Topsoil
3	301	Deposit	Natural
	302	Structure	Tile Floor Surface
	303	Masonry	Doorsill
	304	Deposit	Plaster on Wall {305}
	305	Masonry	Wall
	306	-	VOID
	307	Deposit	Demolition Deposit
	308	Deposit	Bedding for {302}
	309	Deposit	Bedding for {302}
	310	Deposit	Metalled Surface
4	400	Deposit	Topsoil
	401	Deposit	Natural
5	500	Deposit	Topsoil
	501	Masonry	Rubble Cap for Field Drain (503), within [504]
	502	Fill	Backfill of [504]
	503	Pipe	Ceramic Field Drain
	504	Cut	Field Drain
	505	Masonry	Wall within Construction Cut [519]
	506	Deposit	Demolition Deposit within [520]
	507	Masonry	Sandstone Flagstones
	508	Masonry	Dry Stone Wall
	509	Deposit	Subsoil
	510	Fill	Tertiary Fill of [513]
	511	Fill	Secondary Fill of [513]
	512	Fill	Primary Fill of [513]
	513	Cut	Pit
	514	Fill	Fill of [515]
	515	Cut	Pit
516	Fill	Fill of Pit [517]	
517	Cut	Pit	
518	Deposit	Natural	
519	Cut	Construction Cut for Wall 505	
520	Cut	Demolition Cut	

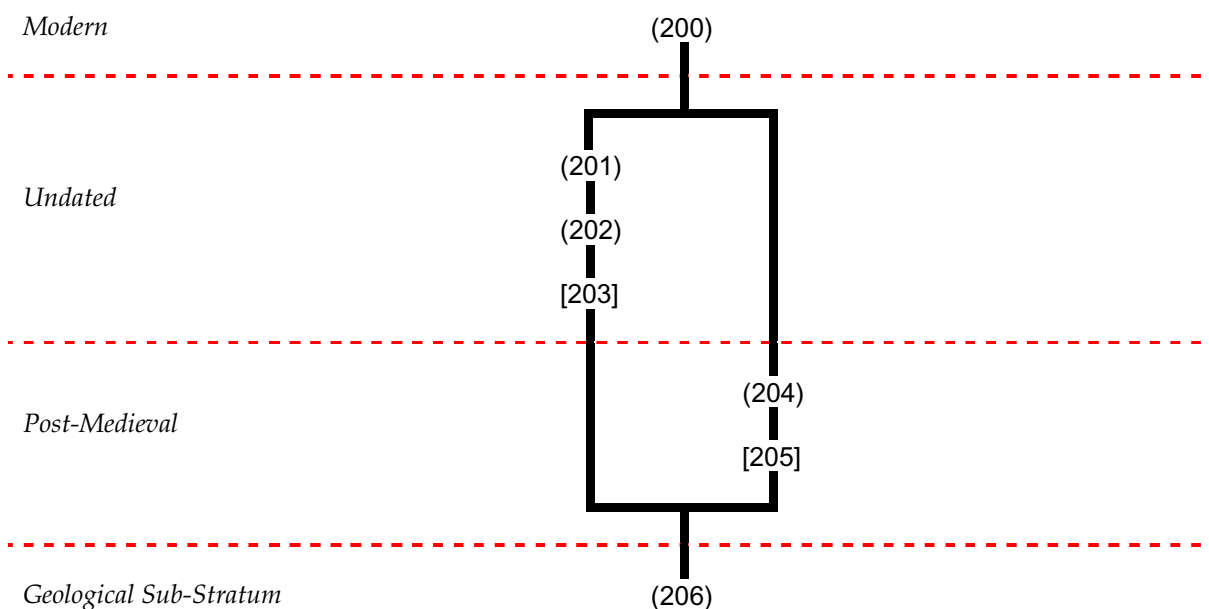
Table 5: List of Contexts issued during Evaluation

APPENDIX 2: STRATAGRAPHIC MATRIX

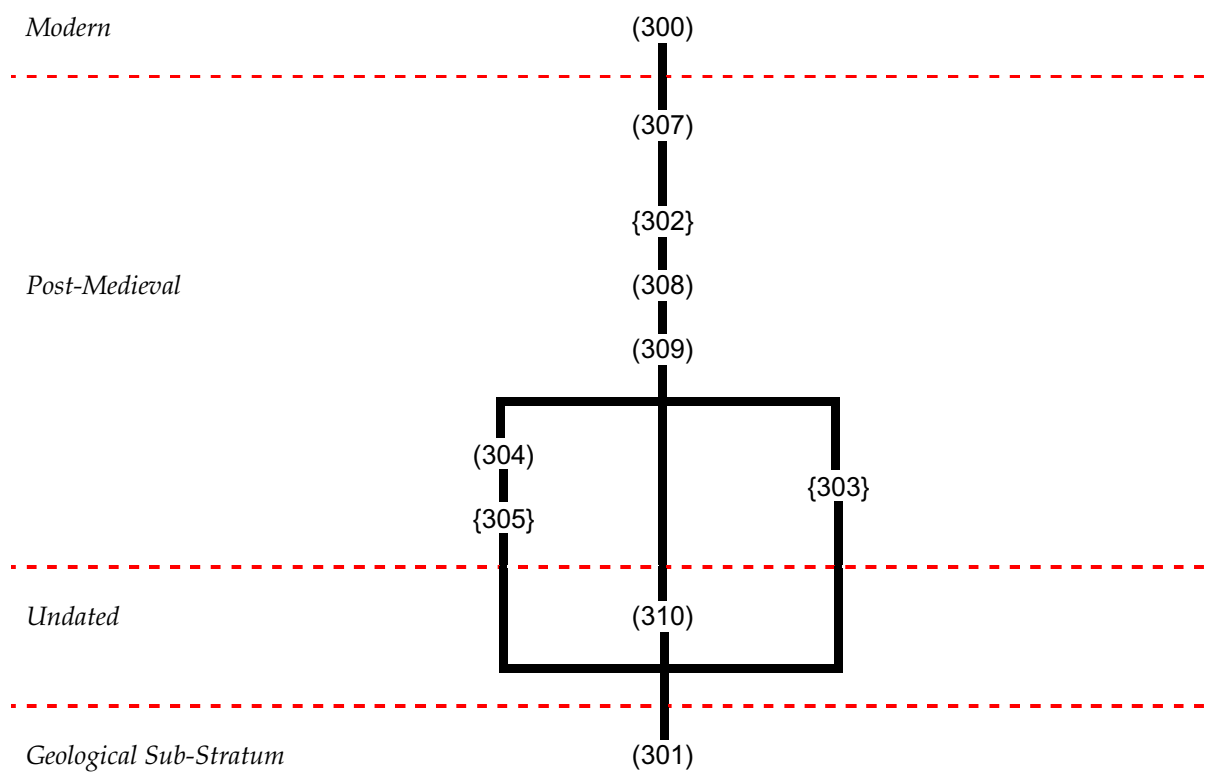
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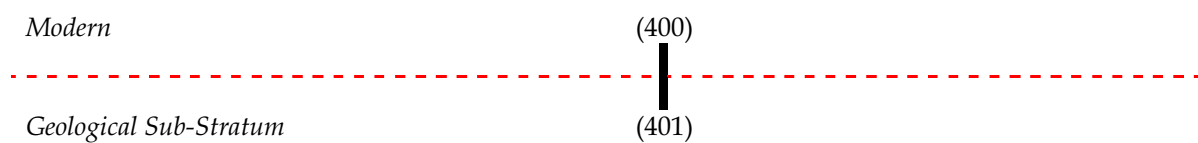
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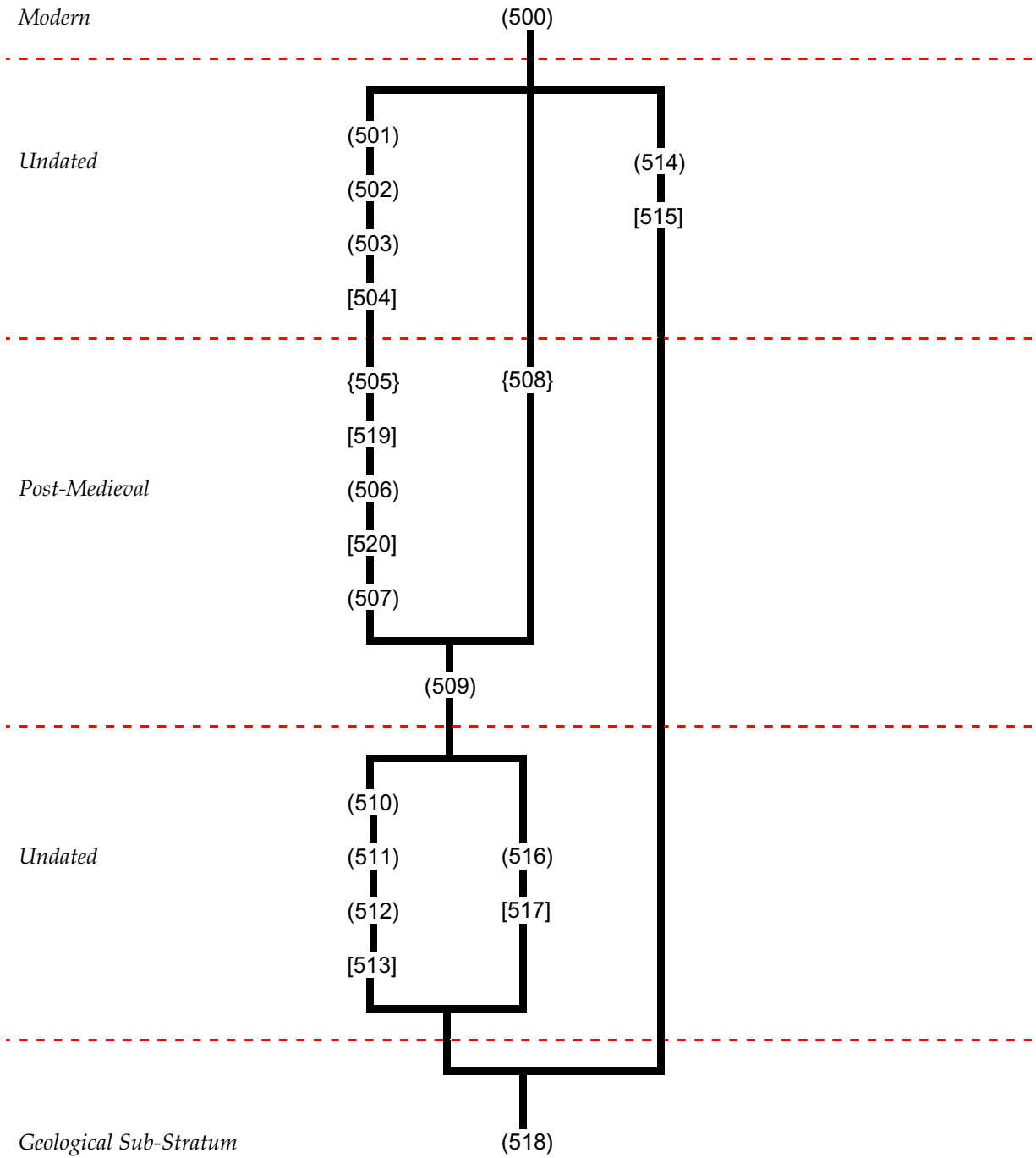
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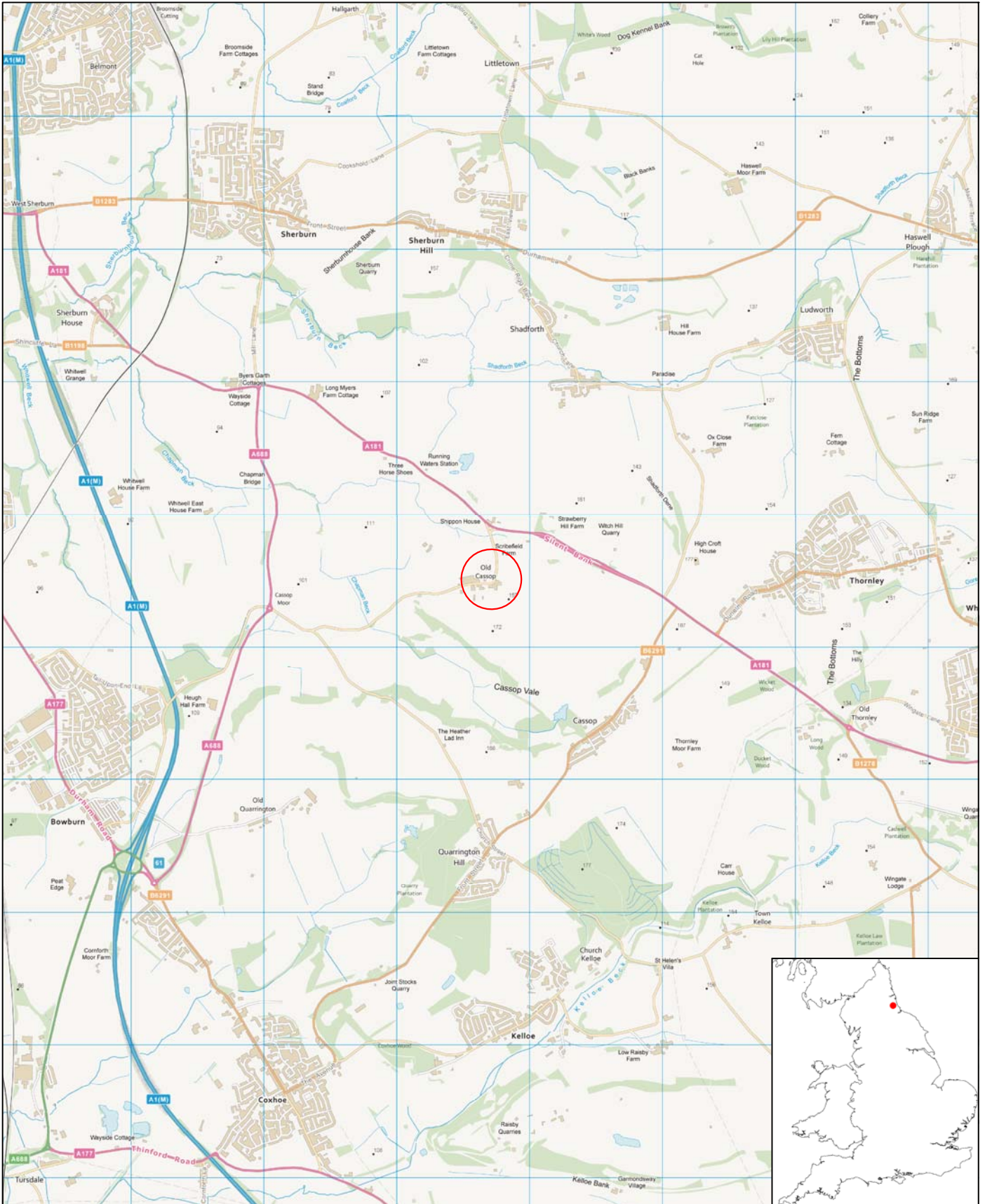
TRENCH 4:



TRENCH 5:



APPENDIX 3: FIGURES






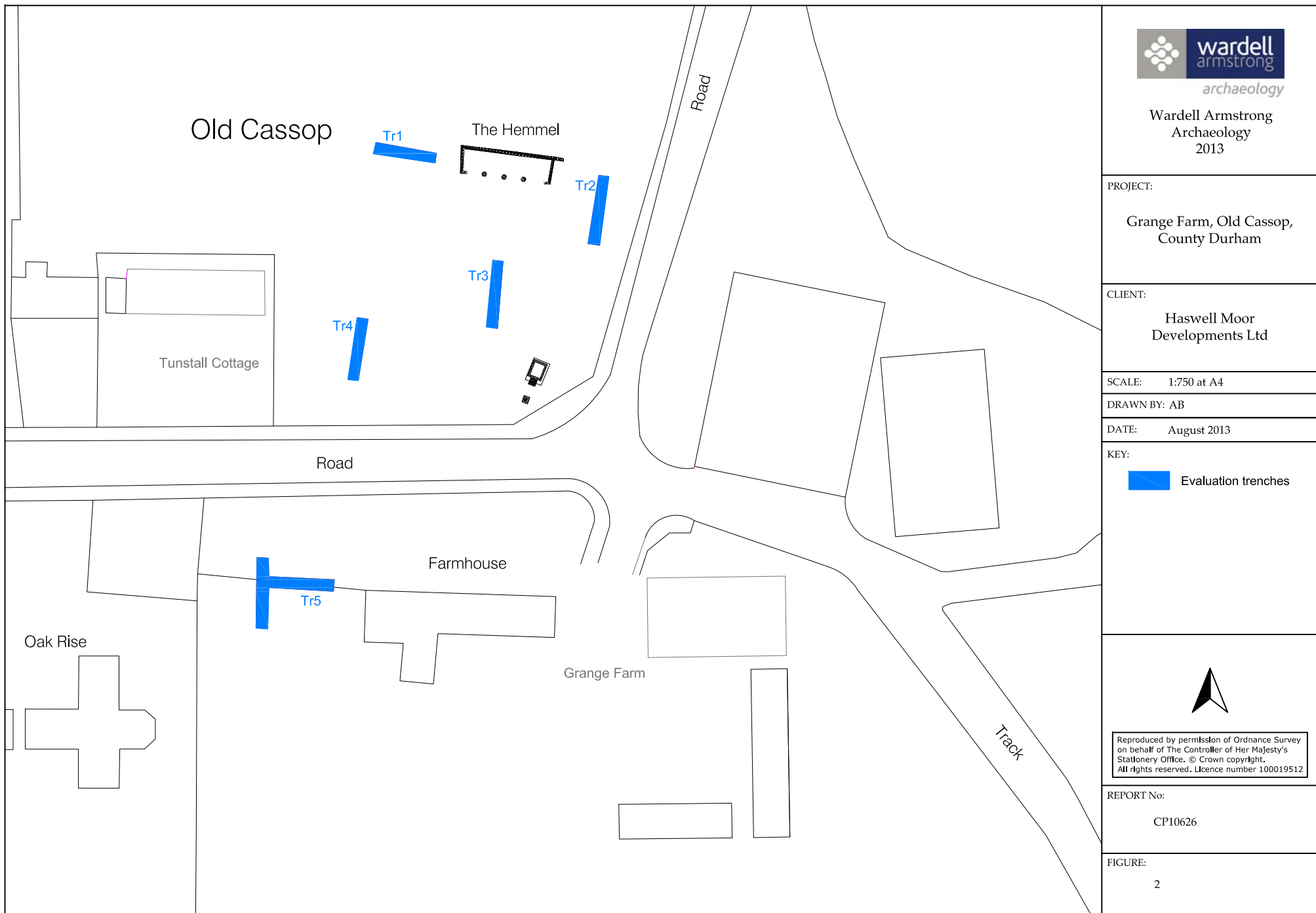
 <p>Wardell Armstrong Archaeology 2013</p>	<p>PROJECT: Grange Farm, Old Cassop, County Durham</p> <p>SCALE: 1:40,000 at A4</p> <p>REPORT No: CP10626</p> <p>CLIENT: Haswell Moor Developments Ltd</p> <p>DRAWN BY: AB</p> <p>DATE: November 2013</p> <p>FIGURE: 1</p>	<p>KEY:</p> <p> Site location</p>	 <p>Reproduced by permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office. © Crown copyright. All rights reserved. Licence number 100019512</p>
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Figure 1: Site location.



Wardell Armstrong
Archaeology
2013


PROJECT:
Grange Farm, Old Cassop,
County Durham

CLIENT:
Haswell Moor
Developments Ltd

SCALE: 1:750 at A4

DRAWN BY: AB

DATE: August 2013

KEY:
 Evaluation trenches



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REPORT No:
CP10626

FIGURE:
2

Figure 2: Location of evaluation trenches.

PROJECT:

Grange Farm, Old Cassop,
County Durham

CLIENT:

Haswell Moor
Developments Ltd

SCALE: 1:40 at A3

DRAWN BY: AB

DATE: November 2013

KEY:

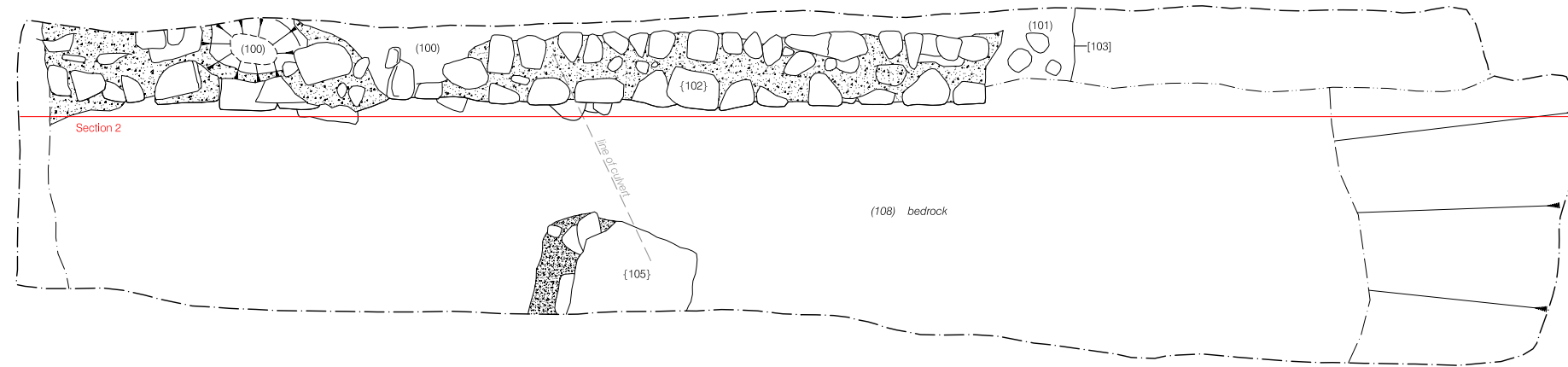
- [101] Context numbers
- Height mAOD
- Section location
- Limit of excavation
- White lime mortar
- Grey fine lime mortar

REPORT No:

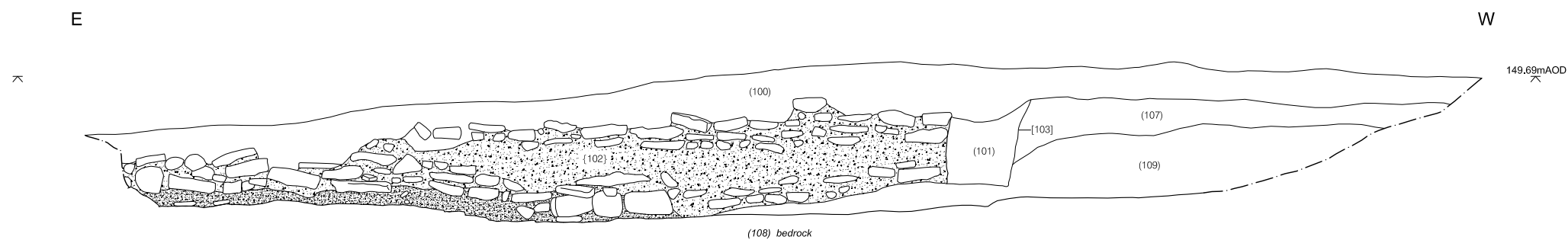
CP10626

FIGURE:

3



Trench 1, plan.



Section 2. North facing section, Trench 1.



Figure 3: Trench 1; plan and section.

PROJECT:

Grange Farm, Old Cassop,
County Durham

CLIENT:




Haswell Moor
Developments Ltd

SCALE: 1:40 at A3

DRAWN BY: AB

DATE: November 2013

KEY:

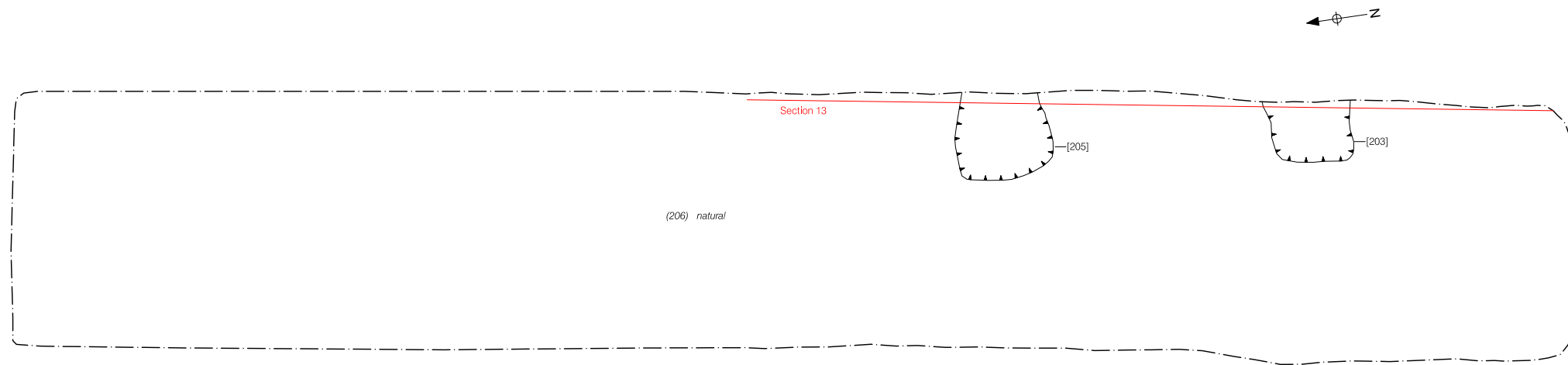
- [101] Context numbers
-  Height mAOd
-  Section location
-  Limit of excavation

REPORT No:

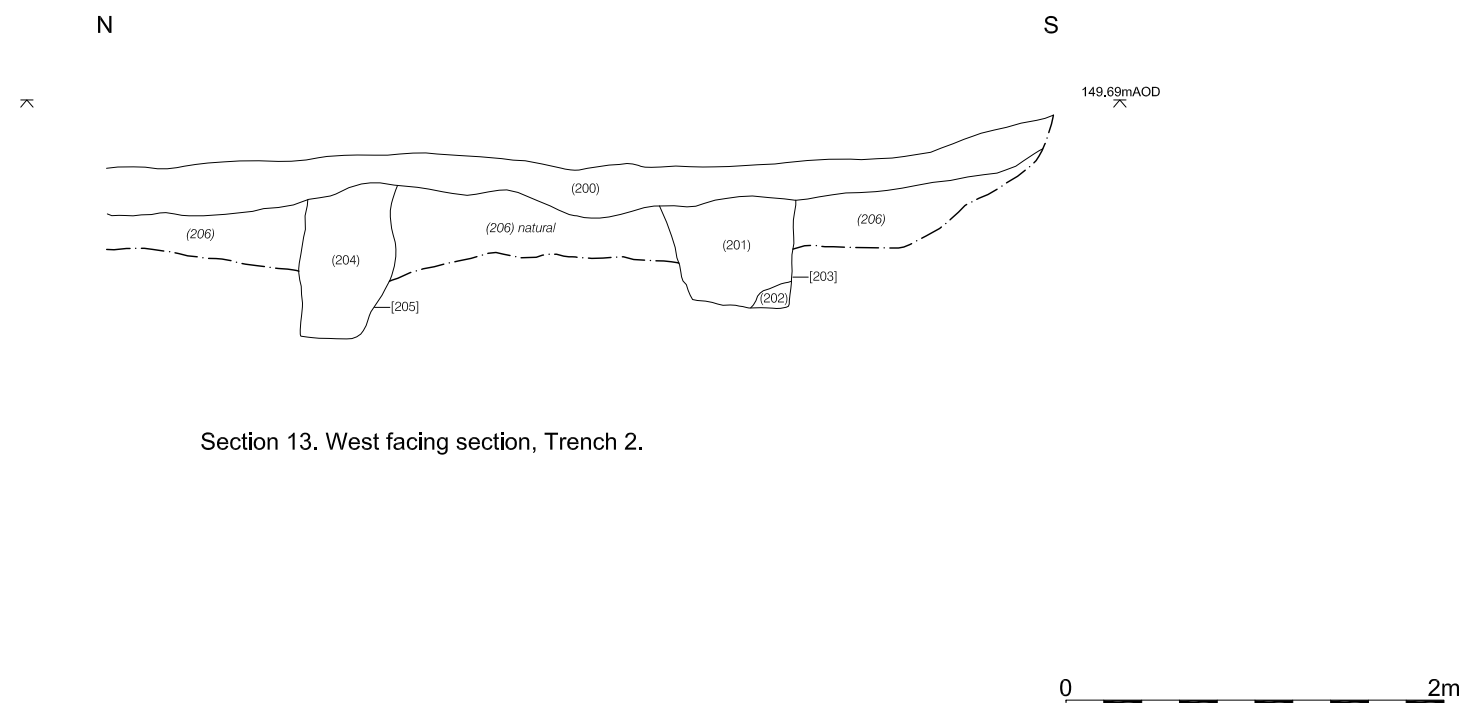
CP10626

FIGURE:

4



Trench 2. Plan.



Section 13. West facing section, Trench 2.

Figure 4: Trench 2; plan and section.

PROJECT:

Grange Farm, Old Cassop,
County Durham

CLIENT:




Haswell Moor
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SCALE: 1:40 at A3

DRAWN BY: AB

DATE: November 2013

KEY:

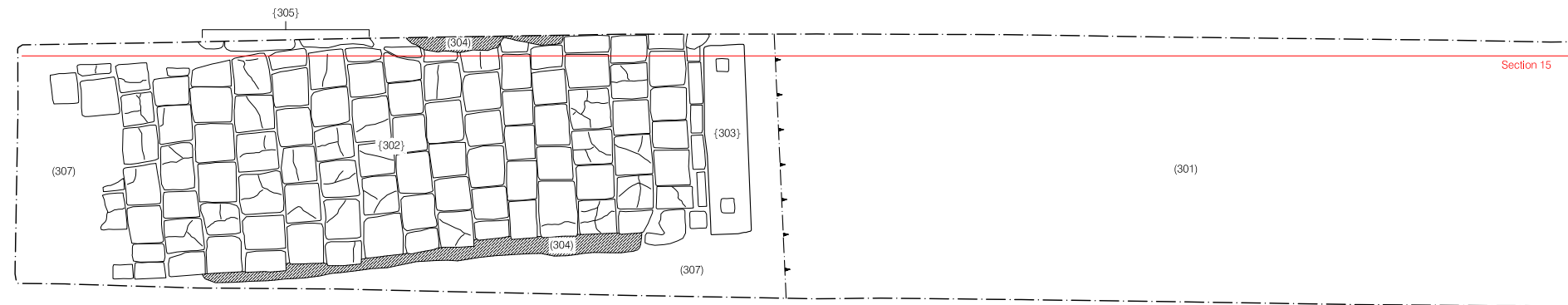
- [101] Context numbers
-  Height mAOd
-  Section location
-  Limit of excavation
-  White lime mortar
-  Plaster

REPORT No:

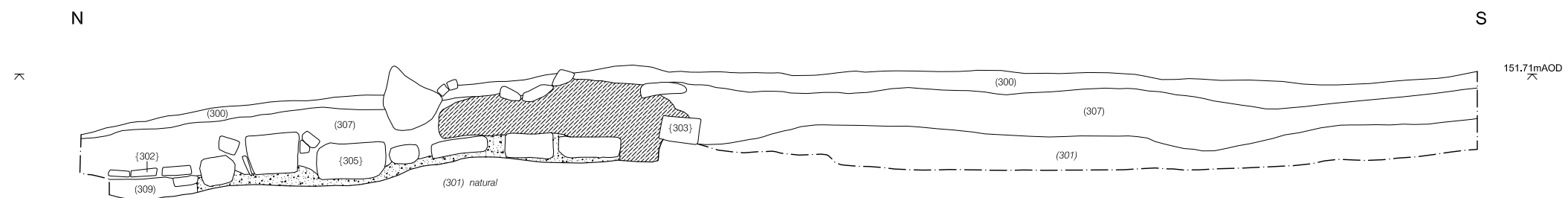
CP10626

FIGURE:

5



Trench 3, plan.



Section 15. West facing section, Trench 3, after removal of floor {302}.

0 2m

Figure 5: Trench 3; plan and section.

PROJECT:

Grange Farm, Old Cassop,
County Durham

CLIENT:





Haswell Moor
Developments Ltd

SCALE: 1:40 at A3

DRAWN BY: AB

DATE: November 2013

KEY:

-  Context numbers
-  Height mAOD
-  Section location
-  Limit of excavation

REPORT No:

CP10626

FIGURE:

6

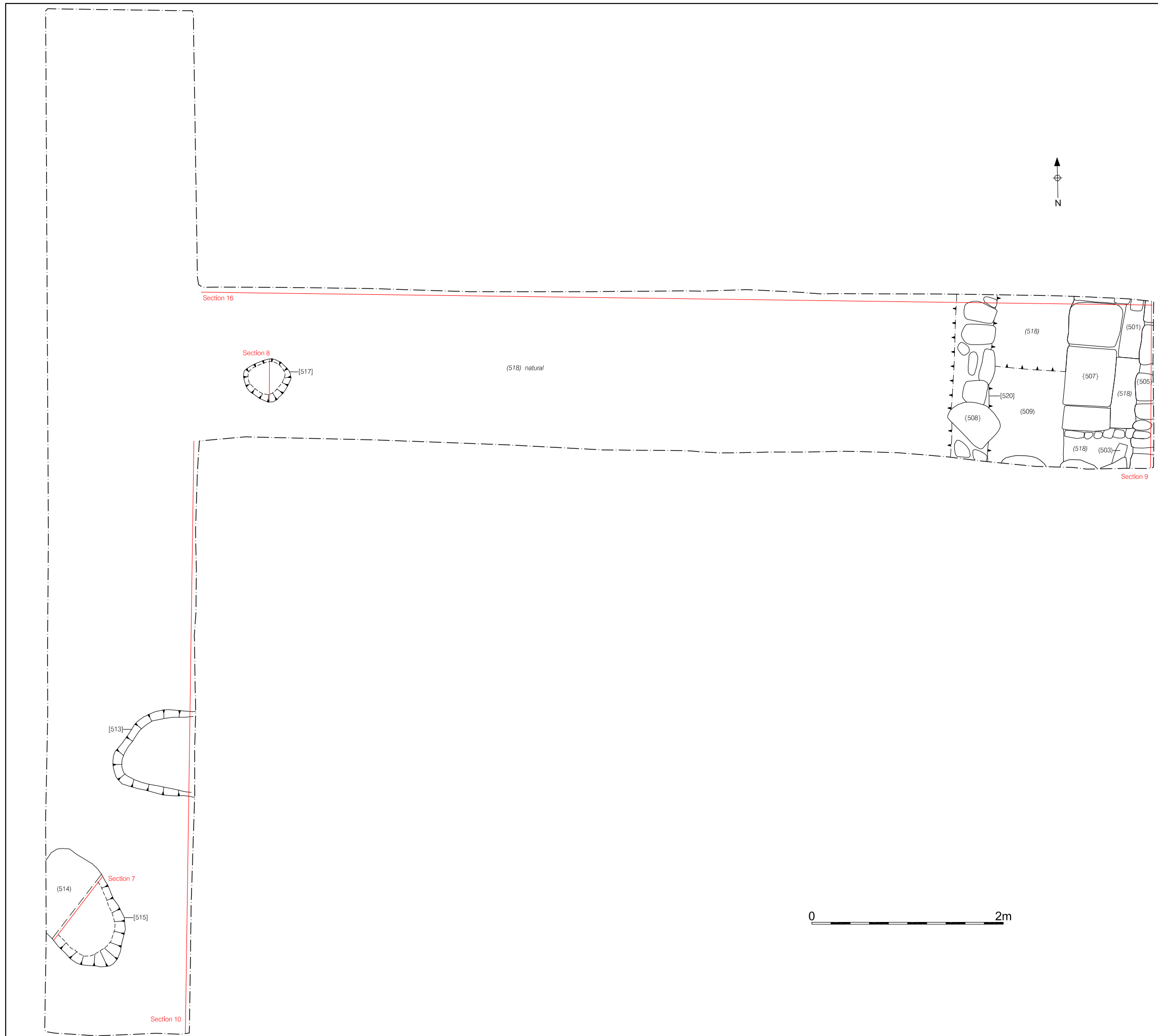


Figure 6: Trench 5; plan.

PROJECT:

Grange Farm, Old Cassop,
County Durham

CLIENT:





Haswell Moor
Developments Ltd

SCALE: 1:40 at A3

DRAWN BY: AB

DATE: November 2013

KEY:

-  Context numbers
-  Height mAOd
-  Limit of excavation
-  White lime mortar

REPORT No:

CP10626

FIGURE:

7

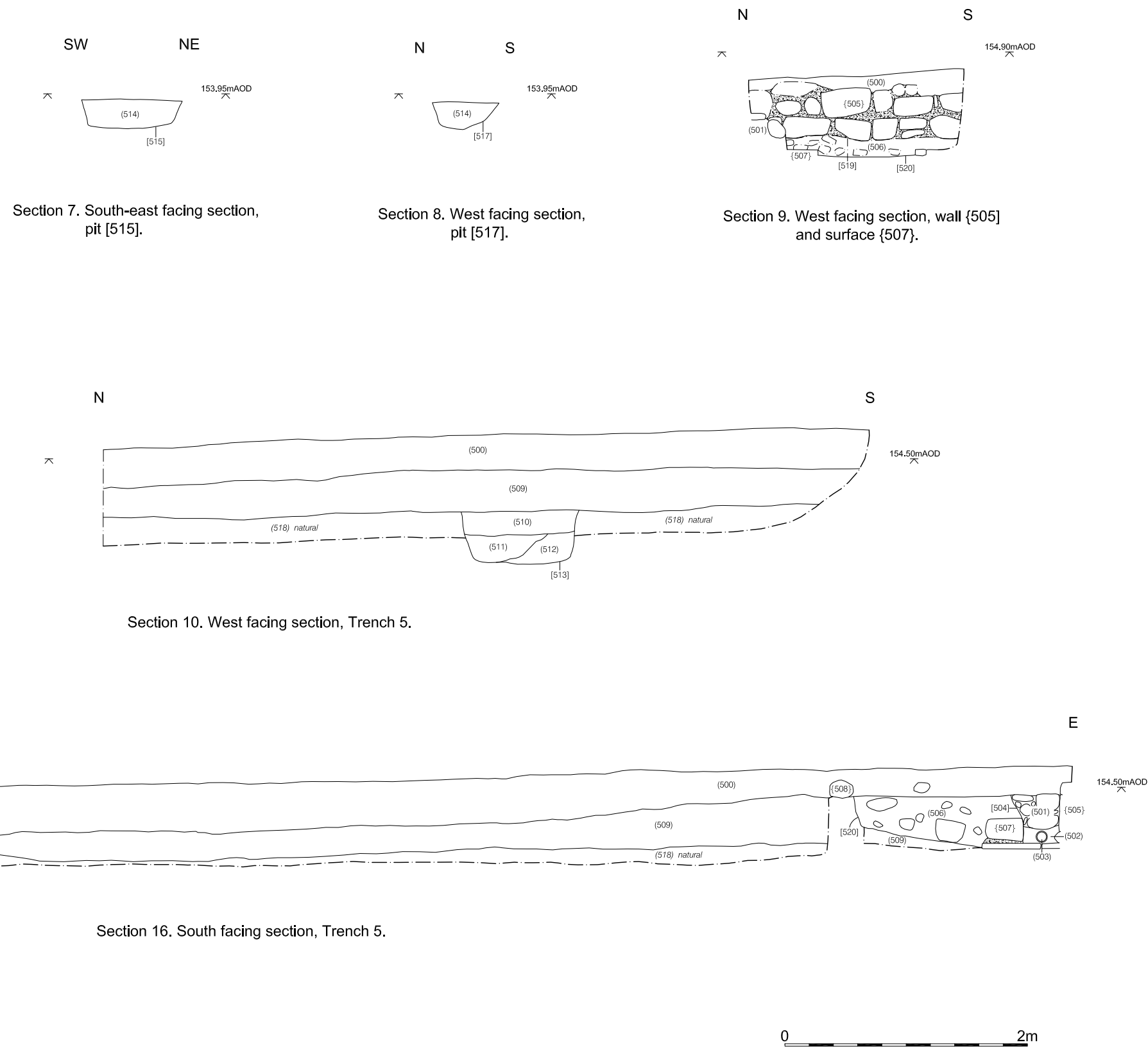


Figure 7: Trench 5, sections.

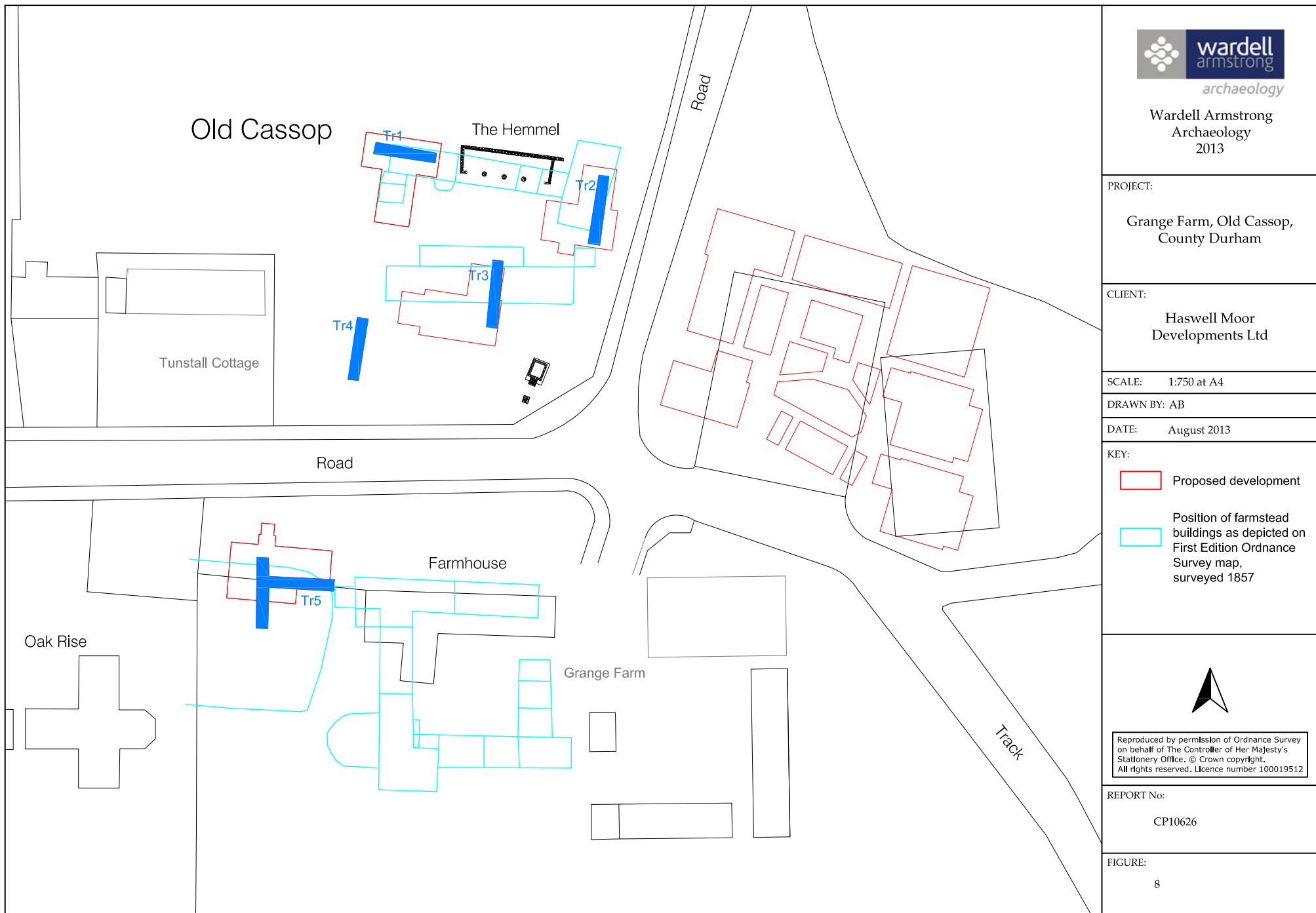


Figure 8: Site plan showing position of farmstead buildings surveyed in 1857.

APPENDIX 4: ENVIRONMENTAL ARCHAEOLOGY

Sample	1	2	3	4	5	6
Context	511	512	514	516	201	204
Type of Feature	Pit	Pit	Pit	Pit	Pit	Pit
Volume processed (litres)	30	30	30	10	20	20
Volume of retent(Kg)	3	4.8	6.4	1.7	1.3	5.6
Volume of flot (ml)	>20	>20	>20	>20	>20	>20
Samples suitable for radiocarbon dating	Y	Y	Y	Y		Y
<u>Residue contents (relative abundance)</u>						
Bone/teeth, burnt bone	1					
Burnt Clay						3
Charcoal		2	1		2	
Magnetic Residue	1	2	1			2
Nutshell						
Pottery					1	
Glass					1	
Stones/gravel	3	3	3	3	3	3
Coal						
<u>Flot matrix (relative abundance)</u>						
Charcoal	3	3	3	3	3	3
Modern roots	1	1	1	1	1	1
<u>Charred plant remains (total counts)</u>						
<i>Hordeum</i> sp (Barley; grain)	?3;	25;		2;		
Hulled barley		10;				1;
Triticum species (aestivo-compactum type)	4;					
Oat/Grass	19;	45;	1;	?1;		
oats cultivated		2;				
Floret bases		2;				
Indeterminate cereal; grain	40;	c.259 ;		4;		1;
<u>Other plant remains (relative abundance)</u>						
<i>Betula</i> sp. (Birch)	B;	A;	A;	A;	B;	
<i>Carex</i> sp. (Sedge; trigonous type)	A*;					
<i>Chenopodiaceae</i> (Goosefoots)			A;			
<i>Leontodon</i> species (Hawkbit)		A*;				
<i>Linum usitatissimum</i> (flax)		?A*;				
<i>Polygonum aviculare</i> (Common Knotgrass)					A;	A;
<i>Polygonum</i> sp. (Knotgrass)		B;				
<i>Sambucus</i> sp. (elder)	A;	A;	B;	A;		
<i>Taraxacum officinale</i> (Dandelion)					A;	
<i>Urtica dioica</i> (Stinging-nettle)	B;	B;		A;		A;
<i>Fabaceae</i> (legume)	B*;			1*;		
Unid	1			1		

TABLE 3: ENVIRONMENTAL ANALYSIS

<u>Context</u>	<u>Species</u>	<u>Element</u>	<u>L/ R</u>	<u>Present</u>	<u>Notes</u>
309	Ovis	Rad-Ulna	L	P-10-D	Radius Bp:31.5; Bd:29.7; GL:145; Gnawing to prox + dist.
309	G. Galus	Femur	L	P-10-D	Bp:15.1; GL:75.8; Bd:14.2;
500	Bos	Tibia	R	3	Midshaft section
514	Bos	M-tarsal	R	P-10-D	Bp:51.9; GL:224; Bd:57.2;
514	Bos	M-carpal	R	P-10-D	Bp:60.5; GL:204; Bd:61.3;
514	Bos	M-carpal	R	6-D	Bd:61.7. Excavation break to proximal
514	Bos	Prox-phal		10	
514	Bos	Prox-phal		10	
514	Bos	Prox-phal		10	
514	Bos	Prox-phal		10	
514	Bos	Prox-phal		10	
514	Bos	Prox-phal		10	
514	Bos	Dist-phal		10	
514	Bos	Dist-phal		10	
514	Bos	Dist-phal		10	
514	Bos	Dist-phal		10	
514	Bos	Dist-phal		10	
514	Bos	Dist-phal		10	
514	Bos	Inter-phal		10	
514	Bos	Inter-phal		10	
514	Bos	Inter-phal		10	
514	Bos	Inter-phal		10	
514	Bos	Inter-phal		10	
514	Bos	Mandible	L	10	
514	Bos	Mandible	R	10	
514	Bos	Skull			Fragments of skull; appears to be largely complete.
514	Ovis	Humerus	L	5-D	Fragmentary example
514	Ovis	Radius	L	P-10-d	Unfused to distal, slight damage to proximal
514	Ovis	M-podial		4	Midshaft section

TABLE 4: ZOOARCHAEOLOGY RESULTS