Heneb: Clwyd-Powys Archaeology

Report 2014

Quarry Farm, Oakenholt, Flintshire

Archaeological Evaluation

Archaeoleg Clwyd-Powys
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Clwyd-Powys Archaeology

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19/04/2024	03/05/2024	0/0/2024
Report Status	Interim	
Confidential until	N/A	

Bibliographic reference: Macrow, K., 2024. *Quarry Farm, Oakenholt, Flintshire, Archaeological Evaluation*. Unpublished report. Heneb Report No. 2014.

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Summary

Heneb (formerly The Clwyd-Powys Archaeological Trust) undertook an archaeological evaluation in March of 2024 on behalf of Castle Green Homes on a 4.87 hectare site located at Quarry Farm, Oakenholt, Flint, CH6 5WD (NGR SJ2585371623) prior to the submission of a planning application for the proposed development of 128 homes on the site. The evaluation involved the excavation of 16 trenches covering a total area of 785 square metres. Three Romano-British features were found including two pits, one which may have been recut, in Trench 1, and one curvilinear ring ditch in Trench 10 which is associated with features excavated in an evaluation carried out in 2015. The only other archaeological feature was a post-medieval ditch in Trench 3, most likely a field boundary. Evidence typical of Romano-British edge of settlement activity was found in the north of the evaluation with nothing being found further south. Evidence was found of complex natural features and geological composition which have resulted in erratic and confusing geophysical survey results. No features associated with industrial, domestic or ritual burning were found.

Crynodeb

A Welsh translation is now required of the summary for all projects undertaken in Wales. A draft report can be sent to the client without the translation, provided it includes 'Awaiting Welsh translation', and the draft PDF is watermarked with 'Draft'.

Remember to translate summaries for any new assets in a database or tabulated in the report.

1 Introduction

1.1. Heneb, whilst still The Clwyd-Powys Archaeological Trust, was instructed by Castle Green Homes (the client) to undertake an archaeological evaluation for proposed development of 128 homes prior to the submission of a planning application. The site is approximately 4.87 hectares in size which is currently in agricultural use as permanent pasture, located at Quarry Farm, Oakenholt, Flint, CH6 5WD (NGR SJ2585371623) (Figure 1). A detailed plan for the proposed development area is shown in Figure 2.

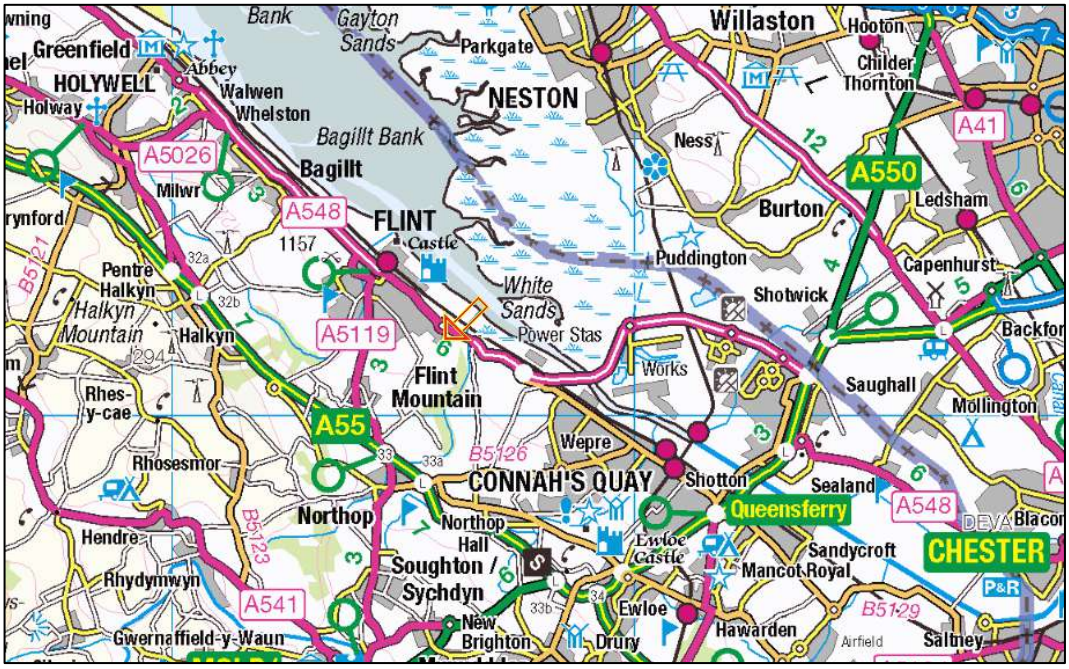

Figure 1: General location of site (arrowed) (Contains Ordnance Survey data © Crown copyright and database right 2023)

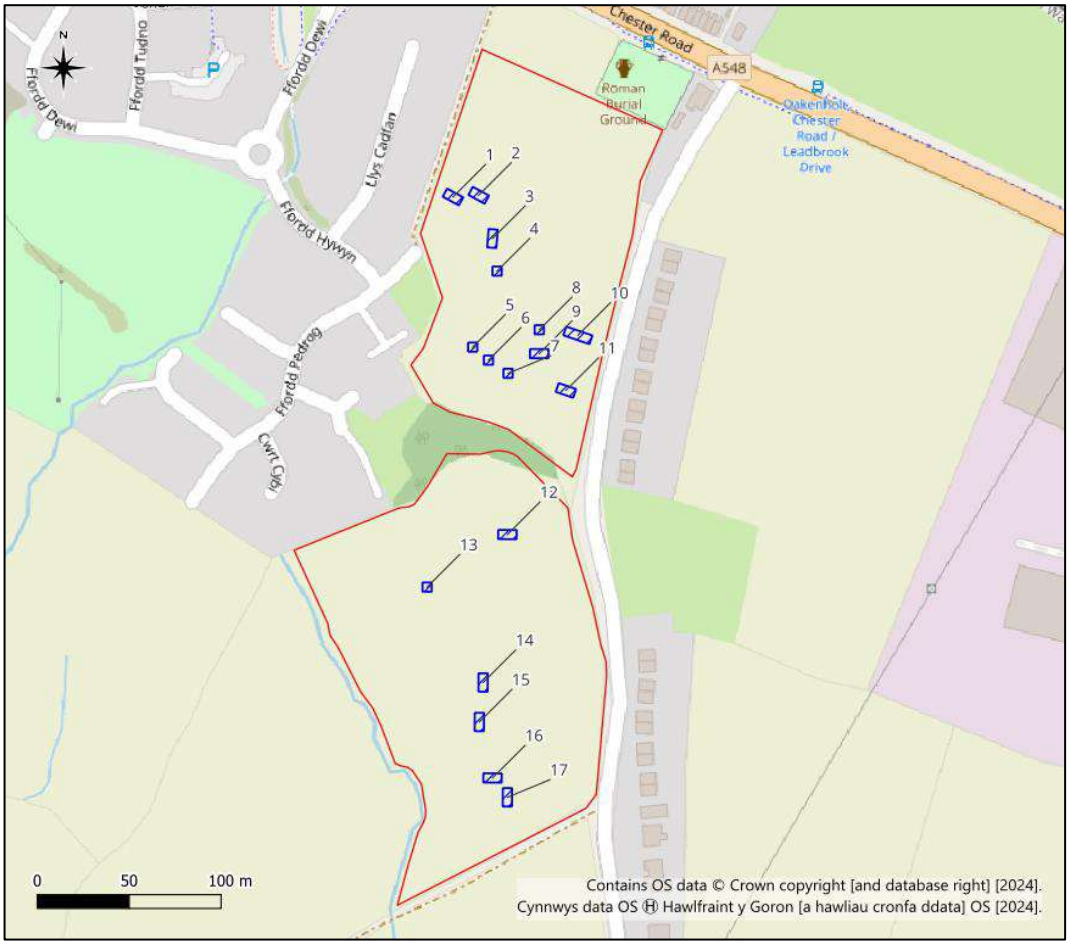

Figure 2: Plan of the proposed development area (outlined in red) with proposed trench locations in blue.

Location and topography

1.2. The site is located approximately 2km southeast of the town of Flint within the Parish of Northop, between the settlements of Pentre Ffwrndan (approximately 0.75km to the northwest) and Oakenholt (approximately 0.5km to the southeast), in the county of Flintshire, North Wales (NGR SJ 258 716). The land within the site boundary slopes gently down to the north with a high point of approximately 25m above ordnance datum (AOD) in the south of the site; and a low point of approximately 10m AOD in the north of the site; being located on a north or northwest facing slope. There are watercourses approximately 150m to the west and 400m to the east, which both flow north to the Dee Estuary. The site is bounded by Chester Road (A548) to the north and Leadbrook Drive to the east with a housing development to the west, and fields to the south.

Geology

1.3. The underlying geology of the site consists of the Pennine Lower Coal Measures Formation, which consists of Mudstone, siltstone and sandstone deposits. This is a sedimentary bedrock formed between 319 and 318 million years ago during the Carboniferous period. The superficial deposit across the site consists of Devensian-Diamicton Glacial Till, a sedimentary deposit formed between 116 and 11.8 thousand years ago during the Quaternary period. (BGS 2024). The geology runs in striations in a south-south-east to north-north-west direction across the site (Figure 3).

Figure 3: General geology of the site (Contains British Geological Survey materials © UKRI [2024])

Planning background

1.4. The local planning authority, through their archaeological planning advisor (APA), has recommended the following programme of archaeological work to inform determination of the planning application:

"...We would therefore recommend further pre-application works are completed in the form of evaluation trenching and dating of hearth/pyre activity with archaeomagnetic or radiocarbon techniques, prior to determination."

"All work will be completed in accordance with the relevant CIfA standards and guidance on desk-based assessment, evaluation and project archiving and reporting. The developer should engage a CIfA registered archaeological organisation to complete this work in accordance with an approved written scheme of investigation (WSI) which will be supplied by the archaeological contractor and approved by us in advance of commencement of the investigation."

Historic background

1.5. This section provides a brief summary of the archaeology and history of the study area and its immediate surroundings, to enable the findings of the evaluation to be placed in a wider context. The historical background to the area has been discussed in detail in two previous Desk Based Assessments (Wardell Armstrong LLP 2014 and 2024)). The relevant portion of the latter is reproduced here:

*"**Prehistoric***

The HER does not record any evidence for prehistoric activity within the boundary of the Site. Within the 1km search area, prehistoric evidence, not described in detail, was found approximately 300m to the north-west of the Site boundary (HER 44890).

Approximately 451m south-east of the Site, various undated features were found which likely originated during the prehistoric period. These remains included a working hollow and a shallow terrace (HER 35018). Finally, a stone hammer with three encircling

grooves, likely dating to the prehistoric period, was also found in a garden pond at Oakenholt Hall in 1932, (HER 100129).

Romano British

During the Roman period, lead from Halkyn Mountain was processed in the Pentre/Oakenholt area. The initial processing of the ore was most likely to have been undertaken at streams running into the Dee, whilst the final processing was undertaken at industrial settlements (Arnold & Davies 2000).

A known settlement in the vicinity of the Site, referred to as Croes Atti, is thought to have been established by the end of the 1st century with its centre located approximately 409-484m north-west of the Site. Within the Site boundary, evidence for this settlement includes the Croes Atti Roman Site, a Scheduled Ancient Monument located in the northern portion of Field 1 (Ref. 4386).

Additional Roman remains within the Site boundary include evidence of a cremation cemetery (HER 128788) in the north of the Site, and a possible Roman enclosure in the north-east corner of the Site (HER 128787). The cemetery was excavated in 2015 (WA 2015); eight cremations were found, six were un-urned with one found in a vessel of 1st-2nd century date. The other appeared to be in a small stone cist. The enclosure/square barrow was identified in 2014 which measured 10m across with ditches of 1-1.5m in width. Pottery was identified some of which were of cooking jars found within the ditch fills dating the 2nd century. The presence of the enclosure and cemetery suggests occupation activity within the Site, likely dating to the 1st and 2nd centuries.

Further evidence of the Croes Atti settlement includes non-designated assets located within the 1km study area such as furnaces (HER 57653; 128755; 128756; 128757; 128769), burials (HER 128750; 128751; 128752; 128780), the remains of a building (HER 128775), pits (HER 128764; 128793), a Roman road (HER 86956), a timber structure (HER 128722), remnants of walls (HER 128770; 12771), and buildings relating to a ship field (HER 128798; and 128798). Occupation continued into the 3rd century. Consequently, the HER is dominated by entries referring to the Roman period. These are predominantly located in the north-western portion of the 1km search area.

A possible Roman enclosure has also been recorded approximately 4m to the west of the Site (HER 152315), though potentially extending within the bounds of the Site. A cast copper alloy bow brooch was found approximately 10m west of the Site boundary at the southern end of the Site (HER 120328) and the possible line of a Roman road to Varae is located approximately 13m to the east of the Site (HER 104577). A second Scheduled Ancient Monument of Roman date, the Pentre Bridge Roman Site, is located approximately 405m north-west of the Site.

Early Medieval and Medieval

King Edward I of England began to build Flint Castle in 1277, and Flint and its castle were later attacked by the forces of Madog ap Llywelyn during the revolt of 1294-5. English forces subsequently burned the town in order to render it useless to the Welsh (Flint Town Council). Flint Castle is featured in Act III, Scene III of the Shakespeare play Richard II due to its historical role in the handover of Richard II to his enemy Henry Bolingbroke in 1399.

During the medieval period, the town of Flint did not have a wall, but rather a defensive earthen and wooden palisaded ditch. The outline of this feature remained visible in the

pattern of streets until the mid-1960s, and the medieval boundary can still be traced (ibid.).

There is no evidence for early medieval activity within the Site boundary or within the1km search area. The HER does not record any evidence for medieval activity within the boundary of the Site.

Medieval ridge and furrow evidence is found approximately 64m north-west of the Site boundary (HER 86953). The site of a medieval cross is also located approximately 566m north-west of the Site boundary (HER 100130) and a medieval field system was discovered using aerial photography approximately 967m south-west of the Site (HER 102620). Furthermore, a silver short cross penny of either King Richard I or King John, dating from c. 1190-1205, was found approximately 600m west of the Site (HER 120378), and a broken silver-gilt ring with a slightly raised bezel was found approximately 859m south-west of the Site boundary (HER 119022).

Post medieval and Modern (c.1540 to 1901)

There are no post-medieval or modern archaeological remains within the Site boundary; however, 103 post-medieval assets are located within the 1km study area. These include a spoil heap associated with Quarry Farm located approximately 50m to the west of the Site boundary (HER 86948) and a road associated with the farm located approximately 66m west of the Site (HER 89569).

Other post-medieval assets within the study area include industrial remains such as those of Oakenholt Mill approximately 402m east of the Site (HER 104022), Oakenholt Colliery approximately 563m east of the Site (HER 89524), a limekiln field approximately 519m east of the Site (HER 89525), the Coed-onn Limekilnapproximately 570m west of the Site (HER 104040), and the Pentre Flour Mill approximately 360m north-west of the Site (HER 104047).5.2.19 Other post-medieval assets include several relating to the agricultural character of the broader area, including those associated with Little Leadbrook Farm approximately 419m south-west of the Site (HER 87992; 179114; 179115; 179116; 179117; 179118; 179119; 179120) and Leadbrook Farm approximately 340m south-east of the Site (HER 179108; 179111; 177984; 179112; 179109; 36189; 119883; 35019)."

Archaeological Background

1.6. A broad overview of the archaeological background to the area has been discussed in two previous Desk Based Assessments (Wardell Armstrong LLP 2014 and 2024). The relevant portion of the latter is reproduced here:

"Excavations were undertaken in the 19th and 20th centuries in the north-western section of the 1km search area, which attested to Roman settlement activity in the area associated with lead working.

The construction of a roundabout on the A548 was subject to an archaeological watching brief in February 2013. The preliminary groundworks for the roundabout uncovered the unexpected presence of a well-persevered Roman road to the south of the A548, with the Roman road previously being thought to be north of the A548. On reflection of the new evidence, it has been concluded that the Roman road recorded during the construction of the roundabout was most likely a spur from the main Roman Road that connected the forts at Chester and Caernarfon, which was located to the north of the A548 (Walter, M. 2014 pers comm., 10th April).

Adjacent to the previously unrecorded Roman road to the south of the A548 were settlement and industrial remains indicative of dense roadside settlement and lead working activity. This extended along the line of the road and c.20-30m back from it on both sides. As a consequence of the well-preserved and extensive archaeological remains, the construction of the roundabout was temporarily ceased whilst a rescue excavation was undertaken by Cadw. Fifteen trenches were excavated. These recorded two undated gullies/ditches, one post-medieval ditch, and the stone footings of a curvilinear structure most likely of Roman date between the 1st or early 2nd century and possibly a funerary monument or mausoleum. The latter feature was the only significant feature recorded during the trial-trenching and was located 150m west of the site.

Other fieldwork has been carried out in the area which also attests to Roman activity in the area. This has included the excavation of a small section of Roman road to the north of the A548, 90m north of the site (HER 17811). This was undertaken in 1993 by Wrexham Archaeology Service and is thought to be the main road connecting the forts at Chester and Caernarfon.

Wardell Armstrong carried out an archaeological evaluation of the Site in 2015, at which time the Site formed a larger footprint which included the present two fields, in addition to three fields extending to the south (Moore 2015). The evaluation comprised a total of 14 trenches following a desk-based assessment and geophysical survey in 2014 (Railton 2014). The evaluation identified potential Roman metalworking activity, water management features, a Romano-British cremation cemetery, the remains of a possible structure, an undated hearth, and 19th to 20th century post holes. Pottery was also recovered which dated to the 1st to early-3rd centuries."

1.7. The results of the 2015 evaluation showed that there was a large amount of Romano-British activity at the north end of the site in and around the scheduled monument. This consisted of domestic activity and industrial activity, most likely lead working.

1.8. A total of seven cremations were observed within the scheduled area. The geophysical survey undertaken in 2014 shows a number of anomalies which may be related to cremations or areas of metal working, these did not fall within the 2015 evaluation trenches and were the primary targets for the majority of the trenches excavated during the evaluation.

1.9. In Trenches 13 and 14 "*a hearth was recorded and, although dating evidence was not recovered from the hearth itself, two postholes further west proved to be 19th or 20th century features.*", this feature was targeted by Heneb's Trench 16 with the aim of better understanding the feature and obtaining suitable samples to provide a date for its use.

2 Evaluation

2.1. This document is an interim report of the archaeological works carried out at Quarry Farm, Oakenholt, Flint. A full and final report will be produced once all the post excavation processing and analysis has been completed and the various specialist reports have been completed and returned.

2.2. Over the course of three days, 16 evaluation trenches were excavated with each one targeting a geophysical anomaly (Figures 4 and 5). One trench (Trench 13) was not excavated due to the presence of overhead power lines directly above its location. All trenches were excavated using a 9-ton tracked excavator fitted with a 1.8m wide toothless ditching bucket under the direct supervision of an experienced and suitably qualified archaeologist.

2.3. The evaluation was conducted between the 12th and 22nd of March 2024 in accordance with the Chartered Institute for Archaeologists' (CIfA) (2023) *Standard for Archaeological Field Evaluation* and (2023) *Universal Guidance Archaeological Field Evaluation.* These state that the purpose of field evaluation is to gain information about the archaeological resource within a given area or site (including its presence or absence, character, extent, date, integrity, state of preservation and quality), in order to make an assessment of its merit in the appropriate context, leading to one or more of the following:

a. the formulation of a strategy to ensure the recording, preservation or management of the resource.

b. the formulation of a strategy to mitigate a threat to the archaeological resource.

c. the formulation of a proposal for further archaeological investigation within a programme of research.

Figure 4: Proposed trenches in the north field overlaid on the geophysical survey results from 2015.

Figure 5: Proposed trenches in the south field overlaid on the geophysical survey results from 2015.

General methodology

2.4. The evaluation trenching was excavated to the first significant archaeological horizon, or to naturally derived soils. Previous investigation suggested the depth to the archaeologically significant horizon was c.400mm.

2.5. The general approach for each of the trenches followed these procedures:

- The presence or absence of archaeological features encountered was noted;
- Where features of archaeological interest were identified they were systematically investigated by hand with sufficient work being undertaken to determine their date, character and function, using the conventional techniques for archaeological excavation and in accordance with CIfA Standard and Guidance;
- All features were located as accurately as possible using GPS and other survey techniques and plotted on an overall plan of the development at an appropriate scale, showing boundaries depicted on OS mapping, or located by the identification of OS grid lines;
- Contexts were recorded digitally or manually on individual record forms, using a continuous numbering system, and were drawn and photographed as appropriate;
- As appropriate plans and sections were drawn on permatrace to a scale of 1:10, 1:20 or 1:50, and locations surveyed in by GPS;
- Photography was undertaken digitally using a Nikon D3200 with a resolution of 24 mega pixels. Images included a metric scale where appropriate and were logged in a photographic register.

Specific excavation methodology

2.6. Topsoil was removed by a 9-ton mechanical excavator equipped with a 1.8m wide toothless ditching bucket to the top of archaeological deposits or the natural substrate, whichever was observed first. Any cut features (e.g. ditches or pits) or structures encountered were recorded in plan and manually excavated before proceeding with further excavation.

2.7. All machine work was supervised by an experienced archaeologist.

2.8. Each evaluation location was cleaned by hand to a level sufficient to allow the identification and planning of archaeological features. Where archaeological features appeared to be absent, sufficient cleaning was undertaken to demonstrate this.

2.9. The evaluation involved the systematic examination and accurate recording of all archaeological features, horizons and artefacts identified.

2.10. All archaeological features and deposits were cleaned and investigated by hand in accordance with CIfA Standards and Guidance, with sufficient work undertaken to determine their date and character, and the remains recorded appropriately.

2.11. All stratified finds were collected by context. No unstratified finds were found to contribute significantly to the project objectives or were of particular intrinsic interest. As such no unstratified finds were noted but not collected.

2.12. Following completion of the groundworks and recording, the trenches were backfilled and consolidated by machine.

Specific recording methodology

2.13. The areas evaluated were accurately tied into the National Grid and located on a 1:2500 or 1:1250 map of the area. All archaeological features identified were also tied to the OS survey grid and fixed local topographic boundaries.

2.14. Each evaluation area was planned by GPS or manually at an appropriate scale.

2.15. All relevant trench sections were drawn where archaeological deposits and features were identified and recorded, with levels related to the Ordnance Datum. For trenches with only a topsoil/subsoil profile and no archaeological features a representative section was recorded with a record of the height of each key horizon at either end of the trench as well as the ground surface and maximum depths of the trench and these converted to OD heights.

2.16. All archaeological contexts were recorded using a continuous numbered context system on digital pro-forma recording sheets.

2.17. All complex archaeological features revealed and identified during the evaluation were recorded and drawn at 1:10 scales as appropriate.

2.18. All archaeological deposits and features were levelled and recorded with an above ordnance datum (aOD) level. Similarly, the top and base of all trenches was recorded with an above ordnance datum (aOD) level.

2.19. A full and proper record (written, graphic and photographic as appropriate) was made for all work, using digital pro forma record sheets and text descriptions appropriate to the work.

2.20. A photographic record of all contexts was produced to archive quality, with a Nikon D3200 24 megapixel digital SLR camera. Where appropriate these included a clearly visible, graduated metric scale.

2.21. General location photographs were taken as required using digital photography at a resolution of 24mp.

2.22. A register of all photographs was kept.

3 Results

3.1. Environmental sample processing and palaeoenvironmental analysis is currently being undertaken on all samples taken from the site. Specialist finds analysis is also being undertaken

on all pottery retrieved from the site. The results of these analyses will inform us of the suitability and necessity of scientific dating being undertaken. If deemed necessary scientific dating (C14) analysis will be undertaken. Once these assessments have been completed and their reports produced they will be synthesised into the final version of this interim report. Pages 39 – 42 of this interim report contain trench and feature plans which are not cross-referenced in the text, and are as yet unnumbered. In the final report they will be integrated as part of a cohesive narrative.

Trench 1

3.2. Trench 1 was 10m long, 5m wide and was excavated to a depth of 0.49m (Figure 6). The general trench stratigraphy consisted of 0.10m of topsoil over 0.25m of subsoil over 0.09m of pinkish orange clay colluvium which lay directly over the natural glacial deposits encountered at 0.44m BGL. The natural geology consisted of yellowish orange glacial till containing small to medium occasional rounded to sub-rounded pebbles. Two archaeological features were observed in this trench; Pit [01.11] (with pit [01.09] within it) coincided with the geophysical anomaly this trench was targeting (Figure 11) and a smaller pit [01.04]. In addition to these a modern geotechnical pit was also exposed in this trench.

3.3. Pit [01.11] was sub-ovoid in shape measuring 3.11m long (north-south), 2.36mm wide (east-west) and 0.70m deep (Figures 7 and 8). It had steeply sloping concave sides leading gradually to a concave base. It was filled by primary fill (01.10), a greyish black silty clay with inclusions of rare small to medium angular to sub-angular platy stones evenly distributed throughout. Finds from this fill included 22 sherds of pot, 2 pierces of worked sandstone and one fragment of burnt bone. Detailed analysis of these finds is currently being carried out and the results of that analysis will be synthesised into the final version of this report once these have been returned.

3.4. Cut into (01.10) was [01.09], with steeply sloping irregular sides leading imperceptibly to an irregular concave base (Figure 9). this was filled by fill (01.08), an orangey black clayey silt with inclusions of small to medium angular to sub-angular platy stone evenly distributed throughout. Finds from this fill included 1 piece of slag and one large slag object (Figure 11). Overlying this was fill (01.07), a greyish brown clayey silt. Finds from this fill included 10 fragments of burnt bone and 14 pieces of lead. Detailed analysis of these finds is currently being carried out and the results of that analysis will be synthesised into the final version of this report once these have been returned.

3.5. Pit [01.04] was sub-circular in shape measuring 0.72m in diameter and 0.13m deep (Figure 10). It had an imperceptible break of slope top with gently sloping concave sides leading gradually to a concave base. It was filled by (01.06), a blackish grey silty clay, there were no finds from this fill. Overlying this was fill (01.05), a greyish orange silty clay. Finds from this fill included 2 pieces of lead. Detailed analysis of these finds is currently being carried out and the results of that analysis will be synthesised into the final version of this report once these have been returned.

Figure 6. Trench 1 after opening, view looking east. Pit [01.11] is visible in the foreground. Photo CPAT_2771_010

Figure 7. Pre ex of pit [01.11] view looking east. Photo CPAT_2771_011

Figure 8. South facing section of pit [01.11].. Photo CPAT_2771_046

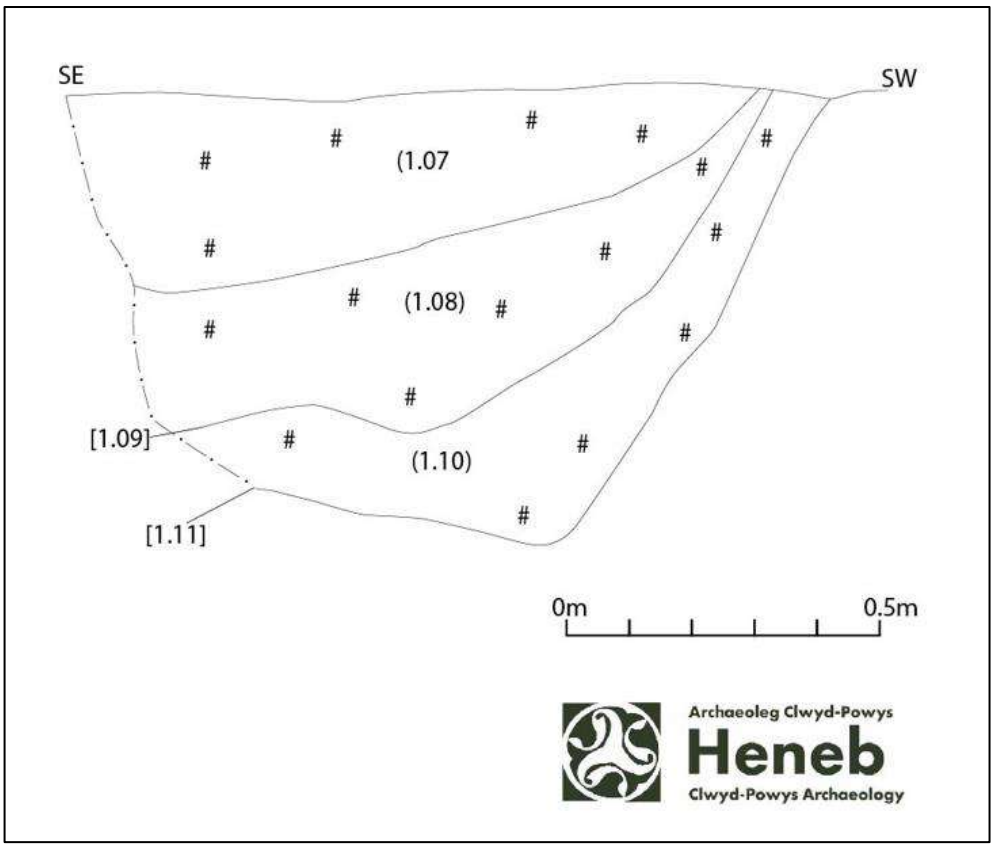

Figure 9. Section drawing of pit [01.11] showing cut [01.09].

Figure 10. South facing section of pit [01.04]. Photo CPAT_2771_041

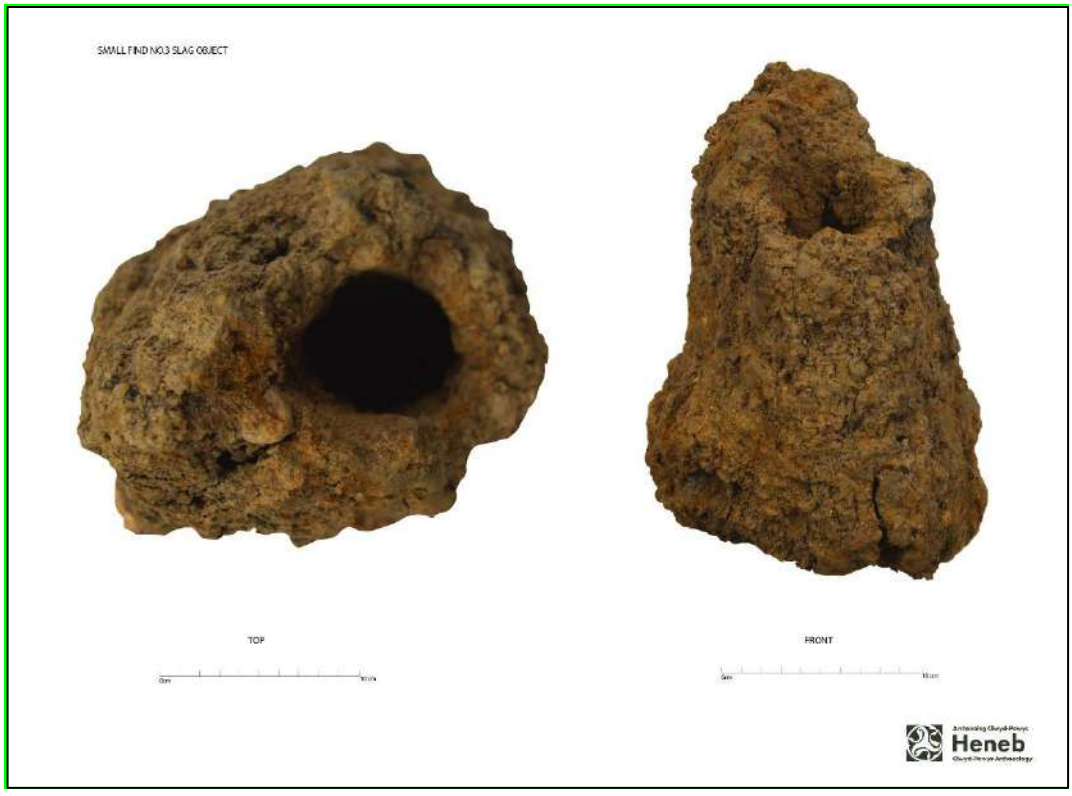

Figure 11. Slag object recovered from (01.08).

Trench 2

3.6. Trench 2 was 10m long, 5m wide and was excavated to a depth of 0.7m. The general trench stratigraphy consisted of 0.10m of topsoil over 0.25m of subsoil over 0.2m of red brown sandy silt colluvium which lay directly over the natural glacial deposits encountered 0.55m BGL. The

natural geology consisted of a reddish orange glacial till with patches of yellow clay and a dark mineralised organic deposit.

3.7. No archaeological features or deposits were observed in the trench and a large lens of black mineralised organic deposit coincided with the geophysical anomaly this trench was targeting (Figures 12 and 13). This layer continued under the natural glacial till in all directions; and under a patch of light yellowish grey clay to the north which itself continued under the glacial till.

Figure 12: Trench 2 looking west. The dark humic deposit is clearly visible running south-east to north-west in the deepest part of the trench. Photo CPAT_2771_004

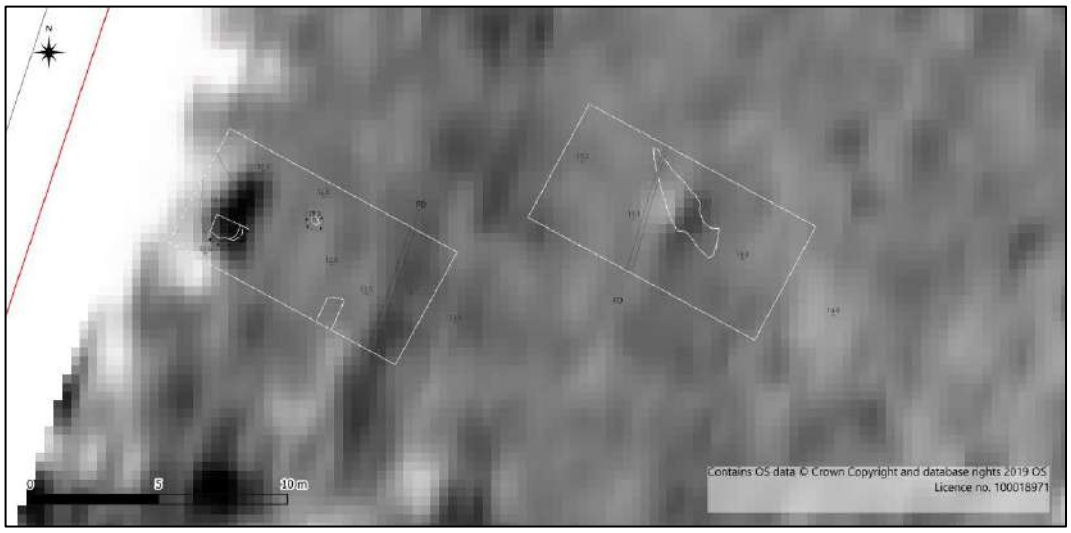

Figure 13: Plan of Trench 1 (left) and Trench 2 (right) overlaid on the results of the geophysical survey.

Trench 3

3.8. Trench 3 was 10m long, 5m wide and was excavated to a depth of 0.45m. The general trench stratigraphy consisted of 0.10m of topsoil over 0.20m of subsoil over up to 0.30m of reddish-

brown clay colluvium over the natural glacial deposits encountered at 0.45m BGL. The natural geology consisted of a reddish yellow glacial till with patches of lighter yellow clay and dark mineralised organic deposit. One archaeological feature was observed in this trench; Ditch [03.05], a portion of which coincided with the geophysical anomaly this trench was targeting (Figure 15).

3.9. Cut into the colluvium was linear ditch [03.05] (Figure 14). It measured 1.6m wide, 0.50m deep and ran E-W across the entirety of the trench. The cut [03.05] had steeply sloping sides leading sharply to a concave base. It was filled by (03.04), a mid-pinkish brown clay with moderate inclusions of small to medium sub-angular to sub-rounded elongate stones which increased in concentration towards the base. Finds from this feature included a post-medieval horseshoe and modern glazed pottery. This feature was sealed by the subsoil.

Figure 14. East facing section of Trench 3 with ditch [03.05].. Photo CPAT_2771_051

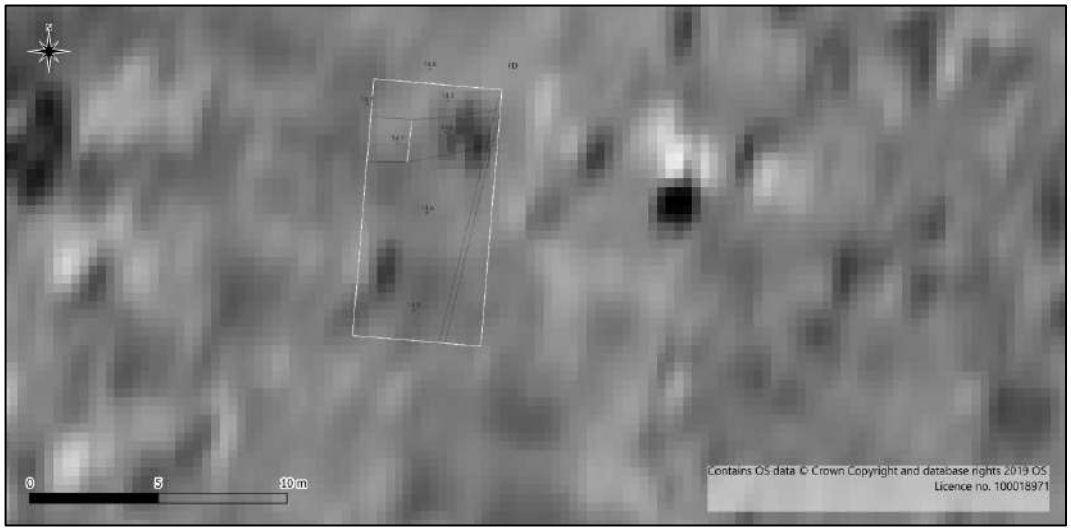

Figure 15. Plan of Trench 3 overlaid on the results of the geophysical survey.

Trench 4

3.10. Trench 4 was 5m long, 5m wide and was excavated to a depth of 0.45m. The general trench stratigraphy consisted of 0.10m of topsoil, 0.20m of subsoil over 0.15m to 0.30m of light greyish red clay colluvium overlying natural glacial deposits consisting of reddish-brown glacial till with moderate inclusions of sub-rounded to subangular pebbles 0.5cm to 10cm in diameter. There were patches of stiff clay present within the glacial till, ranging from greyish white to yellowish white. In addition to the patches of clay there were deposits of mineralised humic material in the north-west quadrant of the trench.

3.11. No archaeological features were observed in the trench and patches of clay and mineralised organic deposit coincided with the geophysical anomaly this trench was targeting (Figures 16 and 17).

Figure 16: Trench 4 looking east.. Photo CPAT_2771_016

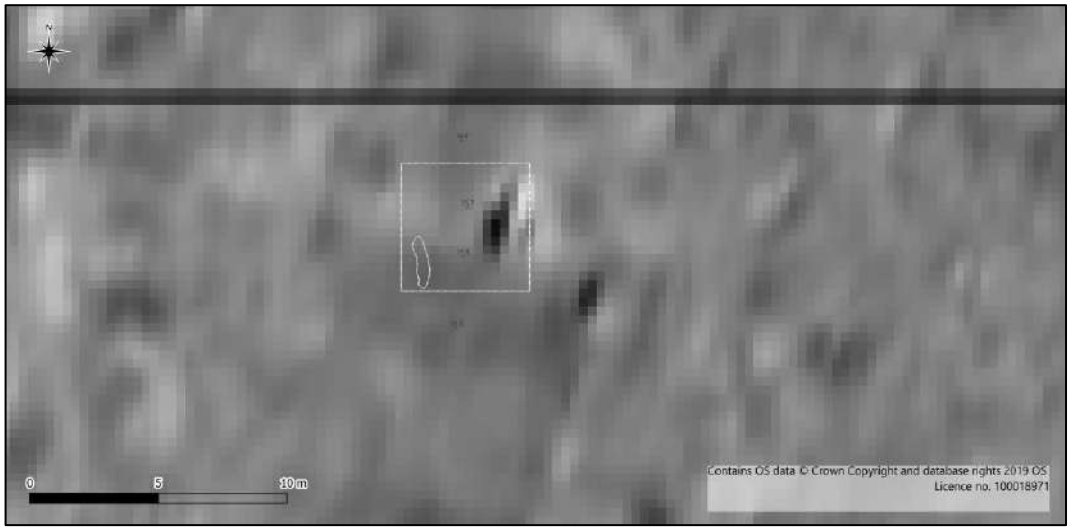

Figure 17: Plan of Trench 4 overlaid on the results of the geophysical survey.

Trench 5

3.12. Trench 5 was 5m long, 5m wide and was excavated to a depth of 0.35m. The general trench stratigraphy consisted of 0.10m of topsoil over 0.25m of subsoil over the natural glacial deposits encountered 0.35m BGL. The natural geology consisted of greyish orange glacial till with patches of natural iron panning in the centre of the trench.

3.13. No archaeology was observed in the trench and an area of concentrated iron manganese deposits, commonly called iron panning, coincided with the geophysical anomaly that this trench was targeting (Figures 18 and 20).

Figure 18. Trench 5 looking south.. Photo CPAT_2771_017

Trench 6

3.14. Trench 6 was 5m long, 5m wide and was excavated to a depth of 0.5m. The general trench stratigraphy consisted of 0.10m of topsoil over 0.15m of subsoil over 0.20m of greyish red clay colluvium over natural glacial deposits encountered at 0.5m BGL. The natural geology consisted of mid pinkish brown glacial till with moderate inclusions of small to medium sub-angular to sub-rounded stones with an area of iron panning in the centre of the trench.

3.15. No archaeology was observed in the trench and an area consisting of a natural concentration of stones and iron panning coincided with the geophysical anomaly this trench was targeting (Figures 19 and 20).

Figure 19. Trench 6 looking south.. Photo CPAT_2771_018

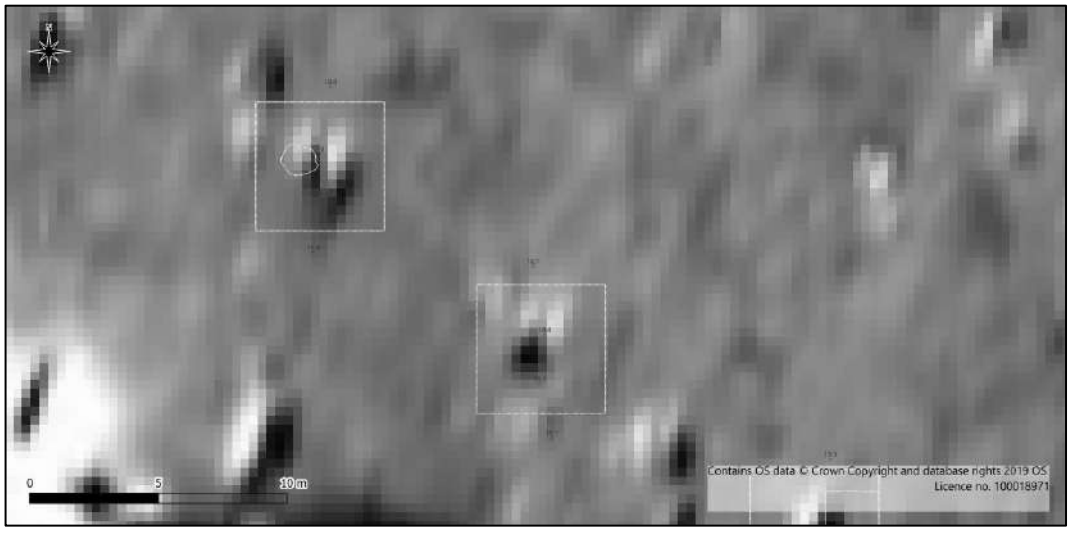

Figure 20. Plan of Trench 5 (left) and Trench 6 (right) overlaid on the results of the geophysical survey.

Trench 7

3.16. Trench 7 was 5m long, 5m wide and excavated to a maximum depth of 0.50m. The general trench stratigraphy consisted of 0.10m of topsoil over 0.20m of subsoil over natural glacial deposits encountered 0.35m BGL. The geology consisted of light pinkish orange sandy clay glacial till with frequent inclusions of large sub-rounded platy fragments of degraded bedrock. A machine slot was excavated through the stoney area of the natural deposit to a total depth of 0.5m BGL to ensure it was not archaeological in nature and was found to be glacial.

3.17. No archaeology was observed in the trench and the geophysical anomaly that the trench was targeting may be accounted for by the area of glacially deposited stone (Figures 21 and 22).

Figure 21. The machine slot in Trench 7 looking south. Photo CPAT_2771_039

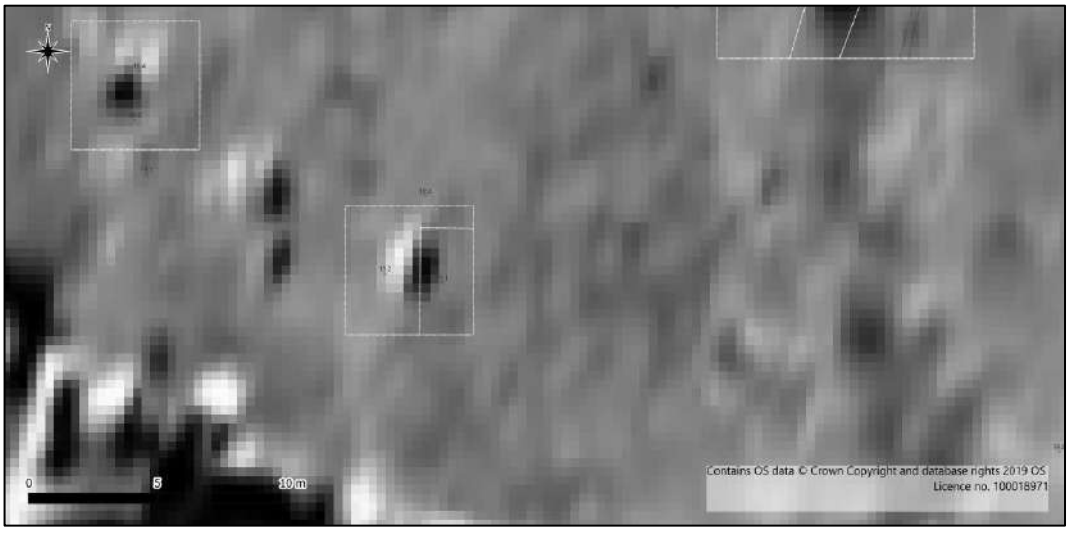

Figure 22 Plan of Trench 7 (centre) overlaid on the results of the geophysical survey.

Trench 8

3.18. Trench 8 was 5m long, 5m wide and was excavated to a depth of 0.35m. The general trench stratigraphy consisted of 0.10m of topsoil over 0.25m of subsoil over natural glacial deposits encountered at 0.35m BGL. The geology consisted of greyish orange glacial till.

3.19. No archaeology was observed in the trench and an area consisting of a concentration of gravel and iron panning coincided with the geophysical anomalies this trench was targeting. (Figures 23 and 25)

Figure 23. Trench 8 looking south. Photo CPAT_2771_019

Trench 9

3.20. Trench 9 was 10m long, 5m wide and was excavated to a depth of 0.30m. The general trench stratigraphy consisted of 0.10m of topsoil over 0.20m of subsoil over natural glacial deposits encountered at 0.30m BGL. The geology consisted of greyish orange glacial till with patches containing moderate gravel inclusions. A narrow slot was excavated across a band of natural clay in order to establish if was not a linear archaeological feature, this band of clay continued below the natural glacial till to the east.

3.21. No archaeology was observed in the trench and an area consisting of natural clay banding coincided with the geophysical anomalies this trench was targeting (Figures 24 and 25).

Figure 24. Trench 9 looking north.. Photo CPAY_2771_023

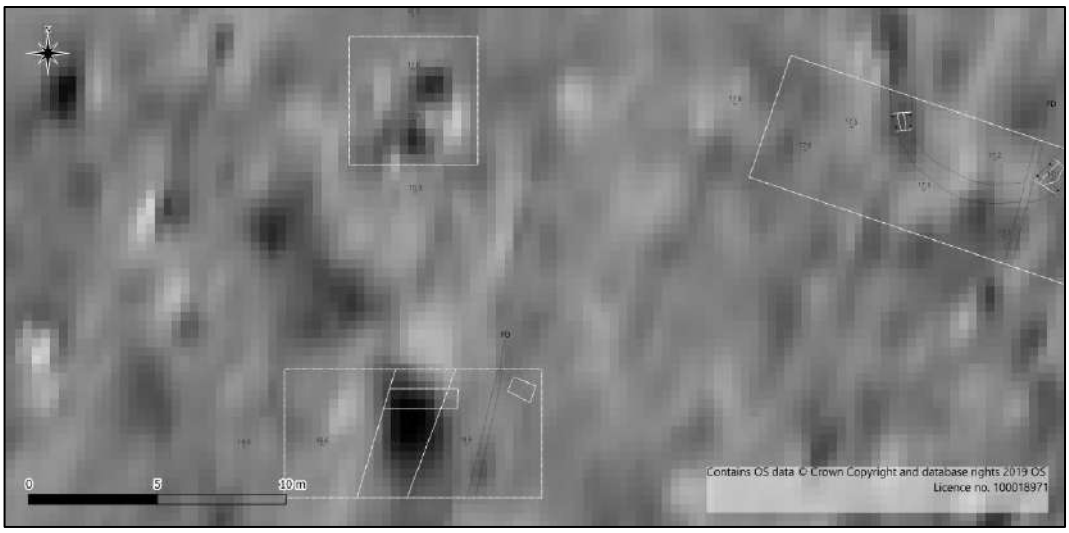

Figure 25. Plan of Trench 8 (top) and Trench 9 (bottom) overlaid on the results of the geophysical survey.

Trench 10

3.22. Trench 10 was 15m long, 5m wide and was excavated to a depth of 0.5m. The general trench stratigraphy consisted of 0.10m of topsoil over 0.20m of subsoil over natural glacial deposits encountered at 0.30m BGL. The geology consisted of greyish orange glacial till. One archaeological feature was observed in this trench; curvilinear ditch [10.05] (Figure 29).

3.23. The curvilinear feature was 0.55m to 0.75m wide with an internal diameter of 6.20m and an external diameter of 7.40m. Two slots were excavated into this feature.

3.24. In Slot 1 the ditch cut was numbered [10.05] and had moderately sloping sides leading gradually to a tapered to concave base (Figure 26). It was filled by (10.04), an orangey grey

clayey silt with moderate charcoal flecks and small to medium, sub-angular to sub-rounded pebbles present throughout, with occasional large angular platy stones sporadically on the base and sides. Finds form this fill consist of two pot fragments, including an amphora handle (Figure 27).

Figure 26. South facing section of Slot 1. Scale 0.5m. Photo CPAT_2771_036

Figure 27. The amphora handle, in situ in the base of ditch [10.05]. Scale 0.20m. Photo CPAT_2771_029

3.25. In Slot 2 the ditch cut was numbered [10.07] and had moderately sloping sides leading gradually to a concave base, on the west (outside) of the cut the break of slope from the sides to the base was sharper (Figure 28). It was filled by (10.06), an orangey grey clayey silt with charcoal flecks and occasional inclusions of small sub-angular to sub-rounded pebbles, with occasional large angular platy stones on the base of the cut. No finds were recovered from the fill in this slot.

Figure 28. south facing section through slot 2 in [10.07].

Figure 29. Trench 10 looking north. Curvilinear feature [10.05] has been excavated (Slot 1 to the right, Slot 2 to the left).0.5m scale.. Photo CPAT_2771_037

Trench 11

3.26. Trench 11 was 10m long, 5m wide and was excavated to a depth of 0.4m. The general trench stratigraphy consisted of 0.10m of topsoil over 0.25m of subsoil over natural glacial deposits encountered 0.35m BGL. The geology consisted of orangey yellow glacial till with patches and lenses of yellow and orange clay.

3.27. No archaeology was observed in the trench and bands of yellow clay coincided with the geophysical anomalies this trench was targeting. (Figures 30 and 31)

Figure 30. Trench 11 looking south.. Photo CPAT_2771_026

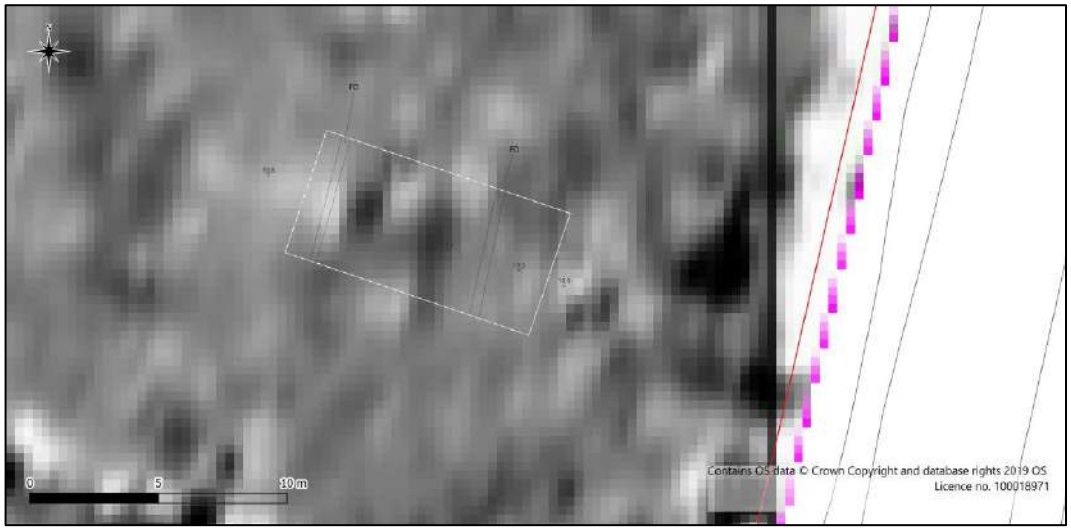

Figure 31. Plan of Trench 11 overlaid on the results of the geophysical survey.

Trench 12

3.28. Trench 12 was 10m long, 5m wide and was excavated to a depth of 0.35m. The general trench stratigraphy consisted of 0.10m of topsoil over 0.25m of subsoil over natural glacial deposits encountered 0.35m BGL. The geology consisted of greyish orange glacial till with moderate inclusions of medium sub-angular to sub-rounded stones.

3.29. No archaeology was observed in the trench and a modern land drain coincided with the geophysical anomaly this trench was targeting (Figures 32 and 33).

Figure 32. Trench 12 looking east. Photo CPAT_2771_020

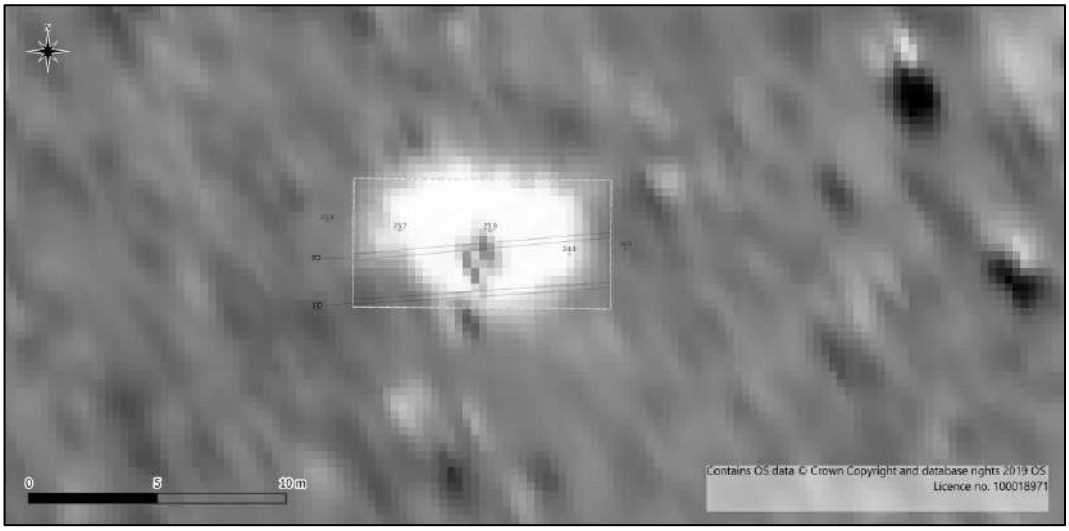

Figure 33. Plan of Trench 12 overlaid on the results of the geophysical survey.

Trench 13

3.30. Trench 13 was not excavated due to the presence of overhead powerlines directly above it.

Trench 14

3.31. Trench 14 was 10m long, 5m wide and was excavated to a depth of 0.30m. The general trench stratigraphy consisted of 0.10m of topsoil over 0.20m of subsoil over natural glacial deposits encountered 0.30m BGL. The geology consisted of greyish orange glacial till. Two areas of potential activity were cleaned up and investigated but were found to be geological in nature.

3.32. No archaeology was observed in the trench with bands of clay, areas of iron panning and a land drain coinciding with the geophysical anomalies this trench was targeting (Figures 34 and 35).

Figure 34. Trench 14 looking north. Photo CPAT_2771_058

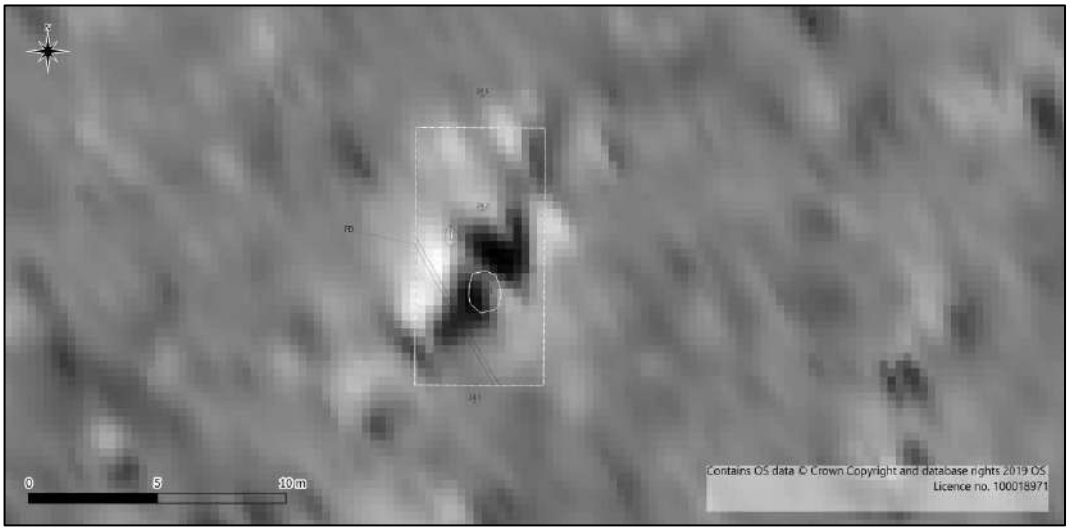

Figure 35. Plan of Trench 14 overlaid on the results of the geophysical survey.

Trench 15

3.33. Trench 15 was 10m long, 5m wide and was excavated to a depth of 0.30m. The general trench stratigraphy consisted of 0.10m of topsoil over 0.20m of subsoil over natural glacial deposits encountered at 0.30m BGL. The geology consisted of orangey yellow glacial till with bands of lighter yellow grey clay and dark mineralised organic deposits.

3.34. No archaeology was observed in the trench and the natural bands of clay and dark mineralised organic deposit coincided with the geophysical anomalies this trench was targeting (Figures 36 and 37),

Figure 36. Trench 14 looking north.. Photo CPAT_2771_056

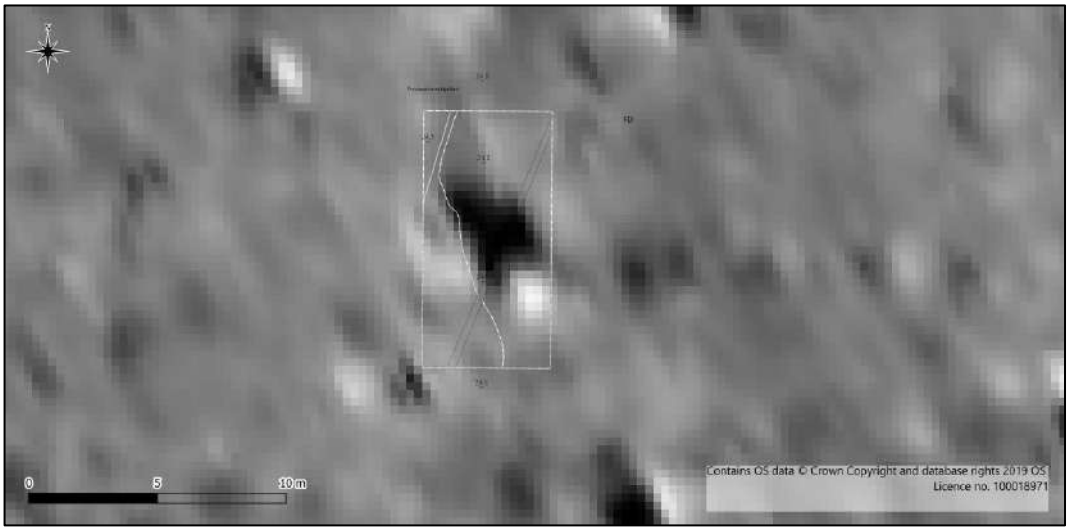

Figure 37. Plan of Trench 14 overlaid on the results of the geophysical survey.

Trench 16

Trench 16 initially measured 10m long and 5m wide, however it was extended by 4m to the north and west, to a maximum length of 14m and width of 9m, to better reveal the extent of the deposits uncovered. It was excavated to a depth of 0.40m. The general trench stratigraphy consisted of 0.20m of topsoil over 0.20m of subsoil over natural glacial deposits encountered at 0.40m BGL. The natural geology consisted of orangey yellow clay glacial till with lenses of mineralised organic deposits. Two potential features were investigated in this trench: (16.04) an apparent hearth identified during the earlier, 2015 evaluation; and a large sub-ovoid patch of dark mineralised organic material (Figure 41). Investigation showed the sub-ovoid patch to be a naturally occurring deposit extending below the glacial till.

3.35. Upon opening the trench an area of apparent burning was clearly visible (Figure 38) measuring 2m long and 1m wide. It consisted of (16.04) a coarse, friable, dark blueish black mineralised humic deposit with possible charcoal inclusions. A thirty-litre environmental sample <02> was taken for further analysis. Upon excavation this dark deposit was observed to continue below and beyond the fired clay (16.05) and below the surrounding natural glacial till. Surrounding (16.04) was an in-situ ring of fired clay (16.05) intermixed with partially fired clay (16.06). The fired clay (16.05) consisted of irregular hard patches of orange fired clay with no inclusions. Whilst (16.06) consisted of in situ orangey grey partially fired stiff clay with no inclusions. Below (16.05), just to the north of the dark deposit (16.04), was a small area of unfired clay (16.07), a stiff light yellowish brown clay with no inclusions (Figure 40). Upon further excavation it became clear that the dark deposit (16.04) was part of the surrounding natural mineralised organic deposit seen elsewhere in the trench (Figure 39).

Figure 38. The 'hearth' exposed in Trench 16 with the 2015 Evaluation trenches 13 and 14 emptied of backfill. Looking east. 2m scale. Photo CPAT_2771_015

Figure 39. West facing section through the 'hearth' in Trench 16. To the right of the dark deposit (16.04) in the centre of the feature, fired clay (16.05) can be seen to be surrounded on all sides by partially fired clay (16.06) 1m scale. Photo CPAT_2771_033

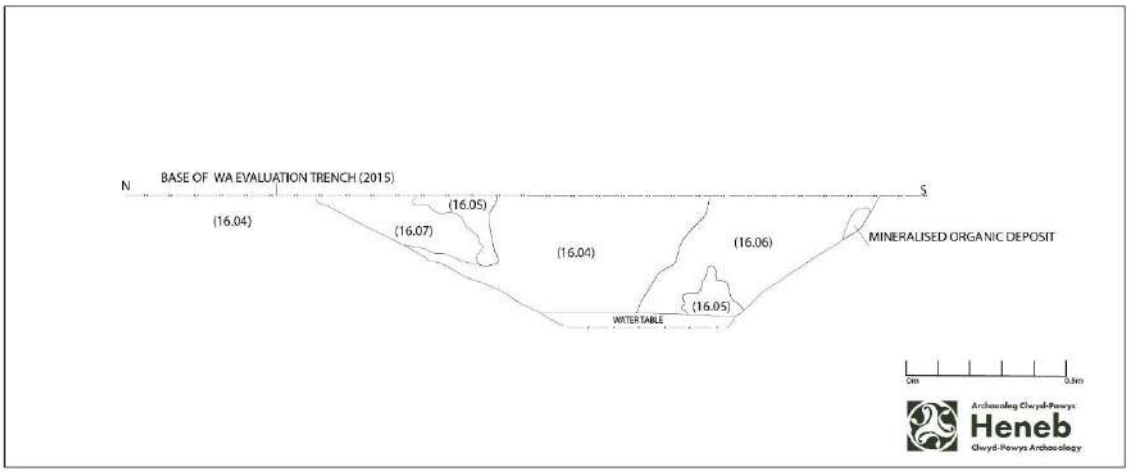

Figure 40. Section drawing of the slot across the 'hearth' in Trench 16.

Figure 41. the large sub-ovoid natural feature. 1m scales. Photo CPAT_2771_054

Trench 17

3.36. Trench 17 was 10m long, 5m wide and was excavated to a depth of 0.30m. The general trench stratigraphy consisted of 0.10m of topsoil over 0.20m of subsoil over natural glacial deposits encountered 0.30m BGL. The geology consisted of greyish orange glacial till.

3.37. No archaeology was observed in the trench and a natural band of clay coincided with the geophysical anomalies this trench was targeting (Figures 42 and 43).

Figure 42. Trench 17 looking south. 1m scales. Photo CPAT_2771_059

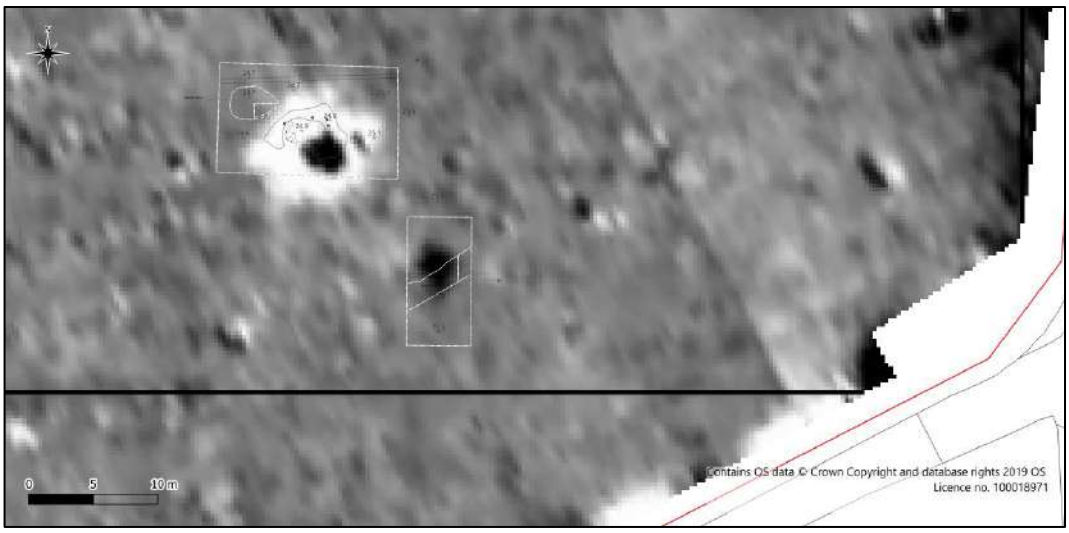

Figure 43. Plan of Trench 16 (top left) and Trench 17 (centre) overlaid on the results of the geophysical survey.

4 Conclusions

4.1. Several Romano-British features were identified which are consistent with the previously identified activities of Roman Oakenholt. No cremations, or any features relating to them such as funeral pyres, were present in any of the evaluation trenches. No areas of burning relating to industrial processes such as firing or smelting were found in any of the evaluation trenches.

4.2. The pits in Trench 1 are typical Romano-British edge of settlement features. Pit [10.09] may represent a recutting of pit [01.11] or could be the weathered edge of a pit that has been open for a prolonged period. The contents of these pits, including lead fragments and slag, indicate lead and possibly other metal working in the vicinity. The large piece of hollow slag is

particularly interesting and may indicate the build-up of slag around an object such as a stake, or possibly even the nozzle of a set of bellows, though this is purely conjectural. These are small additions to the already existing large body of evidence of the Romano-British lead working industry in the area.

4.3. The curvilinear feature in Trench 10 is interesting in that it could be part of a small enclosure of currently unknown purpose. It may possibly represent the ring ditch/gully of a small structure or working area intended to deflect surface run off from higher up the hill. The two postholes recorded during the 2015 evaluation in Trench 6 may represent some elements of this structure or process. Further work would be required to fully understand how the two gullies recorded in the 2015 Trench 6 might relate to the curvilinear feature recorded in this evaluation's Trench 10, but as they both point downhill, it is possible that they represent the outfall of this curvilinear ring ditch. As it would be surprising to have two outlets for one ring ditch, it is also possible that one is a later recut, or replacement of the other, potentially implying a continuation of use and maintenance over time.

4.4. The east-west ditch [03.05] in Trench 3, containing a post medieval horseshoe and pottery, most likely represents a post-medieval field boundary.

4.5. The possible hearth exposed in the 2015 evaluation is a complex, but entirely natural feature. The intermixing of fired, partially fired and unfired clay deposits, including the in-situ fired clay patches entirely within the in-situ partially fired clay indicate that the source of heat had travelled through the deposit heating it from within, , this can only be from a lightning strike. A rare and unusual discovery for an archaeological evaluation but not an archaeologically significant one.

4.6. The area has a complex geological make up consisting of striations of various clays, till and stone as well as prominent dark blueish-black mineralised organic deposits which are lignite or sub-bituminous coal formations. These all run in an approximate north-west to south-east direction across the site. The lignite deposits are the same as those interpreted as "*a layer of manganese and organic humic material which had leeched from the surface layer, somewhat like a podsol soil"* in the previous evaluation report (Wardell Armstrong 2015).

4.7. The geology of the locality has resulted in an erratic water table with concentrations of iron pan deposits occurring in various locations across the site. This geology has resulted in somewhat misleading geophysical results across large parts of the site.

4.8. All of these interpretations will be reevaluated on the basis of the results of the forthcoming analysis of environmental samples and finds assemblages once they have been received.

5 Sources

Published sources

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6 Archive Selection Strategy

2771-Quarry Farm, Oakenholt, Flint (NGR) Archaeological Evaluation 19/04/2024 **Selection Strategy v2.0**	
Project Management	
Project Manager	Tim Malim
Project Supervisor	Karl Macrow
Archives Manager	Sophie Watson
Project Stakeholders	
Project Lead / Project Assurance	Mark Walters, Development Control Archaeologist for Clwyd-Powys Archaeological Trust
Client / Landowner	Castle Green Homes
Other	
Collecting Institutions	
Regional HER	Clwyd-Powys
HER Enquiry Number	N/A
HER Event PRN	N/A
Digital Archive Repository	Royal Commission on the Ancient and Historical Monuments of Wales
Documentary Archive Repository	N/A
Finds Archive Repository	N/A
Museum Accession Number	N/A

Digital Project Data			
Project sub-folders	**Data**	**Retained**	**Selected for Archive**
Admin			
H&S - RAMS	Risk Assessment	Y	N
WSI	Written Scheme of Investigation	Y	Y (as report appendix 2)
Client Data	Planning documents/other files provided by the client.	Y	N
Correspondence	Correspondence records relevant to the project	Y	N
Drafting	Working site drawings/illustrations	Y	N
Finds data	Finds catalogues/specialist reports etc	Y	Y
GIS data	Survey data	Y	N/A
Metadata	Metadata report for all files submitted as part of the archive.	Y	Y
Photography	60 digital photographs (.tif)	N	Y
Report	Heneb Report 2014 (.docx/.pdf)	Y	Y
Report Illustrations	Illustrations generated for inclusion within the project report	Y	N
Research Data	Research data – always secondary sources and available elsewhere	Y	N
Site data	Scanned site records 4 Drawing sheets 9 Trench sheets	N/A	N/A
Temporary	Temporary storage for temporary files – always deleted at project completion	N	N

Physical Project Data (Documentary)

Not applicable (N/A)

	Quantity	Retained by CPAT	Selected for Archive
Context register	N/A	N/A	N/A
Drawings register	N/A	N/A	N/A
Finds register	N/A	N/A	N/A
Levels register	N/A	N/A	N/A
Photo register	N/A	N/A	N/A
Context sheets	N/A	N/A	N/A
Finds/samples record	N/A	N/A	N/A
Skeleton record forms	N/A	N/A	N/A
Staffing record form	N/A	N/A	N/A
Trench record forms	N/A	N/A	N/A
Watching brief forms	N/A	N/A	N/A
A1 plans	N/A	N/A	N/A
A2 plans	N/A	N/A	N/A
A3 plans	N/A	N/A	N/A
A4 plans	N/A	N/A	N/A
Other	N/A	N/A	N/A

Physical Project Data (Materials)

Not applicable (N/A)

Finds Deposition Agreement obtained	*N/A*
Archive Repository	*N/A*
Accession Number	*N/A*

Pottery/Ceramics	*collected*	*processed*	*catalogued*	*specialist*	*conserved*	*discarded*
Prehistoric	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*
Roman	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*
Medieval	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*
Post-medieval	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*
Modern	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*
Undated	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*
CBM	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*
Clay Pipe	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*
Other (specify)	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*

Stone	*collected*	*processed*	*catalogued*	*specialist*	*conserved*	*discarded*
Stone Artefacts	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*
Roofing Tile/Slate	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*
Building Materials	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*
Flint/Chert	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*
Other (specify)	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*

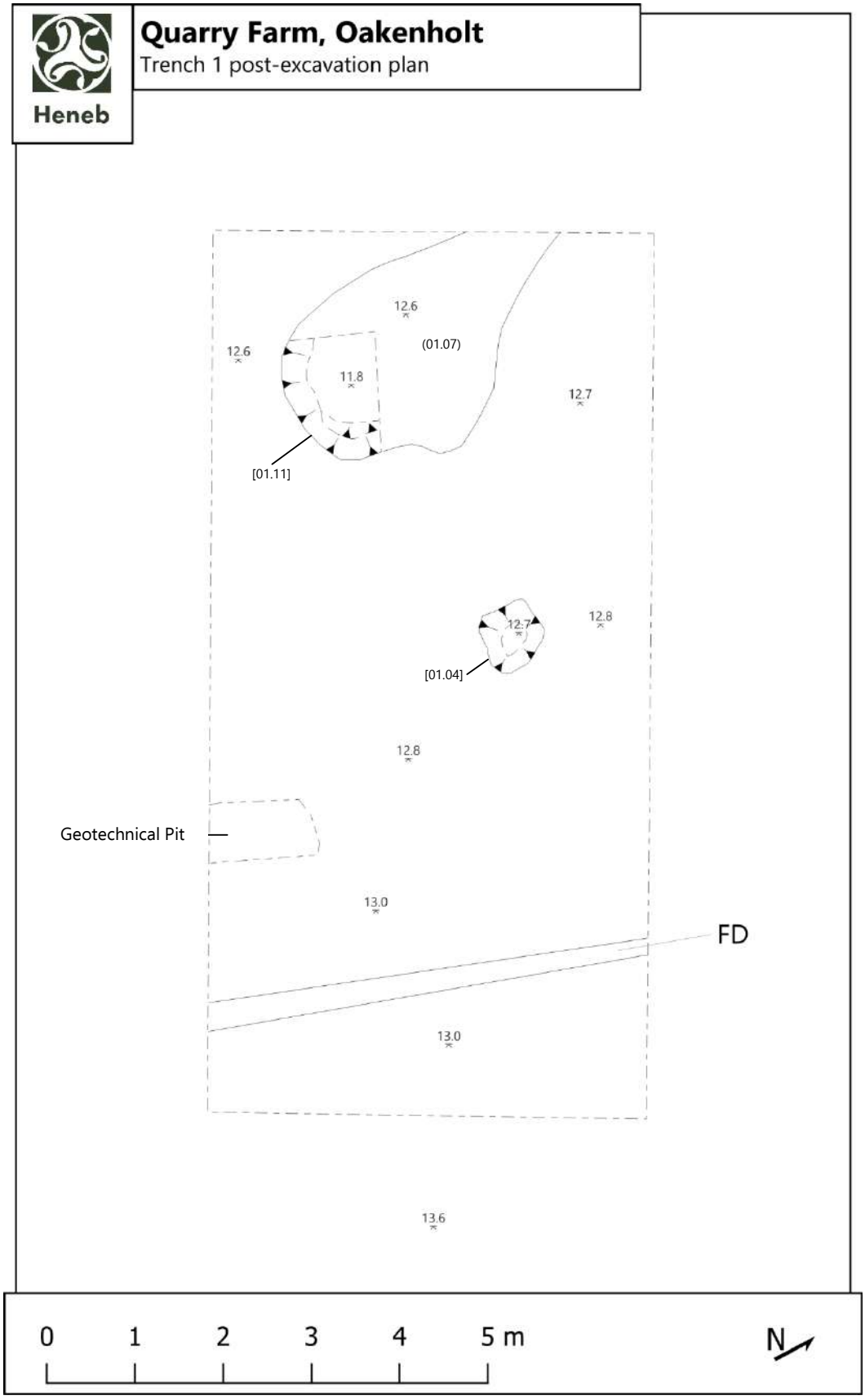
Metalwork	*collected*	*processed*	*catalogued*	*specialist*	*conserved*	*discarded*
Ironwork	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*
Copper Alloy	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*
Lead	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*
Silver	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*
Metalworking Residues	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*
Other (specify)	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*

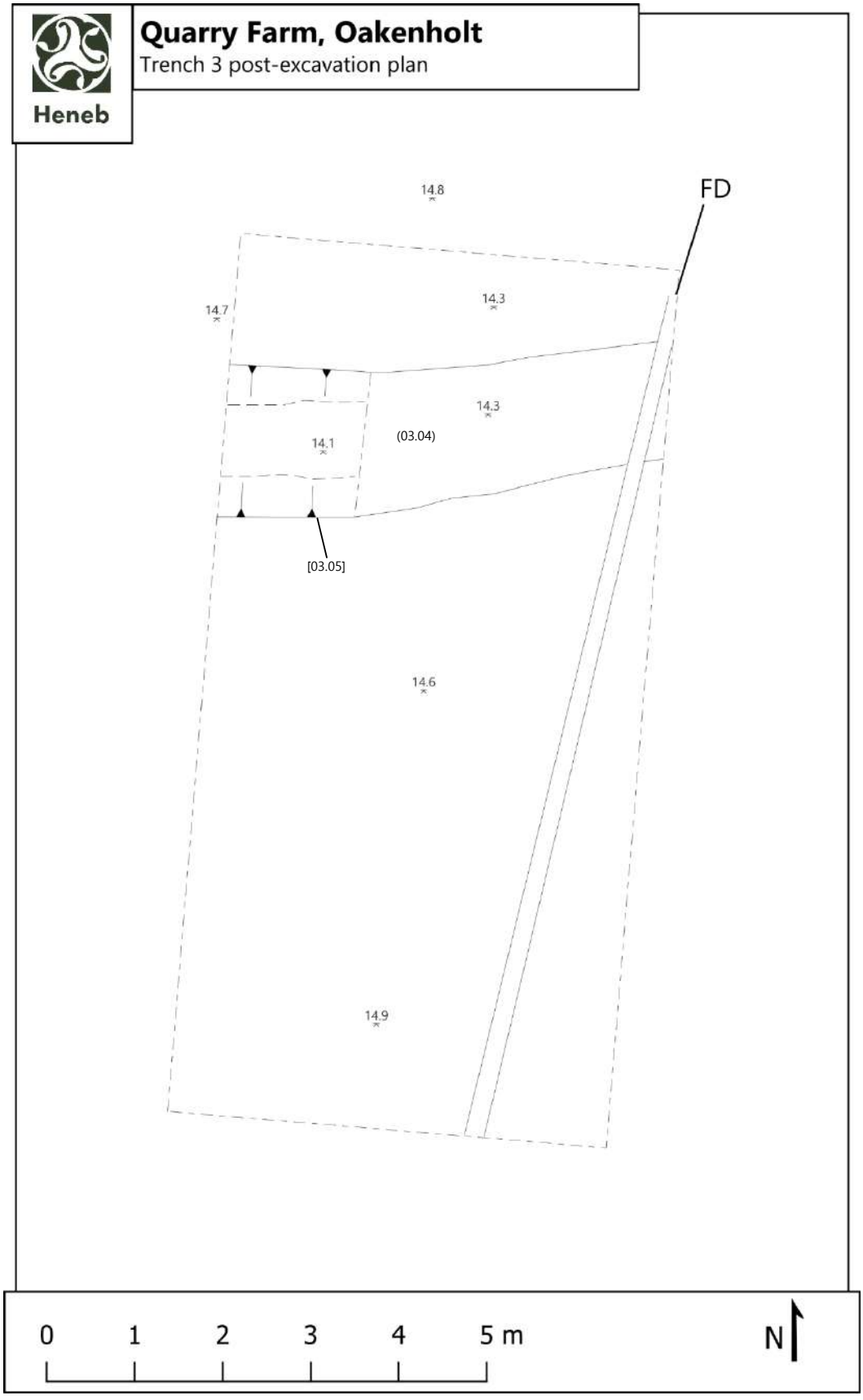
Bone/Animal Remains	*collected*	*processed*	*catalogued*	*specialist*	*conserved*	*discarded*
Animal Bone	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*
Human Skeletal Material	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*
Shell	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*
Other (specify)	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*
	N/A	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*
	N/A	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*

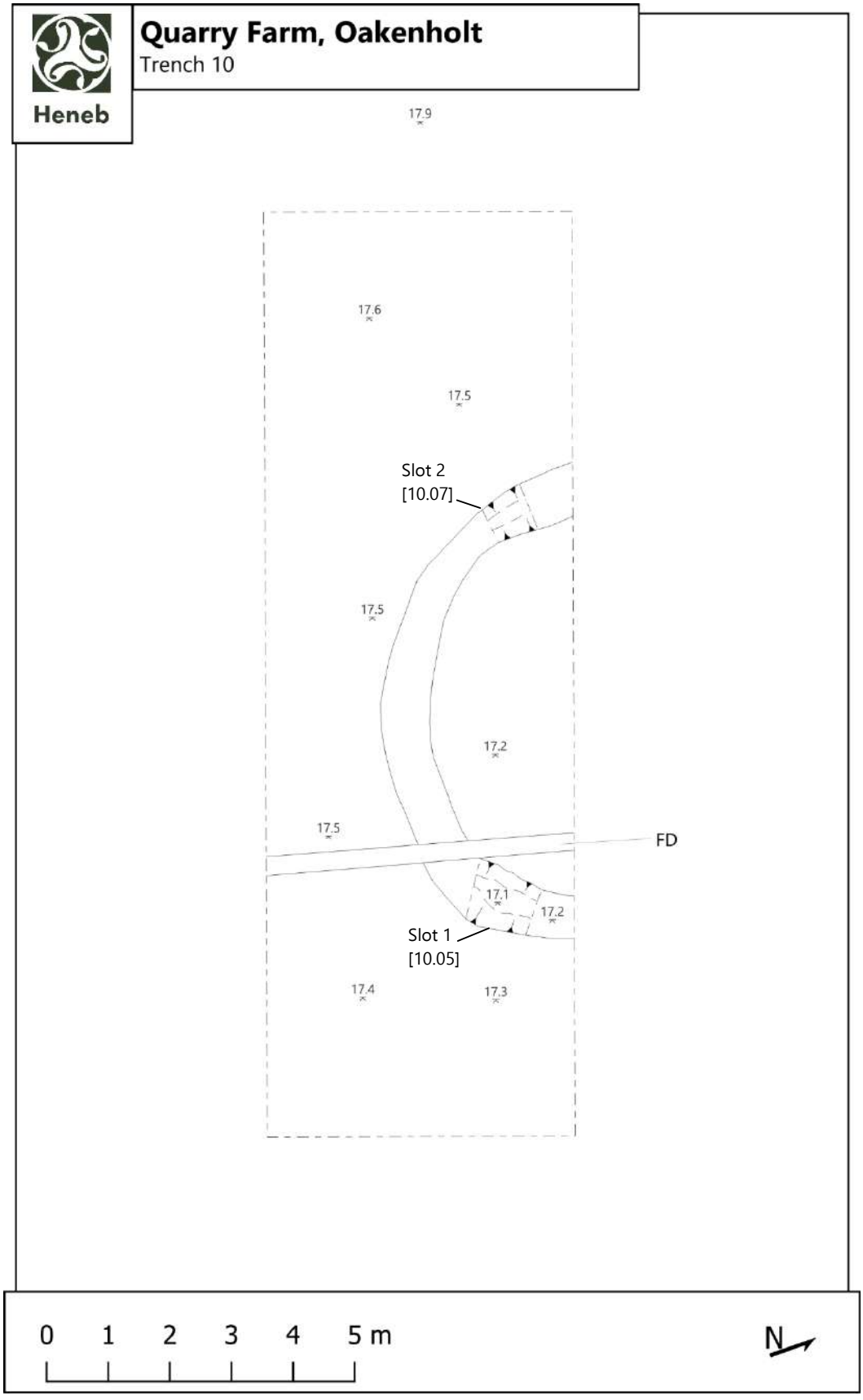
Samples	*collected*	*processed*	*catalogued*	*specialist*	*conserved*	*discarded*
Bulk soil	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*
Charcoal	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*
Other (specify)	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*	*N/A*

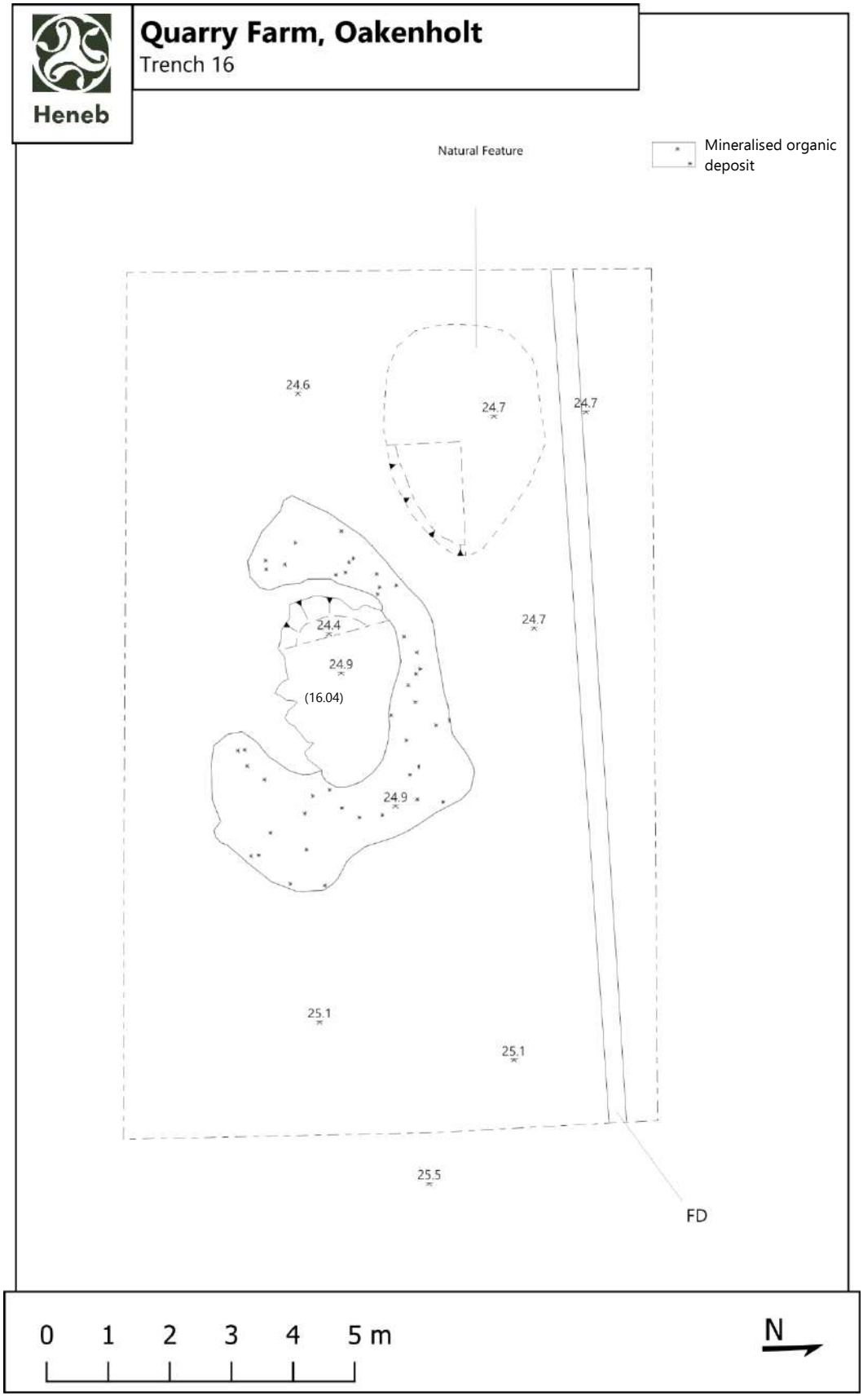
Finds Catalogues	*N/A*	*N/A*			
Box Catalogue	*N/A*	*N/A*		***Number of boxes***	*N/A*

7 Appendix 1: Plans of trenches containing archaeology




Quarry Farm, Oakenholt
Trench 3 post-excavation plan
Heneb
14.8
FD
14.7
14.3
14.3
14.1
(03.04)
[03.05]
14.6
14.9
0
1
2
3
4
5 m
N


Quarry Farm, Oakenholt
Trench 10
Heneb
17.9
17.6
17.5
Slot 2
[10.07]
17.5
17.2
17.5
FD
17.1
17.2
Slot 1
[10.05]
17.4
17.3
0 1 2 3 4 5 m
N


Quarry Farm, Oakenholt
Trench 16
Heneb
Natural Feature
Mineralised organic deposit
24.6
24.7
24.7
24.4
24.7
24.9
(16.04)
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8 Appendix 2: WSI

1 Introduction

1.1. The Clwyd-Powys Archaeological Trust (CPAT) has been instructed by Castle Green Homes (the client) to undertake an archaeological evaluation for proposed development of 128 homes prior to the submission of a planning application. The site is approximately 4.87 hectares in size which is currently in agricultural use as permanent pasture, located at Quarry Farm, Oakenholt, Flint, CH6 5WD (NGR SJ2585371623) (Fig 1). A detailed plan for the proposed development is shown in Fig 2.

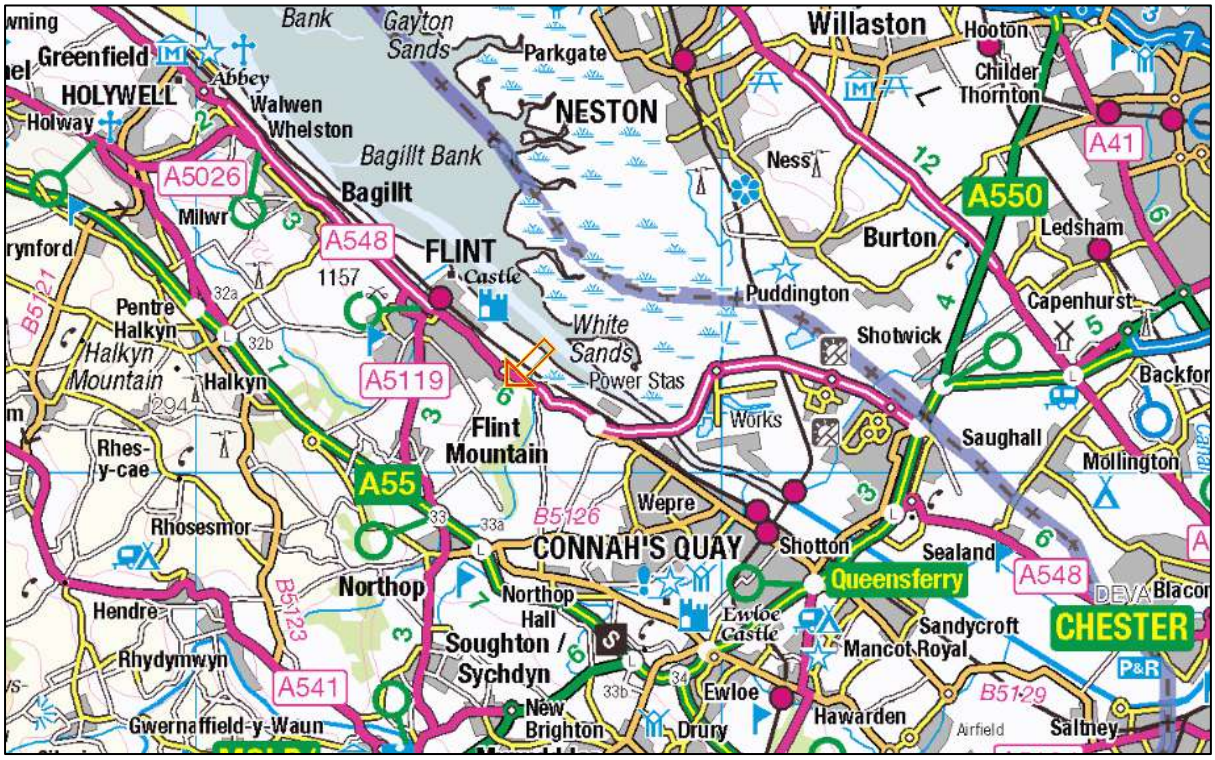

Figure 1: General location of site

Location, geology and topography

1.2. The site is located approximately 2km southeast of the town of Flint within the Parish of Northop, between the settlements of Pentre Ffwrndan approximately 0.75 km to the northwest and Oakenholt approximately 0.5km to the southeast, in the county of Flintshire, North Wales (NGR SJ 258 716). The land within the site boundary slopes gently down to the north with a high point of approximately 25m AOD in the south of the site; and a low point of approximately 10m AOD in the north of the site; being located on a north or northwest facing slope. there are watercourses approximately 150m to the west and 400m to the east, they both flow north to the Dee Estuary. The site is bounded by Chester Road (A548) to the north and Leadbrook Drive to the east with a housing development to the west.

Geology

1.3. The underlying geology of the site consists of the Pennine Lower Coal Measures Formation, which consists of Mudstone, siltstone and sandstone deposits. This is a sedimentary bedrock formed between 319 and 318 million years ago during the Carboniferous period. The superficial deposits across the site consists of Devensian-Diamicton Glacial Till. A sedimentary deposit formed between 116 and 11.8 thousand years ago during the Quaternary period. (BGS 2024). The geology runs in striations in a south southeast to north northwest direction across the site (figure 2).

Figure 2: Geology of the site (Contains British Geological Survey materials © UKRI [2024])

Contains OS data © Crown copyright and database rights 2024 | Source:
Airbus,USGS,NGA,NASA,CGIAR,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and the GIS User Community

Planning background

1.4. The local planning authority, through their archaeological planning advisor (APA), has recommended the following programme of archaeological work to inform determination of the planning application:

"…We would therefore recommend further pre-application works are completed in the form of evaluation trenching and dating of hearth/pyre activity with archaeomagnetic or radiocarbon techniques, prior to determination."

"All work will be completed in accordance with the relevant CIfA standards and guidance on desk-based assessment, evaluation and project archiving and reporting. The developer should engage a CIfA registered archaeological organisation to complete this work in accordance with an approved written scheme of investigation (WSI) which will be supplied by the archaeological contractor and approved by us in advance of commencement of the investigation."

1.5. This report presents a design for archaeological investigation which addresses the local planning authority's requirements, and therefore provides the written scheme of investigation for their formal approval, prior to implementation of the scheme.

Historic background

1.6. This section provides a brief summary of the archaeology and history of the study area and its immediate surroundings, to enable the findings of the evaluation to be placed in a wider context. The historical background to the area has been discussed in detail in two previous Desk Based Assessments (Wardell Armstrong LLP 2014 and 2024)). The relevant portion of the latter is reproduced here:

> *"**Prehistoric***
>
> *The HER does not record any evidence for prehistoric activity within the boundary of the Site. Within the 1km search area, prehistoric evidence, not described in detail, was found approximately 300m to the north-west of the Site boundary (HER 44890).*
>
> *Approximately 451m south-east of the Site, various undated features were found which likely originated during the prehistoric period. These remains included a working hollow and a shallow terrace (HER 35018). Finally, a stone hammer with three encircling grooves, likely dating to the prehistoric period, was also found in a garden pond at Oakenholt Hall in 1932, (HER 100129).*
>
> ***Romano British***
>
> *During the Roman period, lead from Halkyn Mountain was processed in the Pentre/Oakenholt area. The initial processing of the ore was most likely to have been undertaken at streams running into the Dee, whilst the final processing was undertaken at industrial settlements (Arnold & Davies 2000).*
>
> *A known settlement in the vicinity of the Site, referred to as Croes Atti, is thought to have been established by the end of the 1st century with its centre located approximately 409-484m north-west of the Site. Within the Site boundary, evidence for this settlement includes the Croes Atti Roman Site, a Scheduled Ancient Monument located in the northern portion of Field 1 (Ref. 4386).*
>
> *Additional Roman remains within the Site boundary include evidence of a cremation cemetery (HER 128788) in the north of the Site, and a possible Roman enclosure in the north-east corner of the Site (HER 128787). The cemetery was excavated in 2015 (WA 2015); eight cremations were found, six were un-urned with one found in a vessel of 1st-2nd century date. The other appeared to be in a small stone cist. The enclosure/square barrow was identified in 2014 which measured 10m across with ditches of 1-1.5m in width. Pottery was identified some of which were of cooking jars found within the ditch fills dating the 2nd century. The presence of the enclosure and cemetery suggests occupation activity within the Site, likely dating to the 1st and 2nd centuries.*
>
> *Further evidence of the Croes Atti settlement includes non-designated assets located within the 1km study area such as furnaces (HER 57653; 128755; 128756; 128757; 128769), burials (HER 128750; 128751; 128752; 128780), the remains of a building (HER 128775), pits (HER 128764; 128793), a Roman road (HER 86956), a timber structure (HER 128722), remnants of walls (HER 128770; 12771), and buildings relating to a ship field (HER 128798; and 128798). Occupation continued into the 3rd century. Consequently, the HER is dominated by entries referring to the Roman period. These are predominantly located in the north-western portion of the 1km search area.*

A possible Roman enclosure has also been recorded approximately 4m to the west of the Site (HER 152315), though potentially extending within the bounds of the Site. A cast copper alloy bow brooch was found approximately 10m west of the Site boundary at the southern end of the Site (HER 120328) and the possible line of a Roman road to Varae is located approximately 13m to the east of the Site (HER 104577). A second Scheduled Ancient Monument of Roman date, the Pentre Bridge Roman Site, is located approximately 405m north-west of the Site.

Early Medieval and Medieval

King Edward I of England began to build Flint Castle in 1277, and Flint and its castle were later attacked by the forces of Madog ap Llywelyn during the revolt of 1294-5. English forces subsequently burned the town in order to render it useless to the Welsh (Flint Town Council). Flint Castle is featured in Act III, Scene III of the Shakespeare play Richard II due to its historical role in the handover of Richard II to his enemy Henry Bolingbroke in 1399.

During the medieval period, the town of Flint did not have a wall, but rather a defensive earthen and wooden palisaded ditch. The outline of this feature remained visible in the pattern of streets until the mid-1960s, and the medieval boundary can still be traced (ibid.).

There is no evidence for early medieval activity within the Site boundary or within the1km search area. The HER does not record any evidence for medieval activity within the boundary of the Site.

Medieval ridge and furrow evidence is found approximately 64m north-west of the Site boundary (HER 86953). The site of a medieval cross is also located approximately 566m north-west of the Site boundary (HER 100130) and a medieval field system was discovered using aerial photography approximately 967m south-west of the Site (HER 102620). Furthermore, a silver short cross penny of either King Richard I or King John, dating from c. 1190-1205, was found approximately 600m west of the Site (HER 120378), and a broken silver-gilt ring with a slightly raised bezel was found approximately 859m south-west of the Site boundary (HER 119022).

Post medieval and Modern (c.1540 to 1901)

There are no post-medieval or modern archaeological remains within the Site boundary; however, 103 post-medieval assets are located within the 1km study area. These include a spoil heap associated with Quarry Farm located approximately 50m to the west of the Site boundary (HER 86948) and a road associated with the farm located approximately 66m west of the Site (HER 89569).

Other post-medieval assets within the study area include industrial remains such as those of Oakenholt Mill approximately 402m east of the Site (HER 104022), Oakenholt Colliery approximately 563m east of the Site (HER 89524), a limekiln field approximately 519m east of the Site (HER 89525), the Coed-onn Limekilnapproximately 570m west of the Site (HER 104040), and the Pentre Flour Mill approximately 360m north-west of the Site (HER 104047).5.2.19 Other post-medieval assets include several relating to the agricultural character of the broader area, including those associated with Little Leadbrook Farm approximately 419m south-west of the Site (HER 87992; 179114; 179115; 179116; 179117; 179118; 179119; 179120) and Leadbrook Farm approximately 340m south-east of the Site (HER 179108; 179111; 177984; 179112; 179109; 36189; 119883; 35019)."

Archaeological Background

1.7. A broad overview of the archaeological background to the area has been discussed in two previous Desk Based Assessments (Wardell Armstrong LLP 2014 and 2024)). The relevant portion of the latter is reproduced here:

> *"Excavations were undertaken in the 19th and 20th centuries in the north-westernsection of the 1km search area, which attested to Roman settlement activity in the area associated with lead working.*
>
> *The construction of a roundabout on the A548 was subject to an archaeological watching brief in February 2013. The preliminary groundworks for the roundabout uncovered the unexpected presence of a well-persevered Roman road to the south of the A548, with the Roman road previously being thought to be north of the A548. On reflection of the new evidence, it has been concluded that the Roman road recorded during the construction of the roundabout was most likely a spur from the main Roman Road that connected the forts at Chester and Caernarfon, which was located to the north of the A548 (Walter, M. 2014 pers comm., 10th April).*
>
> *Adjacent to the previously unrecorded Roman road to the south of the A548 were settlement and industrial remains indicative of dense roadside settlement and lead working activity. This extended along the line of the road and c.20-30m back from it on both sides. As a consequence of the well-preserved and extensive archaeological remains, the construction of the roundabout was temporarily ceased whilst a rescue excavation was undertaken by Cadw. Fifteen trenches were excavated. These recorded two undated gullies/ditches, one post-medieval ditch, and the stone footings of a curvilinear structure most likely of Roman date between the 1st or early 2nd century and possibly a funerary monument or mausoleum. The latter feature was the only significant feature recorded during the trial-trenching and was located 150m west of the site.*
>
> *Other fieldwork has been carried out in the area which also attests to Roman activity in the area. This has included the excavation of a small section of Roman road to the north of the A548, 90m north of the site (HER 17811). This was undertaken in 1993 by Wrexham Archaeology Service and is thought to be the main road connecting the forts at Chester and Caernarfon.*
>
> *Wardell Armstrong carried out an archaeological evaluation of the Site in 2015, at which time the Site formed a larger footprint which included the present two fields, in addition to three fields extending to the south (Moore 2015). The evaluation comprised a total of 14 trenches following a desk-based assessment and geophysical survey in 2014 (Railton 2014). The evaluation identified potential Roman metalworking activity, water management features, a Romano-British cremation cemetery, the remains of a possible structure, an undated hearth, and 19th to 20th century post holes. Pottery was also recovered which dated to the 1st to early-3rd centuries."*

1.8. The results of the 2015 evaluation showed that there was a large amount of Romano-British activity at the north end of the site in and around the scheduled monument. This consisted of domestic activity and industrial activity, most likely lead working.

1.9. A total of seven cremations were observed within the scheduled area. The geophysical survey undertaken in 2014 shows a number of anomalies which may be related to cremations or areas of metal working, these did not fall within the 2015 evaluation trenches and are the primary targets for the majority of the trenches proposed in this WSI.

1.10. In trenches 13 and 14 "*a hearth was recorded and, although dating evidence was not recovered from the hearth itself, two postholes further west proved to be 19th or 20th century features.*", this feature will be targeted by trench 16 with the aim of better understanding the feature and obtaining suitable samples to provide a date for its use.

2 Methodology

2.1. The evaluation will be conducted according to the Chartered Institute for Archaeologists' (CIfA) (2023) St*andard and Universal Guidance for Archaeological Field Evaluation.* This states that the purpose of field evaluation is to gain information about the archaeological resource within a given area or site (including its presence or absence, character, extent, date, integrity, state of preservation and quality), in order to make an assessment of its merit in the appropriate context, leading to one or more of the following:

> a. the formulation of a strategy to ensure the recording, preservation or management of the resource.
>
> b. the formulation of a strategy to mitigate a threat to the archaeological resource.
>
> c. the formulation of a proposal for further archaeological investigation within a programme of research.

2.2. It is anticipated that the fieldwork will be carried out during March 2024. The regional APA will be informed when the work is about to commence and an arrangement will be made for site monitoring following the completion of the groundworks.

2.3. The evaluation will comprise 17 trenches with six being 5x5m, ten being 10x5m and one being 15x5m covering a total area of 725m^2. The proposed trench locations are depicted in Figure 3 and Table 01. They have been targeted principally on geophysical anomalies (Figures 4 and 5).

2.4. Utilities data have been acquired from the client and trenches have been designed to avoid these constraints. Trench locations will be scanned with a cable avoidance tool (CAT) prior to any groundworks taking place.

2.5. It may be necessary to move trenches to avoid obstacles or subsurface features such as services not apparent on map sources. The client and regional APA will be consulted should this be required.

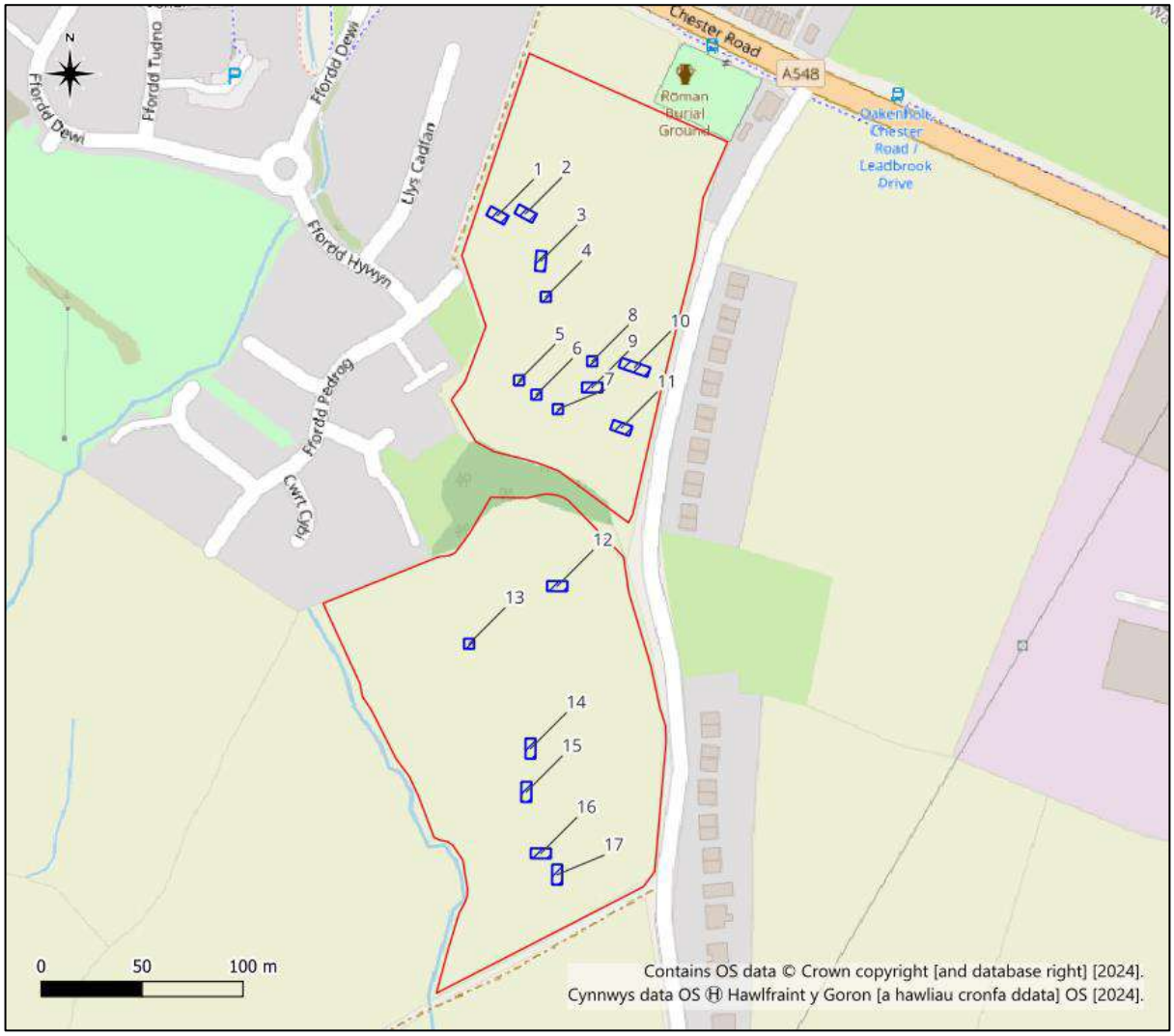

Figure 3: Plan of the proposed development area (outlined in red) with proposed trench locations in blue.

Table 1

Trench No.	Area (m^2)	Length (m)	Width (m)	NGR of trench corners
1	50.033	10		SJ2582271739 SJ2583171735 SJ2582871730 SJ2581971735
2	50.033	10	5	SJ2583671740 SJ2584471736 SJ2584271731 SJ2583371736
3	50.033	10	5	SJ2584471717 SJ2584971717 SJ2584871707 SJ2584371707
4	25.017	5	5	SJ2584671697

				SJ2585171697 SJ2585171692 SJ2584671692
5	25.017	5	5	SJ2583371656 SJ2583871656 SJ2583871651 SJ2583371651
6	25.017	5	5	SJ2584271649 SJ2584771649 SJ2584771644 SJ2584271644
7	25.017	5	5	SJ2585271641 SJ2585771641 SJ2585771636 SJ2585271636
8	25.017	5	5	SJ2586971665 SJ2587471665 SJ2587471660 SJ2586971660
9	50.033	10	5	SJ2586771652 SJ2587771652 SJ2587771647 SJ2586771647
10	75.05	15	5	SJ2588671664 SJ2590171659 SJ2589971665 SJ2588571660
11	50.033	10	5	SJ2588271634 SJ2589271630 SJ2589071626 SJ2588171629
12	50.033	10	5	SJ2585071554 SJ2586071554 SJ2585971549 SJ2584971549
13	25.017	5	5	SJ2581371525 SJ2580871525 SJ2580871520 SJ2581371520
14	50.033	10	5	SJ2583971476 SJ2584471476 SJ2584471446 SJ2583971446
15	50.033	10	5	SJ2583771454 SJ2584271454 SJ2584271444 SJ2583771444
16	50.033	10	5	SJ2584171421 SJ2585171421 SJ2585171416 SJ2584171416
17	50.033	10	5	SJ2585271413 SJ2585771413 SJ2585771403 SJ2585271403

Figure 4: Proposed trenches in the north field overlaid on the geophysical survey results from 2015.

Figure 5: Proposed trenches in the south field overlaid on the geophysical survey results from 2015.

General methodology

2.6. The evaluation trenching will be excavated to the first significant archaeological horizon, or to naturally derived soils or to a maximum depth of 1.2m. Previous investigation suggests the depth to the archaeologically significant horizon is c.400mm.

2.7. The general approach for each of the trenches will follow these procedures:

- The presence or absence of archaeological features encountered will be noted;
- Where features of archaeological interest are identified they will be systematically investigated by hand with sufficient work being undertaken to determine their date, character and function, using the conventional techniques for archaeological excavation and in accordance with CIfA Standard and Guidance;
- All features will be located as accurately as possible using GPS and other survey techniques, to be plotted on an overall plan of the development at an appropriate scale, showing boundaries depicted on OS mapping, or located by the identification of OS grid lines;
- Contexts will be recorded digitally or manually on individual record forms, using a continuous numbering system, and be drawn and photographed as appropriate;
- As appropriate plans will be drawn on permatrace to a scale of 1:10, 1:20 or 1:50, and locations surveyed in by GPS;
- Photography will be undertaken digitally with a minimum resolution of 12 mega pixels. Images will include a metric scale in each view and be logged in a photographic register.

Specific excavation methodology

2.8. Topsoil and/or overburden will be removed by a mechanical excavator equipped with a wide (eg 1.8m wide) toothless ditching bucket to the top of archaeological deposits or the natural substrate, whichever is observed first. Any cut features (e.g. ditches or pits) or structures encountered will be recorded in plan and manually excavated before proceeding with further excavation. If some evaluation locations need to be excavated throughout to a depth at which the sides of the trench/area are considered unstable, to reach the natural subsoil/ archaeological deposits, the sides of trenches will first be either shored, battered or "stepped back" to allow safe working. Archaeological deposits will not be removed by machine, except where such procedure has been authorised by the APA.

2.9. All machine work will be supervised by an experienced archaeologist.

2.10. Each evaluation location will be cleaned by hand to a level sufficient to allow the identification and planning of archaeological features. Where archaeological features appear to be absent, sufficient cleaning will be undertaken to demonstrate this.

2.11. The evaluation will involve the systematic examination and accurate recording of all archaeological features, horizons and artefacts identified.

2.12. All archaeological features and deposits will be cleaned and investigated by hand in accordance with CIfA Standards and Guidance, with sufficient work undertaken to determine their date and character, and the remains will be recorded.

2.13. Should features of national importance and possibly of schedulable quality be observed, fieldwork will cease until the remains have been inspected by the APA and the appropriate Cadw Regional Inspector of Ancient Monuments.

2.14. In the event of human burials being discovered, they will initially be left in situ, and if removal is required, the archaeologist will procure and comply with all statutory consents and licences under the Burial Act 1857.

2.15. All stratified finds will be collected by context, or where appropriate, individually recorded in 3 dimensions. Unstratified finds will only be collected where they contribute significantly to the project objectives or are particular intrinsic interest.

2.16. In the event of finding any artefacts covered by the provisions of the Treasure Act 1996 (as amended 2002 and 2023), the appropriate procedures under this legislation will be followed.

2.17. The responsible use of metal detectors for locating buried metal artefacts may be undertaken, however, any such activities will preferably be carried out by Metal Detecting Clubs and members of Metal Detecting Clubs that are recognised by the National Council for Metal Detecting and follow the National Council for Metal Detecting Code of Conduct following the Portable Antiquities Schemes Code of practice for responsible metal detecting.

2.18. Following completion of the groundworks and recording, the trenches will be backfilled and consolidated by machine; if required a photographic record of each backfilled trench will be made.

Specific recording methodology

2.19. The areas evaluated will be accurately tied into the National Grid and located on a 1:2500 or 1:1250 map of the area. All archaeological features identified will also be tied to the OS survey grid and fixed local topographic boundaries.

2.20. Each evaluation area will be planned by GPS, EDM or manually at an appropriate scale..

2.21. All relevant trench sections drawn will be drawn where archaeological deposits and features have been identified and recorded, with levels related to the Ordnance Datum. For trenches with only a topsoil/subsoil profile and no archaeological features a representative section will be recorded with a record of the height of each key horizon at either end of the trench as well as the ground surface and maximum depths of the trench and these converted to OD heights.

2.22. All archaeological contexts will be recorded using a continuous numbered context system on pro-forma recording sheets. This may be by digital or hard copy methods.

2.23. All complex archaeological features revealed and identified during the evaluation will be recorded and drawn at 1:50, 1:20 and 1:10 scales as appropriate.

2.24. All archaeological deposits and features will be levelled and recorded with an above ordnance datum (aOD) level. Similarly the top and base of all trenches will be recorded with an above ordnance datum (aOD) level.

2.25. A full and proper record (written, graphic and photographic as appropriate) will be made for all work, using pro forma record sheets and text descriptions appropriate to the work.

2.26. A photographic record of all contexts will be produced to archive quality, with a digital camera (minimum 12mp). These will include a clearly visible, graduated metric scale.

2.27. General location photographs will be taken as required using digital photography at a minimum resolution of 12mp.

2.28. A register of all photographs will be kept.

Artefact selection strategy

2.29. In accordance with section 4 of *Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation* Archaeological Archives Forum 2007 (revised 2011) a rigorous process of selection and discard will be followed so that only those elements that are considered of significance for potential future study will be retained. Bulk items such as ceramic building materials, stonework, large quantities of undiagnostic pottery, and material that is

difficult to conserve such as worked wood, may be selected for discard once appropriate recording and analysis has been undertaken, on site or in the laboratory post-excavation.

2.30. Selection and discard is detailed below, but in general unstratified finds will only be collected where they contribute significantly to the project objectives or are of particular intrinsic interest. All artefacts will be retained from stratigraphically secure contexts of 18th-century date or earlier. In the case of later or disturbed contexts, all 18th-century or earlier material will be retained, together with a sample of later finds to assist with dating and phasing, unless later deposits/artefacts are deemed to be of high archaeological value.

2.31. CPAT has a retention policy for artefacts which prioritises as follows:

High priority for retention

- Rare finds from stratified and unstratified contexts
- Prehistoric and early medieval assemblages
- Key stratigraphic dating assemblages crucial to the structural development of the site
- Assemblages which are not well represented in museum collections

High priority for disposal

- Unstratified material unless intrinsically dateable and unusual/rare
- Artefacts from residual/intrusive contexts unless of key stratigraphic importance
- Assemblages already well represented in museum collections
- Unprocessed environmental/soil samples

Environmental sampling strategy

2.32. Appropriate samples of up to 40litres will be taken of contexts from features containing material suitable for environmental sampling, archaeomagnetic sampling or radiocarbon dating that have the potential to provide valuable information about the features and the site as whole.

2.33. Samples will be removed form site at the earliest opportunity and stored in suitable and secure conditions off site to await processing.

Post-excavation and reporting

2.34. All artefacts and environmental samples will be treated in a manner appropriate to their composition and a sampling strategy will be developed as appropriate:

- All stratified finds will be collected by context, or where appropriate, individually recorded in three dimensions. Unstratified finds will only be collected where they contribute significantly to the project objectives or are of particular intrinsic interest.
- All finds and samples will be collected, processed, sorted, quantified, recorded, labelled, packed, stored, marked, assessed, analysed and conserved in a manner appropriate to their composition and in line with appropriate guidance.
- arrangements will be made to assess and study any artefacts, assemblages and environment samples, should this be required to fulfil the objectives of the evaluation.
- Any artefacts recovered during the evaluations will be deposited with an appropriate museum, subject to the permission of the owner.

2.35. Following the on-site work an illustrated report will be prepared containing conventional sections to include:

- Non-technical summary
- Introduction
- Site location
- Archaeological Background
- Aims & objectives
- Methodology
- Evaluation results
- Conclusions
- References
- Appropriate appendices on archives and finds

2.36. If material evidence is recovered that requires specialist assessment, CPAT has a team of external specialists who advise and undertake the appropriate levels of study. These include the following:

- Lithics Pippa Bradley
- Prehistoric pottery Francis Lynch
- Roman pottery Peter Webster
- Medieval pottery Stephanie Ratkai or Julie Edwards, Grosvenor Museum
- Thin section analysis Chris Doherty University of Oxford
- Roman glass Hilary Cool
- Metalwork identification and conservation Phillip Parkes University of Cardiff
- Faunal remains Archaeological Services University of Durham
- Palaeoenvironment Archaeological Services University of Durham
- Pollen Fiona Grant or Lampeter University
- Metallurgy Tim Young University of Cardiff
- C14 and OSL SUERC

2.37. The report summary will be provided in English and Welsh, in accordance with the *Guidance for the Submission of Data to the Welsh Historic Environment Records (HERs) V1* (July 2018).

Site archive

2.38. The overall archive will conform to guidelines described in Management of Research Projects in the Historic Environment (MoRPHE), Historic England 2015, the CIfA (2020b) Standard and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives and The National Standard and Guidance to Best Practice for Collecting and Depositing Archaeological Archives in Wales (NPAAW, 2017).

2.39. The paper and digital archive will be deposited with the National Monuments Record (NMR), RCAHMW, including a copy of the final report. This archive will include all written, drawn, survey and photographic records relating directly to the investigations undertaken. A digital copy of the report (and any digital photographs or other data required) will also be lodged with the Historic Environment Record.

3 Digital Data Management Plan (DDMP) (Version 3: October 2023)

3.1. The Clwyd-Powys Archaeological Trust is committed to managing digital records generated though our work to the highest standards. The Digital Data Management Plan (DDMP) has been designed in accordance with current guidance from the Chartered Institute for Archaeologists (CIfA), Historic England's *Archaeological Digital Archiving Protocol* (ADAPt) (2016), The Royal Commission on the Ancient and Historical Monuments of Wales *RCAHMW*

Guidelines for Digital Archives (2015) and the Archaeology Data Services (ADS) *Guidelines for Depositors* (2021). CPAT also employs the FAIR Principles, to ensure that all relevant data is Findable, Accessible, Interoperable and Reusable.

Data Collection

3.2. All digital project data will be stored within a standard folder template, utilizing digital proformas where required and following a strict file naming policy. All digital files selected for archive will be pre-fixed with the unique project code. An example of the CPAT folder structure and common data formats is provided below.

	Project Folder		
	Folder name	**Contents**	**Files**
	Admin		
	H&S - RAMS	Risk assessments	DOCX, PDF
	WSI	Written Scheme of Investigation	DOCX, PDF
	Client data	Planning documents, plans, background	JPG, PDF
	Correspondence	Emails and letters	PDF, Outlook.msg
	Drafting	Working drawings	AI
	Finance	Quote, purchase order, costings	DOCX, PDF, XLSX
	Finds data	Catalogues, specialist reports etc	DOCX, PDF, XLSX
	GIS data	Project generated GIS including HER data, Mapping data Geophysical Survey data etc	MAP, SHP, XLSX, PRJ, DXF, TAB, SHX, QPJ, DAT, DBF, ID, DXF, DWG, BMP, JPG, ASC, QGS, XML, PMW, XCP
	Metadata	Project specific metadata	XLS
	Photography	Original and reduced images	NEFF, JPG, TIFF

	Report	Project report	DOCX, PDF
	Report Illustrations	Illustrations selected for the final report	JPG, PDF
	Research data	Background research	DOCX, PDF, JPG
	Site data	Site registers, recording forms, plans etc	DOCX, PDF, XLSX
	Temporary files	Storage for temporary files to be deleted prior to archiving	N/A

3.3. Where projects require specialist archaeological techniques, additional datasets may be generated. These will be incorporated into the folder structure as required and re-named accordingly.

Data Storage

3.4. Throughout the course of the project, data will be stored securely on CPAT IT infrastructure.

Data Selection

3.5. The Clwyd-Powys Archaeological Trust works across the regions of both England and Wales in which the following guidance may apply, depending on the project location.

- CIfA *Standard and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives* (2020b).
- CIfA *Toolkit for selecting archaeological archives.*
- CIfA *Toolkit for managing digital data.*
- *Management of Research Projects in the Historic Environment: The (MoRPHE Project Manager's Guide* (2015).
- *National Standard and Guidance for Collecting and Depositing Archaeological Archives in Wales* (2017).
- The Royal Commission on the Ancient and Historical Monuments of Wales *RCAHMW Guidelines for Digital Archives* (2015)
- Guidance *for the Submission of Data to the Welsh Historic Environment Records (HERs) Version:2*
- Historic England's *Archaeological Digital Archiving Protocol* (ADAPt) (2016)
- Archaeology Data Services (ADS) *Guidelines for Depositors* (2021).
- *FAIR Guiding Principles for scientific data management and stewardship* (2016)

3.6. While some projects will generate a standard set of data, most project archives are unique and the creation of data is fluid, requiring periodic management and review throughout the course of the project to meet the specific requirements of individual stakeholders.

3.7. Data generated by a relatively small-scale project is likely to comprise; the final report (.pdf/.docx), digital photographs (.tif), site records including proformas/drawings (.pdf), metadata (.xls).

3.8. Larger projects may include additional data sets, such as site survey data, GIS polygons, specialist reports etc, and where required, additional digital sub-folders will be generated.

3.9. All project data, including digital, documentary, artefactual or environmental will be recorded in the final project selection strategy, a copy of which will be included in all project reports. Data that has been selected for retention, and/or deposition with a suitable repository beyond CPAT is recorded therein.

3.10. Correspondence records, financial records, research data and temporary files will automatically be de-selected from the final archivable dataset, as these do not form part of the overall archaeological record and may contain sensitive data.

Metadata

3.11. All digital data generated by the project and selected for archive will be accompanied with appropriate metadata, where required.

Preservation

3.12. Digital data selected for preservation within Wales will be deposited with the Royal Commission on the Ancient and Historical Monuments of Wales.

3.13. A digital PDF report, along with relevant photographs will also be deposited with the relevant Historic Environment Record (HER).

3.14. Associated physical archive material will be summarised within the final grey literature report/selection strategy to ensure that the physical archive is also traceable once disseminated.

Accessibility

3.15. Data will use standard software and formats where possible to maximise opportunities for use and reuse in the future.

3.16. Data submitted for long term preservation will be discoverable to interested parties though the RCAHMW and HER websites and may also be promoted by CPAT via the Trust's website or social media.

Responsibilities

3.17. The Project Manager will be responsible for the implementation of the DDMP throughout the course of the project.

3.18. The Project Manager, Project Supervisor and Head of Technology, Information and Planning will be responsible for data accumulated during the project, including its appropriate management, storage and backup.

3.19. Data will be checked routinely by the Project Manager as a means of quality assurance.

3.20. The Information and Archives Officer will be responsible for the compilation of all project specific metadata and final deposition of the digital project data and wider archive.

3.21. Following deposition with the relevant digital repository, data management will become the responsibility of the receiving organization.

3.22. A copy of relevant files generated by the project may be retained and stored securely by CPAT for future reference should it be required.

Ethics and Legal Compliance

3.23. CPAT has security protocols and policies in place relating to the ethical use of data which comply National Law and Industry Guidelines. Our Privacy Policy can be viewed here.

3.24. All data, including any sensitive data is stored securely to protect against its loss, misuse and alteration.

3.25. CPAT will take steps to ensure that any businesses we share data with will have security protocols and policies in place to manage and record data privacy and preferences correctly and that data is stored correctly.

3.26. Copyright for all data belongs to the Clwyd-Powys Archaeological Trust. Formal permissions from external specialists and contractors will be secured upon their engagement, where appropriate.

4 Resources and programming

4.1. The evaluation will be undertaken by a team of skilled archaeologists under the overall supervision of Tim Malim, a senior member of CPAT's staff who is also a member of the Chartered Institute for Archaeologists (CIfA). CPAT is also a CIfA Registered Organisation and as such agrees to abide by their *Code of Conduct* (2014).

4.2. All report preparation will be completed by or with the assistance of the same field archaeologist(s) who conducted the site work. Copies of the report will be deposited with the client and the regional Historic Environment Record within one month of the completion of on-site works, subject to possible delays should specialist investigation of artefacts, samples etc be necessary. If appropriate, a short report will be published in *Archaeology in Wales*.

4.3. The client should be aware that in the event that significant archaeological remains are revealed there may be a requirement for more detailed excavation and specialist services. Any further work over and above the original evaluation and report would be the subject of a separate WSI and costing.

5 Appendix 1 Selection Strategy

2771-Quarry Farm, Oakenholt, Flint (NGR SJ2585371623) Archaeological evaluation 28/02/2024 **Selection Strategy v1.0**	
CPAT Project Management	
Project Manager	Tim Malim
Project Supervisor	
Archives Manager	Sophie Watson
Project Stakeholders	
Project Lead / Project Assurance	
Client / Landowner	Castle Green Homes
Other	
Collecting Institutions	
Regional Historic Environment Record	Clwyd-Powys Archaeological Trust
Digital Archive Repository	Royal Commission on the Ancient and Historical Monuments of Wales

Documentary Archive Repository	Royal Commission on the Ancient and Historical Monuments of Wales
Finds Archive Repository	
Other	N/A

Project Data

Digital Project Data - Management

Digital data generated by the project will be managed in accordance with the CPAT Digital Data Management Plan (Version 3), which is outlined in full under section 3 of the WSI.

In summary, digital data will be subject to regular review and management to ensure the final dataset is of suitable quality and appropriately referenced and structured, resulting in a findable, accessible, interoperable and reusable archive which has been prepared in accordance with the *CIfA Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives guidance* (2020b).

All digital files will be stored on CPAT infrastructure within a standard folder hierarchy and following a strict file naming policy. All digital files selected for archive will be data tagged with the unique project code. An example of the CPAT folder structure and specific files selected for archive will be recorded in the final selection strategy for the project and included within every CPAT report.

Digital project data selected for archive will be accompanied by relevant project metadata and prepared according to the RCAHMW Guidelines for Digital Archives (Version 1). Digital data will be transferred via OneDrive upon the completion of the project as agreed with Helen Rowe (Senior Archivist - RCAHMW).

A copy of the digital report and a set of digital (.jpg) images will be submitted to the Historic Environment Record via HEDDOS in accordance with the *Guidance for the Submission of Data to the Welsh Historic Environment Records (HERs)* Version 2 (2022).

Project Specific Digital Data

Digital data expected for archaeological evaluation includes the following;

Photographs (.jpg / .tif)

Photographic Catalogue (.xls) *Microsoft Excel*

Grey Literature Report (.docx / .pdf) *Microsoft Word*

De-Selected Digital Data

All digital data generated by the project will be recorded in the final selection strategy and selected/de-selected data will be recorded therein.

Unsuitable or surplus data, such as blurred images or duplicate files, will be deleted from the final dataset.

Sensitive digital data is stored within dedicated project folders named Client Data, Correspondence and Finance and these will be automatically de-selected due to the nature of the data within. Project data will be retained on the CPAT servers for a period of 6 years, at which point it will be reviewed and managed as required in accordance with relevant organisational policies.

Physical Project Data (Documentary)

All physical documentary data will follow standard formats and conventions with appropriate labelling and referencing, resulting in findable, accessible, interoperable and reusable data (FAIR) which has been prepared in accordance with the *CIfA Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives guidance* (2020b).

Written and drawn records will utilise CPAT proformas and use standard conventions and terminology. Documents selected for archive will be accompanied with a paper copy of the selection strategy to ensure all elements of the archive are linked and traceable at all times.

Physical documentary data expected for an archaeological watching brief/evaluation/excavation includes the following;

Trench recording forms

Context register

Context sheets

Site plans

Section drawings

Physical Project Data (Materials)

There is potential for artefactual material to be gathered during the fieldwork stage of the project.

The methodology for the treatment of materials is outlined in section 2 of the Written Scheme of Investigation. In summary, artefacts and contextual evidence that can help address specific research questions will be prioritised for retention and where appropriate, external specialist assessment may be employed to help identify the research potential of cohesive assemblages. In addition, local curators may be consulted as to whether specific local knowledge might be enhanced through study and retention of the collected archive, beyond any broader regional research questions.

In the instance that significant artefactual material is identified, a suitable repository will be identified and contacted once the nature, quantity and condition is known. The decision would be made by CPAT field services in conjunction with the relevant stakeholders, informed by the research potential and heritage significance of the archaeological evidence uncovered.

Karl Macrow

Project Archaeologist

28/02/2024