
**ARCHAEOLOGICAL
STRIP, MAP AND SAMPLE EXCAVATION
ON LAND AT GOLDHOLME QUARRY (CASTLE
QUARRY),
ANCASTER, LINCOLNSHIRE
(ANCQ16)**

Work Undertaken For
HARNFIELD PROPERTIES

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**ARCHAEOLOGICAL
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1. SUMMARY

An archaeological investigation comprising a strip, map and sample excavation was carried out in advance of mineral extraction at Castle Quarry, Ancaster, Lincolnshire. This consisted of an approximately 0.67 hectare section of a proposed extension to the quarry.

Castle Quarry lies within an archaeologically sensitive area. Previous investigations from the 1970s onwards identified archaeological remains of Middle Iron Age and Roman date within the current quarry and in adjacent areas. The quarry lies to the south of Ancaster which was the site of a walled Roman town which overlies further remains of late Iron Age date.

A previous strip map and sample excavation immediately south of the current area of investigation revealed enclosures of Middle Iron Age date along with pits and post holes. These were probably related to the previously excavated Castle Quarry site. There was evidence for cereal production, cereal processing and animal husbandry. One of the ditches had been recut in the Late Iron Age and there was also a Late Iron Age/Early Roman boundary ditch.

The current investigations revealed similar ditched enclosures to those revealed to the south on Area A1. Environmental evidence suggested these may have been sheep pasture.

Finds included pottery of 350-50 BC Middle Iron Age date with some undiagnostic prehistoric material and three sherds of Late Iron Age/Early Roman along with animal bone.

Dating of the pottery suggests this site is contemporary with, and forms part of, the

Iron Age farming settlement originally investigated by in the 1970s.

2. INTRODUCTION

2.1 Definition of an Excavation

An archaeological excavation is defined as; “a programme of controlled, intrusive fieldwork with defined research objectives which examines, records and interprets archaeological deposits. Features and structures and, as appropriate, retrieves artefacts, ecofacts and other remains within a specified area or site on land, inter-tidal zone or underwater. The records made and objects gathered during the fieldwork are studied and the results of that study published in detail appropriate to the project design” (CIfA 2014).

2.2 Planning Background

Planning permission (Application S2/1065/07) for extension of the Goldholme Quarry (Castle Quarry) was granted subject to a condition requiring a programme of archaeological works in advance of extraction. The area of extraction under investigation in this phase of work is B1, depicted on Figure 4.

An Archaeological Assessment and Management Plan was compiled for the quarry extension in March 2008 (Rowe 2008a). This set out the known archaeological potential of remains at the site and a mitigation strategy for their management in light of their proposed destruction by the quarry extension. The mitigation requirement was defined in Stage 3 of the Management plan and will comprise a ‘strip, map and record exercise’.

Following evaluation through trial trenching at the site in the same year (Rowe 2008b), three areas were identified

to be subject to a strip, map and record exercise. Within Area A this was defined as A1 (Figs 3 & 4) and had already been undertaken by Archaeological Project Services (APS) (Jefferson & Peachey, 2016).

Within Area B, the strip was defined as B1 (Figs 3 & 4). APS was commissioned by Harnfield Properties to carry out the investigation which was undertaken between 8th February and 17th March 2016. This was in accordance with a written scheme of investigation prepared by APS and approved by the Lincolnshire County Council Environment Team.

2.3 Topography and Geology

Ancaster is situated 10km west of Sleaford and approximately 10km northeast of Grantham in the administrative district of South Kesteven, Lincolnshire (Fig. 1). Goldholme quarry (Castle Quarry) lies off Sleaford Road to the south of the village (Fig. 2). Located in the eastern part of the quarry, investigation Area B1 is centered on National Grid Reference SK 9880 4340 (Fig. 3)

The site lies at 71m OD on the north facing slope of the Ancaster Gap, a striking landscape feature which cuts through the limestone hills known throughout Lincolnshire as the Lincoln Cliff. This cutting was formed by an ancient course of the River Trent during the glacial period. South of the Witham Gap, which cuts through the limestone ridge at Lincoln some 29km to the north, the Ancaster Gap forms the only break in the hills in the region, making it of considerable strategic importance.

Local soils are of the Elmtun 3 Association and consist of shallow loamy clayey soils developed over limestone (Hodge *et al.* 1984).

2.4 Archaeological Setting

There is a long history of archaeological investigation at Goldholme Quarry and the wider Ancaster area. At the quarry itself investigations first began in the 1960s when Jeffrey May (May 1976) undertook excavations adjacent to the original Castle Lime Pit quarry. When first identified this was the only settlement site of earlier Iron Age date known in Lincolnshire and the distinctive scored pottery recovered from the site became known as Ancaster-Breedon ware, taking this name from the Castle Pit site and a hill fort site in Leicestershire where the pottery was also recovered. Since this time this pottery has been recovered from many sites from around the East Midlands and is known simply as Scored Ware.

Although a portion of the site had been lost to the quarry, May was able to identify the remains of at least two structures which were interpreted as circular hut type buildings. One of these was defined by a 12.5m diameter shallow circular ditch which enclosed the remains of an oven and scattered post holes which possibly marked the positions of internal divisions or roof supports. The second hut was much smaller, just 4.6m in diameter and defined by a circular arrangement of post holes which marked the positions of the walls of the structure. Other features included the remains of up to 75 pits, some very shallow and only a few centimetres deep. Others were much larger and deeper including several which were up to 1.5 metres in diameter.

The inhabitants of the site operated a subsistence based agricultural economy, the frequent quernstones recovered indicating the important role that growing and processing of cereals played. The pits possibly represented grain storage and a number of the post holes recorded on the site may have represented hay or straw

drying racks. Burnt grain recovered from the fills of the pits provided additional evidence for the processing of cereals for consumption or storage. This Iron Age community also kept a range of domesticated animals including sheep, horses, cattle and pigs.

An Archaeological Desk-Based Assessment and geophysical survey was undertaken on the proposed extension to the quarry in April 2007 (Gardner and Jefferson 2007). The geophysical survey identified anomalies which indicated that the adjacent Middle Iron Age site excavated by May extended into the proposed quarry extension. The desk-based study concluded that the potential for the presence of remains associated with the Roman town at Ancaster was high.

In August 2008 (Rowe 2008b) archaeological trial trench evaluation of the full area of the proposed quarry extension was undertaken. Anomalies of the previous geophysical survey were targeted and archaeological features were identified in all of the trenches. A pit of Iron Age date was recorded and a linear ditch which extended throughout much of the proposed extension proved to be distinctively V-shaped in profile. It was tentatively proposed that this latter feature may represent the enclosing ditch of a Roman military marching camp.

During July and August 2009 an archaeological Strip, Map and Record investigation was undertaken on a 40m square area in the southwest corner of the quarry extension (Rowe 2010). These excavations provided firm evidence of the remains of Iron Age settlement within the quarry extensions and also recovered additional evidence to support the interpretation that the site was occupied by a Roman military marching camp.

Archaeological investigations undertaken at Area A1 (Fig 4) by APS (Jefferson & Peachey 2016) revealed ditches forming enclosures of Middle Iron Age date along with pits and post holes. The site would have formed part of a settlement with a subsistence based agricultural economy involving cereal production and processing and animal husbandry.

3. AIMS AND OBJECTIVES

The aim of the work was to recover as much information as possible on the origins, date, development, phasing, spatial organisation, character, function, status, significance and nature of social, economic and industrial activities on the site.

The objectives of the work were to:

- Determine the date of the archaeological remains present on the site.
- Determine the extent and spatial arrangement of archaeological remains present within the site.
- Establish the character of archaeological remains present within the site.
- Determine the extent to which surrounding archaeological remains extend into the site.
- Identify the way in which the archaeological remains identified fit into the pattern of occupation and land-use in the surrounding landscape.

Research priorities for the region are set out in the document *East Midlands Heritage. An Updated Research Agenda and Strategy for the Historic Environment of the East Midlands* (Knight et al. 2012).

The evaluation and previous strip, map and sample excavation identified two main areas of archaeological interest within the site. These comprise:

- Remains associated with the middle to late Iron Age settlement focussed towards the southern half of the proposed extension.
- The linear ditch extending across the length of the site and thought to represent the enclosing ditch of a Roman military marching camp.

The remains have the potential to provide information relevant to the following research objectives as defined in the Research Agenda for the region (*ibid*).

Iron Age: *Refine first millennium BC ceramic chronology by additional radiocarbon dating and typological analyses.*

The chronology of Scored Ware pottery remains hazy. Scientific dating of material from stratified groups with diagnostic vessel types is defined as a high priority. Unfortunately ‘wiggles’ on the radiocarbon calibration curve for the Middle to late Iron Age period can often limit the effectiveness of C14 dating. Therefore selection of C14 samples should concentrate on primary contexts with stratified ceramic groups, preferably with additional stratigraphic or dating associations.

Iron Age: *Assess the evidence for the evolution of settlement hierarchies.*

A group of ‘nucleated settlements’ of potentially high status sites have been identified in Lincolnshire, including nearby Old Sleaford. Rowe speculates that Ancaster may be considered among these (Rowe 2010). Therefore it will be

particularly important to define the chronology of the Iron Age site at the quarry and investigate its relationship with the adjacent late Iron Age site in Ancaster.

It will be vital to determine whether the Iron Age remains within Area B1 are an extension of the Middle Iron Age site excavated by May or if it represents a later phase or later settlement.

Roman: The identification of a probable Roman military camp at the proposed quarry offers potential to provide information on the *distribution of early military sites and their period of use* as defined in the research agenda.

In this sense the dating and phasing of the Roman deposits on the site will be crucial. This may be through scientific dating if appropriate but the retrieval of pottery groups from stratified contexts is a priority.

Consideration should also be given to the intriguing possibility that the camp may have been constructed over an occupied Iron Age site, although this is likely to be difficult to discern in the archaeological record. However, this may be apparent through signs of rapid abandonment of the Iron Age settlement or, however unlikely, signs of destruction or violence.

4. METHODS

Prior to excavation, topsoil and other overburden were removed by mechanical excavator using a toothless ditching bucket under archaeological supervision. Exposed surfaces were then cleaned by hand, if necessary, and inspected for archaeological remains.

Each deposit exposed during the excavation was allocated a unique reference number (context number) with

an individual written description. A photographic record was compiled. Sections and plans were drawn at an appropriate scale. Recording of deposits encountered was undertaken according to standard Archaeological Project Services practice.

The location of the excavated area, as well as features identified therein, was plotted using a survey grade differential GPS.

Following excavation, finds were examined and a period date assigned where possible (Appendix 2). All records were checked and ordered to ensure that they constituted a complete archive and a stratigraphic matrix of identified deposits was produced. A list of all contexts and interpretations appears as Appendix 1. Context numbers are identified in the text by brackets. An equals sign between context numbers indicates that the contexts once formed a single layer or feature. Phasing was based on the nature of the deposits and recognisable relationships between them and supplemented by artefact dating.

Environmental sampling was undertaken on the discretion of the site supervisor using guidelines established by English Heritage (2011). The subsequent processing of the samples is detailed in Appendix 3.

5. RESULTS (Fig. 5)

For the full context description see Appendix 1.

Following post-excavation analysis, four phases of activity were identified:

Phase 1	Natural
Phase 2	Possible clearance episode
Phase 3	Iron Age
Phase 4	Undated

Phase 1: Natural

The natural deposits across the site comprised cracked limestone bedrock and hard limestone fragments in a sandy to clayey sand matrix (134)/(110)/(034) ranging in colour from light grey to light yellowish brown to mid reddish brown.

A major geological feature was observed extending across the site (Fig 5; Plate 2). Although resembling a channel in shape, the location on the side of a slope precludes this possibility. The feature probably represents a large fracturing event in the bedrock which then filled with sand and gravel.

Irregular shaped cut [087] was probably of natural origin, measuring 2.89m long by 0.98m wide by 0.36m deep, with steep sides breaking gradually to an uneven base (Fig 9, Section 28). This was filled with very loose to friable, mid reddish brown silty sand (086).

Feature [124] was ovoid in shape and probably natural in origin. This probable tree throw, measured 1.30m long by 1.05m wide by 0.24m deep with moderately steep sides and an uneven base (Fig 10, Section 38) and was filled with friable light brownish yellow to yellowish brown sandy silt (123) and stoney silt.

Natural feature [102] was irregular to ovoid in shape, measuring 0.98m long by 0.78m wide by 0.11m deep, with irregular sides breaking gradually to an irregular base (Fig 10, Section 30). Its primary fill consisted of loose, light to mid grey to greyish brown, sandy silt (101), 0.10m thick, with frequent limestone fragments and gravel. The uppermost fill of [102] was composed of firm to friable mid reddish brown to brownish red sandy silt (100) and limestone fragments, 0.12m thick.

Phase 2: Possible Clearance Episode

This phase is characterised by a number of natural looking features that contain evidence of burning. It is suggested these might be the result of an episode of woodland clearance, with the irregular shaped pits representing tree throws or stumps that have been deliberately pulled out and burned either *in-situ* or close by. This would account for the apparent contradiction of irregular/natural shaped features containing burnt material and fits with the evidence from environmental sampling and field system remains.

Feature [120] was irregular in shape, measuring 0.90m long by 0.46m wide by 0.20m deep with irregular sides and base (Fig 10, Section 36). This was filled with loose mid to dark grey to greyish black silty sand (119), 0.20m thick with occasional small limestone fragments, rare charcoal flecks and ash.

Irregular shaped cut [109] probably represents a tree throw, measuring 3.52m long by 1.06m wide by 0.45m deep with irregular sides and base (Fig 10, Section 33). A sequence of six fills was identified in this feature, the earliest of which consisted of 0.12m thick, loose to soft, light yellow to yellowish light, limestone fragments and silty sand (113). This was overlain by 0.18m thick, firm black to dark brown silty sand (112), with purplish hue, containing moderate ash. The third fill in the sequence comprised soft to moderately firm, mid greyish brown and reddish brown silty sand (111), with rare limestone fragments, 90mm thick. The next deposit in the sequence consisted of firm light yellowish white limestone brash (110) in a sandy matrix. The fifth deposit in the sequence was composed of 0.27m thick, soft to loose light yellow decayed limestone grit (108) with rare small limestone pebbles. The final and uppermost fill comprised loose mid brown

to greyish black to reddish brown sand and silt (107), 0.13m thick, with frequent limestone fragments and rare charcoal flecks. This probably represents the remains of a tree throw, the ash content within the fills suggests burning which may be related to woodland clearance with stumps being burned either *in-situ* or close by.

A cluster of four intercutting natural looking features was identified in the southern area of the site. The stratigraphically earliest of these [071] was irregularly shaped, measuring 1.26m long by 0.52m deep, with moderately steep irregular sides and an uneven base (Fig 9; Sections 25-26). This cut contained two fills, the earliest of which consisted of loose to friable, very dark grey silt (070) with frequent charcoal flecks and fragments. The upper fill was composed of loose to friable mid reddish brown silty sand (069) with frequent small limestone fragments and small burnt stones. Cut [071] was truncated by cuts [068] and [073]. Feature [068] was ovoid in shape, measuring 0.62m long by 0.36m wide by 0.16m deep with a moderately steep side breaking gradually to an uneven to concave base (Fig 9, Section 25). Loose to friable, mid reddish brown silty sand (067) with occasional charcoal flecks, filled [068]. Cut [073] was also irregularly shaped, measuring 1.08m long by 0.65m wide by 0.23m deep with moderately steep sides breaking gradually to a fairly flat base (Fig 9, Sections 25-26). Loose to friable mid reddish brown silty sand (072) filled this feature. Cut [073] was truncated by natural irregular shaped feature [081] which measured 1.16m long by 1m wide by 0.20m deep with moderately steep sides breaking gradually to a concave to flat base (Fig 9, Section 26). Very loose to friable mid reddish brown silty sand (080), filled this cut.

Cut [093] was irregular in shape and likely to be natural in origin. The cut measured 1.48m long by 0.61m wide by 0.37m deep with irregular sides breaking gradually to an uneven base (Fig 9, Section 29). It was filled with loose to friable very dark grey sand and silty sand (092) with frequent charcoal fragments and small burnt stones and small fragments of prehistoric pottery (App 2).

Feature/possible pit [106] was sub-circular in shape, measuring 1.20m long by 1m wide by 0.19m deep with irregular sides breaking gradually to an uneven base (Fig 10, Section 32). This feature was filled with loose to friable very dark brown silty sand (105) with occasional charcoal flecks. An environmental sample from this fill was the only one from the site to suggest a woodland rather than a grassland habitat, indicating that this was an earlier feature (App 3) and adds weight to the notion of a woodland clearance phase.

Feature [126] was ovoid and irregular in shape and as such, probably natural in origin. Cut [126] measured 1.26m long by 0.86m wide by 0.21m deep with moderate to steep sides, breaking gradually to a concave to irregular base (Fig. 10, Section 39). The fill of this feature was composed of loose to moderately compact mid to dark reddish brown sandy silt (125) with silty clay, containing occasional charcoal and burnt stone.

Cut [116] was irregular in shape and probably represents natural disturbance. It measured 1.84m long by 1m wide by 0.27m deep with moderately steep sides breaking gradually to an uneven base (Fig 10, Section 35). This feature contained two fills, the first of which comprised friable to loose, very dark brown silty sand (115) with frequent charcoal flecks. The upper fill consisted of 0.29m thick, friable to loose mid reddish brown silty sand (114).

Possible pit [096] was irregular in shape on the surface, although more circular at depth, measuring 2m long by 1.44m wide by 0.72m deep with irregular sides breaking gradually to a concave to irregular base (Fig 9, Section 27). The basal fill of this feature comprised light yellowish to greyish brown compact stone fragments in a friable sand matrix (097) with frequent ash and charcoal flecks and occasional burnt stone, 0.33m thick. This was overlain by 0.48m thick, light yellowish brown compacted gravel and small stones (098) in a matrix of friable sand. The final fill within this cut consisted of a friable to loose mix of black to dark grey to dark grey with yellowish brown mottle to deep brownish red to light grey sand and limestone fragments (099), 0.72m thick, containing very frequent burnt stone and charcoal flecks and fragments.

Phase 3: Iron Age

In the northwestern area of the site, a large NE to SW aligned ditch, assigned group number [201] was identified cutting the natural. At its northeastern end, slot [028] (Fig. 7, Section 8; Plate 6) was 4.14m wide by at least 1.26m deep, with steep, fairly straight sides, breaking gradually to a base that was not fully exposed due to unstable section sides. The earliest fill comprised friable to loose, light to mid reddish brown slightly clayey silt (029/030), 0.20m thick with frequent small limestone fragments. This was overlain by a deposit of loosely packed hard mid creamy brown to greyish reddish brown flat limestone fragments (031), slightly larger and more loosely packed towards the centre of the deposit, which contained two fragments of bone belonging to horse and cattle. The third fill in the sequence consisted of friable mid to dark reddish brown slightly clayey sand (032), up to 0.33m thick with occasional limestone fragments. Firm to friable mid reddish and slightly yellowish brown small angular

limestone fragments, in a sandy matrix (033) overlay deposit (032). Fill (033) was overlain by friable mid reddish brown slightly clayey sand (034), up to 0.15m thick, with moderate small angular limestone fragments. This fill was sealed by 0.44m thick, friable mid greyish reddish brown, slightly clayey sand (035), with moderate small angular limestone fragments which contained two sherds of later Middle Iron Age pottery, two iron nails and animal bone, mostly of horse but also cattle and pig. Environmental sampling recovered shells of grassland species of molluscs (App 3).

Ditch [201] was also partially excavated at the northwestern corner of the site (Fig. 6, Sections 2-3), where the cut [008] measured 4.18m wide by 1.38m deep, with steep fairly straight sides breaking gradually to a base that was not fully exposed in section. The earliest fill of [008] comprised soft mid reddish brown slightly clayey sand and gravel (013), up to 0.37m thick, containing frequent small to medium flat limestone fragments. This deposit is probably the same as (029/030), recorded in Section 8. This was overlain by an up to 0.47m thick deposit of loose mid creamy brown, small to medium sized limestone fragments (012), the same deposit as (031), and containing horse and sheep/goat bone. The next fill in the sequence consisted of 0.50m thick, loosely packed hard creamy brown limestone fragments (014) in a mid brown sandy matrix (c. 20%). This was overlain by friable mid reddish brown, very slightly clayey sand (011), up to 0.23m thick, with frequent small gravel and occasional small to medium limestone fragments. Deposit (011) was sealed by fill (010) which consisted of friable mid brown to greyish brown very slightly clayey sand, up to 0.17m thick, containing frequent small to medium, flat limestone fragments averaging c. 40mm by 50mm by 10mm. The final fill of this ditch comprised

friable mid reddish brown, very slightly clayey sand (009), up to 0.25m thick, containing occasional small limestone fragments and a small iron nail, possibly intrusive. This deposit was the same as (035) recorded in Section 8.

Ditch [201] was truncated by ditch [202] (Fig 5) which was oriented on a northwest to southeast alignment and formed part of a probable rectangular enclosure ditch with an entrance to the southeast. Ditch group [202] was assigned cut numbers [007], [015], [020], [025], [040], [057], [079] and [022]. The stratigraphic relationship between the two ditches [201] and [202] was observed at the northwestern end of the site (Fig 6, Section 3; Plate 3), where [007] (part of [202]) truncated ditch [008] (part of [201]). Cut [007] measured 1.70m wide by 0.52m deep, with a steep side breaking gradually to a base that was not fully exposed in section. A single fill (006) consisted of friable mid brown to reddish brown slightly clayey sand with moderate stone fragments containing horse bone.

To the southeast, cut [015] measured 0.77m wide by 0.29m deep with moderately steep straight sides breaking imperceptibly to a tapered concave point (Fig. 6, Section 5). A sequence of two fills was identified in this part of the ditch, the earliest of which comprised compact mid reddish brown silty sand and stone (017), up to 0.29m thick and containing three sherds of Late Iron Age/Early Roman pottery and fish bone. Environmental sampling recovered disturbed grassland mollusc taxa. This was overlain by firm mid reddish brown sandy silt (016) with frequent limestone fragments. This deposit contained a partial skeleton of a horse along with mouse, vole and eel bone. Environmental sampling yielded mollusc shells typical of grassland species and a hulled barley grain.

Cut [020] measured 0.62m wide by 0.42m deep, with steep sides breaking sharply to a slightly concave base (Fig. 6, Section 6). This segment of ditch [202] contained two fills. The primary fill consisted of moderately firm, mid reddish brown sandy silt (019), 0.28m thick, containing frequent limestone fragments and an iron nail. This was overlain by a deposit of 0.13m thick, firm mid reddish brown sandy silt (018)/(133), containing a moderate amount of limestone fragments and animal bone, mostly horse.

Ditch segment [025] measured 1m wide by 0.44m deep, with steep near vertical sides breaking gradually to a narrow tapered slightly concave base (Fig. 6, Section 7; Plate 4). The earliest fill in this section comprised friable mid reddish brown sandy silt (024), 0.20m thick, with occasional limestone fragments, and contained a sherd of later Middle Iron Age pottery. The upper fill consisted of firm mid reddish brown silty sand (023), 0.24m thick, with frequent limestone fragments, and containing horse skull and pieces of cattle and probable sheep sized bone.

Closer to the centre of the site, ditch [202] became wider. In segment [040], the ditch measured 1.35m wide by 0.80m deep with steep sides breaking gradually to a narrow flat base (Fig 8, Section 12; Plate 7). The earliest of four fills, consisting of 0.23m thick, soft mid reddish brown silty sand (049) contained a moderate amount of small to mid-sized limestone fragments and a single sherd of later Middle Iron Age pottery. This was overlain by loose to moderately firm light yellow silty sand (048) and limestone fragments, 0.20m thick. The third fill of [040] comprised firm mid reddish brown sandy silt (047), 0.64m thick, with occasional small limestone fragments, containing a single sherd of later Middle Iron Age pottery, a possible quern fragment, and horse bone. The uppermost fill in this segment of the

ditch was composed of 0.16m thick, firm mid reddish yellowish brown silt (046) with frequent limestone fragments, containing a sherd of earlier Iron Age pottery and animal bone, including horse. This was sealed by a 0.12m thick layer of light to mid yellowish brown silt (044) from which two sherds of later Middle Iron Age pottery and two pieces of animal bone were retrieved, including cattle and sheep/goat.

Cut [040] is possibly a recut of [039] if [039] is part of ditch [202]. However, there do not appear to be recuts anywhere else along ditch [202] so it may be the case that [039] represents an earlier feature which has been truncated by [040]. Cut [039] may be linear in shape, measuring at least 0.52m wide by least 0.32m deep before truncation (Fig 8, Section 12). Only one partial side of this cut was observed in section where it was moderately steep. It was filled with mid yellowish brown sandy silt (045) which contained a fragment of horse bone.

Segment [057] of ditch [202] measured 1.3m wide by 0.74m deep with steep to near vertical sides tapering gradually to a narrow flat base (Fig. 8, Section 16; Plate 9). The primary fill of the ditch in this segment consisted of loose to soft mid reddish brown sandy silt (056), 0.22m thick, with occasional small limestone fragments and rare flecks of charcoal and some animal bone. This was overlain by a 0.16m thick deposit of firm light greyish yellow limestone fragments in a silt matrix (066). The third fill in the sequence was firm to loose mid reddish brown stoney sandy silt (055), 0.35m thick and containing six sherds of later Middle Iron Age pottery, a human femur (Plate 8) and a large amount of animal bone, mostly horse but also cattle. The uppermost fill of the ditch in this section comprised soft to moderately firm mid reddish brown sandy silt (054), 0.24m thick, with rare to

occasional small limestone fragments. This contained twelve sherds of undiagnostic prehistoric pottery, along with a single sherd from the later Middle Iron Age. Fills (054) and (055) both contained shells of grassland molluscs, while (056) had species typical of disturbed grassland. In addition fills (054) and (056) both contained small quantities of cereal grains, including possible emmer wheat (App 3).

Pit [075] was truncated by ditch [202] in segment [079] (Fig. 9, Section 19; Plate 10). Pit [075] was ovoid in shape, measuring 0.48m long by 0.30m wide by 0.23m deep with steep sides breaking gradually to a concave to irregular base. It was filled with friable mid to dark grey silty sand (074), containing a moderate amount of small to large limestone fragments.

Ditch cut [079] measured 1m long by 0.84m wide by 0.42m deep with steep to near vertical sides breaking gradually to a narrow flat base. The basal fill of the ditch in this area was composed of soft to loose mid reddish brown sandy silt (078), 0.12m thick. This was overlain by a 90mm thick deposit of firm light yellow to yellowish brown silty sand (077), containing moderate to frequent limestone fragments. The final fill in this section comprised friable mid reddish brown sandy silt (076), containing frequent small limestone fragments, charcoal flecks, rare burnt stone, two sherds of later Middle Iron Age pottery and a single fragment of animal bone.

The final segment [022] of ditch [202] formed the rounded terminal end of the ditch, measuring 1.20m wide by 0.55m deep with moderately steep sides breaking sharply to a flat base (Fig. 6, Section 9; Plate 5). A single fill was identified in this section consisting of friable to loose mid reddish brown silty sand with gravel (021) which contained fourteen sherds of later

Middle Iron Age pottery, a 1st century AD Roman brooch and small quantities of bone, including amphibian, were recovered from (021) together with shells of grassland molluscs (App 3).

The terminal end of ditch [202] formed part of an entrance that measured 10.17m across. A second rounded terminus [027] to the southeast formed the other half of the entrance and the continuation of the enclosure ditch along a northwest to southeast alignment. This southeastern portion of the enclosure ditch was assigned group number [203]. A total of three segments were excavated along it, cut numbers [027], [051] and [061]. The ditch terminus [027] measured 0.96m wide by 0.46m deep with steep sides breaking gradually to a narrow tapered concave base (Fig. 7, Section 10). It was filled with friable to loose, mid reddish brown silty sand with gravel (026).

To the southeast, ditch segment [051] measured 1m wide by 0.56m deep, with steep sides breaking sharply to a tapered narrow flat base (Fig. 8, Section 15). The fill of this segment of ditch comprised friable to loose slightly reddish mid brown silty sand and gravel (050) containing horse, sheep/goat and other animal bone. Shells of grassland molluscs, rare cereal grains and a spike-rush seed, which implies damp conditions in the ditch were also identified (App 3).

Cut [061] measured 1.40m wide by 0.70m deep with steep sides breaking gradually to a tapered concave point (Fig. 8, Section 17). The primary fill of the ditch in this segment consisted of friable to loose mid reddish brown silty sand (060), 0.25m thick. This was overlain by a 0.17m thick fill of firm mid reddish brown silty sand and limestone fragments (059). The uppermost fill of the ditch comprised 0.23m thick, friable to loose mid reddish brown silty sand (058), which contained

small amounts of cereal grains and grass seeds.

A further ditch located southwest of, and parallel to, ditch [202], was assigned group number [204]. A total of four segments were excavated along it, cut numbers [104], [091], [089] and [064]. The northwestern end of ditch [204] did not have a clear edge and, as such, probably represents truncation of the ditch rather than a terminal end. The cut [104] here measured 0.43m wide by 0.14m deep, with steep fairly straight sides breaking gradually to a flat to slightly concave base (Fig. 10, Section 31).

Ditch segment [091] measured 0.31m wide by 0.13m deep with steep slightly concave sides breaking gradually to a fairly flat to a slightly concave base. It was filled with loose light reddish brown slightly silty sand and small limestone fragments (090) (Fig. 9, Section 23).

Segment [089] measured 0.38m wide by 0.16m deep with steep slightly concave sides breaking gradually to a flat, slightly concave base (Fig. 9, Section 23). It was filled with loose mid reddish brown slightly silty sand and limestone fragments (088).

At its southeast end, there was an intersection between ditch [204] (Fig. 7, Section 18) and a northeast to southwest aligned ditch assigned group number [205].

No stratigraphic relationship between ditches [204] (segment [062]) and [205] (segment [064]) was observed in section. Segment [062] measured 0.87m wide by 0.25m deep, with a shallow side breaking gradually to a slightly concave base. The fill comprised loose to friable mid reddish brown sandy silt and limestone fragments (063). Cut [064] measured 0.85m wide by 0.15m deep and had a shallow concave

side breaking gradually to a probable concave base. The ditch was filled with loose to friable mid reddish brown sandy silt with limestone fragments (065). The similarities of the fills of both ditches and their placement at right angles to each other forming an enclosure suggests they were contemporary and part of the same field system.

Four further segments were excavated along ditch [205], cut numbers [095], [037], [085] and [083].

The southwestern end of ditch [205], cut [095], was shallow and probably represents truncation of the site rather than a terminal end to the feature. It measured 0.58m wide by 90mm deep (Fig 9, Section 24), with steep sides breaking gradually to a flat base. The fill consisted of loose dark reddish brown slightly silty sand (094) with frequent stone fragments.

Ditch segment [037] (Fig 7, Section 11) of ditch [205] lay to the northeast of its intersection with ditch [204]. It measured 1.6m wide by 0.32m deep, with concave sides breaking gradually to a concave base. The fill (038) in this segment consisted of loose to friable mid reddish brown silt and limestone fragments with rare charcoal flecks.

Ditch [205] would have intersected with ditch [201] at a right angle, however, due to truncation this was not the case. It faded out before its intersection with ditch [201] and reappeared to the northeast of it. Segment [085] measured 0.53m wide by 70mm deep with shallow irregular sides breaking imperceptibly to a flat base (Fig 9, Section 21). The fill consisted of loose light brownish red silty sand (084), with frequent small limestone fragments.

The northeastern end of ditch [205], segment [083], is probably a result of truncation rather than a terminal end. It

measured 0.55m long by 0.53m wide by 60mm deep with shallow sides breaking imperceptibly to a shallow concave base (Fig 9, Section 20). It was filled by loose light brown silty sand (082) with frequent small limestone fragments.

Phase 4: Undated features

Pit [043] was ovoid in shape, measuring 1.02m long by 0.76m wide by 0.18m deep with shallow concave sides breaking gradually to a slightly concave base (Fig. 10, Section 39). This pit contained two fills, the earliest of which comprised pliable light bluish grey to yellowish brown clay (042), 70mm thick, with a moderate amount of mid sized limestone fragments. The uppermost fill (041) consisted of pliable mid red clay 0.13m thick, with occasional mid-sized limestone fragments, and contained a piece of 17th century clay pipe. This may have been intrusive.

Possible pit [053] was circular in shape measuring 1m long by 0.89m wide by 0.17m deep with moderately steep concave sides breaking gradually to a flat base (Fig. 8, Section 14). It was filled with loose dark reddish brown sand (052) with frequent small to mid sized limestone fragments and occasional charcoal flecks.

Pit [005] was circular to ovoid in shape, measuring 0.59m long by 0.50m wide by 0.23m deep, with steep fairly straight sides breaking gradually to a fairly flat base (Fig 6, Section 1). A total of three fills were identified in this small feature, the earliest of which consisted of loose dark grey to mid yellowish greyish brown sand (004), 60mm thick, containing frequent small sub-rounded to angular limestone pebbles. This was overlain by a dump of loose, very dark greyish brown to black mix of sand and charcoal (003), 0.15m thick with occasional small burnt pebbles. Environmental sampling identified hazelnut shell and shells of grassland

species of mollusc (App 3). The uppermost fill comprised friable to loose, very dark brown slightly silty sand (002), 0.13m thick, with moderate small pebbles, charcoal flecks and fragments and occasional burnt stone.

At the south end of the site two parallel ditches on roughly east to west alignments were assigned group numbers [206] and [207]. There was a gap of *c.* 2.65m between them and they were both shallow and truncated to such an extent that only short sections of them survive in plan. Ditch [206] was at least 10.30m long and at its eastern end, segment [127], measured 0.36m wide by 0.12m deep with irregular sides breaking imperceptibly to an uneven base (Fig 10, Section 40). It was filled with dark brown sandy silt (128). Central segment [121] measured 1.57m long by 0.62m wide by 0.17m deep with concave sides breaking gradually to imperceptibly to a slightly concave base (Fig 10, Section 37) and was filled with dark brown silty sand (122). The final segment [117], at the east end, measured 0.55m wide by 80mm deep with shallow sides breaking gradually to imperceptibly to a slightly concave base (Fig 10, Section 34). The fill consisted of loose to friable dark brown, very slightly silty sand, containing frequent small limestone fragments (118).

Two slots were excavated through ditch [207] at either end of the feature. The segment at its eastern end [132] measured 0.5m wide by 0.14m deep with shallow sides breaking imperceptibly to a slightly uneven base (Fig 10, Section 42). At its western end [130], the ditch measured 0.26m wide by 30mm deep with shallow sides breaking imperceptibly to a narrow uneven base (Fig 10, Section 41). It was filled with loose mid brown to yellowish brown sandy silt with frequent grit and occasional small limestone pebbles. This fill was assigned context numbers (131)

and (129) respectively.

6. DISCUSSION

On investigation, many of the features and possible pits across the site looked irregular or natural but contained burnt material. It is suggested that these represent an earlier woodland clearance episode where tree stumps have been pulled and burned either in-situ or very close by. This accounts for the burnt material within what looks to be natural features with very similar morphology to tree throws. Further support for this notion is found from an environmental sample of one of these pits, which was dominated by woodland mollusc shells, in stark contrast to the open grassland taxa found in the ditches. This suggests an earlier clearance phase, possibly to make way for the sheep farming associated with the later Middle Iron Age ditches.

Although the southwest-northeast aligned ditch in the northwest corner of the site was cut by the northwest-southeast ditch running diagonally across the site, they both produced later Middle Iron Age pottery of 350-50 BC date. The latter ditch also contained three sherds of Late Iron Age/Early Roman pottery which could have been intrusive, or possibly indicates the ditch was still present in the Late Iron Age/Early Roman period, perhaps redundant, but surviving as a slight landscape feature. The ditches would have formed a further part of the field system seen to the south.

Previously it had been suggested that the northwest-southeast aligned ditch at the site may have formed part of a Roman Marching camp. However, dating evidence places this ditch firmly in the Iron Age and connects it with settlement excavated in the 1970s by May.

Towards the centre of the site two ditches were recorded forming a partial rectangular enclosure with the Middle Iron Age northwest-southeast aligned ditch. Although no dating evidence was retrieved from the two ditches they clearly reference the Middle Iron Age ditch and probably form part of the same field system. The rectangular shape and size of the partial enclosure is suggestive of animal management with this perhaps forming a paddock.

Environmental sampling of the ditches showed that the area was a dry grassland habitat, probably well grazed sheep pasture, with some patches of bare earth from grazing pressure. The ditches would have remained dry. There was limited occupation debris with the only evidence of arable cultivation being a few charred grains of emmer and hulled barley (App 3).

To the southeast of this possible paddock, was a c. 10m break in the northwest-southeast aligned Middle Iron Age ditch. The clear rounded terminals at either end of the break suggest this is an entrance rather than the result of truncation. The large entrance is also suggestive of animal husbandry and a pastoral field system.

In contrast to Area A1, the features revealed in this investigation relate to animal farming, rather than domestic settlement. There were none of the grain storage pits and post hole features found immediately to the south or in the May (1976) excavation. Dating evidence suggests these sites are contemporary and as such, the area under investigation probably formed the pastoral component of the mixed subsistence economy proposed for the Iron Age settlement excavated by May. The (2013) investigation probably represents the periphery of that settlement which has

been interpreted as a small farming community.

7. CONCLUSIONS

An archaeological strip, map and sample excavation was carried out at Castle Quarry, Ancaster, Lincolnshire. Archaeological investigations from the 1970s onwards revealed Middle Iron Age and Roman remains within the current quarry and adjacent areas.

The investigations revealed similar ditched enclosures to those revealed to the south on Area A1. The field system pattern and environmental sampling suggest that this area was used for grazing animals, probably sheep.

The bulk of the pottery retrieved was of 350-50 BC Middle Iron Age date with some undiagnostic prehistoric material and three sherds of Late Iron Age/Early Roman. Perhaps due to poor preservation, animal bone comprised mainly two horse skulls and a partial skeleton.

The dating of the pottery suggests this site forms part of the Middle Iron Age farming settlement originally excavated by May in the 1970s.

8. ACKNOWLEDGEMENTS

Archaeological Project Services wishes to acknowledge the assistance of Harnfield Properties who commissioned the work. Gary Taylor coordinated the project and Denise Drury and Gary Taylor edited this report. Thanks are also due to Kevin Elfleet who carried out metal detecting and drone photography.

9. PERSONNEL

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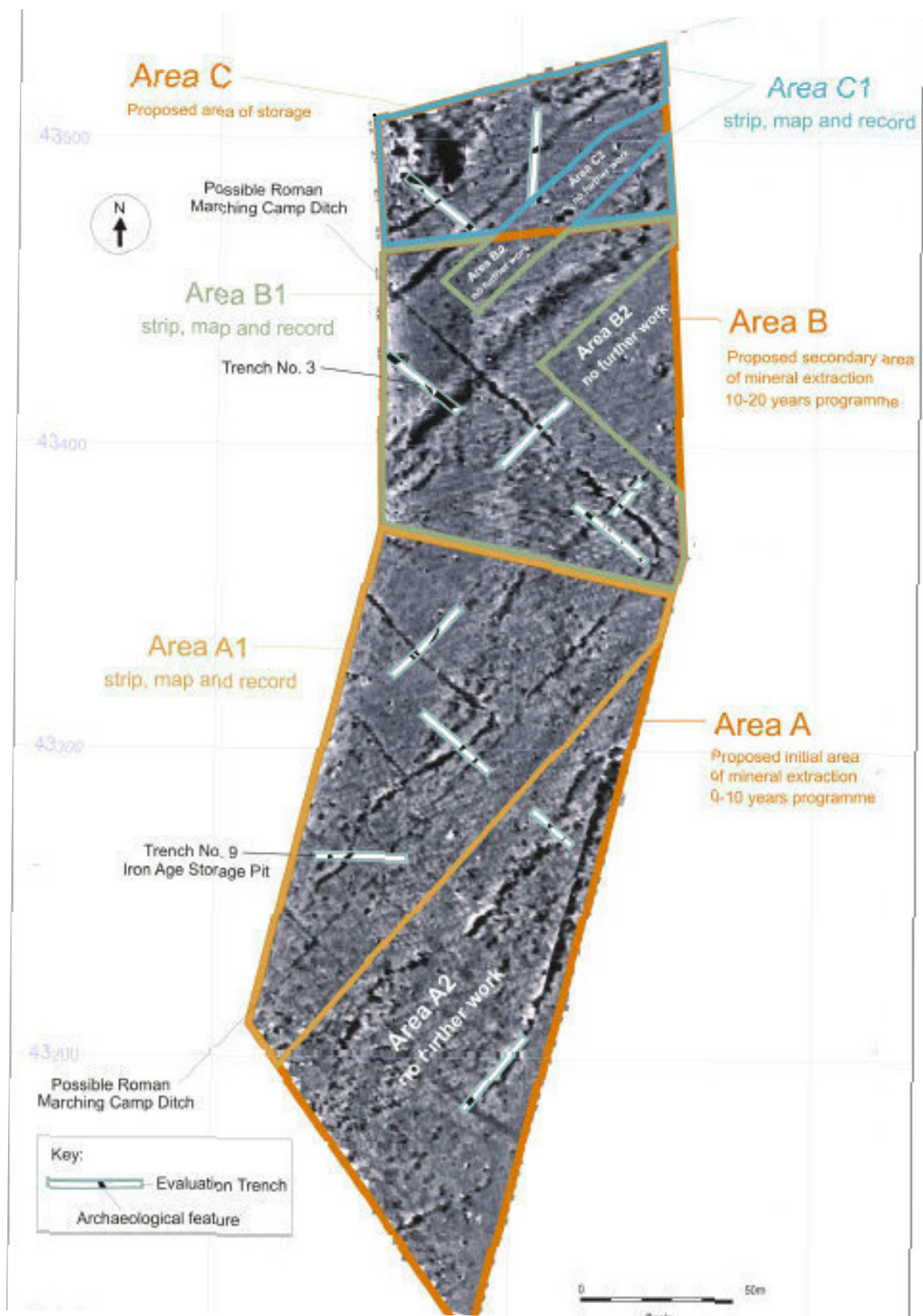
11. ABBREVIATIONS

APS Archaeological Project Services

CIfA Chartered Institute for Archaeologists



Figure 1 - General location plan



Archaeological Project Services

Project Name: Castle Quarry, Ancaster

Scale 1:2000

Drawn by: MJP

Report No: 77/16

Figure 3. Mitigation plan showing previous evaluation trenches and geophysics results

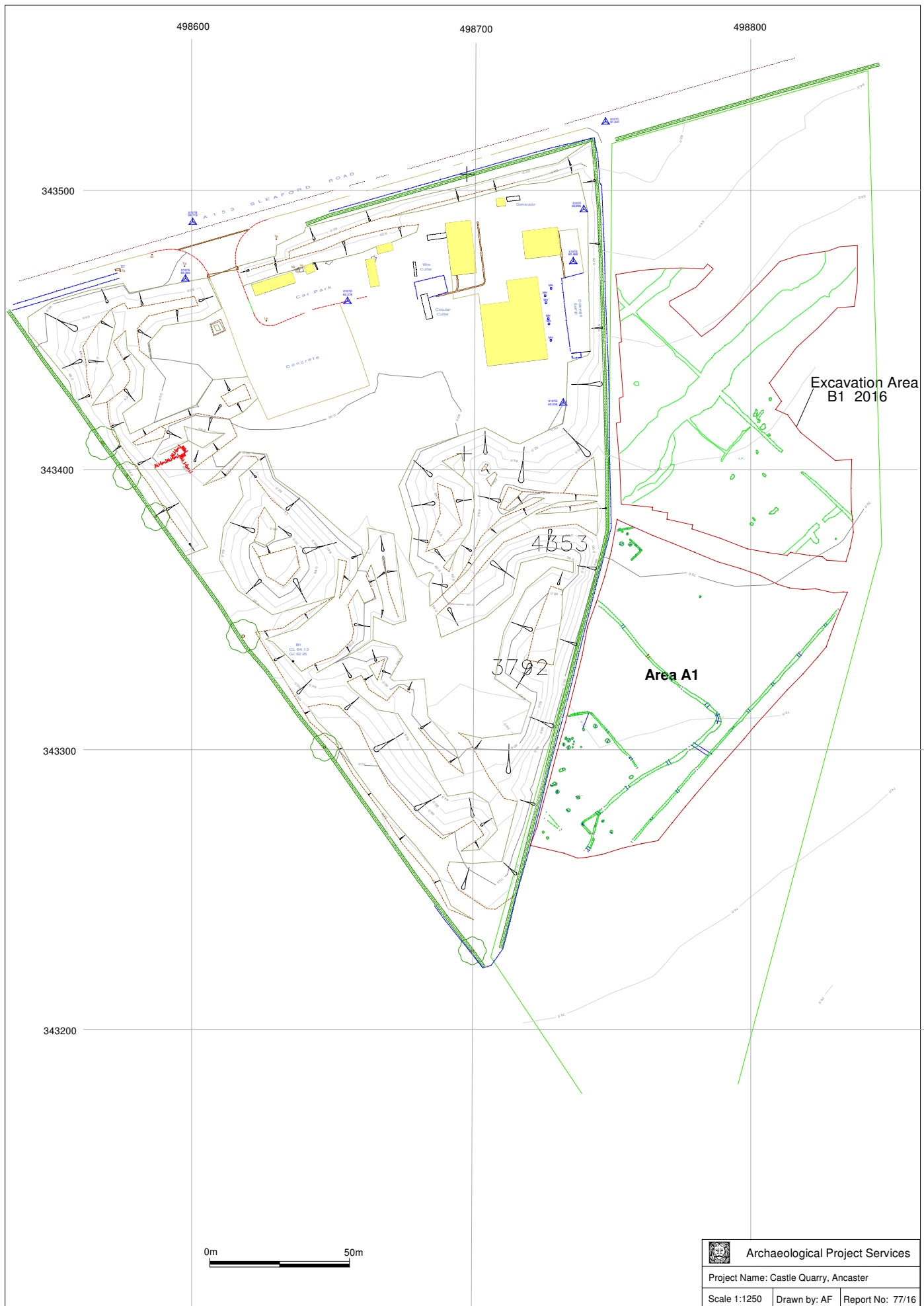
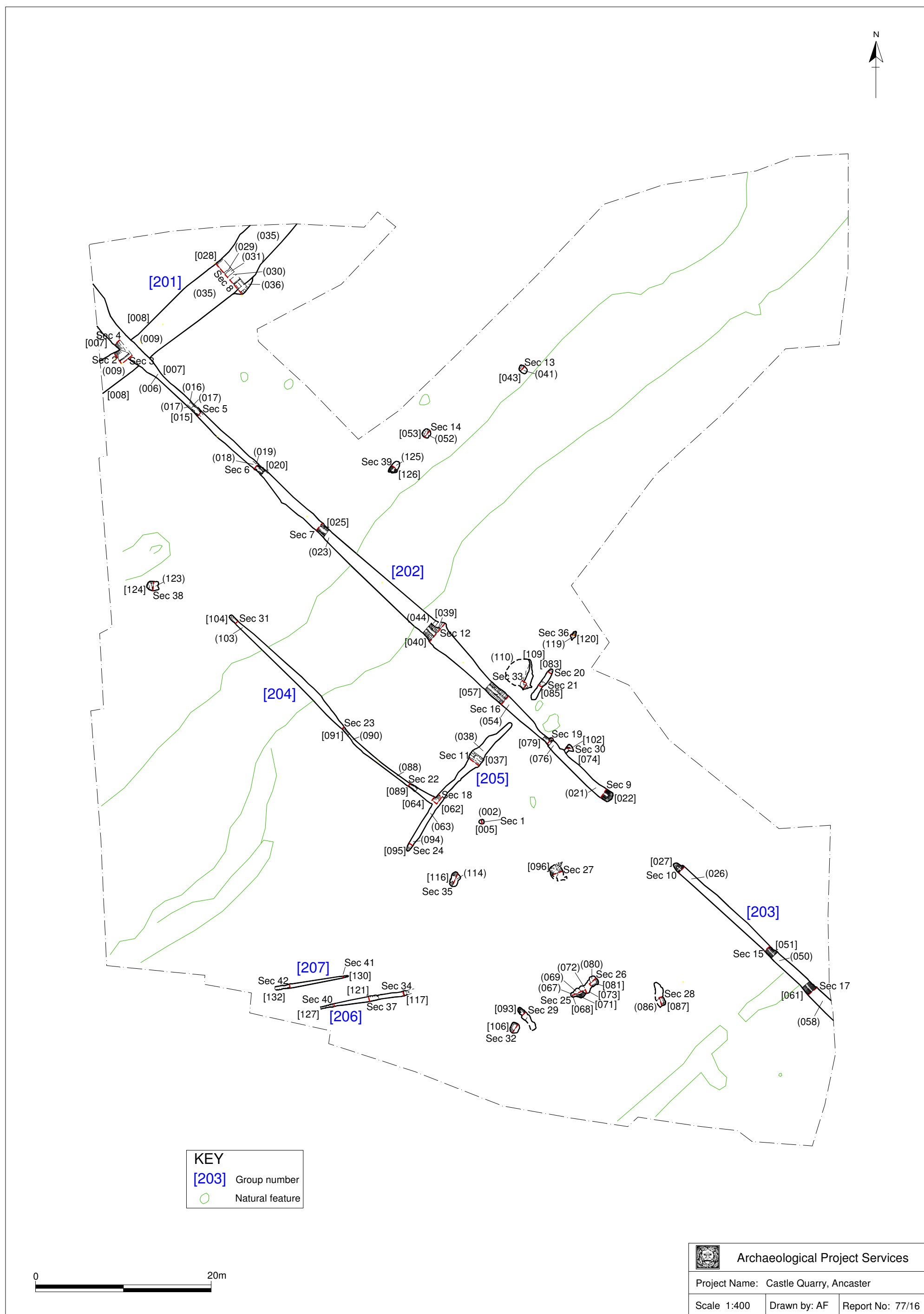


Figure 4: Location of Excavation Area B1



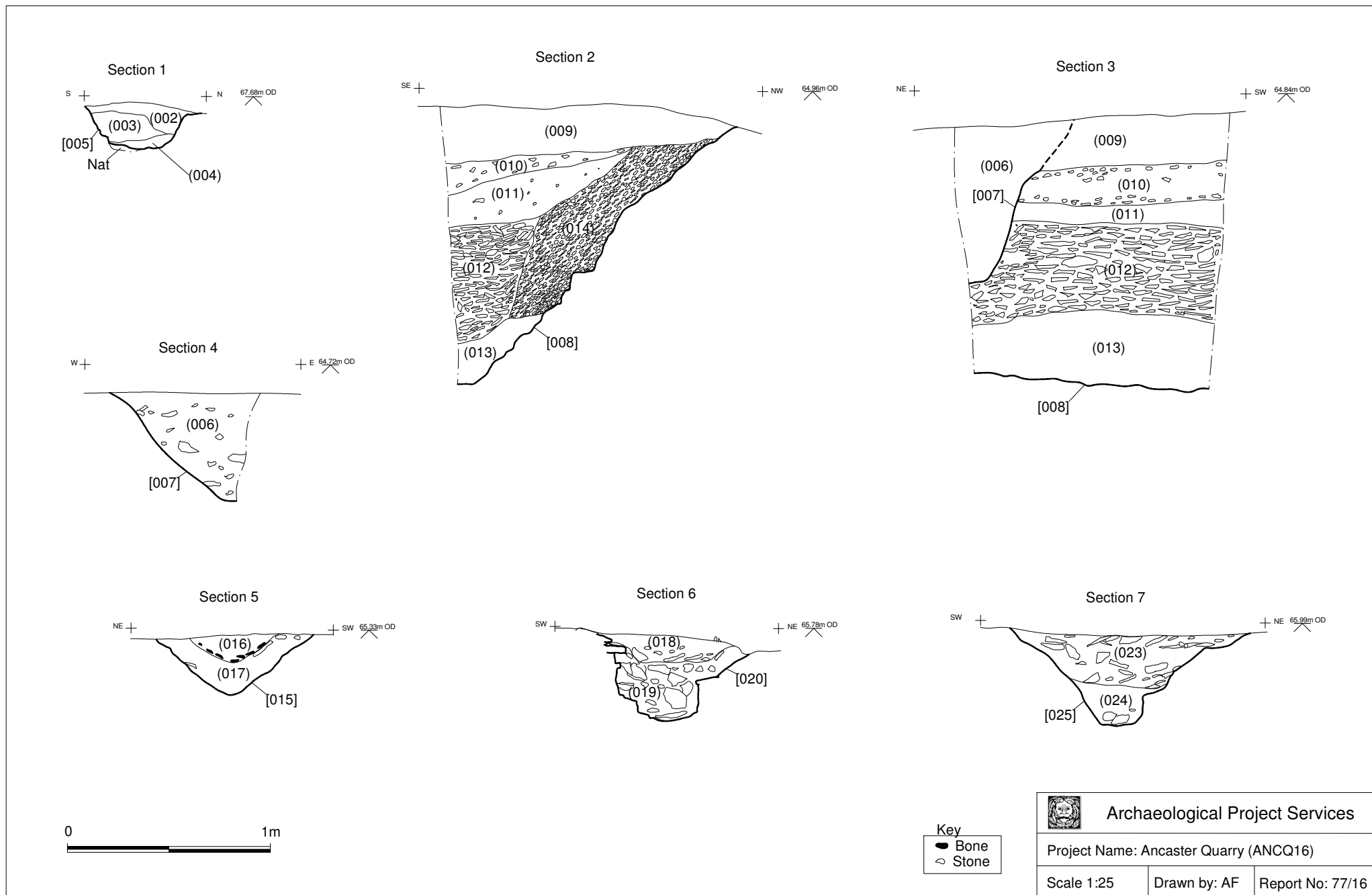


Figure 6 - Sections 1-7

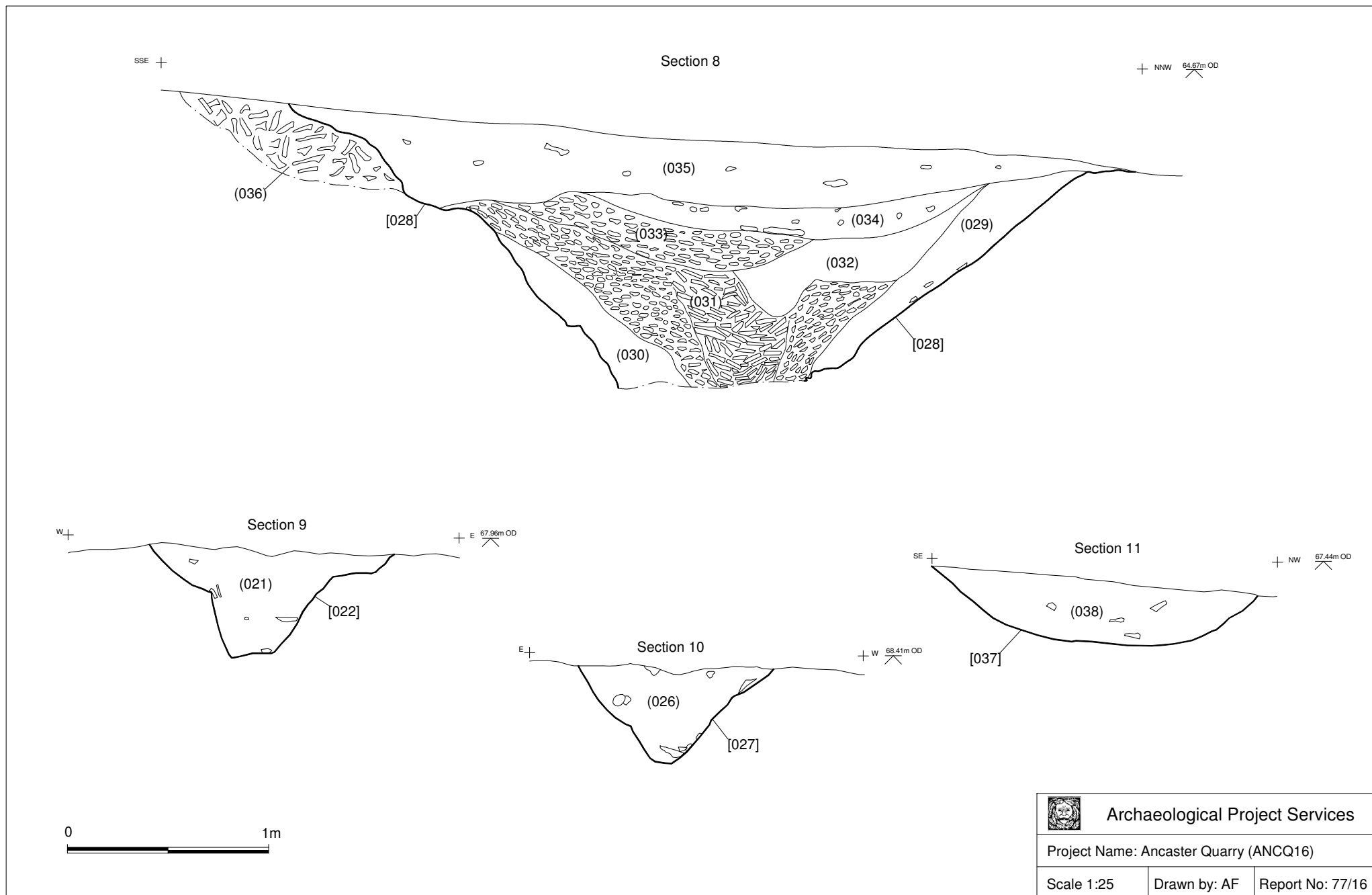


Figure 7 - Sections 8-11

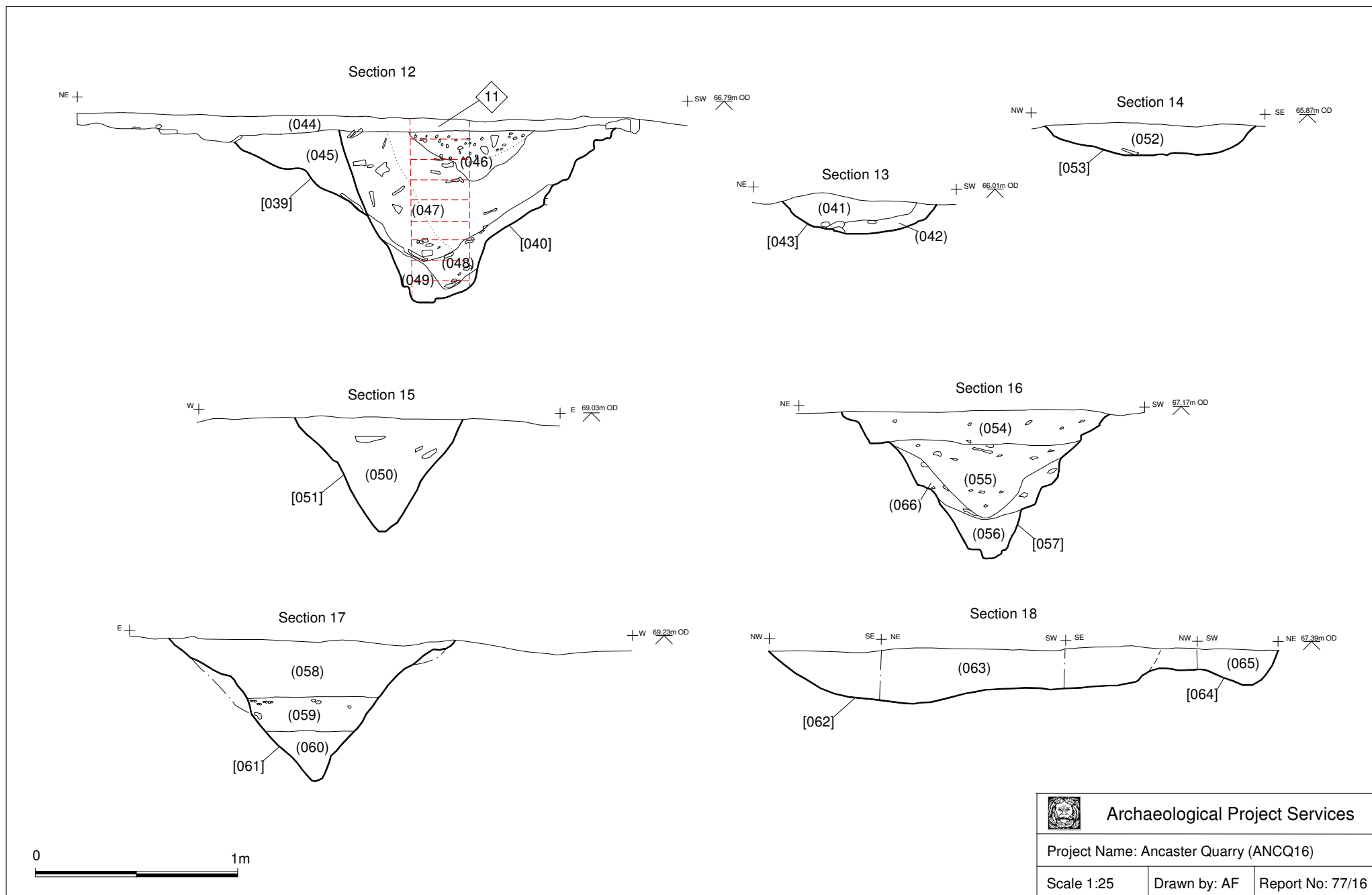


Figure 8 - Sections 12-18

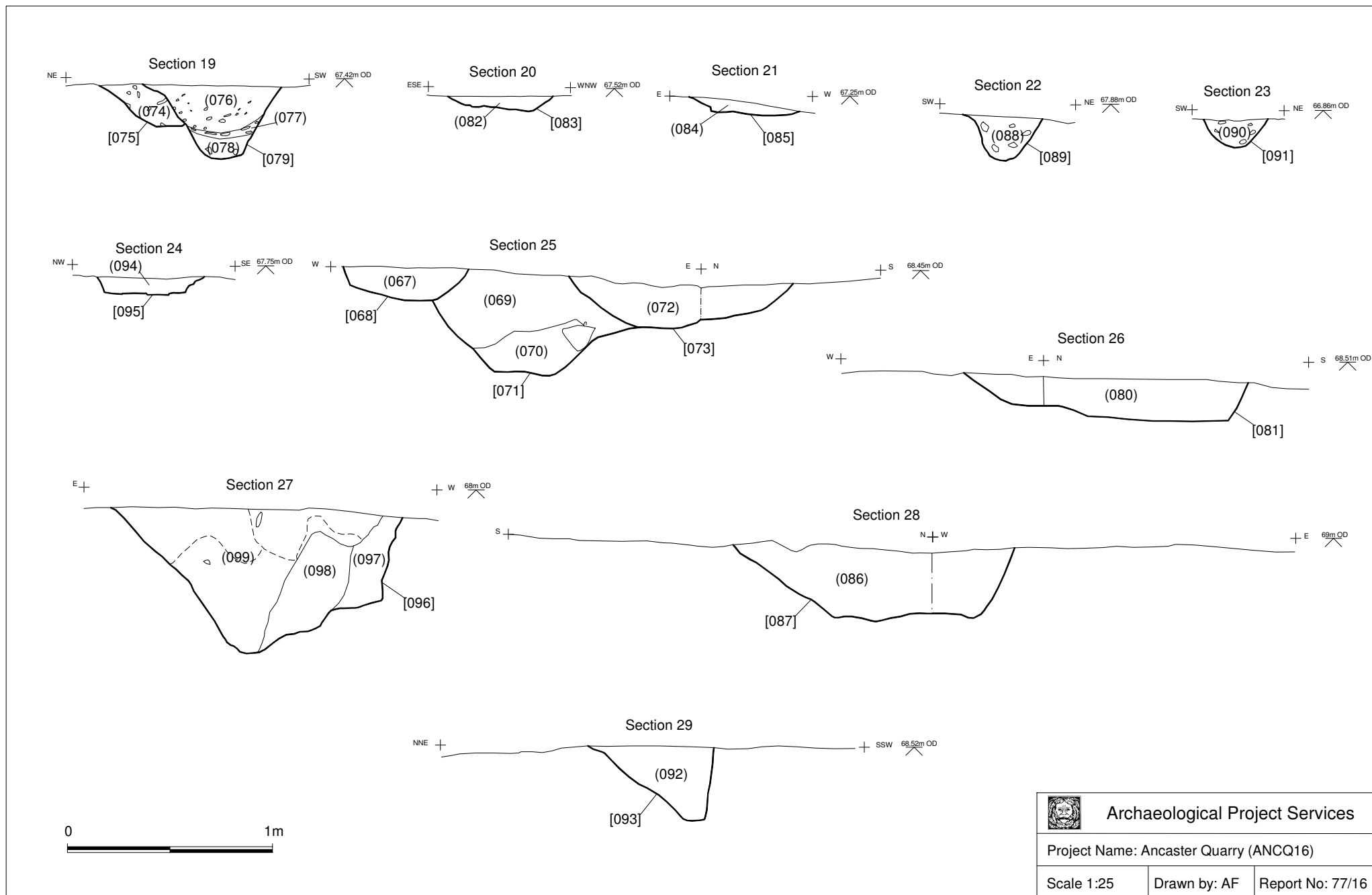


Figure 9 - Sections 19-29

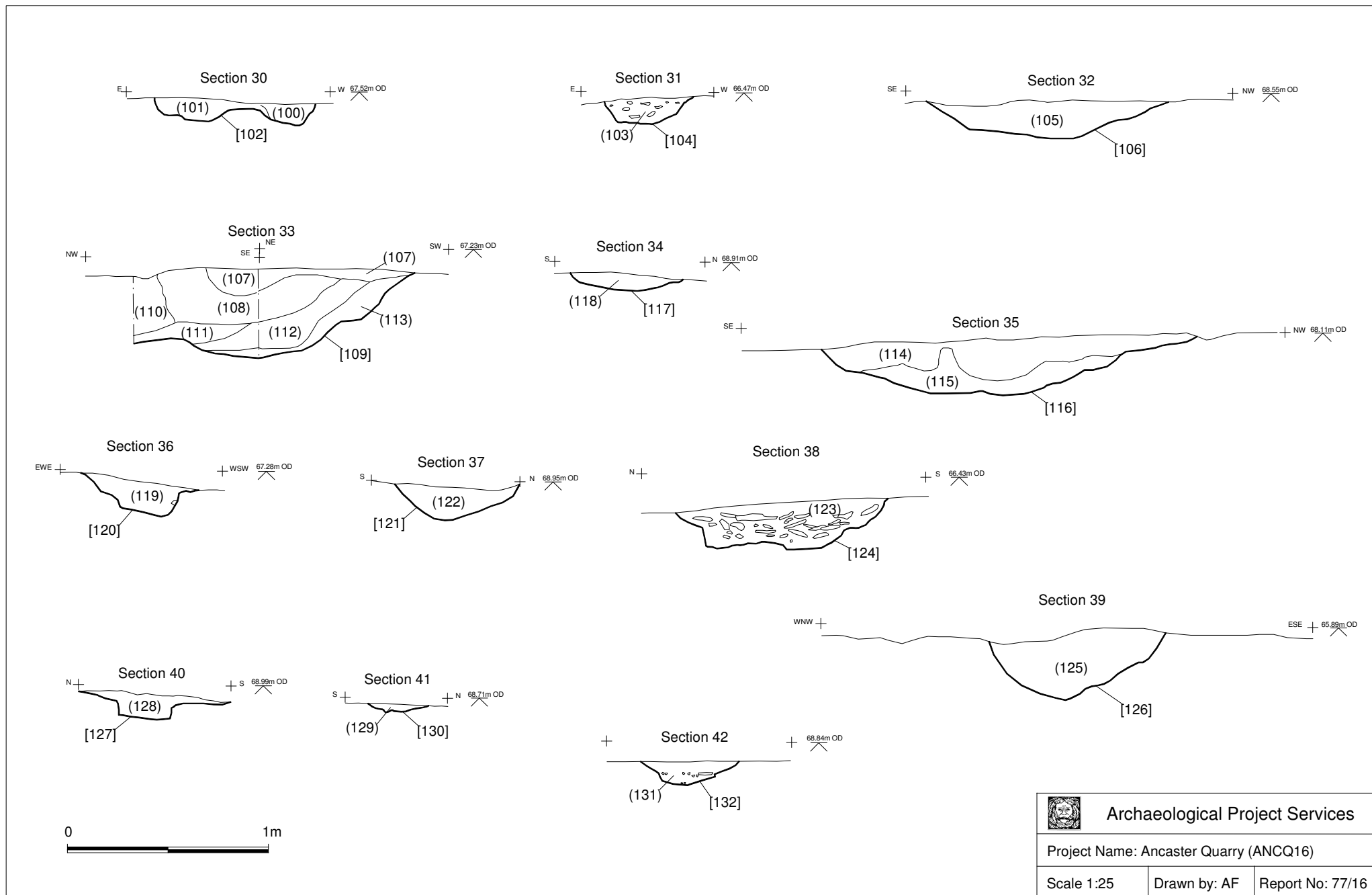


Figure 10 - Sections 30-42



Plate 1. Pre-machining view of site looking north



Plate 2. Aerial view of site from a drone, looking southeast



Plate 3. Showing ditch [007] cutting ditch [008], Section 3, looking southeast



Plate 4. Ditch [025], Section 7, looking northwest



Plate 5. Ditch terminus [022], Section 9, looking northwest



Plate 6. Ditch [028], Section 8, looking northwest



Plate 7. Ditch [040], Section 12, looking southeast



Plate 8. Human femur within fill (055) of ditch [057], looking southwest



Plate 9. Ditch [057], Section 16,
looking southeast



Plate 10. Ditch [079], pit [075], Section 19, looking southeast

Appendix 1

CONTEXT SUMMARY

No.	Description	Interpretation
001	Loose dark greyish brown slightly clayey sand, 0.40m thick with very frequent small angular to sub-angular limestone pebbles	Topsoil
002	Friable to loose, very dark brown slightly silty sand, 0.13m thick with moderate small pebbles, charcoal flecks and fragments and occasional burnt stone.	Fill of pit [005]
003	Loose, very dark greyish brown to black mix of sand and charcoal, 0.15m thick with occasional small burnt pebbles	Dump of charcoal within pit [005]
004	Loose dark grey to mid yellowish greyish brown sand, 60mm thick, containing frequent small sub-rounded to angular limestone pebbles	Fill of pit [005]
005	Ovoid cut measuring 0.59m long by 0.50m wide by 0.23m deep with steep fairly straight sides breaking gradually to a fairly flat base	Pit cut containing dump of burnt material
006	Friable mid brown to reddish brown slightly clayey sand with moderate stone fragments	Fill of ditch [007]
007	Linear cut oriented on a NNW to SSE alignment, measuring 1.70m wide by 0.52m deep, with a steep side breaking gradually to a base that was not fully exposed in this section	Ditch cut, part of [202]
008	Linear cut oriented on a NE to SW alignment, measuring 4.18m wide by 1.38m deep, with steep fairly straight sides breaking gradually to a base that was not fully exposed in this section	Large ditch cut, part of [201]
009	Friable mid reddish brown, very slightly clayey sand, up to 0.25m thick, containing occasional small limestone fragments	Fill of ditch [008]
010	Friable mid brown to greyish brown very slightly clayey sand, up to 0.17m thick, containing frequent small to medium, flat limestone fragments averaging c. 40mm x 50mm x 10mm	Fill of ditch [008]
011	Friable mid reddish brown, very slightly clayey sand, up to 0.23m thick, with frequent small gravel and occasional small to medium limestone fragments	Fill of ditch [008]
012	Loose mid creamy brown small to medium limestone fragments, typically 120mm x 110mm x 20mm with larger and smaller fragments included throughout, in a sandy (c. 15%) matrix	Fill of ditch [008], density of limestone fragments suggests either deliberate backfill or perhaps bank collapse
013	Soft mid reddish brown slightly clayey sand and gravel, up to 0.37m thick, containing frequent small to medium flat limestone fragments	Fill of ditch [008]
014	Loosely packed hard creamy brown limestone fragments in a mid brown sandy matrix (c. 20%), up to 0.50m thick	Fill of ditch [008] probably the same as (012)
015	Linear cut oriented on a NW-SE alignment measuring 0.77m wide by 0.29m deep with moderately steep straight sides breaking imperceptibly to a tapered concave point	Ditch cut, part of [202]
016	Firm mid reddish brown sandy silt with frequent limestone fragments contains a significant quantity of animal bone	Fill of [007]
017	Compact mid reddish brown mix of silty sand and stone (40/60%), 0.29m thick	Fill of [015]
018	Moderately firm mid reddish brown sandy silt, 0.13m thick containing a moderate amount of limestone fragments	Fill of [015]
019	Moderately firm, mid reddish brown sandy silt, 0.28m thick, containing frequent limestone fragments	Fill of [020]
020	Linear cut oriented on a NW-SE alignment, measuring 0.62m wide by 0.42m deep, with steep sides breaking sharply to a flat base	Ditch cut, part of [202]

021	Friable to loose mid reddish brown silty sand with gravel, 0.55m deep	Fill of [022]
022	Linear cut with rounded terminal end, oriented on a NW-SE alignment, measuring 1.20m wide by 0.55m deep with moderately steep sides breaking sharply to a flat base	Ditch cut, one of two terminal ends that form a possible entrance, part of [202]
023	Moderately firm mid reddish brown silty sand, 0.24m thick with frequent limestone fragments	Fill of [025]
024	Friable mid reddish brown sandy silt with, 0.20m thick with occasional limestone fragments	Fill of [025]
025	Linear cut oriented on a NW-SE alignment measuring 1m wide by 0.44m deep, with steep near vertical sides breaking gradually to a narrow tapered slightly concave base	Ditch cut, part of [202]
026	Loose to moderately firm mid reddish brown silty sand with occasional clay patches, 0.46m thick	Fill of [027]
027	Linear cut with rounded terminal end, oriented on a NW-SE alignment, measuring 0.96m wide by 0.46m deep with steep sides breaking gradually to a narrow tapered concave base	Ditch cut, one of two terminal ends that form a possible entrance, part of [203]
028	Linear cut oriented on NE-SW alignment, measuring 4.14m wide by at least 1.26m deep with steep sides. Break of slope and base unknown as not fully excavated due to danger of section collapse	Ditch cut, part of [201]
029	Friable to loose, light to mid reddish brown slightly clayey silt, 0.20m thick with frequent small limestone fragments	Fill of [028]
030	Friable to loose light to mid reddish brown slightly clayey silt, 0.20m thick with frequent small angular limestone fragments	Fill of [028]
031	Loosely packed hard mid creamy brown to greyish reddish brown flat limestone fragments up to 0.16m x 70mm x 20mm in size with most smaller, typically 50mm x 60mm x 15-20mm, contained within a sandy matrix (c. 20%)	Fill of [028]
032	Friable mid to dark reddish brown slightly clayey sand, up to 0.33m thick with occasional limestone fragments	Fill of [028]
033	Firm to friable mid reddish and slightly yellowish brown small angular limestone fragments in a sandy matrix	Fill of [028]
034	Friable mid reddish brown slightly clayey sand, up to 0.15m thick, with moderate small angular limestone fragments	Fill of [028]
035	Friable mid greyish reddish brown, slightly clayey sand, 0.44m thick with moderate small angular limestone fragments	Fill of [028]
036	Loose reddish brown and cream brown flat limestone fragments in a sandy matrix (c. 30%)	Natural sand and gravel
037	Linear cut oriented on a NE-SW alignment, measuring 1.6m wide by 0.32m deep with concave sides breaking gradually to a concave base	Ditch cut, part of [205]
038	Loose to friable mid reddish brown silt and limestone fragments with rare charcoal flecks	Fill of [037]
039	Possibly linear cut oriented on a NW-SE alignment, measuring at least 0.60m wide by at least 0.32m deep with moderately steep sides	Ditch cut
040	Linear cut oriented on a NW-SE alignment, measuring 1.35m wide by 0.80m deep with steep sides breaking gradually to a narrow tapered flat base	Ditch cut, part of [202]
041	Pliable mid red clay with occasional mid sized limestone fragments, 0.13m thick	Fill of pit [043]
042	Pliable light bluish grey to yellowish brown clay, 70mm thick, with a moderate amount of mid sized limestone fragments.	Fill of [043]
043	Ovoid cut measuring 1.02m long by 0.76m wide by 0.18m deep with shallow concave sides breaking gradually to a slightly concave base	Pit cut

044	Loose light to mid yellowish brown silt, 0.12m thick	Shared fill of [039] [040]
045	Friable mid yellowish brown sandy silt, 0.32m thick with frequent small fragments of limestone	Fill of [039]
046	Firm mid reddish yellowish brown silt, 0.16m thick with frequent limestone fragments	Fill of [040]
047	Firm mid reddish brown sandy silt, 0.64m thick with occasional small limestone fragments	Fill of [040]
048	Loose to moderately firm light yellow silty sand and limestone fragments, 0.20m thick	Fill of [040]
049	Soft mid reddish brown silty sand, 0.23m thick, containing a moderate amount of small to mid sized limestone fragments	Fill of [040]
050	Friable to loose slightly reddish mid brown silty sand and gravel. 0.56m thick	Fill of [051]
051	Linear cut oriented on a NW-SE alignment, measuring 1m wide by 0.56m deep with steep sides breaking sharply to a tapered narrow flat base	Ditch cut, part of [203]
052	Loose dark reddish brown sand with frequent small to mid sized limestone fragments and occasional charcoal flecks	Fill of [053]
053	Circular cut, measuring 1m long by 0.89m wide by 0.17m deep with moderately steep concave sides breaking gradually to a flat base	Pit cut
054	Soft to moderately firm mid reddish brown sandy silt, 0.24m thick with rare to occasional small limestone fragments	Fill of [057]
055	Moderately firm to loose mid reddish brown stoney sandy silt, 0.35m thick	Fill of [057]
056	Loose to soft mid reddish brown sandy silt, 0.22m thick with occasional small limestone fragments and rare flecks of charcoal	Fill of [057]
057	Linear cut oriented on a NW-SE alignment, measuring 1.3m wide by 0.74m deep with steep to near vertical sides breaking gradually to a tapered narrow flat base	Ditch cut, part of [202]
058	Friable to loose mid reddish brown silty sand, 0.23m thick	Fill of [061]
059	Firm mid reddish brown silty sand and limestone fragments, 0.17m thick	Fill of [061]
060	Friable to loose mid reddish brown silty sand, 0.25m thick	Fill of [061]
061	Linear cut oriented on a NW-SE alignment, measuring 1.40m wide by 0.70m deep with steep sides breaking gradually to a tapered concave point	Ditch cut, part of [203]
062	Linear cut oriented on a NE-SW alignment, measuring 0.87m wide by 0.25m deep, with a shallow side breaking gradually to a slightly concave base	Ditch cut, part of [205]
063	Loose to friable mid reddish brown sandy silt and limestone fragments (c. 60-40%) filling [062]	Fill of [062]
064	Linear cut oriented on a NW-SE alignment, measuring 0.85m wide by 0.15m deep with a shallow concave side breaking gradually to a probable concave base	Ditch cut, part of [204]
065	Loose to friable mid reddish brown sandy silt and limestone fragments filling [064]	Fill of [064]
066	Firm light greyish yellow limestone fragments in a silt matrix, 0.16m thick	Fill of [057]
067	Loose to friable mid reddish brown silty sand with occasional charcoal flecks, filling [068]	Fill of [068]
068	Ovoid cut measuring 0.62m long by 0.36m wide by 0.16m deep with a moderately steep side breaking gradually to an uneven to concave base	Cut of probable natural feature
069	Loose to friable mid reddish brown silty sand with frequent small limestone fragments and small burnt stones	Fill of [071]
070	Loose to friable very dark grey silt with frequent charcoal flecks and fragments	Fill of [071]
071	Irregular shaped cut, measuring 1.26m long by 0.52m deep with	Cut of probable natural

	moderately steep irregular sides and an uneven base	feature
072	Loose to friable mid reddish brown silty sand	Fill of [073]
073	Irregular shaped cut, measuring 1.08m long by 0.65m wide by 0.23m deep with moderately steep sides breaking gradually to a fairly flat base	Cut of probable natural feature
074	Friable mid to dark grey silty sand, 0.23m thick with a moderate amount of small to large limestone fragments	Fill of [075]
075	Ovoid cut, measuring 0.48m L by 0.30m wide by 0.23m deep with steep sides breaking gradually to a concave to irregular base	Small pit or post hole
076	Friable mid reddish brown sandy silt, frequent small limestone fragments, charcoal flecks, rare burnt stone	Fill of [079]
077	Firm light yellow to yellowish brown silty sand, 90mm thick with moderate to frequent limestone fragments	Fill of [079]
078	Soft to loose mid reddish brown sandy silt, 0.12m thick, 0.12m thick	Fill of [079]
079	Linear cut oriented on a northwest to southeast alignment, measuring 1m long by 0.84m wide by 0.42m deep with steep to near vertical sides breaking gradually to a narrow flat base	Ditch cut, part of [202]
080	Very loose to friable mid reddish brown silty sand, filling cut [081]	Fill of [081]
081	Irregular shaped cut measuring 1.16m long by 1m wide by 0.20m deep with moderately steep sides breaking gradually to a concave to flat base	Cut of probable natural feature
082	Loose light brown silty sand, 60mm thick with frequent small limestone fragments	Fill of [083]
083	Linear cut oriented on a NE-SW alignment, measuring 0.55m long by 0.53m wide by 60mm deep with shallow sides breaking imperceptibly to a shallow concave base	Ditch cut, part of [205]
084	Loose light brownish red silty sand, 70mm thick with frequent small limestone fragments	Fill of [085]
085	Linear cut, oriented on a NE-SW alignment, measuring 0.53m wide by 70mm deep with shallow irregular sides breaking imperceptibly to a flat base	Ditch cut, part of [205]
086	Very loose to friable mid reddish brown silty sand	Fill of [087]
087	Irregular shaped cut measuring 2.89m long by 0.98m wide by 0.36m deep with steep sides breaking gradually to an uneven base	Cut of natural feature
088	Loose mid reddish brown slightly silty sand and limestone fragments (c. 70/30%)	Fill of [089]
089	Linear cut oriented on a NW-SE alignment, measuring 0.38m wide by 0.16m deep with steep slightly concave sides breaking gradually to a flat to slightly concave base	Ditch cut, part of [204]
090	Loose light reddish brown slightly silty sand and small limestone fragments (c. 80/20%)	Fill of [091]
091	Linear cut oriented on a NW-SE alignment, measuring 0.31m wide by 0.13m deep with steep slightly concave sides breaking gradually to a fairly flat to a slightly concave base	Ditch cut, part of [204]
092	Loose to friable very dark grey sand and silty sand with frequent charcoal fragments and small burnt stones	Fill of [093]
093	Irregular shaped cut measuring 1.48m long by 0.61m wide by 0.37m deep with irregular sides breaking gradually to an uneven base	Possible pit or natural feature
094	Loose dark reddish brown slightly silty sand with frequent stone fragments	Fill of [095]
095	Linear cut oriented on a NE-SW alignment, measuring 0.58m wide by 90mm deep, with steep sides breaking gradually to a flat base	Ditch cut, part of [205]
096	Irregular shape on surface to fairly circular to ovoid at depth	Possible pit cut or natural

	with rounded corners, measuring 2m long by 1.44m wide by 0.72m deep with irregular sides breaking gradually to a concave to irregular base	feature
097	Light yellowish to greyish brown compact stone fragments in a friable sand matrix with frequent ash and charcoal flecks and occasional burnt stone, 0.33m thick	Fill of [096]
098	Light yellowish brown compacted gravel and small stones in a matrix of friable sand, 0.48m thick	Fill of [096]
099	Friable to loose mix of black to dark grey to dark grey with yellowish brown mottle to deep brownish red to light grey sand and limestone fragments, 0.72m thick with very frequent burnt stone and charcoal flecks and fragments	Fill of [096]
100	Firm to friable mid reddish brown to brownish red sandy silt and limestone fragments, 0.12m thick	Fill of [102]
101	Loose, light to mid grey to greyish brown sandy silt, 0.10m thick with frequent limestone fragments and gravel	Fill of [102]
102	Irregular ovoid cut measuring 0.98m long by 0.78m wide by 0.11m deep with irregular sides breaking gradually to an irregular base	Cut of natural feature
103	Loose to friable mid reddish brown slightly silty sand and limestone fragments (c. 80/20%)	Fill of [104]
104	Linear cut, oriented on a NE-SW alignment, 0.43m wide by 0.14m deep with steep, fairly straight sides breaking gradually to a flat to slightly concave base	Ditch cut, part of [204]
105	Loose to friable very dark brown silty sand with occasional charcoal flecks	Fill of [106]
106	Sub-circular cut measuring 1.20m long by 1m wide by 0.19m deep with irregular sides breaking gradually to an uneven base	Possible pit or natural feature
107	Loose mix of mid brown to greyish black to reddish brown sand and silt, 0.13m thick, with frequent limestone fragments and rare charcoal flecks	Fill of [109]
108	Soft to loose light yellow decayed limestone grit with rare small limestone pebbles, 0.27m thick	Fill of [109]
109	Irregular shaped feature, measuring 3.52m long by 1.06m wide by 0.45m deep with irregular sides and base	Natural feature
110	Firm light yellowish white limestone brash	Natural deposit
111	Soft to moderately firm mid greyish brown and reddish brown silty sand with rare limestone fragments, 90mm thick	Fill of [109]
112	Firm black to dark brown with purplish hue, silty sand, containing moderate ash, 0.18m thick	Fill of [109]
113	Loose to soft, light yellow to yellowish light, Limestone fragments and silty sand, 0.12m thick	Fill of [109]
114	Friable to loose mid reddish brown silty sand, 1.84m wide by 0.29m thick	Fill of [116]
115	Friable to loose very dark brown silty sand with frequent charcoal flecks	Fill of [116]
116	Irregular shaped cut, measuring 1.84m long by 1m wide by 0.27m deep with moderately steep sides breaking gradually to an uneven base	Cut of natural feature
117	Linear cut oriented on a WSW-ENE alignment, measuring 0.55m wide by 80mm deep with shallow sides breaking gradually to imperceptibly to a slightly concave base	Narrow linear ditch cut with parallel counterpart, part of [206]
118	Loose to friable dark brown, very slightly silty sand with frequent small limestone fragments	Fill of [117]
119	Loose mid to dark grey to greyish black silty sand, 0.20m thick with occasional small limestone fragments, rare charcoal flecks and ash	Fill of [120]
120	Irregular shaped cut measuring 0.90m long by 0.46m wide by 0.20m deep with irregular sides and base	Cut of natural feature

121	Linear cut oriented on a WSW-ENE alignment, measuring 1.57m long by 0.62m wide by 0.17m deep with concave sides breaking gradually to imperceptibly to a slightly concave base	Narrow linear ditch cut with parallel counterpart, part of [206]
122	Friable to loose dark brown silty sand, 0.17m thick, with frequent limestone fragments	Fill of [121]
123	Friable light brownish yellow to yellowish brown sandy silt and stoney silt, 0.24m thick	Fill of [124]
124	Sub-circular feature measuring 1.30m long by 1.05m wide by 0.24m deep, with moderately steep sides and an uneven base	Cut of natural feature
125	Loose to moderately compact mid to dark reddish brown sandy silt with silty clay, containing occasional charcoal and burnt stone	Fill of [126]
126	Irregular shaped cut measuring 1.26m long by 0.86m wide by 0.21m deep with moderate to steep sides breaking gradually to a concave to irregular base	Pit cut
127	Linear cut oriented on a WSW-ENE alignment, measuring 1m long by 0.36m wide by 0.12m deep with irregular sides breaking imperceptibly to an uneven base	Narrow linear ditch cut with a parallel counterpart, part of [206]
128	Friable to loose, dark brown sandy silt, 0.12m thick, containing frequent limestone fragments	Fill of [127]
129	Loose mid brown to yellowish brown sandy silt with frequent grit and occasional small limestone pebbles	Fill of [130]
130	Linear cut oriented on a roughly east-west alignment, measuring 0.26m wide by 30mm deep with shallow sides breaking imperceptibly to narrow uneven base	Narrow linear ditch cut with a parallel counterpart, part of [207]
131	Loose to friable dark brown sandy silt, 0.14m thick with frequent small limestone fragments	Fill of [132]
132	Linear cut, oriented on a roughly E-W alignment, measuring 0.5m wide by 0.14m deep with shallow sides breaking imperceptibly to a slightly uneven base	Narrow linear ditch cut with a parallel counterpart, part of [207]
133	Moderately firm mid reddish brown sandy silt, 0.13m thick containing a moderate amount of limestone fragments	Top fill of ditch [020]
201	Group number for [028], [008]	Ditch group number
202	Group number for [007], [015], [020], [025], [040], [057], [079], [022]	Ditch group number
203	Group number for [027], [051], [061]	Ditch group number
204	Group number for [104], [091], [089], [064]	Ditch group number
205	Group number for [095], [062], [037], [085], [083]	Ditch group number
206	Group number for [117], [121], [127]	Ditch group number
207	Group number for [130], [132]	Ditch group number

Appendix 2

THE FINDS

PREHISTORIC POTTERY

By Sarah Percival

Introduction

A total of 51 sherds weighing 378g were collected from nine excavated features. The pottery forms a largely homogenous assemblage of Iron Age shell-tempered wares of 3rd to 1st century BC date (Table 1). The assemblage is fragmentary and poorly preserved with an average sherd weight of 7g, though this includes scraps collected from sieved samples.

Feature type	Feature	Context	Spot date	Quantity	Weight (g)
Ditch	15	17	Later Iron Age / early Roman	3	1
	25	24	Iron Age 350-50BC	1	73
	28	35	Iron Age 350-50BC	2	12
	40	46	Earlier Iron Age	1	19
		47	Iron Age 350-50BC	1	7
		49	Iron Age 350-50BC	1	216
	57	54	Not closely datable prehistoric	12	3
			Iron Age 350-50BC	1	2
		55	Iron Age 350-50BC	6	24
	79	76	Iron Age 350-50BC	2	13
	39 40	44	Iron Age 350-50BC	2	3
Ditch terminal	22	21	Iron Age 350-50BC	14	1
Natural feature	81	80	Iron Age 350-50BC	1	3
	93	92	Not closely datable prehistoric	4	1
Total				51	378

Table 1: Quantity and weight of prehistoric pottery by spot date and context

Methodology

The assemblage was analysed in accordance with the Guidelines for analysis and publication laid down by the Prehistoric Ceramic Research Group (PCRG 2010). The total assemblage was studied and a full catalogue was prepared. The sherds were examined using a binocular microscope (x10 magnification) and were divided into fabric groups defined on the basis of inclusion types. Fabric codes follow Knight (2010) and the Lincolnshire Archaeology Handbook (2012). Vessel form was recorded; R representing rim sherds, B base sherds, D decorated sherds and U undecorated body sherds. The sherds were counted and weighed to the nearest whole gram. Decoration and abrasion were also noted. The pottery and archive are curated by APS.

Fabric

Ten fabrics were identified (Table 2). Fabrics made of shell-rich clays predominate forming 94% of the total assemblage. A small quantity of sandy fabrics was also found. One sherd, in coarse, flint with shell-tempered fabric (CFMS) predates the rest of the assemblage and is perhaps earlier Iron Age or middle or late Bronze Age.

Spot date	Fabric	Description	Lincs. code	Quantity	Weight (g)
Early Iron Age or earlier	CFMS	Moderate coarse flint, moderate coarse shell	IAGRCS	1	19

Spot date	Fabric	Description	Lincs. code	Quantity	Weight (g)
Iron Age C4 to C1 BC	Q	Undiagnostic sandy	IASA	4	1
	Q1	Common fine quartz sand	IASA	1	4
	QuSHMS	Moderate rounded quartz with moderate small shell plates	IASH	2	3
	SH	Undiagnostic shell	IASH	12	3
	SHCFL	Common fine shell with sparse limestone	IAMSH	2	15
	SHMC	Moderate coarse shell	IASHC	7	22
	SHMF	Moderate fine shell	IASHF	15	74
	SHCFG	Common fine shell with sparse grog	IASH	1	216
	SHSF	Sparse fine shell	IASH	3	20
Later Iron Age/Roman	SGW	Sandy greyware	GRL	3	1
<i>Total</i>				<i>51</i>	<i>378</i>

Table 2: Quantity and weight of pottery by fabric

The fabrics compare well with those identified within previous Iron Age assemblages from Ancaster Quarry (May, 1976, 138; Percival 2013) and with those from Old Sleaford (Elsdon 1997, 101) and Dragonby (May 1996) which are also overwhelmingly shell tempered with very small numbers of sherds in sandy fabric.

Grog is found in one sherd, the rim of a storage jar, which is likely to be later Iron Age comparable with 1st century BC to AD pottery from Sleaford and Dragonby (Elsdon 1997; May 1996).

Form and Decoration/Surface Treatment

The assemblage contains a single rim from an everted rim storage jar similar to examples found at Old Sleaford (Elsdon 1997, fig.53, 36) and Dragonby (May 1996, fig.19.52, 615).

In contrast to previous assemblages excavated at Ancaster Quarry (May 1976, Percival 2013), none of the assemblage has scored surfaces, most being smoothed or closed.

Deposition

Pottery was almost entirely recovered from ditches and a ditch terminus with the exception of five scraps (4g) found in natural features (Table 1).

Discussion

The small assemblage is Iron Age but is too insubstantial to add much useful dating evidence to archaeological interpretation of the site. A small, residual flint-tempered sherd suggests that some early Iron Age or Bronze Age activity was present in the area. However, the bulk of the pottery is probably contemporary with the later Iron Age activity indicated by the 2013 assemblage (Percival 2013).

HUMAN BONE

By Ross Kendall

A single left femur of an adult human skeleton was recovered. No pathology or non-metric traits were noted. Without the presence of diagnostic elements (e.g., pelvis or skull), the individual's sex cannot be accurately estimated. However, robusticity and size may tentatively indicate the male sex. Due to the lack of any other skeletal elements, no further information concerning this individual can be gathered.

Table 3, Human Bone

Cxt	Taxon	Element	Side	Number	W (g)	Comments
055	Femur	Human bone	Left	1	257	

FAUNAL REMAINS*By Paul Cope-Faulkner***Results**

Table 4, Fragments Identified to Taxa

Cxt	Taxon	Element	Side	Number	W (g)	Comments
012	Banded snail	Shell		1	<1	

Summary

The single snail shell is from a widespread terrestrial species.

CLAY PIPE*By Gary Taylor***Introduction**

Analysis of the clay pipes followed the guidance published by Davey (1981) and the material is detailed in the accompanying table.

Condition

The clay pipe is in good condition.

Results

Table 5, Clay Pipes

Context no.	Bore diameter /64"					NoF	W(g)	Comments	Date
	8	7	6	5	4				
041			1			1	2	Stem only	17 th century

Provenance

The clay pipe was recovered from pit fill (041).

Range

A single clay pipe stem fragment of probable 17th century date was recovered.

Potential

Other than providing some dating evidence the clay pipe is of limited potential. It is not worthy of retention in the archive.

OTHER FINDS*By Gary Taylor and Denise Buckley***Introduction**

Seventeen items together weighing 689g were recovered.

Condition

Overall, the other finds are in good condition although the iron shows some signs of corrosion.

Results

Table 6, Other Materials

Cxt	Material	Description	NoF	W (g)	Date
003	Stone	Burnt stone	8	116	
009 Δ2	Iron	Nail	1	4	
019	Iron	Nail	1	3	
021 Δ5	Copper alloy	Colchester-derivative/Dolphin-type brooch, pin missing, 2 perforations in catch-plate (Plate 1)	1	11	1 st century
023 Δ4	Iron	Unidentified, possible nail shaft?	1	<1	
035 Δ1	Iron	Nail, rectangular sectioned shaft, square head, Manning type IA, Roman?	1	9	Roman?
		Nail/tack, flattened rectangular body	1	<1	
044	Fire residue	Cinder	1	<1	
047	Stone	Quern fragment or muller, very smooth and worn on one face. Burnt	1	543	Prehistoric?
133 Δ3	Iron	Nail, rectangular-sectioned shaft, turned over head	1	2	
Totals			17	689	



Plate 1 - Dolphintype brooch from (021)

Provenance

The other finds were recovered from pit fill (003) and ditch fills (009, 019, 021, 023, 035, 044, 047, 133).

Range

The other finds are comprised of burnt stone, a cinder, a possible quern stone fragment, several iron nails and a copper alloy brooch.

A group of burnt stones from (003) suggest a fire or hearth at or near their findspot, or possibly burning in the pit.

Several nails were recovered. One of these nails, from (035), is a Manning type Ia nail of probable Roman date (Manning 1985, 41-2).

A Colchester-derivative or possibly Dolphin-type brooch was recovered from a ditch. Brooches of these types seem to have been made in the 2nd half of the 1st century AD, though they often occur in residual contexts. The present example is broadly similar to other Colchester-derivatives brooches, also with open-work catch-plates, found at the pre-Roman and Roman settlement at Baldock, Hertfordshire (Stead 1986, figs 43-44; 112, 123-4). It is also comparable with a Dolphin-type brooch previously found in Lincolnshire (Hattatt 1989, fig 157, no 352), which has similar inclined beaded lines on the spring casing and a beaded central rib on the bow.

Potential

The other finds provide some functional and dating evidence and are of moderate potential.

SPOT DATING

The dating in Table 7 is based on the evidence provided by the finds detailed above.

Table 7, Spot dates

Cxt	Date	Comments
017	Late Iron Age/Early Roman	
021	1 st century AD	Based on 1 metal
024	Iron Age 350-50 BC	
035	Roman?	Based on 1 metal
041	17 th century	Based on 1 clay pipe
044	Iron Age 350-50 BC	
046	Earlier Iron Age	
047	Iron Age 350-50 BC	Based on 1 stone
049	Iron Age 350-50 BC	
054	Iron Age 350-50 BC	
055	Iron Age 350-50 BC	
076	Iron Age 350-50 BC	
080	Iron Age 350-50 BC	
092	Prehistoric	

ABBREVIATIONS

BS	Body sherd
CXT	Context
NoF	Number of Fragments
NoS	Number of sherds
NoV	Number of vessels
PCRG	Prehistoric Ceramic Research Group
W (g)	Weight (grams)

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Appendix 3

ENVIRONMENTAL ARCHAEOLOGY REPORT

Introduction

During excavations carried out by Archaeological Project Services (APS) at the Quarry, Ancaster, environmental bulk soil samples were collected for the recovery of biological and archaeological evidence including charred plant remains, animal bone, terrestrial snails, etc for potential information on arable agriculture (crop-husbandry and processing), human activities (including diet) at the site and the local environment. A total of thirteen samples were taken on site and eleven of these were processed by APS and the flots and finds submitted to the Environmental Archaeology Consultancy for assessment and analysis. The remaining two samples constituted columns of samples from ditch fills specifically taken for molluscan analysis, seven from ditch 057 and nine from ditch 050. These were submitted to the EAC for processing and analysis. All the sampled deposits have been assigned to the Iron Age.

Table 1. Environmental samples taken at Ancaster Quarry – ANCQ16

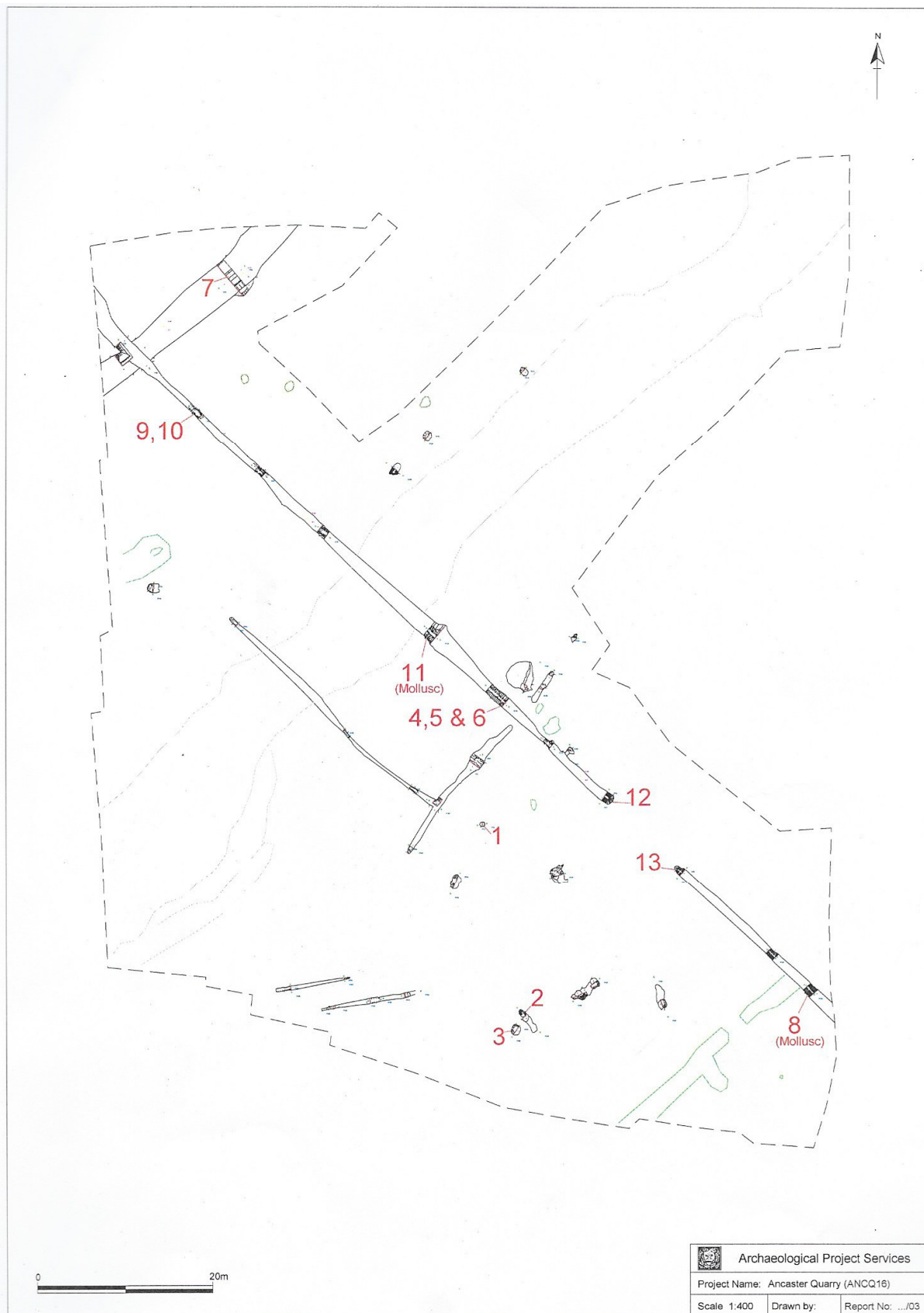
Sample	Context	Context type	Vol. in l.	Weight in kg
1*	003	Fill of pit 005	8	11
2*	092	Fill of pit 093	8	11
3*	105	Fill of pit 106	8	10
4*	054	Upper fill of ditch 057	16	25
5*	055	Active infill of ditch 057	16	22
6*	056	Primary fill ditch 057	16	22
7*	035	Sandy fill of ditch 028	15	23
8	0-10cm 058	Fill ditch 057	7	10
8	10-20 058	Fill ditch 057	6	6.5
8	20-30 058/59	Fill ditch 057	3	6.5
8	30-40 059	Fill ditch 057	Nd	4
8	40-50 059/60	Fill ditch 057	3	4.25
8	50-60 060	Fill ditch 057	3	4
8	60-70 060	Fill ditch 057	0.75	2
9*	016	Fill of ditch 015	8.5	10
10*	017	Fill of ditch 015	16	21
11	0-10cm 044/46	Fill ditch 050	5	10
11	10-20 046/47	Fill ditch 050	2.5	5
11	20-30 047	Fill ditch 050	3	6.5
11	30-40 047	Fill ditch 050	2.5	5
11	40-50 047	Fill ditch 050	3	6
11	50-60 047/48	Fill ditch 050	2	5
11	60-70 047/48/49	Fill ditch 050	0.75	2
11	70-80 048/49	Fill ditch 050	0.75	2
11	80-90 048/49	Fill of ditch 050	0.5	1.25
12*	021	Fill of ditch 022	14	23
13*	050	Fill of ditch 051	16	24

* samples processed by APS

Methods

Most of the soil samples were processed by APS, but the residue was dried and re-floated to improve the recovery of charred material and snail shells. The column samples taken for molluscan analysis were processed in the following manner. Sample volume and weight was measured prior to processing. The samples were washed in a 'Siraf' tank (Williams 1973) using a flotation sieve with a 0.5mm mesh and an internal wet sieve of 1mm mesh for the residue. Both residue and flot were dried and the residues subsequently re-floated to ensure the efficient recovery of charred material. The dry volume of the flots was measured and the volume and weight of the residue recorded.

Fig.1. Plan of features and location of environmental samples.



The residue was sorted by eye, and environmental and archaeological finds picked out, noted on the assessment sheet and bagged independently. A magnet was run through each residue in order to recover magnetised material such as hammerscale and prill and a count made of the number of flakes or spheroids of hammerscale collected. The residue was then discarded. The flots of each sample was studied using x30 magnifications and the presence of environmental finds (i.e. snails, charcoal, carbonised seeds, bones etc) was noted and their abundance and species diversity recorded on the assessment sheet. The flots were then bagged and along with the finds from the sorted residue, constitute the material archive of the samples.

The individual components of the samples were then identified and the results are summarised below in Tables 2-3, and the specific identifications in Tables 4-6.

Results

Features are provisionally dated to the Iron Age. The site lies on limestone and on the basis of the column samples the residues were composed of limestone brash.

The one element of the finds that were supplied was the magnetic fraction from the bulk samples. Although the magnetic fraction is small in all samples it consistently produces one or two flakes of hammerscale (Table 2) which suggests that there was iron smithing at the site, although with densities this low it is just possible that the hammerscale was introduced from later activity on the site and travelled down through the soil. Nevertheless the consistency with which the hammerscale appears across the whole site area suggests contemporary smithing.

The Charred Plant Remains (*John Giorgi*)

Seven of the processed bulk soil samples produced occasional identifiable charred plant remains (Table 4); a few cereal grains in five of the flots included one tentatively identified as the hulled wheat emmer (*Triticum dicoccum*) in ditch fill (54) and a hulled barley (*Hordeum vulgare*) grain in ditch fill (16); the other nine grains in four samples were too poorly preserved to be identified further. Wild plant remains consisted of two hazel (*Corylus avellana*) nut shell fragments in pit fill (3) together with a relatively large amount of charcoal, a seed of spike-rush (*Eleocharis*) in ditch fill (50) and a few indeterminate small grass (Poaceae) seeds in three ditch fill samples.

The paucity of charred plant remains in the samples allows little comment on crop husbandry or potential human activities in the area; both hulled wheat and hulled barley, however, are the main cereals found during the later prehistoric and Romano-British period although spelt wheat (*Triticum spelta*) rather than emmer tends to be the main hulled wheat grain (Greig 1991, 306, 309). The few charred cereal grains probably derive from accidents during the later stages of crop cleaning and food preparation. Charred hazel nutshell is consistently found on archaeological sites of all periods (particularly in the earlier prehistoric) and may represent the discarded residues of processed and consumed wild nuts gathered from woodland/hedgerows in the vicinity of the site. The *Eleocharis* seed implies wet conditions within Ditch [51].

Table 2. ANCQ16: Archaeological finds from the processed samples, arranged in sample order.

Sample	Context	Vol. in l.	Residue vol. in ml	Pot *	Fe no.	Flint no.	Burnt stone	Mag- netic wt. g.	Ham'r- scale no.**	Slag wt.g. #	Fired earth wt.g.	Bone wt g.	Comment
1*	003	8	nd	nd	nd	nd	nd	2	1fl		nd		Cinder-<0.5g
2*	092	8	nd	nd	nd	nd	nd	1			nd		Glassy organic cinder- 2g
3*	105	8	nd	nd	nd	nd	nd	0.5			nd	0.1	Glassy organic cinder – 1g; Indet tiny burnt bone
4*	054	16	nd	nd	nd	nd	nd	1	3fl/1sph		nd	0.5	Cinder-0.3g
5*	055	16	nd	nd	nd	nd	nd	1	3fl		nd	228	
6*	056	16	nd	nd	nd	nd	nd	1	4fl		nd	1	Glassy cinder-0.1g
7*	035	15	nd	nd	nd	nd	nd	1	6fl		nd	85	
8	0-10cm 058	7	2100					0.2	1fl			6	
8	10-20 058	6	1300					0.2	2fl			0.4	
8	20-30 058/59	3	1700					0.2	1fl			1.8	
8	30-40 059	Nd	1700					0.1					
8	40-50 059/60	3	900					0.1				5.6	
8	50-60 060	3	390					0.1					
8	60-70 060	0.75	250										
9*	016	8.5	nd	nd	nd	nd	nd	0.25	1fl		nd	468	
10*	017	16	nd	nd	nd	nd	nd	0.5	4fl	+	nd	1	slag
11	0-10cm 044/46	5	3300					0.2					
11	10-20 046/47	2.5	2400					0.1					
11	20-30 047	3	2100	2/0.2				0.1				+	
11	30-40 047	2.5	1600					0.1	1fl				
11	40-50 047	3	1300					0.1				0.1	
11	50-60 047/48	2	1600					0.1	1fl				
11	60-70 047/48/49	0.75	1200										
11	70-80 048/49	0.75	800										
11	80-90 048/49	0.5	500										
12*	021	14	nd	nd	nd	nd	nd	0.5	5fl		nd	1	
13*	050	16	nd	nd	nd	nd	nd	2	9fl		nd	0.8	

* - count/weight of pot; ** - frequency +=1-10; +=11-50; +++=51-150; ++++=151-250; +++++5=>250; # - P = present in magnetic residue/flot; nd – no data supplied; + present

Table 3. ANCQ16: Environmental finds from the processed samples, arranged in sample order (see Tables 4, 5 and 6 for the detailed botanical and molluscan data)

Sample	Context	Context type	Vol. in l.	Flot vol. ml	Char-coal */*	Char'd grain *	Char'd chaff *	Char'd seed *	Un-char'd seed*	Snail */#	Comment
1*	003	Pit fill	8	95	5/5			1	1	2/2	<i>Corylus avellana</i> nutshell fragsx2; snails – see Table 5
2*	092	Pit fill	8	96	5/5					2/2	Snails – see Table 5
3*	105	Pit fill	8	2	1/4				1	3/3	Snails – see Table 5
4*	054	Ditch fill	16	9	1/2	1		1		5/3	Indet burnt and eroded bone; snails – see Table 5
5*	055	Ditch fill	16	18	1/4				1	5/2	Horse-skull; snails – see Table 5
6*	056	Ditch fill	16	7	1/3	1		1	1	5/2	Indet burnt and eroded bone; snails – see Table 5
7*	035	Ditch fill	15	4	1/4				2	5/3	Horse – max. teeth; sheep/goat-radius, indet eroded bone; snails – see Table 5
8	0-10cm 058	Ditch fill	7	2	1/-	1		1		4/2	Indet grain x2, small grass x1; Cattle size, burnt bone; snails – see Table 6
8	10-20 058	Ditch fill	6	3	1/1			1		4/3	cf small grass x1; indet eroded and burnt bone; snails – see Table 6
8	20-30 058/59	Ditch fill	3	2	1/1					4/2	Sheep/goat, indet burnt bone; snails – see Table 6
8	30-40 059	Ditch fill	Nd	3	1/1					4/2	Snails – see Table 6
8	40-50 059/60	Ditch fill	3	1	1/1					3/2	Sheep/goat max. molar; Snails – see Table 6
8	50-60 060	Ditch fill	3	1.5	1/1					3/2	Snails – see Table 6
8	60-70 060	Ditch fill	0.75	1.5						2/2	Snails – see Table 6
9*	016	Ditch fill	8.5	3	-/2	1			2	5/2	Horse – vertebrae, innominate, mandible, teeth, mouse, vole, eel, indet bone; snails – see Table 5
10*	017	ditch fill	16	7	1/2				3	5/3	Indet burnt and eroded bone; Indet fish; snails – see Table 5
11	0-10cm 044/46	Ditch fill	5	3	1/1					4/3	Snails – see Table 6
11	10-20 046/47	Ditch fill	2.5	2.5	1/1					4/3	Snails – see Table 6
11	20-30 047	Ditch fill	3	2	1/-					4/3	Wood mouse; snails - see Table 6
11	30-40 047	Ditch fill	2.5	1.5	1/1	1				3/3	Indet cereal grain; snails – see Table 6
11	40-50 047	Ditch fill	3	2	1/1					4/3	Indet eroded bone; snails – see Table 6
11	50-60 047/48	Ditch fill	2	1	1/1					4/2	Snails – see Table 6
11	60-70 047/48/49	Ditch fill	0.75	1.5	1/1					2/2	Snails – see Table 6
11	70-80 048/49	Ditch fill	0.75	1	1/1					2/2	Snails – see Table 6
11	80-90 048/49	Ditch fill	0.5	1.5	1/1					2/2	Snails – see Table 6
12*	021	Ditch fill	14	8	1/3				1	5/2	Indet burnt and eroded bone; frog/toad; snails – see Table 5
13*	050	Ditch fill	16	16	1/2	1		1	1	5/3	Indet burt and eroded bone; snails – see Table 5

*/# frequency of charcoal recovered from first flot/second flot - frequency 1=1-10; 2=11-50; 3=51-150; 4=151-250; 5=>250); *frequency 1=1-10; 2=11-50; 3=51-150; 4=151-250; 5=>250; + and ++ represent unquantified amounts significantly greater than 250; # diversity 1=1-3; 2=4-10; 3=11-25 taxa

The charred plant remains are distributed across the area of excavation with the one barley grain in ditch [15] at the north-western end and a few indeterminate grains in the south-eastern corner in ditch [61]. There is a small concentration of material in the central area of excavation with a few grains (including possibly emmer) in two fills of ditch [57] and the hazelnut shell in pit [5] (c 15m to the south of ditch [57]); it is difficult, however, to establish whether or not this is significant on the basis of such small amounts of material

Table 4. Charred plant remains identified in the samples

	Prov date	IA/RB	?	?	IA/RB	IA/RB	?
	Feature	Pit	Ditch	Ditch	Ditch	Ditch	Ditch
	Feature no.	5	57	57	61	15	51
	Context	3	54	56	58	16	50
	sample	1	4	6	8	9	13
	spit	-	-	-	0-0.1m	0.1-0.2m	-
	sample vol (l)	8	16	16	7	6	8
	flot vol (ml)	95	9	7	2	3	3
<i>Triticum</i> cf. <i>dicoccum</i>	?emmer wheat		1				
<i>Hordeum vulgare</i> L.	hulled barley					1	
Cerealia indet.	Indet grains		3		2		1
cf Cerealia indet.	?indet grain			2			1
<i>Corylus avellana</i> L.	hazel nut shell	2					
<i>Eleocharis</i> sp.	spike-rush						1
Poaceae indet.	small grass				1		
cf Poaceae indet.	?small grass			1		1	
					1		
		+++++	++	+++	+	+	++
Total nos items		2	4	3	4	1	3

Key: +=1-5 items; ++ = 6-25 items; +++ = 26-100 items; ++++ = 101-300 items; +++++ = >300 items

Terrestrial Snails (*J Rackham*)

All the samples produced terrestrial snail shells, although their abundance was variable. Shells of the blind burrowing snail *Cecilioides acicula* is the dominant taxa throughout, but since this species can burrow to some depth in the soil and is thought to have been introduced to Britain in the Roman period it is assumed to be intrusive in these deposits. Only the shells from the two columns of samples have been specifically quantified (Table 6), the taxa from the bulk samples merely identified (Table 5) and an assessment made of the character of the assemblage during this scanning.

The samples from the two column samples show a similar pattern (Table 6) with taxa of open dry calcareous grassland habitats, such as *Pupilla muscorum*, *Vallonia excentric* and, *Helicella itala*, dominating the assemblages, the former often in exposed conditions on bare soil. They may indicate a short well grazed sward with some local erosion exposing patches of soil. This is more consistent with sheep pasture than hay meadows, although well grazed cattle pasture can produced a short sward. Less abundant taxa such as *Truncatellina cylindrica* are also found in dry exposed calcareous grassland. Species preferring shaded or woodland habitats are relatively rare in the assemblages although occasional shells of *Discus rotundatus*, *Punctum pygmaeum*, Clausilidae and Zonitoides suggest some shade, possibly a hedgerow or long grassland habitat within the ditch. There is no indication that any of the ditches carried water at any time.

Table 5. ANCQ16 - Mollusc taxa identified from the bulk samples

sample	1	2	3	4	5	6	7	9	10	12	13
CONTEXT	3	92	105	54	55	56	35	16	17	21	50
SAMPLE SIZE											
<i>Cecilioides acicula</i>	+	+	+	+	+	+	+	+	+	+	+
<i>Trichia hispida/plebeia</i>	+	+		+	+		+	+	+	+	++
<i>Helicella itala</i>	+	+		+	+	+	+	+	+	++	+
<i>Cochlicopa lubrica</i>				+		+	+	+	+		
<i>Cochlicopa lubricella</i>				+	+	+		+	+		
<i>Cochlicopa</i> sp.											+
<i>Cepaea</i> sp.		+	+				+				+
<i>Pupilla muscorum</i>	+		+	+	+	+++	+	+	+++	++	+
<i>Vallonia</i> sp.	+										
<i>Vallonia costata</i>				+	+		+				+
<i>Vallonia excentrica</i>			+	+	+	+	+	+	+	+	+
<i>Vallonia pulchella</i>											
<i>Vertigo pygmaea</i>							+				
<i>Vertigo</i> sp.							+				
<i>Candidula intersecta</i>											+
<i>Truncatellina cylindrica</i>			+		+	+				+	
<i>Pomatia elegans</i>			+			+				+	
<i>Punctum pygmaeum</i>			+				+	+	+		+
<i>Lauria cylindracia</i>									+		
<i>Abide?</i>							+				
<i>Vitrea</i> sp.			+					+	+		
<i>Oxychilus alliarus</i>						+			+		+
<i>Oxychilus cellarius</i>						+					+
<i>Discus rotundatus</i>			+								
Clausilidae			+		+						
<i>Carychium</i> sp.			+								
interpretation	grass		wood	grass	grass	dist. grass	grass	grass	dist. grass	grass	grass

Grass- open grassland; dist grass – disturbed grassland; wood – woodland/shaded

Table 6. ANCQ16 - Mollusc taxa identified from the column samples

sample	8	8	8	8	8	8	8	11	11	11	11	11	11	11	11	11
CONTEXT	058	058	058/59	059	059/60	060	060	044/46	046/47	047	047	047	047/48	047/48/49	048/49	048/49
SUB-SAMPLE UNIT	0-10	10-20	20-30	30-40	40-50	50-60	60-70	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90
SAMPLE SIZE	7	6	3	nd	3	3	0.75	5	2.5	3	2.5	3	2	0.75	0.75	0.5
<i>Cecilioides acicula</i>	18	20	61	12	15	9		160	167	109	22	46	45	11	6	3
<i>Trichia hispida/plebeia</i>	25	68	41	12		1	1	8	9	21	11	10	2			
<i>Helicella itala</i>	44	63	42	33	11	7	2	13	15	13	14	21	21	5	4	4
<i>Cochlicopa lubrica</i>										1						
<i>Cochlicopa lubricella</i>											1	1				
<i>Cochlicopa</i> sp.												1				
<i>Cepaea</i> sp.											1					
<i>Pupilla muscorum</i>	56	58	37	23	24	8	4	45	43	57	63	74	58	5	7	6
<i>Vallonia</i> sp.	35	94	57	64	24	27	2	17	26	38	19	80	28	11	3	3
<i>Vallonia costata</i>	9	16	11			1		4	1	3	5	5	2			
<i>Vallonia excentrica</i>	42	64	49	37	7	7	5	18	19	29	34	43	13	4	4	9
<i>Vallonia pulchella</i>	1															
<i>Vertigo substriata</i>											1			1		
<i>Candidula intersecta</i>									1							
<i>Candidula gigaxii</i>								1								
<i>Monacha cantiana</i>								1								
<i>Truncatellina cylindrica</i>		1		1	7	1			1	5	2	4	2	1		
<i>Pomatia elegans</i>	1	1					1	1				2		1		
<i>Punctum pygmaeum</i>	4	15	3	1		1		2		1						
<i>Vitrea</i> sp.								1			1	1				1
<i>Vitrina</i> sp		2		4	1											
<i>Aegopinella pura</i>									1							
<i>Oxychilus</i> sp.					1											
<i>Oxychilus alliarus</i>			4			3	1		1							
<i>Oxychilus cellarius</i>						1										
<i>Discus rotundatus</i>									1	1						
<i>Clausilia bidentata</i>												1				
<i>Carychium</i> sp.				1												
<i>Carychium tridentatum</i>								1				1				

+ - present; ++ - 11-50 shells; +++ 51-150 shells; ++++ >150 -250 shells; +++++ > 250 shells

Two of the bulk samples produced relatively high numbers of *Pupilla muscorum*, a species favouring exposed soil in dry grassland suggesting patches of bare earth, possibly due to overgrazing and/or erosion. Several samples produced a shell or shell fragment of *Pomatia elegans*. This species when in abundance has typically been associated with forest clearance (Evans 1972) but specifically lives in loose friable soils into which it burrows and its presence here would seem to indicate some areas of soil disturbance rather than clearance. Such disturbance could be occasioned by domestic stock activity, arable, hedge removal, etc and it would be purely speculative to suggest which.

The assemblage from the bulk samples mirror those from the columns and the distribution of the dry grassland suite of taxa across almost all the samples is suggestive that the whole of this exposed area was dry grassland in the Iron Age, at least during that period represented by these deposits. One sample does not fall into this pattern. The snail assemblage from the bulk sample from context 105, the fill of pit 106 tells a different story. This assemblage is dominated by taxa of woodland environments (Table 5) and includes, relatively more shells of *Pomatia elegans*. This assemblage might reflect a clearance episode on the site and as such could represent a significantly earlier period than the other samples.

Animal Bone (*J.Rackham*)

A small collection of animal bone was recovered by hand during the excavations and a few remains were sorted from the sample residues. Although the assemblage was composed of over 650 fragments of bone many of these derived from skulls and a partial skeleton of horse, and therefore the assemblage is in fact quite small (Table 7). All the bone is poorly preserved with considerable evidence for erosion. It is almost certain that some material will have been lost entirely from the deposits by post-depositional erosion.

The bulk of the recovered bone can be identified as horse, and derive from two horse skulls, a partial skeleton and a few fragments. All these animals are adult. A few bones of cattle, sheep/goat and pig are present (Table 7).

Table 7. Frequency of hand collected bone of each species and their weight (no/wt)

species	006	012	016	018	021	023	031	035	044	045	046	047	050	055	056	076
Horse	1/183	1/4	1/1076	1/147		1/1172	1/18	6/243		1/5	1/26	5/161	1/58	6/384		
Cattle						4/62		3/34	1/11					1/1		
Cattle size				1/1	1/2		1/7	1/1			1/1	12/9.5		20/26		
Sheep/goat		1/4						1/9	1/2				2/8.5			
Sheep																
Sheep size						2/4							1/1	5/3	2/4	1/1
Pig								1/15								
Red deer																
Fox																
Chicken																
Small animal																
Unidentified								2/0.5	1/0.5				1/0.5	23/11	2/1	

The samples produced additional material including a few fragments of fish, including eel, and a few small mammal remains including wood mouse and vole.

Summary

The environmental assemblages from the site are limited. The bones suggest a dominance of horse, but with the poor bone preservations considerable material could have been lost from the deposits. The charred cereals have only permitted the identification of emmer wheat and hulled barley with two fragments of hazel nutshell also identified. We can make little comment on the site except perhaps to suggest that this evidence suggests limited occupation debris entering the deposits. The scatter of hammerstone might indicate iron smithing but derivation from later activity cannot be ruled out.

The terrestrial snail evidence indicates an open dry grassland site, with possible surface erosion or grazing pressure, but the evidence for hedgerows along the ditches is minimal. One feature, pit 106, differs from the rest of the site suggesting a woodland habitat and some suggestion of woodland clearance. It is possible that this feature predates those with the open country snail assemblages and reflects occupation at a period when the site was still wooded or just recently cleared.

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THE ENVIRONMENTAL ARCHAEOLOGY CONSULTANCY

Key to codes used in the cataloguing of animal bones and marine shells

SPECIES:

SPECIES CODE			SPECIES CODE	
MAN	human		DOVE	Dove species
EQU	Horse		FER	Feral dove
EQSZ	Horse size		PART	Partridge
BOS	Cattle		SWAN?	Swan?
BOSL	Cattle-large		WOOD	Woodcock
CSZ	cattle size		CURL	Curlew
SUS	Pig		WADE	wader
OVCA	sheep or goat		CROK	Crow or rook
OVI	Sheep		CORV	Crow or rook
CRA	Goat		JACK	Jackdaw
SSZ	sheep size		OWL	Owl indet.
FEL	Cat		BUZZ	Buzzard
CAN	Dog		GULL	Gull sp.
AUR	Aurochs			
AUR?	Aurochs?		TURD	Turdidae
CER	red deer		BIRD	Identifiable but not id'd
DAM	Fallow deer		PASS	Passerine
CLS	roe deer		LBIRD	Large bird
LEP	Hare		UNIB	Bird indet
ORC	Rabbit			
LAG	Lagomorph		FROG	Frog
CARN	Carnivore		FRTO	Frog or toad
FOX	Fox			
POLE	Polecat/ferret			
WEA	weasel		GAD	Gadid, cod family
BADG	Badger		LING	Ling
SEAL	seal		HADD	Haddock
SQU?	Squirrel?		RAY	ray
BEAV	Beaver		FISH	Fish
ROD	Rodent		UNIF	Fish indet
RAT	Rat			
AGR	Field vole		OYS	oyster
ARV	Water vole		COK	Cockle
MUS	House mouse		MUSS	Common Mussel
SORA	Common shrew		WHELK	Common whelk
MOLE	Mole		HEL	Helix aspersa
SMA	Small mammal		HELIX	Helix sp.
UNI	Unknown		HELN	Helix nemoralis
			SNAIL	snail
CHIK	Chicken			
CHKZ	Chicken size		FOSS	Fossil bone
GOOS	Goose, dom			
GOOS?	Goose, dom.?			
GSSZ	Goose size			
GSSP	Goose species			
GOSZ	Goose, poss. Wild			
DUCK	Duck, domestic sp.			
DUCK?	Duck?			
DKSP	Duck species			
DSP	Duck species indet			
MALL	Duck, dom.			
TURK	Turkey			

BONE ELEMENT:

BONE CODE		BONE CODE	
SKEL	skeleton	SCP	scapula
SKL	skull	HUM	humerus
ANT	antler	RAD	radius
ANT?	antler?	ULN	ulna
ATT	antler tine	RUL	radius and ulna
HC	horn core	C/T	carpus/tarsus
TEMP	temporal	C23	carpus 2+3
FRNT	frontal	CAR	carpus
PET	petrous	CPA	accessory carpal
PAR	parietal	CPI	intermediate carpal
OCIP	occipital	CPR	radial carpal
ZYG	zygomatic	CPU	ulnal carpal
NAS	nasal	MTC	metacarpus
PMX	premaxilla	MC1-5	metacarpus 1-5
MAN	mandible	MTP	metapodial
MNT	mandibular tooth	MPL	lateral metapodial
DLI	deciduous lower incisor	INN	innominate
DLP1-4	deciduous lower premolar 1-4	ILM	ilium
LI	lower incisor (and 1-3)	PUB	pubis
LC	lower canine	ISH	ischium
LPM1-LPM4	lower premolar 1-4	FEM	femur
LM1-LM3	lower molar 1 - molar 3	PAT	patella
MAX	maxilla	TIB	tibia
DUI	deciduous upper incisor	FIB	fibula
UI	upper incisor (1-3)	LML	lateral malleolus
UC	upper canine	AST	astragalus
DUPM	deciduous upper premolar	CAL	calcaneum
DUPM1-4	deciduous upper premolar 1-4	CQ	centroquartal
UPM1-UPM4	upper premolar 1-4	TAR3	tarsus 3
UM1-UM3	upper molar 1 - molar 3	T4	tarsus 4
MXT	maxillary tooth	TAR	tarsus
TTH	indeterminate tooth	MTT	metatarsus
INC	incisor	MT1-5	metatarsus 1-5
HYD	hyoid	MTL	lateral metatarsus
ATL	atlas	SES	sesamoid
AXI	axis	PH1	1st phalanx
CEV	cervical vertebra (and 3-7)	PH2	2nd phalanx
TRV	thoracic vertebra (and 1-13)	PH3	3rd phalanx
LMV	lumbar vertebra	PHL	lateral phalanx
SAC	sacrum	LBF	long bone
CDV	caudal vertebra	UNI	unidentified
VER	vertebra		
STN	sternum	CLV	clavicle
CC	costal cartilage	COR	coracoid
RIB1	first rib (2 etc)	CMP	carpo-metacarpus
RIB	rib	CMC	carpo-metacarpus
		WPH1-3	wing phalanges 1-3
URO	urostyle	WPH	wing phalanx
		LSA	lumbar sacrale
DENT	dentary		
CLEI	cleithrum		
RAY	fin ray		
SHELL	shell		
UV	upper valve		
VAL	valve		

NUMBER: number of fragments in the entry

SIDE: W - whole L - left side R - right side F - fragment

FUSION: records the fused/unfused condition of the epiphyses
P - proximal; D - distal; E - acetabulum; N - unfused; F - fused; C - cranial; A - posterior

ZONES: records the part of the bone present.
The key to each zone on each bone is on page 4

BUTCHERY: records whether a bone has been chopped (CH), cut (KN), worked (W), burnt (C)

GNAWING: records if a bone has been gnawed by dogs (DG), cats (FEL) or rodents (RG)

TOOTH WEAR - Codes are those used in Grant, A. 1982 The use of tooth wear as a guide to the age of domestic animals, in B.Wilson, C.Grigson and S.Payne (eds) *Ageing and sexing animal bones from Archaeological sites*, 91-108.

Teeth are labelled as follows in the tooth wear column:

Deciduous	Permanent
f ldpm2/dupm2	F lpm2/upm2
g ldpm3/dupm3	G lpm3/upm4
h ldpm4/dupm4	H lpm4/upm4
	I lm1/um1
	J lm2/um2
	K lm3/um3

MEASUREMENTS :Any measurements are those listed in A.Von den Driesch (1976) *A Guide to the Measurement of Animal Bones from Archaeological Sites*, Peabody Museum Bulletin 1, Peabody Museum, Harvard, USA

Some measurements have been taken on juveniles. Measurements marked L1 are the greatest length of long bones lacking one unfused epiphysis – the measurement being taken from the epiphyseal junction. Measurements marked L2 are the greatest length of the long bones between epiphyseal junctions when both epiphyses are unfused.

PATHOLOGICAL: A 'P' indicates that the bone fragment carries a pathology

COMMENTS: This may include a short description of the fragments, any pathologies, butchery or gnawing evidence

PRESERVATION: records the condition of the bone in the following manner

- 1- enamel only surviving
- 2- bone very severely pitted and thinned, tending to break up; teeth with surface erosion and loss of cementum and dentine
- 3- surface pitting and erosion of bone, some loss of cementum and dentine on teeth
- 4- surface of bone intact, loss of organic component, material chalky, calcined or burnt
- 5- bone in good condition, probably with some organic component

ZONES - codes used to define the zones on each bone

SKULL	1. paraoccipital process	METACARPUS	1. medial facet of proximal articulation, MC3
	2. occipal condyle		2. lateral facet of proximal articulation, MC4
	3. intercornual protuberance		3. medial distal condyle, MC3
	4. external acoustic meatus		4. lateral distal condyle, MC4
	5. frontal sinus		5. anterior distal groove and foramen
	6. ectorbitale		6. medial or lateral distal condyle
	7. entorbitale		
	8. temporal articular facet	FIRST PHALANX	1. proximal epiphysis
	9. facial tuber		2. distal articular facet
	0. infraorbital foramen		
MANDIBLE		INNOMINATE	1. tuber coxae
	1. Symphyseal surface		2. tuber sacrale + scar
	2. diastema		3. body of illium with dorso-medial foramen
	3. lateral diastemal foramen		4. ilioptic eminence
	4. coronoid process		5. acetabular fossa
	5. condylar process		6. symphyseal branch of pubis
	6. angle		7. body of ischium
	7. anterior dorsal ascending ramus posterior M3		8. ischial tuberosity
	8. mandibular foramen		9. depression for medial tendon of rectus femoris
VERTEBRA	1. spine	FEMUR	1. head
	2. anterior central epiphysis		2. trochanter major
	3. posterior central epiphysis		3. trochanter minor
	4. centrum		4. supracondyloid fossa
	5. neural arch		5. distal medial condyle
SCAPULA			6. lateral distal condyle
	1. supraglenoid tubercle		7. distal trochlea
	2. glenoid cavity		
	3. origin of the distal spine		8. trochanter tertius
	4. tuber of spine	TIBIA	1. proximal medial condyle
	5. posterior of neck with foramen		2. proximal lateral condyle
	6. cranial angle of blade		3. intercondylar eminence
	7. caudal angle of blade		4. proximal posterior nutrient foramen
HUMERUS			5. medial malleolus
	1. head		6. lateral aspect of distal articulation
	2. greater tubercle		7. distal pre-epiphyseal portion of the diaphysis
	3. lesser tubercle		
	4. intertuberal groove	CALCANEUM	1. calcaneal tuber
	5. deltoid tuberosity		2. sustentaculum tali
	6. dorsal angle of olecranon fossa		3. processus anterior
	7. capitulum		
	8. trochlea	METATARSUS	1. medial facet of proximal articulation, MT3.
	9. coronoid fossa		2. lateral facet of proximal articulation, MT4
	0. teres tubercle		3. medial distal condyle, MT3
RADIUS	1. medial half of proximal epiphysis		4. lateral distal condyle, MT4
	2. lateral half of proximal epiphysis		5. anterior distal groove and foramen
	3. posterior proximal ulna scar and foramen		6. medial or lateral distal condyle
	4. medial half of distal epiphysis		
	5. lateral half of distal epiphysis		
	6. distal shaft immediately above distal epiphysis		
ULNA			
	1. olecranon tuberosity		
	2. trochlear notch- semilunaris		
	3. lateral coronoid process		
	4. distal epiphysis		

Archive Catalogue of animal bone from Ancaster – ANCQ16

context	species	bone	number	side	fusion	zone	butchery	gnawing	toothwear	measurement	pathological	comment	preservation
006	EQU	SKL	1	F		446			K			FRAGMENTED TEMPORALS -FRONTAL-MAXILLA-M3 WORN-32 PIECES	3
012	EQU	MTL	1	F								LATERAL METAPODIAL	3
012	OVCA	TIB	1	R	DN							DISTAL SHAFT-4 PIECES	3
016	EQU	SKEL	1	P								LMV-CEV-TRV-MAND-RIBS-INN-HUM-SCP-SAC-ADULT VERT EPIS FUSED-129 FRAGS	4
018	CSZ	RIB	1	F								INDET SHAFT FRAGMENT-HORSE?	3
018	EQU	FEM	1	L	DF	467						DISTAL THIRD- 12 FRAGS	3
018	EQU	MAX	1	R								3 LOOSE INCISOR TEETH-5 FRAGS	3
018	EQU	RIB	1	F								SHAFT FRAGMENT	3
021	CSZ	UNI	1	F								INDET	3
023	BOS	PET	1	F		8						AUDITORY AND PETROUS	3
023	BOS	SKL	2	F		22						CONDYLES AND ONE POP- 4 PIECES	3
023	BOS	UM	1	F								SPLIT ENAMEL FRAGMENT	3
023	EQU	SKL	1	P		112234488						HEAVILY FRAGMENTED-OCCIP-PAR-FRNT-MAX-TEMP-UM1-3-WELL WORN-ETC-363 FRAGS-ADULT	3
023	SSZ	LBF	2	F								INDET SHAFT FRAGMENT	3
031	CSZ	LBF	1	F								INDET SHAFT FRAGMENT	3
031	EQU	INN	1	F								ILIAL SHAFT- 2 PIECES	3
035	BOS	MAN	1	L		7						ANT FRAG ASC RAMUS	3
035	BOS	PH2	1	R	PF	12						COMPLETE BUT ERODED	3
035	BOS	SCP	1	L								FRAG GLENOID AND NECK	3
035	CSZ	UNI	1	F								INDET	3
035	EQU	LM	1	L								MED WEAR	3
035	EQU	LM3	1	R								POST CUSPS-BROKEN	3
035	EQU	MAN	1	L		7						PART ASC RAMUS AND ANGLE-3 PIECES	3
035	EQU	MPL	1	F								MATERAL METAPODIAL	3
035	EQU	MTC	1	L	DF	123				GL-208		COMPLETE BUT BROEKN	3
035	EQU	UM	1	R								MED-WELL WORN	3
035	OVCA	RAD	1	L		3						SHAFT- 2 PIECES	3
035	SUS	MAN	1	L		7			K8			FRAGMENT WQITH M3	3
035	UNI	UNI	2	F								INDET	3
044	BOS	HUM	1	R								DISTAL SHAFT- 3 PIECES	3
044	OVCA	LM3	1	L					K12			COMPLETE BUT ERODED	3
044	UNI	UNI	1	F								INDET	3

context	species	bone	number	side	fusion	zone	butchery	gnawing	toothwear	measurement	pathological	comment	preservation
045	EQU	UI	1	W								VERY ERODED	2
046	CSZ	UNI	1	F								INDET	3
046	EQU	LM	1	L								ROOTS BROEKN-MED-WELL WORN	3
047	CSZ	RIB	11	F								SPLIT SHAFT FRAGMENTS	3
047	CSZ	TTH	1	F								ERODED ROOT FRAGMENT	2
047	EQU	LM	1	L								MED WEAR-COMPLETE	3
047	EQU	LM	1	R								MED WEAR-COMPLETE	3
047	EQU	LMV	1	F	CFAF	2345						CENTRUM AND PART ARCH	3
047	EQU	TIB	1	L								DISTAL SHAFT- 2 PIECES	3
047	EQU	UM	1	L								MED WEAR-COMPLETE	3
050	EQU	UM3	1	L					K			COMPLETE-MED WEAR	3
050	OVCA	MTT	1	R								PART PROX END AND SHAFT- 2 PIECES	3
050	OVCA	UPM3	1	L								SL WEAR	3
050	SSZ	LBF	1	F								INDET SHAFT FRAGMENT	3
050	UNI	UNI	1	F								INDET	3
055	BOS	TTH	1	F								FRAGMENT ONLY	3
055	CSZ	RIB	15	F								INDET SPLIT MIDSHAFT FRAGMENTS	3
055	CSZ	UNI	2	F								POSS EQU MAND FRAGS	3
055	CSZ	UNI	3	F								INDET-ERODED	3
055	EQU	HUM	1	R	DF	056789						DISTAL END AND SHAFT	3
055	EQU	MAN	1	L		7						ANT ASC RAMUS FRAGMENT	3
055	EQU	RIB	1	R								PROX SHAFT	3
055	EQU	SK	1	F								PREMAXILLA	3
055	EQU	SKL	1	F		1223						OCCIPITAL	3
055	EQU	UPM2	1	R								ROOTS BROKEN-MED WSEAR	3
055	SSZ	LBF	5	F								INDET ERODED SHAFT FRAGS	3
055	UNI	UNI	23	F								INDET ERODED FRAGMENTS	2
056	SSZ	HUM	1	F								ERODED SHAFT-PROB PIG	2
056	SSZ	LBF	1	F								SPLIT SHAFT FRAGMENT	3
056	UNI	UNI	2	F								INDET-ERODED	3
076	SSZ	LBF	1	F								INDET ERODED SHAFT	3

Appendix 4

GLOSSARY

Context	An archaeological context represents a distinct archaeological event or process. For example, the action of digging a pit creates a context (the cut) as does the process of its subsequent backfill (the fill). Each context encountered during an archaeological investigation is allocated a unique number by the archaeologist and a record sheet detailing the description and interpretation of the context (the context sheet) is created and placed in the site archive. Context numbers are identified within the report text by brackets, <i>e.g.</i> [004].
Cut	A cut refers to the physical action of digging a posthole, pit, ditch, foundation trench, <i>etc.</i> Once the fills of these features are removed during an archaeological investigation the original 'cut' is therefore exposed and subsequently recorded.
Fill	Once a feature has been dug it begins to silt up (either slowly or rapidly) or it can be back-filled manually. The soil(s) that become contained by the 'cut' are referred to as its fill(s).
Intrusive	Artefacts of later date found in deposits that must pre-date them are said to be intrusive. Such intrusive artefacts will usually be small and have worked down in the soil through cracks, or by root, worm or rodent action. Intrusive artefacts will generally be isolated and be distinctively later than a larger assemblage of earlier artefacts, for example, a single 19 th century pottery fragment found in a large collection of medieval ceramics in a refuse pit.
Iron Age	A period characterised by the introduction of Iron into the country for tools, between 800 BC and AD 50.
Layer	A layer is an accumulation of soil or other material that is not contained within a cut
Natural	Undisturbed deposit(s) of soil or rock which have accumulated without the influence of human activity
Post hole	The hole cut to take a timber post, usually in an upright position. The hole may have been dug larger than the post and contain soil or stones to support the post. Alternatively, the posthole may have been formed through the process of driving the post into the ground.
Prehistoric	The period of human history prior to the introduction of writing. In Britain the prehistoric period lasts from the first evidence of human occupation about 500,000 BC, until the Roman invasion in the middle of the 1st century AD.
Romano-British	Pertaining to the period dating from AD 43-410 when the Romans occupied Britain.

Appendix 5

THE ARCHIVE

The excavation archive consists of:

7	Context register sheets
133	Context record sheets
3	Photographic record sheets
1	Small find record sheet
2	Section record sheets
2	Plan record sheets
29	Daily record sheets
1	Sample record sheet
13	Environmental sample sheets
33	Sheets of scale drawings
1	Box of finds
1	Stratigraphic matrix

All primary records are currently kept at:

Archaeological Project Services
The Old School
Cameron Street
Heckington
Sleaford
Lincolnshire
NG34 9RW

The ultimate destination of the project archive is:

The Collection
Art and Archaeology in Lincolnshire
Danes Terrace
Lincoln
LN2 1LP

Archaeological Project Services Site Code:	ANCQ16
The Collection, Accession Number:	LCNCC: 2013.211
OASIS Record No:	archaeo11-266028

The discussion and comments provided in this report are based on the archaeology revealed during the site investigations. Other archaeological finds and features may exist on the development site but away from the areas exposed during the course of this fieldwork. *Archaeological Project Services* cannot confirm that those areas unexposed are free from archaeology nor that any archaeology present there is of a similar character to that revealed during the current investigation.

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OASIS ID: archaeol1-266028

Project details

Project name	Archaeological strip, map and sample excavation on land at Goldholme Quarry (Castle Quarry), Ancaster, Lincolnshire
Short description of the project	A strip, map and sample excavation revealed further field boundaries and small enclosures of later Middle Iron Age date. There were also several undated pits.
Project dates	Start: 08-02-2016 End: 17-03-2016
Previous/future work	Yes / Not known
Any associated project reference codes	ANCQ16 - Sitecode
Any associated project reference codes	S2/1065/07 - Planning Application No.
Any associated project reference codes	2013.211 - Museum accession ID
Type of project	Recording project
Site status	None
Current Land use	Grassland Heathland 3 - Disturbed
Monument type	DITCH Middle Iron Age
Monument type	PIT Uncertain
Significant Finds	POTTERY Middle Iron Age
Significant Finds	POTTERY Late Iron Age
Significant Finds	ANIMAL BONE Middle Iron Age
Investigation type	"Open-area excavation"
Prompt	Planning condition

Project location

Country	England
Site location	LINCOLNSHIRE SOUTH KESTEVEN ANCASTER Land at Goldholme Quarry (Castle Quarry)

Postcode	NG32 3PA
Study area	0.67 Hectares
Site coordinates	SK 9879 4332 52.977794956175 -0.528515615952 52 58 40 N 000 31 42 W Point
Height OD / Depth	Min: 64.7m Max: 69.2m

Project creators

Name of Organisation	Archaeological Project Services
Project brief originator	Local Authority Archaeologist and/or Planning Authority/advisory body
Project design originator	Gary Taylor
Project director/manager	Gary Taylor
Project supervisor	Andrew Failes
Type of sponsor/funding body	Developer
Name of sponsor/funding body	Harnfield Properties

Project archives

Physical Archive recipient	The Collection
Physical Archive ID	LCNCC:2013.211
Physical Contents	"Animal Bones","Ceramics","Environmental","Human Bones"
Digital Archive recipient	The Collection
Digital Archive ID	LCNCC:2013.211
Digital Contents	"Animal Bones","Ceramics","Environmental","Human Bones","Survey"
Digital Media available	"Images raster / digital photography","Survey","Text"
Paper Archive recipient	The Collection
Paper Archive ID	LCNCC:2013.211
Paper Contents	"Animal Bones","Ceramics","Environmental","Human Bones","Survey"
Paper Media available	"Aerial Photograph","Context sheet","Diary","Photograph","Plan","Report","Section","Survey "

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
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