ARCHAEOLOGY WALES

Archaeological Watching Brief:

Haverfordwest Welsh Medium School Withybush, Haverfordwest

July 2017, amended December 2022

Report No. 1592

By

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Amended By

Rhiannon Philp

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Prepared for Willmott Dixon

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Summary

In March 2017 Archaeology Wales Ltd (AW) carried out an archaeological watching brief on development works associated with the construction of a new Welsh Medium School on land near Withybush Industrial Estate, Prendergast, near Haverfordwest (NGR SM 9626 1744). Investigation of the site was commissioned by Willmott Dixon, on the recommendation of Dyfed Archaeological Trust - Development Management in their capacity as archaeological advisors to the local planning authority, as a Condition associated with planning application 16/0446/PA.

The Watching Brief followed a series of previous archaeological investigations of the development area that comprised a desk-based assessment (Poucher 2016a), geophysical survey (Poucher 2016b), evaluation trenching (Poucher 2016c), excavation within the standing stone area (Poucher 2016d) and a building recording survey of the Second World War structures (Poucher 2016e). The Watching Brief was undertaken during the removal of topsoil and plough-soil deposits across an area of approximately 1.2 hectares. This had been identified by the previous archaeological investigations as a likely area of archaeological activity, with potential remains associated with a standing stone and Second World War encampment. The area was hand-cleaned, planned, excavated and recorded to the standards laid out within the approved Written Scheme of Investigation.

A series linear gullies, pits, post holes and stake holes were uncovered, comprising three main clusters of features, within an area measuring roughly 50m by 55m. One cluster comprised a semi-circular arrangement of post holes and stake holes, with adjacent gullies and pits. Some infilling material from this area contained heat-affected remains, and a significant quantity of lithic artefacts were recovered, which have been dated to the late Mesolithic – early Neolithic period. A second cluster of features to the north comprised pits, along with associated stake holes and gullies, also containing late Mesolithic – early Neolithic lithic artefacts. A third cluster to the west comprised a pit with associated pits and stake holes, although no dating evidence was retrieved from these features. A large number of further lithic artefacts were also recovered from topsoil and subsoil surface deposits throughout the site. The finds and archaeological features are suggestive of a late Mesolithic – early Neolithic temporary or seasonal camp, with activities associated with the manufacture of stone tools along with processing and occupational activities. Mesolithic sites are rare discoveries, particularly sites with identified archaeological features and stratified deposits. This site is therefore of great importance regionally, and potentially nationally, in its potential to increase the knowledge of the chronological framework of Mesolithic activity in the region and through the analysis of Mesolithic lithic assemblages.

Post-medieval agricultural activity was also recorded, in the form of removed field boundaries and standing stone PRN 13075, which various archaeological investigations has shown to have been erected in the 18th century, probably as a cattle-rubbing stone.

The remains of the Second World War encampment PRN 102563 were also recorded, comprising a series of building foundations along with service trenches and fence boundaries. A coffee cup with German Army insignia, and a uniform dress button, were also recovered in association with this encampment.

In December 2022 this report was amended to include updated lithics and environmental archaeology reports.

1 Introduction

1.1.1 This report has been prepared by Archaeology Wales Ltd (AW), in response to a request by Willmott Dixon, to carry out an archaeological watching brief during development works associated with the construction of a new Welsh Medium School on land near Withybush industrial estate, Prendergast, near Haverfordwest (Figures 1 & 2).

1.1.2 The site consists of an area of approximately 1.2ha located at the south-eastern end of an agricultural field between the Withybush 'Days' roundabout and the B4239 Cardigan Road, to the north of Haverfordwest (NGR SM 9626 1744). Planning Consent for the development has been granted (planning application no. 16/0446/PA) subject to conditions. The local planning authority is the Pembrokeshire County Council (henceforth – PCC).

1.1.3 Dyfed Archaeological Trust – Development Management (Henceforth – DAT-DM), in its capacity as archaeological advisors to the local planning authority, recommended that a programme of archaeological work be agreed and undertaken prior to and during any groundworks. The relevant Planning Condition reads:

No development shall take place until the applicant, or their agents or successors in title, has secured the implementation of a programme of archaeological work. This shall be in accordance with a written scheme of investigation which has been submitted and approved in writing by the Local Planning Authority.

Reason: To ensure the recording of any items of archaeological interest; to accord with Policy GN.38 of the Local Development Plan for Pembrokeshire (adopted 28 February 2013).

1.1.4 Archaeological work prior to the commencement of groundworks comprised pre-determination assessments including an initial Desk-Based Assessment (Poucher 2016a), followed by a geophysical survey (Poucher 2016b) and archaeological evaluation (Poucher 2016c). Subsequent to determination, further archaeological investigations on the site prior to groundworks commencing included an archaeological excavation on the site of a standing stone (Poucher 2016d) and building recording work (Poucher 2016e).

1.1.5 DAT-DM further recommended that a subsequent archaeological watching brief be undertaken during groundworks. In January/February 2017 AW produced a Written Scheme of Investigation (WSI) for an archaeological watching brief, in accordance with the Standard and Guidance for Archaeological Watching Briefs (CIfA, 2014), which was designed to provide an approved scheme of archaeological work to be implemented during the ground investigation works (Appendix III). The WSI was subsequently approved by DAT-DM on behalf of the local planning authority.

1.1.6 The watching brief was undertaken in March 2017. The work was managed by Phillip Poucher and carried out under the supervision of Andrew Shobbrook and Tom Jamieson. This report details the findings from the archaeological watching brief, incorporating the results of the previous archaeological investigations and research. The report was amended in December 2022 by Rhiannon Philp (AW Post Excavation Manager) to include updated lithics and environmental archaeology specialist reports.

1.1.7 The AW Project Number is 2436, and the site code is HWMS/17/WB. The project details are summarised on the Archive Cover Sheet (Appendix IV).

1.1.8 All work conformed to the CIfA's Standards and Guidance for Archaeological Watching Brief (2014) and Standards and Guidance for Archaeological Excavation (2014) and was undertaken by suitably qualified staff to the highest professional standards.

2 Site Description

2.1.1 The site is located on the northern fringes of Prendergast, which now forms a northern suburb of Haverfordwest, in central Pembrokeshire.

2.1.2 The development site as a whole is bounded by the Withybush Road to the northwest, beyond which lies the Withybush Industrial Estate and Haverfordwest Airport. To the south the site is bounded by the A40 (T) beyond which lies the residential development of Prendergast on the northern side of Haverfordwest. To the north and east lies further agricultural land and the village of Crundale. The site formerly comprised several fields of pasture, defined by straight-sided hedgerow boundaries. The area requiring an archaeological watching brief comprises only part of the development site, around areas of identified archaeological remains. This covers an area of approximately 1.2 hectares, extending across the southern half of one of the fields towards the eastern side of the whole development area. This area is relatively level at approximately 33m to 35mOD, falling away slightly beyond this area to the north, towards the line of a local stream.

2.1.3 Topographically the site lies in a relatively level area between the Western Cleddau River, which lies circa 600m to the west of the development site, and the Cartlett Brook, which lies circa 400m to the east. The historic core and centre of Haverfordwest lies at the point the Cartlett Brook and Western Cleddau meet, some 1.7km to the south on the western side of the Western Cleddau. Haverfordwest also lies at the current tidal limit of the Western Cleddau, which flows out to sea via Milford Haven.

2.1.4 The underlying bedrock of the proposed development area comprises mudstones of the Slade and Redhill Formation, partly overlain to the east by sand and gravel glacio-fluvial deposits (BGS 2016).

2.1.5 The development plans for this site include the construction of the main school building to the west, along with sports pitches to the east (including this watching brief area), landscaping and associated infrastructure.

3 Historical Background

3.1.1 The historical background to this area has been researched as part of the initial Desk-Based Assessment of the development site (Poucher 2016a). The following is taken from that report, which was based on a search of archaeological sites within 1km of the development site, with some amendments following additional research.

Prehistoric: Palaeolithic (c.450,000 – 10,000 BC), Mesolithic (c.10,000 – 4400 BC), Neolithic (4400 BC – 2300 BC), Bronze Age (2300 BC – 700 BC) & Iron Age (700 BC – 43 AD)

3.1.2 There is currently no recorded evidence of Palaeolithic activity either within the 1km search area, or indeed the wider landscape. Similarly, there is no record of Mesolithic activity within the 1km search area, however a small number of flint artefacts of likely Mesolithic date have been recovered to the east. Two flint tools have been recovered from the vicinity of Merryborough 3.3km away (Hart et al 2015), and four flint artefacts near Woodbarn Rath 5.6km away (Page 2004), both on higher ground overlooking Fenton Brook. Activity during these periods is likely to be largely based on hunter-gatherer societies who moved through the landscape, leaving little trace of their presence in this area.

3.1.3 During the subsequent Neolithic period there appears to have been a gradual move away from hunter-gatherer societies with groups starting to become more settled and adopting agriculture to varying degrees. Sea levels also began to approach their current levels, with the potential for maritime activity along the Cleddau River. Evidence of Neolithic activity can be seen in the pit circle at Cottesmore to the northwest and the Stone Park chambered tomb just to the north of Haverfordwest Airfield, but there are no recorded Neolithic sites within the 1km search area around the site. Some early Neolithic flints and pottery were also found in close proximity to the Mesolithic flints at Merryborough Farm (Hart et al 2015), some of which may be associated with a variety of pits and ditches. Similarly, early Neolithic flints and pottery were recovered from pits a further 2.5km to the east, to the south of Wiston (Hart & Busby 2015).

3.1.4 The appearance of several monuments and earthworks in the wider area, dated to the Bronze Age, may suggest population levels were increasing during this period. Evidence of settlement sites are rare, although these have been recorded at Priory Farm Cave near Pembroke, and the former Esso refinery site further down the Cleddau. Within the surrounding landscape, burnt mounds and funerary monuments in the form of burial mounds have been recorded, such as the Leachpool Barrow to the northeast, and a possible round barrow 750m to the north of the proposed scheme (PRN 4539). Within the development site there is a possible standing stone (PRN 13075) that initially was thought to be potentially Bronze Age in origin. A removed standing stone is recorded on historic mapping in the neighbouring field to the northeast, and a further possible standing stone is also recorded 550m to the south (PRN 13066). Such features are somewhat enigmatic and may have been used as funerary and ritual markers during the Bronze Age. Few such sites have been excavated, but some of those that have, Bronze Age finds and occasional burials have been recorded in association with the stones. Stone were however erected for a variety of reasons in many different periods, sometimes as boundary markers, and often as rubbing stones for cattle. PRN 13075 was subsequently investigated further, see below.

3.1.5 There are no recorded Iron Age sites within the 1km search area, however Crowhill Rath, an Iron Age promontory fort overlooking the Cleddau valley, lies just over 1km to the west. In the wider landscape Iron Age monuments are largely dominated by defensive

sites (determined by local topography unlike that of the development site). However, undefended sites are also evident, such as the late Iron Age settlement recorded at nearby Shoals Hook, to the east of the proposed scheme (Poucher, 2015).

Roman (AD 43 – c. AD 410) & Early Medieval (c. AD 410 – AD 1086)

3.1.6 There are no recorded Roman sites within the 1km search area, however, the picture of activity in this area during the Roman period is a changing one. The recent discovery of a Roman Fort at Wiston (Meek & Wilson 2013) to the east indicates an early military presence in the area. A Roman road runs westwards from this fort, but the line is soon lost and it is not clear where this route would have crossed the Cartlett Brook to the east of the development site. The undefended Iron Age enclosure at Shoals Hook also continued in occupation into the Roman period (Poucher 2015), and Roman era finds have been recorded within Haverfordwest to the south.

3.1.7 The early centuries after the end of Roman administration in Wales are not well documented, and no early medieval sites are recorded within the 1km search area. This area lay within the emerging kingdom of Dyfed following the end of the Roman era, which was subsumed into the larger realm of Deheubarth in the early 10th century. The closest recorded activity of this period is possibly the chapel (with cemetery) at the Iron Age hillfort of Rudbaxton Rath (2.3km to the northeast), which although medieval in date, may have its origins in the early medieval period.

Medieval (1086-1536)

3.1.8 The town of Haverfordwest was founded in the early twelfth century in the shadow of the castle, which may have been built in 1110 by Tancred the Fleming. The town originally grew up around the northern and western sides of the castle and became known as Castleton. The town prospered as a port for the import and export of cloth and wool and attracted merchants from all over southern Pembrokeshire. In 1220 Haverfordwest was raided by Llewellyn the Great, who succeeded in burning the town 'right up to the castle'. In response to this a murage grant was issued and town walls were constructed by 1270. There were originally five gates into the town, plus another into the castle: these include North Gate located on the site of the modern roundabout where Thomas Parry Way meets North Street Mews; and St Martin's Gate which lay close to St Martin's Church.

3.1.9 The town continued to prosper into the fourteenth century and became one of the largest towns in Wales and a thriving port, which traded with England and the continent. In 1349 the town was hit by the Black Death which decimated the population, killing nearly half the inhabitants of Haverfordwest. The prosperity of the town inevitably suffered; however, it remained the main port for this part of Pembrokeshire and became the county town in the 15th century, with suburbs expanding across the river to the east.

3.1.10 There is no indication that medieval settlement extended into the development area, indeed there are no recorded medieval sites within the 1km search area. It is possible however that the site lay within the agricultural hinterland surrounding the town. There is some suggestion that the field layout in this area may have medieval origins (Landmap description), although evidence of a potential medieval open-field system is better evidenced to the northeast around Crundale.

Post-Medieval (1536 – 1899) & Modern (1900 – present day)

3.1.11 In the post-medieval period Haverfordwest attracted wealthy local landowners who built townhouses to complement their country estates. In the late 18th and early 19th century the town underwent an extensive programme of rebuilding and many of the Regency style buildings that still exist today date from that period. Industry grew up in the early nineteenth century and there were several mills and an iron forge in the town in the early 1800s, while new quays were added to the port to allow an expansion in trade. This however soon went into decline as new ports were established lower down the Cleddau, and the arrival of the railway in 1853 further reduced the role of Haverfordwest as a centre for trade, commerce and industry. The settlement at Crundale appears largely to have been established in the later post-medieval period, and the recorded archaeological sites in the area include many 18th to 19th century houses (PRNs 17774, 24366 & 60000), farmsteads (PRN 44898 & NPRN 30233) and the early Victorian country house at Glanafon (PRN 20962/60001). By this period this area was firmly agricultural in character, and some of the field boundaries defining the site area may have been established during this period. Some small-scale industrial activity is also indicated by the presence of several small quarries recorded in the 19th century (PRNs 44908, 44909, 46911 & 46913).

3.1.12 The area around the proposed development site is likely to have changed little into the 20th century, until the advent of the Second World War. RAF Haverfordwest Airfield was established to the north of the development site. Construction initially began in 1941 but the airfield did not become fully operational until 1943, when it then became home to No.3 (Coastal) Operations Training Unit, training in reconnaissance skills. In 1944 they were replaced by No.4 Refresher Flying Unit, delivering aircraft throughout the country. This unit was disbanded later the same year and replaced at the start of 1945 by No.8 Operations Training Unit who continued training in general reconnaissance. An RAF Aircrew Holding Unit was the last to be based at the airfield before it closed in November 1945. The airfield was reopened as a civilian airfield in 1952 and is still operational. The RAF airfield consisted of three runways, with bomb stores to the north, technical and training areas to the east, and accommodation to the south. One such accommodation block was established within the development and watching brief area, identified on air ministry plans as Site 11 (PRN 102563). This consisted of separate barrack blocks and latrines for airmen, sergeants and officers, along with a picket post or watch hut. Prior to development the picket post (PRN 28541) and sergeant's latrine (PRN 28542) survived as standing structures, with concrete footings of the sergeants and officer's barracks also surviving.

4 Previous Investigations

4.1.1 An initial archaeological desk-based assessment of the development area was produced by Archaeology Wales (Poucher 2016a). As well as addressing the visual impact of the development, this assessment identified eleven sites of specific archaeological interest within the development area. These comprised an extant standing stone (PRN 13075), of potential Bronze Age origin, along with a second removed stone. The remaining sites all related to a former accommodation area (PRN 102563) associated with the Second World

War airfield to the north. This comprised a number of individual buildings clustered around the southern edge of a field on the eastern side of the development area, in close proximity to the extant standing stone.

4.1.2 Due to the potential for archaeological remains to be present a geophysical survey was undertaken across the whole development site (Poucher 2016b). A number of features were identified from the survey results. These however were largely attributed to removed field boundaries or activity associated with the Second World War encampment. One feature was identified as a possible pit or large post-pit of unknown origin, otherwise no features of potential prehistoric origin were identified. No features were identified in association with either the extant or removed standing stones.

4.1.3 In order to further identify and assess the potential archaeological resource within the development area an archaeological evaluation was subsequently undertaken (Poucher 2016c), targeting any potential features identified from the geophysical survey and previous research, as well as testing 'blank' areas from the geophysical survey results. Eight trenches were excavated: the evaluation confirmed that many of the linear features related to post-medieval field boundaries, or modern services associated with the Second World War buildings. Other identified features included a small un-dated ditch, stake holes and post holes spread throughout the site. These features are suggested to be post-medieval or modern in origin however, and agricultural in nature.

4.1.4 The evaluation also investigated the sites of the standing stones. No evidence of the now-vanished standing stone (HWMS 01) was revealed. The extant standing stone (PRN 13075) was shown to stand within a large pit or ditch terminus, exhibiting episodes of re-cutting. All excavated features contained post-medieval pottery, and it was suggested that the stone represented a glacial erratic found on site and erected in the post-medieval period as an opportunistic cattle-rubbing stone. However, the entirety of the feature within which the stone was placed was not revealed. No evidence of prehistoric activity was revealed within the evaluated area.

4.1.5 Prior to development work commencing the area around the standing stone was further investigated (Poucher 2016d) to ensure full excavation of this feature and the surrounding area. An area measuring 20m by 20m was cleared and investigated around the stone. This work confirmed that the stone sat within a foundation pit containing post-medieval pottery, suggesting a likely erection date in the 18th century. The foundation pit in turn cut into a larger pit also containing pottery of a similar date range. The dimensions of this larger pit suggest it represents the original site of the stone, which was then excavated and erected as a cattle rubbing stone in the 18th century. Four features found in the vicinity of the standing stone appear to represent postholes and pits of likely post-medieval and modern origin. No features or evidence of prehistoric activity was uncovered.

4.1.6 Also prior to development work commencing a Level 2 Building Survey was undertaken on the surviving Second World War structures within the site (Poucher 2016e).

5 Methodology

5.1 Watching Brief

5.1.1 The methodology for this archaeological watching brief follows the methodology set out within the approved WSI (Appendix III). In brief, this work included the following key elements:

5.1.2 Previous archaeological investigations across the entire development area suggested a limited potential for further archaeological remains across the site, however there remained the potential for remains associated with the post-medieval standing stone (PRN 13075) and Second World War encampment (PRN 102563) within the southern half of a field on the eastern side of the development area. As a result, it was agreed to target the archaeological watching brief within this smaller area.

5.1.3 An area measuring approximately 120m northwest-southeast by 100m southwest-northeast was stripped under archaeological observation using a tracked mechanical excavator equipped with a toothless ditching bucket. The area stripped is illustrated in Figure 2. Modern overburden, consisting of topsoil and plough soil, was removed down to the top of identified archaeological deposits or the natural soil horizon. This work also included the removal of the standing stone (PRN 13075) and remains of the Second World War structures (PRN 102563), which was also undertaken under archaeological observation.

5.1.4 It became apparent during this work that potential archaeological features were being exposed within the subsoil deposits. All areas where such features were identified were hand cleaned to prove the presence, or absence, of archaeological features and to determine their significance. Full excavation was subsequently undertaken on a number of the features uncovered across the stripped area (see Figures 3 and 4).

5.1.5 Written, drawn and photographic records of an appropriate level of detail were maintained throughout the course of the project. Recording was carried out using Archaeology Wales recording systems (pro-forma context sheets etc.), using a continuous number sequence for all contexts. Digital photographs were taken using cameras with resolutions of 10 mega pixels or above. Plans and sections were drawn to a scale of 1:50, 1:20 and 1:10 as required, see Figures 4 - 10.

5.1.6 The fieldwork was carried out by Hywel Keen, Andrew Shobbrook and Tom Jamieson in March 2017. The overall management of the project was undertaken by Philip Poucher. All works were undertaken according to CIfA's Standards and Guidance for an archaeological watching brief (2014) and current health and safety legislation.

5.2 Post Excavation

Finds

5.2.1 All artefacts were dealt with in accordance with the professional standards set in the Chartered Institute for Archaeologists' Standard and Guidance for the Collection,

Documentation, Conservation and Research of Archaeological Materials (2014). The artefacts were washed and dried or, where washing was not appropriate, dry brushed.

5.2.2 After washing or dry brushing all of the artefacts were assessed to ensure none needed immediate stabilisation.

5.2.3 The finds were initially assessed and reported on in 2017. Further analysis of the lithics was then undertaken in 2022. The results of all finds assessment and analysis are reported below.

Environmental Samples

5.2.4 A total of 10 bulk samples ranging between 3 – 11 litres in volume were recovered from 10 separate contexts across the site. The samples were processed using a recycled water flotation system, with the flot being collected using a 250 micron mesh and the residue using a 500 micron mesh. The flots and residues were initially visually examined for finds and larger residue fragments in 2017. They were further assessed by the environmental archaeologist in 2022. The results of both the initial and subsequent assessments are included in this report.

6 Results of the Watching Brief

6.1 Introduction (Figures 3; Photos 1 & 2)

6.1.1 Topsoil deposits were stripped from across the site area, comprising of a dark-brown silty-clay (183) measuring typically around 0.25m thickness. A small range of late post-medieval and modern ceramics were recovered from within the topsoil deposit, typical evidence of ploughing on the site since at least the mid-19th century. The removal of the topsoil deposit revealed the superficial geological natural subsoil (182/244), comprising mid-yellow silty-clay, with occasional inclusions of small sub-angular and sub-rounded stones. A large number of archaeological features were visible cutting into this deposit, including ditches, gullies, pits, stake holes and postholes.

6.1.2 These features were spread across a relatively large area; therefore, the site area was divided into a grid system based on 10m squares. The bulk of the archaeological features were recorded over an area measuring roughly 50m by 55m along the central and eastern part of the watching brief site. Several clusters of features were noted within this, and to aid in their description these clusters are described separately below and based on the grid layout of the site as illustrated on the accompanying plans (Figures 3 and 4).

6.1.3 Contexts 100-244 were allocated to the archaeological investigation. Descriptions of the contexts recorded during the fieldwork are summarised in Appendix I.

6.2 Grid squares 930E-950E/850-870N (Figures 4 & 5; Photos 3-9)

6.2.1 Towards the eastern edge of the site a concentration of twelve small post holes/stake holes were revealed, some of which contained fragments of flint. When viewed in plan these features formed a roughly semi-circular arrangement approximately 11m in

diameter, open to the south. These features appeared relatively ephemeral, but their arrangement would suggest they represent the truncated remains of some form of structure. The post holes/stake holes associated with this possible structure comprised of contexts [104], [106], [108], [114], [116] ,[118], [123], [125], [127], [129], [142] and [140]. Approximately 2m to the south lay a linear arrangement of three similarly sized post holes/stake holes that may be associated. These comprised contexts [110], [112] and [138].

6.2.2 Stake hole [104] was sub-circular in plan, having sharp cut sides leading to a pointed base. The feature measured 0.11m in diameter by 0.18m in depth and contained a single fill of mid grey-brown clay-silt (105).

6.2.3 Post hole [106] was sub-oval in plan with sharp cut sides leading to a flat base. The feature measured 0.18m in diameter by 0.07m in depth and contained a single fill (107). Fill (107) comprised a compact light-brown clay-silt containing abundant small sub-rounded stone inclusions.

6.2.4 Sub-circular stake hole [108] hard sharp cut sides leading to a pointed base and measured 0.05m in diameter by 0.07m in depth. Within the stake hole a single fill was recorded (109), which comprised a plastic mid grey-brown clay-silt containing some moderate amounts of charcoal flecks.

6.2.5 Sub-circular post hole [114] measured 0.15m in diameter by 0.15m in depth, with sharp cut sides leading to a flat base. Fill (115) comprised of a firm mid-brown clay-silt containing rare flecks of charcoal.

6.2.6 Post hole [116] was circular in plan with sharp cut sides continuing to a flattish base. The feature measured 0.15m in diameter by 0.15m deep and contained a single of mid-brown clay-silt (117).

6.2.7 Sub-circular stake hole [118] measured 0.25m long, 0.26m wide by 0.35m in depth and contained a single fill (119) comprised of mid-brown clay-silt with occasional flecks of charcoal.

6.2.8 Post hole [123] was sub-circular in plan with straight cut sides leading to a slightly irregular base, measuring 0.50m in diameter by 0.35m in depth. A light yellowy-brown clay-silt (124) had formed within the feature containing occasional inclusions of possible burnt-clay fragments along with some rare flecks of charcoal.

6.2.9 Post hole [125] comprised a small shallow oval cut with a distinct break of slope leading to sides that blended in with the base to form a generally concave cut. The feature measured 0.50m long, 0.40m wide, and 0.10m in depth and contained a single fill (126) of light-brown clay-silt. Two fragments of flint were recovered from within this deposit. One fragment was unworked, the other has been identified as a debitage flake.

6.2.10 Stake hole [127] was sub-circular in plan with sharp cut sides that continued to a pointed base, measuring 0.12m in diameter by 0.18m in depth. The single fill (128) comprised a reddish-brown clay-silt, containing very rare charcoal flecks with occasional small angular gritty inclusions.

6.2.11 Circular post hole [129] measured 0.29m in diameter by 0.05m deep, with sharp cut sides leading to a flattish base. Two separate fills were recorded within the confines of the post hole. The thin lower fill (131) comprised a pale grey clay, which was overlain by a mid-brown silty-clay (130) which contained natural flint pebbles.

6.2.12 Stake hole [140] was sub-oval in plan with sharp cut sides, measuring 0.08m by 0.05m. The feature was not fully excavated, but a single fill was recorded, comprising mid gritty brown clay silt (141), which contained rare flecks of charcoal.

6.2.13 Circular post hole [142] measured 0.14m in diameter by 0.14m in depth, with sharp cut sides leading to a flat base. It contained a single fill of mid-brown silty-clay (143).

6.2.14 Sub-circular stake hole [110] had sharp cut sides leading to a pointed base and measured 0.05m in diameter by 0.12m in depth. The single fill (111) comprised a mid-brown grey-silty clay, containing some rare flecks of charcoal and some very small gritty inclusions.

6.2.15 Sub-circular stake hole [112] measured 0.06m long by 0.04m wide, and 0.12m in depth. The stake hole had a sharp break of slope on all sides and contained a single fill of mid grey-brown silty-clay (113).

6.2.16 Sub-oval stake hole [138] measured 0.05m in diameter by 0.8m deep and contained a single fill of mid grey-brown clay-silt (139).

6.2.17 To the south of these features lay a series of relatively large irregular features. Upon further investigation however the irregular plan, edges and base of these features, combined with the sterile nature of the infilling material, indicated they represented the remains of tree-boles.

6.3 Grid squares 930E-950E/870N-880N (Figures 4 & 6; Photos 10-17)

6.3.1 To the north of the semi-circular spread of post and stake holes described above were a number of circular, sub-circular and linear features that represent the remains of three pits [202], [207] & [236], along with several post holes [209], [211], [213], [215] & [234] and one curvilinear gully [217]. A further sub-linear pit [197] and post hole [195] were also recorded to the east.

6.3.2 A relatively large sub-oval pit [202] was located at the northern edge of this cluster. The pit measured 4.40m long by 1.8m wide and 0.46m deep. The pit was orientated north to south and had sharp rounded corners on both its northern and southern points. The earliest fill (233) found within the base of the pit comprised a light yellowish-brown clay. This material was very similar in nature to, and almost indistinguishable from, the surrounding subsoil (244) through which the pit had been cut and was therefore considered to represent deliberate backfilling relatively soon after the creation of the pit. The fill contained natural flint pebbles and a four flint flakes.

6.3.3 The remaining fills of the pit appeared to represent a complex series of re-cutting events. Stratigraphically the earliest of which would appear to be a curvilinear re-cut [205]. This re-cut was confined to the western edge of pit [202], measuring approximately 1.2m long, 0.72m wide by 0.12m deep, cutting earlier deposit (233). The infilling material (206)

comprised a dark reddish-brown silty-clay, containing rare flecks of charcoal and a single flint blade.

6.3.4 On its southern side, cutting into the original pit fill (233), was a small re-cut pit or post hole [209]. This was circular in plan, with sharp to moderate sloping sides leading to a concave base. The pit/post hole measured 0.53m in diameter by 0.21m in depth and contained a single fill of dark reddish-brown silty-clay (210). A direct relationship to [205] could not be established, however similarities in infilling material may suggest the two are contemporary. It is also possible that this pit/post hole may be associated with two smaller stake holes [213] and [215] lying immediately to the southeast. Both stake holes measured 0.14m in diameter by 0.04m in depth. Stake hole [213] contained a single fill (214) of moderately compacted dark reddish-brown silty-clay with frequent flecks of charcoal. Stake hole [215] contained a very similar fill (216). Both stake holes fills were also similar to the fill (210) of [209].

6.3.5 Within the confines of pit [202], the fill (206) of re-cut [205] appears to have been truncated by re-cut [240]. This re-cut measured 3m long by 1.40m wide and 0.48m in depth. Only the western side of the cut was visible, which was irregular with a gentler gradient of cut along the upper edge, whereas the lower edge was sharper and more pronounced. This irregular cut may indicate two episodes of re-cutting, but no distinction between the infill materials could be determined. This infill material consisted of a moderately compacted light to mid-brown silty-clay (239), containing abundant inclusions of small charcoal flecks and small sub-angular stones. This fill also appeared to be similar in nature to the natural subsoil (244) and the lower fill (206) of pit [202].

6.3.6 Sequentially the latest event of re-cutting within pit [202] is represented by a curvilinear gully [203], which ran along the eastern edge of the pit and truncated earlier cuts [202], [240] and [209]. The gully was orientated north to south, measuring 3.40m long by 0.42m wide and 0.37m deep. An artefactually-rich deposit had formed within the confines of the gully, comprising a dark brown silty-clay (204) with small sub-angular stone inclusions and frequent charcoal flecks. The deposit contained worked flint in the form of blades and blade fragments as well as flakes and unworked chunks and date to the late Mesolithic – early Neolithic period. A bulk sample retrieved from this deposit produced further flint flakes and occasional hazelnut shell fragments.

6.3.7 Sub-linear pit [207] was located roughly 1m to the west of pit [202] and was orientated northwest by southeast, measuring 2.06m long by 0.46m wide and 0.08m deep. The pit had moderately sloping sides leading to an undulating base with a single fill of mid reddish-brown silty-clay (208). This fill contained a single flint blade.

6.3.8 Extending to the southwest of pit [207] was curvilinear gully [217], measuring around 4m in length, 0.08m wide and 0.10m in depth. The sides of the gully were sharply cut on either side leading to a narrow concave base. Within the gully a moderately compacted mid greyish-brown silty-clay had formed (218), which contained a natural flint pebble. A small circular post hole [234] was found cutting the base of gully [217] midway along its length and measured 0.14m in diameter by 0.17m in depth. The post hole contained a single fill of moderately compacted mid greyish-brown silty-clay (235).

6.3.9 Cutting the southern end of gully [217] was a sub-linear pit [236], measuring 0.60m long, 0.50m wide by 0.08m deep. This pit contained a moderately compacted light to mid-brown silty-clay fill (237). The positioning of this pit on the line of gully [217] might suggest a relationship between the two features. The infilling material would also suggest the gully widens at this point to accommodate the pit (and has been illustrated in section as part of the site archive).

6.3.10 Posthole [211] was located 0.40m to the northeast of gully [217] and was circular in plan. It measured 0.22m in diameter by 0.12m in depth and contained a single fill of moderately compacted mid to dark brown silty-clay (212). A fragment of worked flint was recovered from this context.

6.3.11 Somewhat detached from this cluster of features, lying approximately 10m to the east and close to the eastern boundary of the site, lay a sub-linear pit [197] and stake hole [195].

6.3.12 The sub-oval stake hole [195] measured 0.18m in diameter by 0.20m in depth and contained a single fill (196) comprised of dark grey-brown clay-silt with frequent flecks of charcoal.

6.3.13 Sub-linear pit [197] measured 2.6m long, 1.10m wide by 0.40m deep with gentle to moderately sloping sides leading to a concave base. The pit was orientated northeast to southwest and contained two separate fills (198) and (199). Basal fill (198) comprised a mixed orange and blackish-brown silty-clay and contained fragments of heat-affected clay and charcoal suggesting the deposit may represent hearth waste or waste material from a similar burnt deposit. Overlying (198) was a mid to dark brown silty-clay (199), which appeared to have formed through natural silting.

6.3.14 Running along a northwest to southeast alignment within these grid squares was a line of post holes containing very similar loose dark brown silty-clay fills. Late post-medieval or modern pottery fragments and coal were recovered from these fills. These features have been interpreted as marking a fence line of relatively recent date.

6.4 Grid square 910-920E/870-880N (Figures 4 & 5; Photo 18)

6.4.1 Located to the west was a single, relatively isolated, post hole [132]. This post hole was circular in plan, measured 0.40m in diameter by 0.08m in depth and had a sharp break of slope on the southern side with a more gradual break of slope on the northern edge, leading to a shallow concave base. The post hole contained a single fill (133) of pale greyish-brown clay-silt, which contained occasional flecks of charcoal.

6.5 Grid squares 930-950E/890-910N (Figures 4 & 7; Photos 19-24)

6.5.1 Lying to the northeast was a cluster of sub-circular, sub-rectangular and linear features that represent the remains of three medium to large sized pits along with several post holes/ stake holes and one irregular shaped linear gully.

6.5.2 Sub-oval pit [219] was orientated northwest to southeast, measuring 2.70m long by 2.20m wide and 0.50m in depth and had steep sides leading to a flattish base. This feature

contained two fills. The initial fill (220) comprised a mid reddish-brown gritty clay-silt, containing frequent inclusions of small sub-angular stones along with 20 pieces of worked flint including blades and blade fragments, flakes and undiagnostic worked flint fragments. Further flake fragments were recovered from the bulk sample obtained from this deposit alongside occasional charred hazelnut shell fragments. The secondary fill (238) comprised a compact light-brown clay which contained occasional small sub-angular stones and charcoal flecks throughout. This material appears similar in composition to the natural subsoil (244) and is thought to represent backfilled natural subsoil.

6.5.3 Spread around the northern and western edges of this pit were a total of 14 stake holes. These stake holes proved too small to effectively excavate and therefore were recorded in plan and given the group number [243]. Their occurrence in close proximity to this pit, whilst not noted elsewhere, would suggest they are related in some way.

6.5.4 Approximately 0.20m to the south of pit [219] was post hole [221], sub-oval in plan with steep cut sides leading to a concave base, measuring 0.56m long by 0.42m wide and 0.18m in depth. Contained within the post hole was a light-brown clay-silt (222), which contained frequent flecks of charcoal and flint blade and flake fragments.

6.5.5 Located to the northwest of pit [219] was the remains of a second large, elongated pit [186], measuring 2.6m long by 1.18m wide and 0.50m deep and orientated northeast to southwest. The pit had a steep, straight western edge, with a shallower, concave eastern edge. A narrow U-shaped gully ran along the base of the pit, close to the eastern edge of the base. The pit contained two separate fills (242) and (187). The lower fill (242) had formed within the basal gully, and comprised a mottled blackish brown silty-clay, containing rare small sub-angular stones. Overlying (242) was a mottled light greyish-orange silt-clay (187), which contained moderate inclusions of small sub-angular stones and two undiagnostic worked flint fragments. The bulk sample obtained from this context produced occasional highly eroded charcoal fragments and a single tiny undiagnostic glass fragment. This upper fill appears to have formed through alluvial silting rather than immediate backfilling.

6.5.6 Cutting through pit [219] was an irregular-shaped gully [188], orientated roughly north to south, measuring 5.40m long by 0.40m wide and 0.14m deep. The gully had a shallow V-shaped profile and contained a fill of blackish-brown silty-clay (189) containing occasional flecks of charcoal.

6.5.7 Approximately 2.2m to the north lay a shallow pit [176], sub-rectangular in plan with moderate sloping sides leading to an undulating base. The pit measured 1.10m long, 1m wide by 0.14m in depth and contained a single fill of mid-brown silty-clay (177) that appears to have formed through natural silting. This fill produced a flint flake and flake fragment. A later stake hole [178] was found cutting into the eastern side of the pit. The stake hole was circular in plan, measuring 0.16m in diameter by 0.20m in depth and contained a single fill of mid to dark brown silty clay (179).

6.6 Grid squares 910-920E/900-910N (Figures 4 & 8; Photos 25-26)

6.6.1 Situated along the northern edge of the site were two relatively isolated features comprising pit [148] and post hole [200].

6.6.2 Sub-circular pit [148], measuring 1.10m long, 1.02m wide by 0.15m deep, had moderate to steep slightly concave sides leading to a flattish base. The pit contained a mid-brown clay-silt (149), containing rare flecks of charcoal and a single flint flake fragment.

6.6.3 Sub-circular post hole [200] measured 0.40m long by 0.32m wide and was 0.29m in depth with irregular sides leading to a narrow concave base. The post hole contained a single fill (201) of mid reddish brown silty-clay, which contained frequent flecks of charcoal and occasional small sub-angular stones. The colour of the fill suggests it may have contained heat-affected waste material or was subject to in situ burning, although the charcoal retrieved from sample was negligible.

6.7 Grid squares 890-900E/890-900N (Figures 4 & 9; Photos 27-28)

6.7.1 Located centrally within the watching brief area but appearing to define the western limit of revealed prehistoric archaeological activity, a cluster of features were revealed consisting of a possible hearth, several post holes/stake holes and a later double-ditched field boundary.

6.7.2 Stake hole [184], measured 0.07m in diameter by 0.09m in depth and contained a single fill of light-brown clay-silt (185) containing very rare flecks of charcoal. Constructed over the top of stake hole [184] was a possible hearth [158]. The cut of this feature was sub-circular in plan, 1.10m in length by 0.48m wide and 0.07m in depth, although it had been truncated along its western edge by a later field boundary ditch [160]. The feature had smooth straight sloping sides leading to a flattish base and contained a single fill formed of a brownish-red silty-clay (159) with frequent inclusions of small pieces of charcoal. The reddish colouration and charcoal content indicate this deposit has been heat-affected and may be the remains of hearth material, however a lack of discolouration in the underlying subsoil may suggest this heating may not have taken place in situ. No finds were recovered from this deposit and only a negligible quantity of charcoal was identified in sample.

6.7.3 Surrounding feature [158] was a cluster of six separate post holes/stake holes, contexts [166], [168], [170], [172], [174] and [180].

6.7.4 Oval post hole [166] measured 0.30m long, 0.20m long, 0.05m in depth and contained a single fill of mid grey-brown clay-silt (167) containing occasional charcoal flecks and small angular gritty inclusions.

6.7.5 Sub-circular stake hole [168] measured 0.10m in diameter by 0.18m in depth and contained a single fill of mid grey-brown clay-silt (169) with occasional flecks of charcoal.

6.7.6 Circular stake hole [170], measuring 0.10m in diameter by 0.10m deep , contained a single fill (171), which comprised a mid grey-brown clay-silt with occasional inclusions of charcoal flecks with some rare inclusions of small sub-angular stones.

6.7.7 Circular stake hole [172] measured 0.11m in diameter, by 0.15m in depth and contained a single fill of mid grey-brown clay-silt (173) containing frequent inclusions of small flecks of charcoal.

6.7.8 Circular stake hole [174], measuring 0.10m in diameter by 0.15m deep, contained a single fill of mid grey-brown clay-silt (175) that contained frequent inclusions of charcoal flecks.

6.7.9 Oval stake hole [180] measured 0.40m long, 0.20m long, 0.05m in depth and contained a single fill of mid grey-brown clay-silt (181) containing occasional flecks of charcoal. This stake hole was located adjacent to feature [158], and the southern part of the infilling material (181) displayed a similar reddish-brown colouring suggesting the deposit had also been heat-affected.

6.7.10 Two separate linear ditches, orientated northeast/southwest and running parallel to each other, were also recorded within this area. The westernmost ditch [160] was 3m wide and ran the length of the exposed area. The ditch was only partially investigated, identifying an infilling deposit of mid-brown clay-silt (161). The easternmost ditch [164] had similar dimensions and infilling material (165); this feature was not further investigated. These ditches were also recorded during the archaeological evaluation (Poucher 2016c) and geophysical survey (Poucher 2016b), identified as the remains of a post-medieval double ditch field boundary. The date of construction for the field boundaries is unknown, no datable material was retrieved during the current watching brief, although late post-medieval material (19th century) was recovered from an upper ditch fill during the previous evaluation (Poucher 2016c). These boundaries may originally be associated with 17th century enclosures, but are marked on 19th century map sources, and were removed in the mid-20th century, possibly in association with the establishment of the military encampment.

6.8 Standing stone (Figures 4 & 10; Photo 29)

6.8.1 The standing stone PRN 13075 was located approximately 36m to the west of the westernmost cluster of archaeological features represented by feature [158] and surrounding post holes and stake holes. This area had been stripped and excavated prior to groundworks commencing (Poucher 2016c & Poucher 2016d), although the standing stone itself was not removed until the current phase of groundworks. The previous investigations concluded that the standing stone appeared to represent a glacial erratic that had been excavated out of the subsoil deposits, with the excavation pit subsequently backfilled, and then the stone erected in re-cut foundations at one end of the backfilled excavation pit. Pottery recovered from both the excavation pit and the foundation pit suggested this was undertaken in the 18th century, indicating that the stone was likely erected as a cattle rubbing stone.

6.8.2 Upon removal of the standing stone during the current phase of works the remaining material within the previously recorded pits were removed. A second smaller pit [135] was revealed immediately beyond the western end of the original excavation pit [134]. Pit [135] was sub-circular in plan, measuring 0.40m in diameter by 0.10m in depth. A single fill was recorded within the confines of the pit and comprised a pale greyish-brown silty-clay (136). It was suggested during excavation that this pit was cut by the larger pit

[134], however this relationship remains uncertain. The removal of the standing stone, previous excavations of pit [134] and the relatively rapid excavation of the remaining material within pit [134] may have disturbed any clear relationship. When compared to plans drawn when the stone was in situ, pit [135] lies within the later, 18th century, foundation pit for the standing stone.

6.9 Later Features (Figure 4; Photos 30-33)

6.9.1 A number of late post-medieval and modern features were also revealed throughout the watching brief area, associated either with late post-medieval agricultural activity or the Second World War encampment.

6.9.2 Two large linear ditches: [160] and [164], as described in section 6.7.10, crossed the site running on a northeast – southwest orientated. These ditches have previously been identified as a late post-medieval field boundary.

6.9.3 Running along the western side of these ditches, and occasionally cutting into the westernmost ditch, was a narrow stone-filled ditch [162], containing a ceramic drainage pipe. This feature, also identified in the previous evaluation (Poucher 2016c) represented a wastewater pipe installed after the removal of the field boundary and is most likely associated with the Second World War encampment. Three further similar narrow service trenches were also identified crossing the site in an east-northeast to west-southwest direction. These ditches were also stone-filled and clearly modern in origin, their location was noted but they were not investigated further. Towards the southeast corner of the site of narrow curvilinear ditch was recorded [100], 12m long, 0.10m wide and 0.08m deep. It contained a single fill (101) of mid brown clay-silt with coal inclusions. The coal inclusions, along with the dimensions and location of the feature, suggests it is associated with services supplying the Second World War encampment.

6.9.4 The standing and visible above ground remains of the Second World Encampment have been recorded previously (Poucher 2016e) prior to their removal. The groundworks revealed that the structure sat upon concrete and brick foundations, which rested directly onto partially excavated subsoil deposits (244).

7 Finds

7.1 Lithics *Julie Birchenall*

Introduction

7.1.1 This report summarises the results of an analysis of the lithic assemblage recovered during archaeological watching brief investigations related to the development of Haverfordwest Welsh Medium School, Withybush, Haverfordwest,(NGR SM 9626 1744). The archaeological watching brief was carried out by Archaeology Wales Ltd in March 2017.

7.1.2 The lithic assemblage indicates human presence and activity at the site throughout early – mid prehistory. The nature of the worked flint suggests activity at this site during the

late Mesolithic and Neolithic. The Late Mesolithic period is identified through the change from broad blade to narrow blade lithic technology, in Wales this change is dated to 7740-7610 BC (Lillie 2015:129). The date of activity at the site, as evidenced by the lithic assemblage, is suggested between 7740 – 4000 BC. This date range places activity at the site firmly in the Late Mesolithic period and perhaps edging towards the terminal phase of the Mesolithic into the early Neolithic period.

Analysis and Methodology

7.1.3 The following analyses were undertaken to determine the character and the chronology of the assemblage:

Typological Analysis was carried out to formally identify tool types, investigate the chronology of the tool production/use at the site and link the tools to possible tasks and activities being carried out at the site. The definitions used throughout the analysis are those detailed by Wickham-Jones (1990) and Butler (2005).

Raw material colour and grain type was recorded. This can give information regarding the procurement of raw materials and scales of mobility of the communities producing the artefacts. This analysis also offers potential for identifying any preference of certain materials for certain tasks.

Heat affected pieces were identified and recorded. It has been suggested that distribution, and/or, proportion of burnt stone, in conjunction with the distribution of other tools, can be used as an indicator of domestic activity within a lithic assemblage (Edmonds et al. 1999, 54; Richards 1990).

Reduction sequence stage is inferred from the extent of cortex (the original outer surface of a flint nodule/pebble) on each piece. To record this each piece was assigned to a class ranging from 1-5, with 5 being the highest percentage of cortex. This allows the identification of the level of flint working taking place at the site from initial working of a nodule (earliest stage) to tool production (final stage). Based on the assumption that the first stage in the reduction of any block of raw material would have been the removal of the cortex, the amount of cortex on the dorsal face of an artefact can be used to indicate the stage of the stone working process or reduction sequence that it represents (Andrefsky 2008, 103).

Where cortex was present this was also used to determine the source of the flint i.e., water eroded pebble, glacial till, chalk.

Refitting was undertaken on the whole assemblage. As stated by Schurmans (2007) Refitting programmes can be utilised to address certain archaeological questions: Stratigraphic integrity, Technological process and Spatial organization.

The Assemblage

7.1.4 The analysed lithic assemblage consists of a total of 273 pieces, 185 of these were identified as unworked natural pieces of flint and tested and discarded nodules. The tested nodules were categorised as natural flint nodules with < 3 flakes removed.

Included in the above total count is one piece of anthracite, two pieces of worked chert and 88 pieces of worked flint.

Description	Count	%
Blade	16	5.86
Blade Fragment	11	4.03
Core	1	0.37
Flake	17	6.23
Flake fragment	20	7.33
Microburin (failed)	1	0.37
Anthracite	1	0.37
Chert flake	2	0.73
Chunk worked	19	6.96
Natural chunk/nodule	185	67.77
Total	**273**	**100**

Table 1: Lithics assemblage overview

Context No.	Feature/Location Grid	Lithics
101	[100]	Natural pieces x16
126	[125]	Natural pieces x 2
130	[129]	Natural pieces x 2
133	[132]	Natural pieces x 1
136	[135]	Natural pieces x 2
137	Modern backfill	Natural pieces x 1
149	[148]	Natural pieces x 3, Flake fragment x 1
150		Natural pieces x 1
169	[168]	Natural pieces x 1
177	[176	Complete Flake x 1, Flake fragment x 1
182	900E/860N	Natural pieces x8
182	900E/870N	Natural pieces x3
182	910E/860N	Natural pieces x11
182	910E/870N	Natural pieces x5
182	910E/880N	Natural pieces x2
182	910E/890N	Natural pieces x10, Bladelet x1
182	920E/860N	Natural pieces x9 chert Natural Piece x1
182	920E/870N	Natural pieces x5, flake fragments x2
182	920E/890N	Natural pieces x5, Flake x1
182	920E/900N	Natural pieces x3

Context No.	Feature/Location Grid	Lithics
182	930E/870N	Natural pieces x1, Anthracite x1, worked chunk x1, Flake x1
182	930E/870N	Natural pieces x10,worked chunk x1, Blade fragment x1
182	940E/850N	Natural pieces x 2
182	940E/860N	Natural pieces x3
182	Within 1m of [190]	Natural pieces x6, Bladelet x1
182	Within 1m of [200]	Natural pieces x8, Fragments x2, Bladelet x1, Bladelet fragment x1
183	Topsoil	Natural pieces x16
187	[186]	Natural pieces x3, Fragments x2
189	[188]	Natural pieces x2
191		Natural pieces x1
199	[197]	Natural pieces x1
204	[203]	Natural pieces x5, Fragment x1, Bladelet x1,Flakes x3, Core x1
204	[203]	Natural pieces x7, Chert x1, Blade Frag x3, Blade x2, Fragment x1, Flake x1, Flake Frag x1, Chunk x1
206	[205]	Natural pieces x1, Blade x1
208	[207]	Natural pieces x2, Blade fragment x1
210	[209]	Natural pieces x1, Fragment x1
212	[211]	Fragment x1
216	[215]	Natural pieces x1
218	[217]	Natural pieces x1
220	[219]	Natural pieces x6, Blade x7, Blade Frags x2, Flake x1, Fragments x5.
222	[221]	Natural pieces x2, Blade fragments x1, Flakes x2
224		Natural pieces x4, Flake x1
233	[202]	Natural pieces x6, Chunks x2, Flakes x3.
233	[202]	Natural pieces x3, Flake x1
235	[234]	Natural pieces x1
238	[219]	Natural pieces x4.
238	[219]	Natural pieces x12, Blade x1, Blade fragment x1
U/S	NE Corner	Natural pieces x15, Blade frag x1, Microburin fail x1
U/S	North of Site	Natural pieces x3
U/S		Blade fragment x1

Table 2: Lithics quantification

7.1.5 As can be seen in Table 1 above unworked, natural and tested nodules constitute the majority of the assemblage. The tested nodules are natural pieces of flint with flakes removed and then discarded. This is generally evidence of testing nodules for suitability of the material for tool production but can also indicate expedient tool production where only the required flake/blade blank is removed and the rest of the nodules is discarded. The small size of these natural/tested pieces suggests that the flint material is being

sourced from geological glacial till deposits. Geological glacio-fluvial deposits of sands and gravel overlie the bedrock geology to the east of the site (BGS 2022) and this is the likely source of the raw lithic materials used and found at the site.

7.1.6 Within the assemblage, worked chunks and fragments of blades/flakes of flint were identified but the lack of technological traces and the fragmentary nature of these pieces limit the possible interpretation of these pieces further than recognising them as being worked in some way. The pieces which fall into this classification are probably pieces of debitage from tool production.

Tools

7.1.7 A single core was identified within the assemblage. This core had two opposite platforms from which blade like removals had been made. Again, this core is from quite a small natural nodule of flint and evidences that tool blanks were being made at the site. The blades and flakes within the assemblage, although not formal tools, further indicate tool production of an expedient nature being undertaken at the site. Flakes and blades are removed from a core at an early stage of the tool production/reduction process.

7.1.8 A single failed microburin was identified within the assemblage which indicates mid to late Mesolithic activity although quite ephemeral these artefacts are very distinctive and chronologically suggestive. A microburin is the waste product of microlith (Mesolithic composite tool) production. The example found within this assemblage is a narrow bladelet which has been notched to allow the bulb of percussion to be removed and the blade snapped in a particular place. If successful the snapped off piece would have been retouched into a microlith which would have been mounted alongside other microliths into an arrow shaft. Unfortunately, this piece did not snap as desired and is left as a notched bladelet (failed microburin).

Raw Materials

7.1.9 The raw materials within the assemblage are dominantly flint with the addition of two pieces of chert. These pieces of chert have both been worked but due to the nature of the material technological traces are not obvious. All of the raw materials most probably originate from the nearby sand and gravel deposits.

7.1.10 The grain or coarseness of the flint material was recorded and 98% of the flint was determined as fine grain (some with inclusions) with only 2% being a coarser medium grain flint. These percentages show a preference for the use of fine grained flint for use in tool production and selective raw material procurement.

7.1.11 In fact, the variety in colour and material throughout the assemblage fits with flint sourced from mixed deposits. According to the British Geological Service there are such deposits within a kilometre of the site and these are the likely source of this material. Therefore, it appears that the flint being worked at the site was sourced relatively locally.

Heat Treatment

7.1.12 All pieces were inspected for traces of heat affection and a total of 12 pieces were identified as being affected by heat. This small number is not adequate to evidence domesticity in itself. The heat affected pieces were all from different contexts and so in this case do not offer any great possibilities for furthering interpretations.

Reduction Sequence

7.1.13 To determine the stages of the technological process being undertaken at the site levels of cortex on worked flint were recorded and analysed. The results of this analysis are presented in Table 3 below.

Cortex Level	%
Tertiary	62
Secondary	6
Primary	17

Table 3: Percentages of technological process stage pieces

7.1.14 Primary pieces have at least one face totally covered with cortex, whilst secondary pieces retain at least 50% of cortex, these two categories are pieces from the early stages of the reduction sequence. The tertiary pieces are from later in the reduction sequence and many of the small debitage pieces are included in this grouping. These results as a whole are generally representative of a mixed lithic assemblage. This evidences that the whole technological process of nodule reduction to tool production was being undertaken at the site.

7.1.15 The cortex present on the primary flakes is thin and abraded which further supports the interpretation of the material being sourced from sand/gravel deposits rather than from chalk deposits.

Refitting

7.1.16 Each piece was laid out and grouped by colour and material to aid the re-fitting process. Three re-fit groups were identified within the assemblage. Two of these refitting groups are break refits of broken flakes/blades which have been snapped into two pieces. These break refits could be due to modern damage during excavation, or trampling damage or purposeful breaking in antiquity. The remaining refit group is a group of one nodule and three flakes which refit onto the nodule. These technological refits again evidence in-situ expedient flint knapping/tool production. All of the refitting pieces are from the same context (182 area 900e/860N). Furthermore, the location of these refit groups within the same context indicate the stratigraphic integrity of this context (182).

Use-wear Analysis

7.1.17 All identified complete blades and flakes were examined to identify any use wear traces. Use wear analysis is used to determine the tasks which the flint artefacts were used for in prehistory (Butler 2005). Unretouched pieces were selected in attempt to identify any

form of utilisation within the assemblage. None of the pieces examined exhibited any sign of use wear traces.

Discussion

7.1.18 The lithic assemblage recovered from the site represents human presence and activity at the site during the Late Mesolithic to Earliest Neolithic (7740-4000BC). This is evidenced mainly through the microlithic technology which is typologically Late Mesolithic. The Mesolithic period was a dynamic period with sea levels rising dramatically and climate change leading to vegetation change (Lillie 2015). The people inhabiting Wales during this time had to adapt their lifestyle to accommodate these changes and it is in the Later Mesolithic that inland/upland landscapes are utilised more commonly (Lillie 2015). The size of the assemblage, the Late Mesolithic date and the 'upland/inland' location of the site fits into a pattern of other later Mesolithic short term campsites (Lillie 2015:169). The secure context (182) of the majority of the assemblage evidences in-situ tool production perhaps in a shelter structure as attested by the presence of stake holes. The temporary or short lived nature of the occupation is further supported by the infrequent heat affected pieces.

7.1.19 The variability in raw material types indicates that gravel/sand beds were being targeted for flint procurement, and these would have been available in close proximity to the site.

Statement of Significance

7.1.20 The recovered assemblage from this scheme of works adds to knowledge of the Late Mesolithic period in Wales. As identified in the Research Framework for the Archaeology of Wales: Palaeolithic and Mesolithic (Walker et al 2017) the investigation of the use and occupation of inland, upland and open area locations during the Mesolithic is imperative to gaining fuller understandings of this period in Wales. The distribution of Mesolithic sites in Wales is important to understand the changes in land use during the period and the levels of intensity of occupation throughout the Mesolithic (Walker et al 2017). The majority of known Late Mesolithic sites in Wales are located on the Pembrokeshire coastline (Lillie 2015, Walker et al 2017) and this causes an inherent bias in the data. The site which is the focus of this report adds information of regional and national significance in relation to the use and occupation of inland, upland sites in Wales.

7.1.21 The variety of raw materials (flint and chert) at this site also provides insights into another research question highlighted by Walker et al (2017), that of which raw materials were being used in Wales at specific times. This aspect is linked to interpretations of social organisation and actions (Walker et al 2017). The study of raw materials and their sources offer opportunities to investigate how people in prehistory understood the landscape, moved around the landscape and utilised particular sources for particular tasks. This assemblage provides information on flint sources being utilised (local, low range). When further investigated and combined with data from other find spots/sites this evidence has the potential to be of regional and national significance to understandings of social organisation during the Mesolithic period in Wales.

7.1.22 The assemblage analysed in this report is therefore of regional and national significance when all aspects of the location, tool types and raw materials are considered in accordance with the Research Framework (Walker et al 2017).

7.2 Ceramics

7.2.1 A small quantity of ceramics (12 sherds) was recovered during the course of the archaeological watching brief. These were considered along with a further 29 sherds from the four evaluations trenches (Trench 4, 5, 6 & 7) within the same area.

7.2.2 The pottery fragments were post-medieval or modern in date. There were a number of pottery fragments discovered in associated with the standing stone PRN 13075 that appeared to date largely from the 18th century (Poucher 2016c), suggesting the stone was erected during that period. The remaining post-medieval fragments appear consistent with late post-medieval plough soil. One fragment of modern pottery was retained, which comprised the lower half of a white-glazed ceramic coffee cup. The base of the cup was stamped with a swastika and German army mark, dating it to the Second World War. It seems likely this constituted some wartime memorabilia used by the occupants of the encampment.

7.3 Miscellaneous

7.3.1 The remaining finds were all from topsoil deposits (183) and comprised fragments of undiagnostic clay pipe stems and a button.

7.3.2 The button, which appears to be brass or gold-plated, bears a heraldic insignia on its face, showing a lion rampant, holding a quincunx symbol with the Latin motto: “Qui male cogitat male sibi” which translates roughly to: “Who thinks ill, ill to him.” The motto reportedly belongs to Laugharne family. It is likely that this is a livery button dating to the late 17th century (Whitcher 2022 from Siddons 2007, 171-181).

8 Environmental Samples *Dr Rhiannon Philp*

8.1 Overview

8.1.1 The results detailed below represent the material collected in environmental bulk samples, based on areas of specific interest within the site. A total of 10 samples were recovered in samples of up between 3-11 litres and returned to Archaeology Wales’ Finds and Environmental processing facility, where they were processed using a recycled water flotation system. During the flotation process, a 500µm mesh was used to collect the residue and a 250µm mesh to collect the flot.

8.1.2 Once dry the residues were sorted for artefacts and ecofacts. Material was extracted from all residues greater than 2mm and separated according to type. The flots were scanned by eye for environmental remains.

8.1.3 Quantities of remains are described as occasional + (<5 items), moderate ++ (5-25 items), frequent +++ (25-100 items) or abundant ++++ (>100 items) and reported in Table 4 below:

Sample No.	Context No.	Flint debitage	Charcoal	Charred plant remains	Other	No finds?	Flot?
1	159		+				Charcoal +
2	190					YES	
3	201		+				Charcoal +
4	220	++	+	+ hazelnut shell			Charcoal +
5	204	+	+	+ hazelnut shell			Charcoal +
6	239					YES	Charcoal +
7	210		+				Charcoal +
8	208		+				Charcoal +
9	187		+		Glass +		Charcoal +
10	189					YES	Charcoal +

Table 4: Bulk sample results

8.2 Flot Report

8.2.1 All recovered samples contained low levels of highly eroded and fragmented charcoal consistent with residual inclusion. None of the charcoal is suitable for radiocarbon dating. No other finds of archaeological value were present within the flots

8.3 Residue Report

8.3.1 Samples <2> (190), <6> (239) and <10> (189) produced no material at all. A small amount of flint debitage was recovered from samples <4> (220) and <5> (204). Occasional very small fragments of highly eroded charcoal were recovered from all other samples and a single, tiny fragment of undiagnostic green glass was recovered from sample <9> (187). Occasional hazelnut shell fragments were recovered from samples <4> (220) and <5> (204).

8.4 Summary

8.4.1 The samples produced very little archaeologically significant material and are likely representative of residual material rather than primary deposits. This means they are of little interpretive value, as they are likely to have been moved and have the potential to have come from elsewhere. They are therefore not secure sources for dating.

8.4.2 The exception to this might be the hazelnut shell fragments recovered from (220) and (204). Both these contexts also produced confirmed flint artefacts dating to between the late Mesolithic to early Neolithic periods (see lithics report; section 7.1). The hazelnut shell could date to this period, however the very limited quantity and low levels of

accompanying charred material would again indicate that the material is likely residual and therefore not secure enough for direct dating.

8.4.3 No further work is required relating to the environmental samples from this site.

9 Discussion and Conclusions

9.1 Overall Interpretation

9.1.1 The archaeological remains recorded during the watching brief and previous investigations in this area have identified three broad periods of activity on the site. These include late Mesolithic – early Neolithic activity, possibly associated with a temporary or seasonal camp; post-medieval agricultural activity including field divisions and the erection of a cattle rubbing stone; and modern activity in the form of a Second World War encampment.

9.2 Prehistoric Activity

9.2.1 Late Mesolithic – early Neolithic activity is evident on the site through the presence of worked flint, which has been recovered from a number of different feature as well as from topsoil and subsoil deposits. While the majority of this is likely to be residually included, as evidenced by the fairly sparse quantities in most of the features, and therefore only indicate a general presence within the area of the site, the lithics specialist has identified the presence of three re-fit groups related to natural subsoil (182), within the vicinity of grid point 900E/860N which might indicate a specific area of in situ activity. It is therefore possible that features within the vicinity of these finds could relate to this period. There are no features within the direct vicinity of this find spot, but clusters of pit, post holes and stake holes are present to the southwest, many of which contain flint material pertaining to the late Mesolithic – early Neolithic period.

9.2.2 Some localised intercutting features and re-cutting into pit fills indicate some stratigraphic relationships within specific features, however broadly speaking there is no conclusive evidence that the site was re-used over long periods of time, and it is possible the features relate to a single occupation event. The location of the site gives it access to a range of local resources. It occupies a relatively level and low-lying fertile area, with water courses within a few hundred metres. Mesolithic material has also been recovered around the Merryborough and Wiston areas within 4-6km to the east, occupying valley-top locations extending further inland.

9.2.3 A total of three clusters of undated cut features were identified during excavation. While no conclusive evidence suggests all the features within this cluster are of the same date, groupings and lithics evidence implies possible relationships, as outlined below:

Cluster 1

9.2.4 A cluster of pits, gullies, post holes and stake holes was present within the southeast corner of the site. Many of the post holes and stake holes had similar profiles and fills, tentatively indicating a possible relationship. These features were all relatively shallow

and it appears likely that their full extents have been truncated through later agricultural activity.

9.2.5 Diagnostic flint dating to the late Mesolithic – early Neolithic period was recovered from post hole [209] and [211]; pits [202], [205] and [207] and gully [203] within this area. In most cases these were individual occurrences and so difficult to definitively identify as primary deposits. However, in the case of gully [203], a large number of worked flint pieces were identified, which might indicate close proximity to flint working activity.

9.2.6 Within this cluster, a number of the post holes and stakeholes appear to form a semi-circular shape, which might be indicative of a shelter like structure. However, no dating evidence is available to confirm their relationship or period of origin.

Cluster 2

9.2.7 A second cluster of pits, a gully and a number of very small stake holes was identified within the northeast section of the site. Diagnostic flint was recovered from pits [186] and [219]; post holes [148], [176] and [221]; and in the vicinity of post hole [220].

9.2.8 Of particular note was the assemblage of 17 late Mesolithic – early Neolithic flint tools and debitage flakes recovered from the fills of pit [219]. This pit appeared to be surrounded by number of small stake holes, which may be indicative of a lightweight structure associated with the pit. The presence of the flint including debitage might indicate a further flint working location on the site. Adjacent pit [186] also contained a small number of worked flint fragments dated to the same period.

9.2.9 The post holes containing flint were truncated and relatively isolated but have the potential to also be related to this phase of activity.

Cluster 3

9.2.10 The remaining cluster of features was located to the west of the site and comprised stakeholes and post holes arranged in an approximate semi-circle around a small pit [158]. A heat-reddened material within the pit and adjacent stake holes suggests the possibility of a hearth in the vicinity. Further evidence of activity in this area is likely to have been removed through subsequent post-medieval agricultural activity, the pit itself was truncated by a field boundary ditch. The surviving features all appear to have survived beneath the field hedgebank. Unfortunately, no dateable material was recovered from these features.

Regional Context

9.2.11 The Mesolithic, which is often sub-divided into the early Mesolithic (circa 10000-7600BC) and late Mesolithic (7600-4000BC), lies in a period when the climate began to warm following the end of the last Ice Age. Sea levels rose and vegetation changes allowed groups of hunter-gathers to exploit a wider range of land and marine resources. Evidence for activity throughout Britain during this period is relatively sparse, but the sites and finds that have been discovered would suggest settlement was largely concentrated

along coastal areas and river valleys, although some upland settlement is known in the late Mesolithic. This settlement pattern is evidenced by a general distribution map throughout Wales and can be seen clearly in Southwest Wales.

9.2.12 The distribution of Mesolithic sites in Southwest Wales is dominated by chance find spots of single, or small numbers of flint tools, predominantly in coastal areas. Pembrokeshire does however include some important sites where relatively large numbers of Mesolithic artefacts have been recovered. One of the more well-known examples exists at The Nab Head, in St Brides Bay (Page 2004). Thousands of flint tools and shale beads amongst other objects have been recovered from this site, and although no settlement evidence has been uncovered, the distribution of finds suggests tool manufacture and animal processing for food and skins, undertaken at specific locations. On the northern side of St Brides Bay, the largest collection of Mesolithic flints in the area have been found in fields at the head of a small valley at Penpant Farm, near Solva (Murphy & David 2013), where over 20,000 lithic artefacts have been recovered spanning the early to late Mesolithic. The Milford Haven estuary is also an area of relatively large numbers of chance find spots, with concentrations found at South Hook and Llangwm. At South Hook 336 flint artefacts were recovered from excavation work (Crane 2007) at the Esso Refinery. This site was multi-period, and the Mesolithic flints were not discovered in association with any cut archaeological features. Further up the estuary, near the Cleddau river, an assemblage of 1714 flint tools and debris have been recovered from the Llangwm area (Painter et al 2014). Again however, although identifying an area of tool manufacture and general activity, these artefacts have not been associated with specific archaeological features.

9.2.13 This site is therefore of great importance regionally, and potentially nationally, as the rare discovery of specific archaeological features associated with Mesolithic activity. This importance is highlighted in the Research Agenda for Wales: Palaeolithic and Mesolithic (2016). This site has the potential to increase the knowledge of the chronological framework of Mesolithic activity in the region, where the dating of terrestrial sequences is particularly rare. The analysis of discrete lithic assemblages from stratified and dated deposits is also stated as ‘badly needed’.

9.2.14 The ephemeral nature of the Mesolithic remains suggests these features are easily truncated and activity during this period is likely to have been more extensive (although each cluster of activity does appear to be associated with a deeper pit that has survived the post-medieval ploughing). The features exist largely along the eastern edge of the site, suggesting further activity is likely to extend eastward, beyond the development site. This area is currently pastureland but as it now lies between the developed school grounds and the B4329 the potential for this area to become developed in the future appears high. Given the likely extent of important Mesolithic remains, pre-development archaeological work in this area will most probably be required.

9.3 Post-medieval Activity

9.3.1 The evidence of post-medieval agricultural activity is largely detailed in the previous archaeological investigations of this site (Poucher 2016a-d). As detailed in section 6.8 a potentially earlier pit [135] was revealed in association with the standing stone PRN

13075, containing two fragments of unworked flint. However, it is not felt that this changes the initial interpretation of the stone as having been erected in the 18th century. The pit itself was located in the approximate location of the stones' foundation pit, which contained 18th century pottery. Given that residual flint fragments were also recovered from the modern backfill of the adjacent evaluation trench, then the flint within pit [135] cannot be considered secure dating evidence. Previous investigations suggest that the stone represents a recumbent glacial erratic, excavated out of the natural subsoil (represented by pit [134]), and placed upright within a foundation pit containing compacted material. Both the excavation pit and the foundation pit contained 18th century pottery, suggesting the stone was likely erected as a cattle-rubbing stone.

9.3.2 The layout of the former fields across the development site is recorded both on historic mapping and identified during the archaeological evaluation (Poucher 2016c). Within the current phase of works further evidence of a central field boundary was revealed.

9.4 Second World War Activity

9.4.1 The remains of the Second World War encampment PRN 102563, associated with RAF Haverfordwest Airfield, is also largely detailed in previous archaeological investigations (Poucher 2016e). When these structures were removed, the groundworks revealed a series of modern services associated with these buildings. In addition, it would appear the central field boundary was removed to allow for the encampment, replaced by a ceramic drain. A number of smaller service trenches were also revealed during the investigation; these ran between the WWII buildings and to the east-northeast in the direction of further Second World War encampments.

9.4.2 A row of modern postholes were identified on an east-southeast to west-northwest orientation, cutting through a group of Mesolithic features. This alignment of post holes [132] were interpreted as deriving from an old fence. The location would suggest this formed a boundary to the Second World War encampment (PRN 102563).

9.4.3 Two interesting WWII finds were recovered during the watching brief: a coffee cup with German army stamps, and a uniform dress button. Both objects have been retained. It is proposed to deposit these particular finds with the Pembroke Dock Heritage Centre, which have a collection of wartime memorabilia.

9.5 Storage and Curation

9.5.1 The site archive will be prepared in accordance with the Standards and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives (CIfA, 2014), Standards in the Museum Care of Archaeological Collections (Museums and Galleries Commission 1994), Guidelines for the Preparation of Excavation Archives for Long-Term Storage (UKIC 1990) and Archaeological Archives: A Guide to Best Practice in Compilation, Transfer and Curation (AAF 2007). The resultant archive will conform to guidelines described in Management of Research Projects in the Historic Environment (MoRPHE) (Historic England 2006) and the Wales-specific National Standards for Wales for Collecting and Depositing Archaeological Archives (WAT 2017).

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Maps

British Geological Survey	2008	The Rocks of Wales 1;250,000
Ordnance Survey	1889	1st edition map Pembrokeshire 1;2500
Ordnance Survey	1902	2nd edition map Pembrokeshire 1;2500

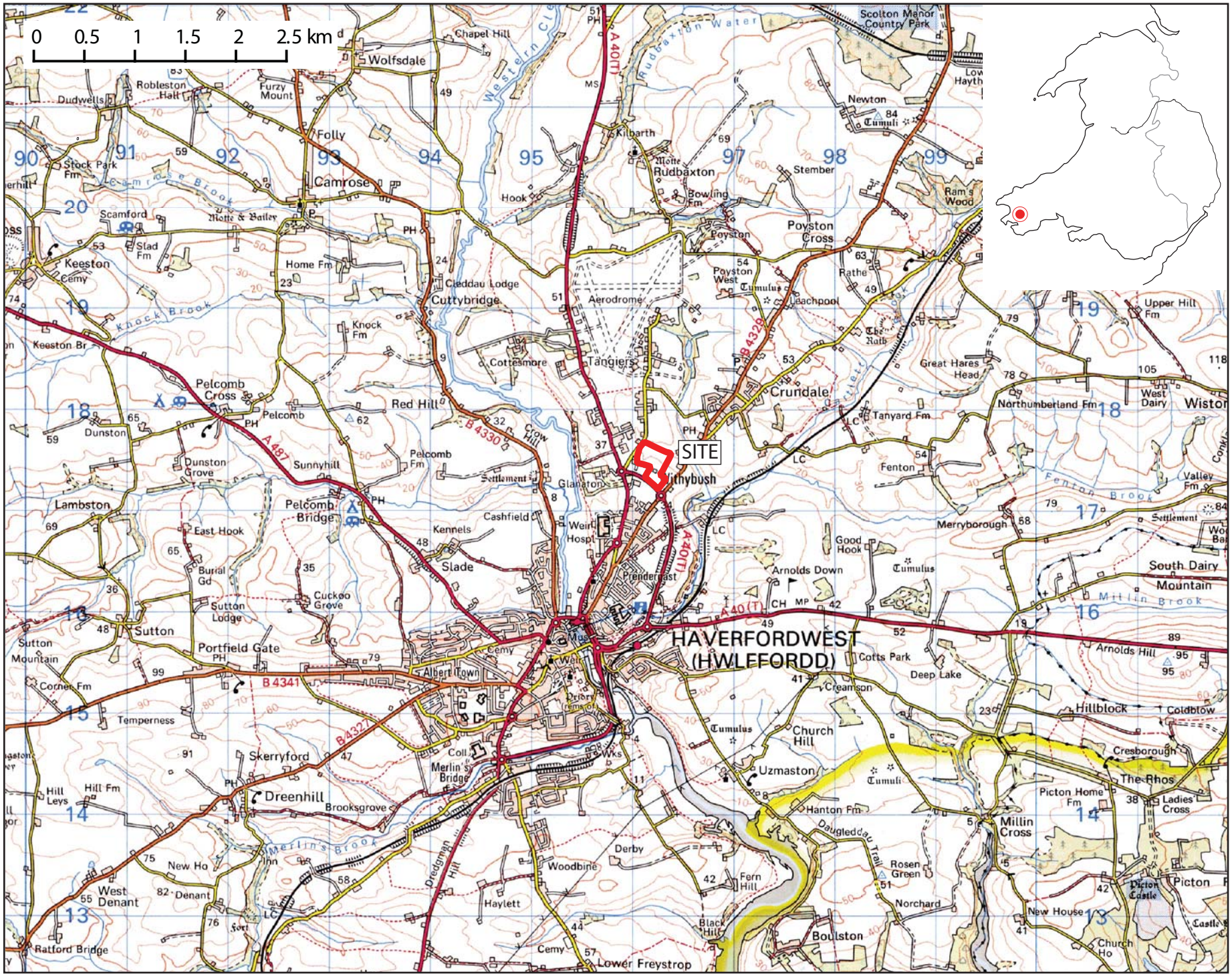


Figure 1: Location map, 1:50,000 @ A4

ARCHAEOLOGY WALES
Revealing the past, informing the future

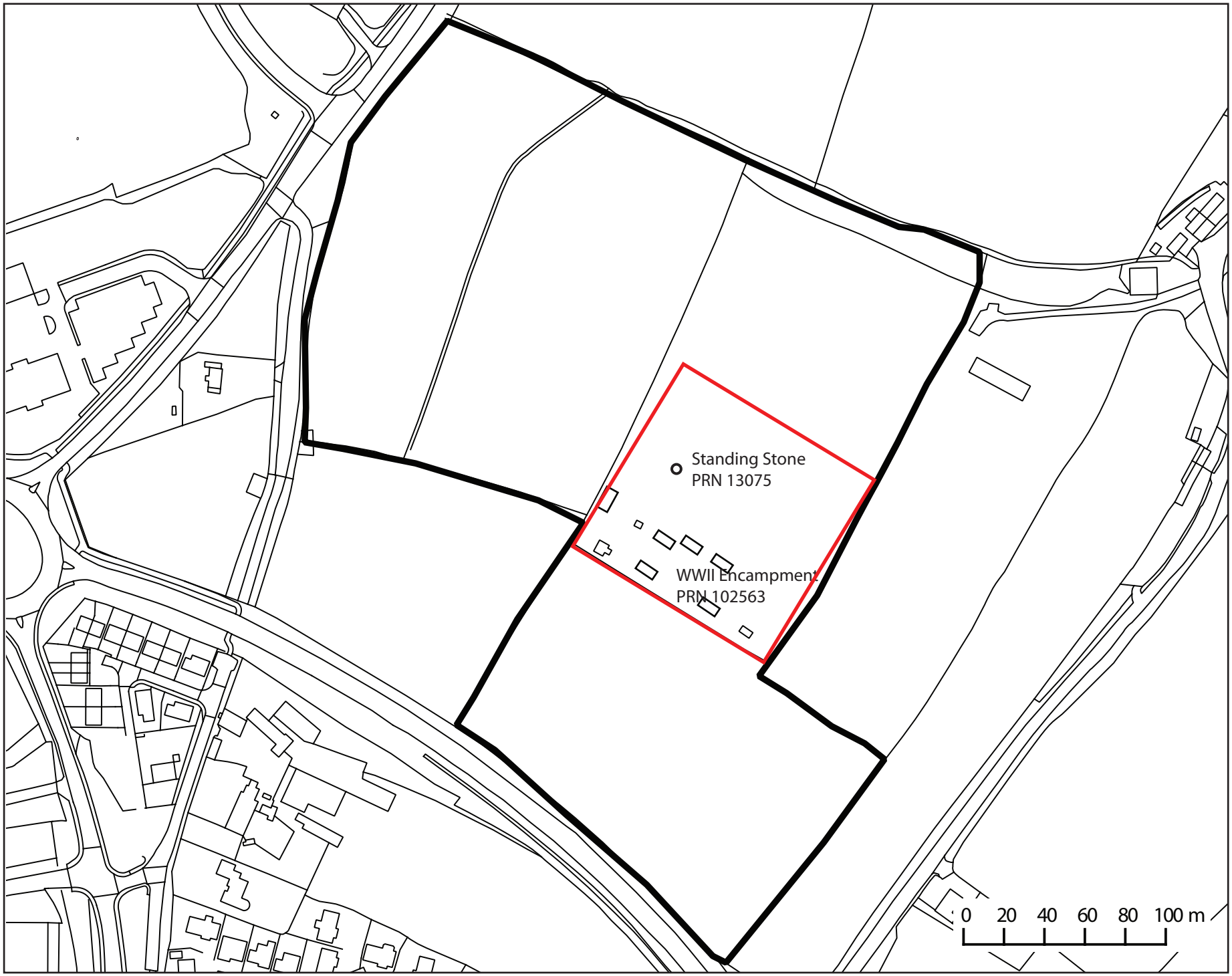
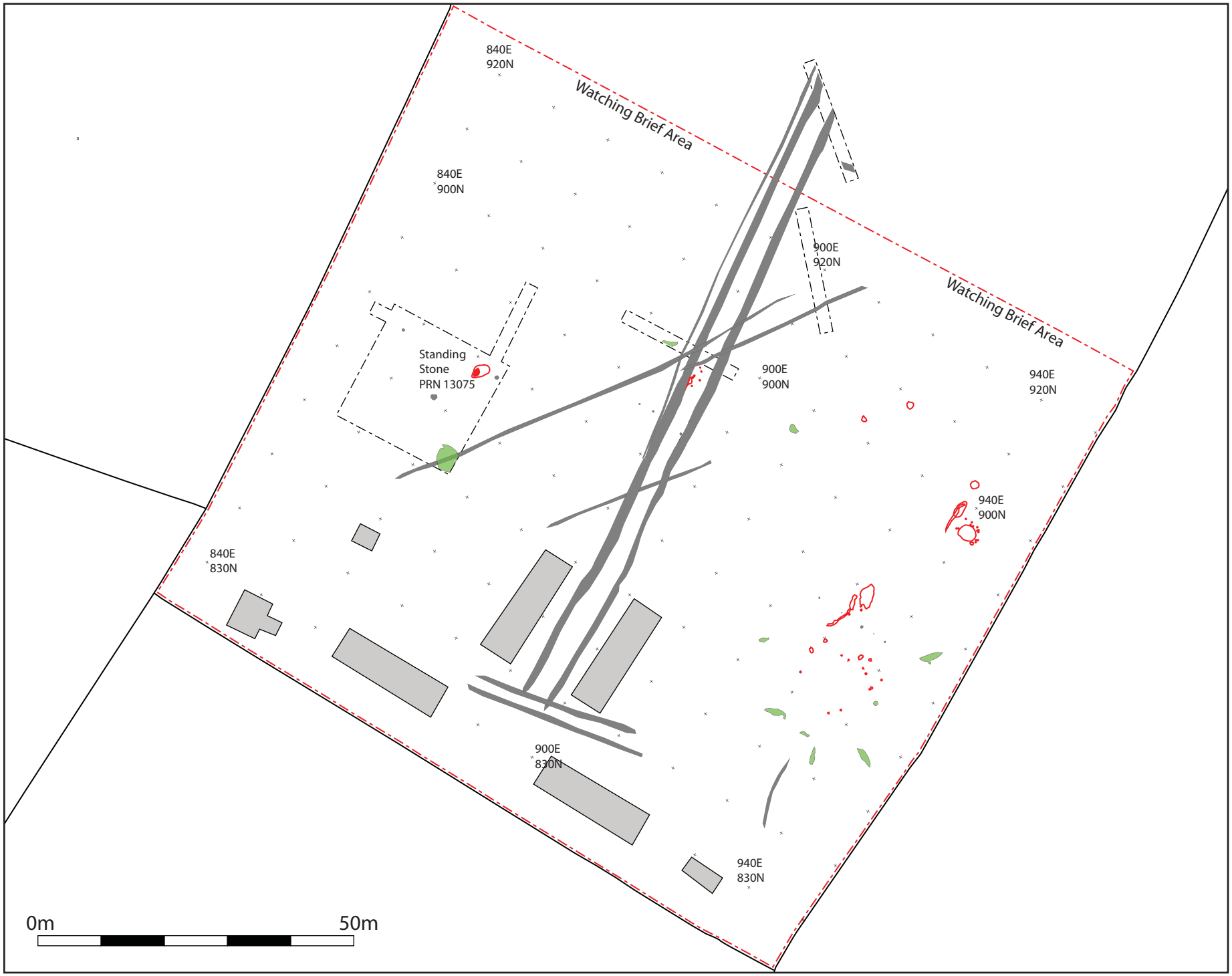


Figure 2: Site plan showing the development boundary in black, along with previously recorded archaeological features and the area within which the archaeological watching brief was undertaken (outlined in red).

1:2500 @ A4

ARCHAEOLOGY WALES
Revealing the past, informing the future



Archaeological Feature

WWII structure

19th/20th century feature

Natural Feature

Previously evaluated areas

Figure 3: Site plan showing layout of features identified during the archaeological watching brief.
Site grid is marked, identified archaeological features are shown in red.

1:800 @ A4

ARCHAEOLOGY WALES
Revealing the past, informing the future

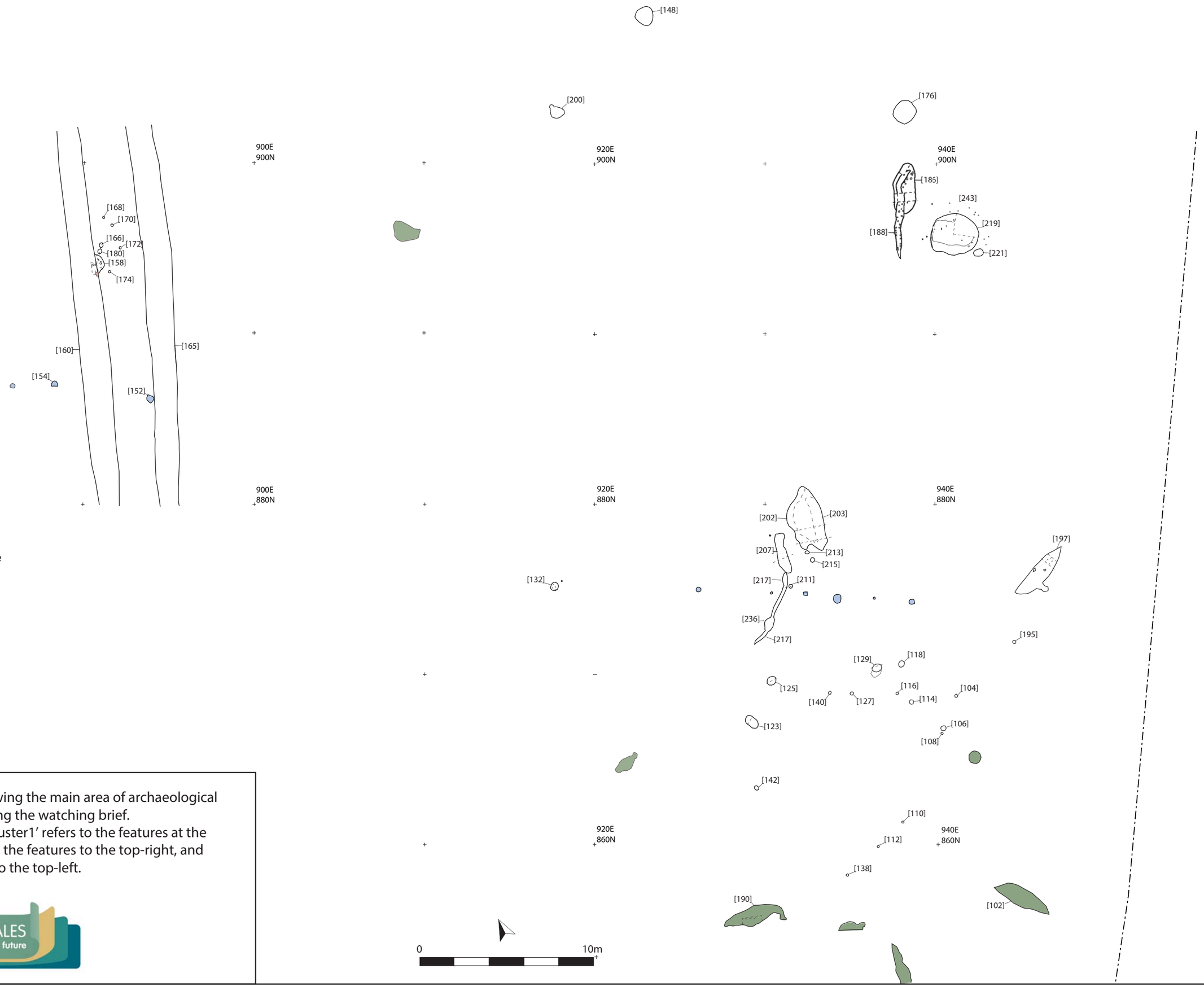


Figure 4: Site plan, showing the main area of archaeological features identified during the watching brief.
Within the main text 'cluster1' refers to the features at the bottom-right, 'cluster 2' the features to the top-right, and 'cluster 3' the features to the top-left.

Scale 1:200

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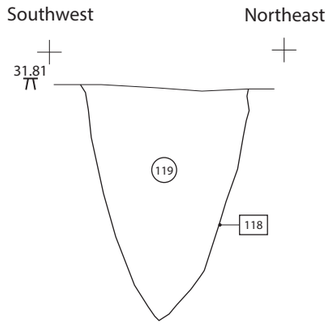
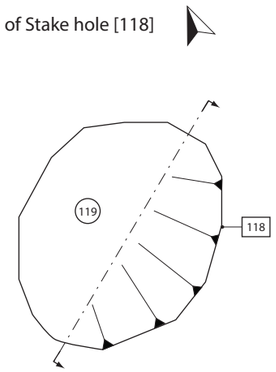
Revealing the past, informing the future

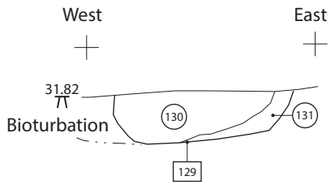
Section of Stake hole [118]



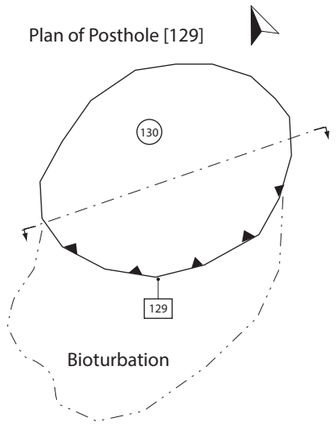
Plan of Stake hole [118]



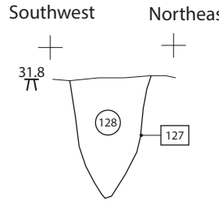
Section of Posthole [129]



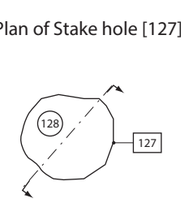
Plan of Posthole [129]



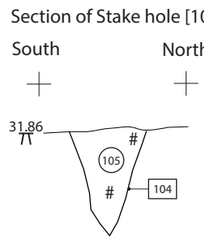
Section of Stake hole [127]



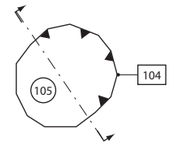
Plan of Stake hole [127]



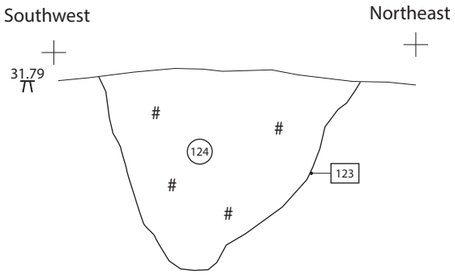
Section of Stake hole [104]



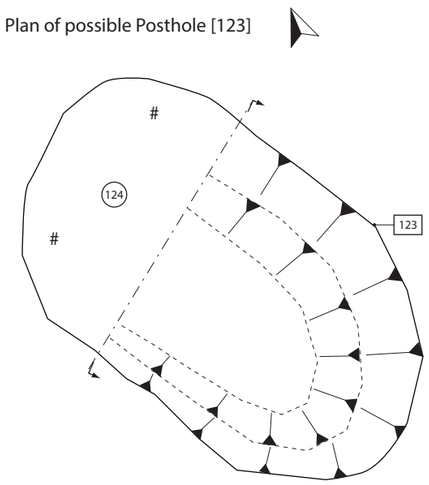
Plan of Stake hole [104]



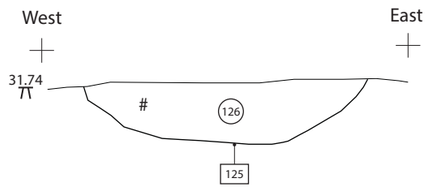
Section of possible Posthole [123]



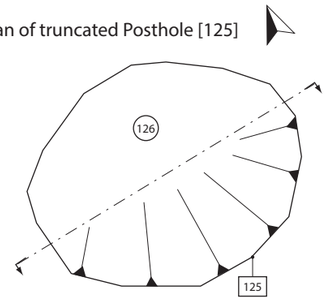
Plan of possible Posthole [123]



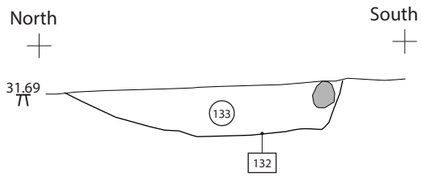
Section of truncated Posthole [125]



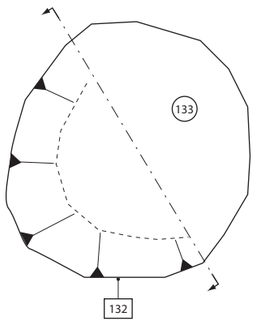
Plan of truncated Posthole [125]



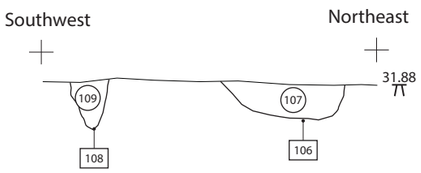
Section of truncated Posthole [132]



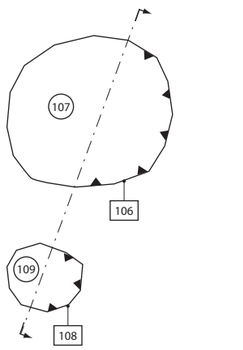
Plan of truncated Posthole [132]



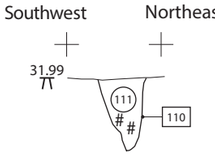
Section of Stake hole [108] and Posthole [106]



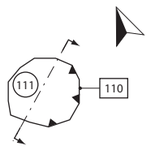
Plan of Stake hole [108] and Posthole [106]



Section of Stake hole [110]



Plan of Stake hole [110]



Key

[##] Charcoal flecks

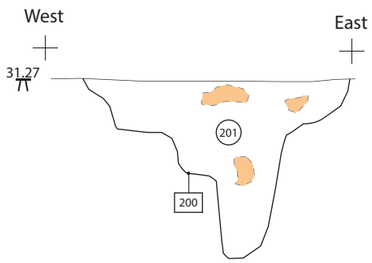
Note: all heights are metres above Ordnance Datum

0 1m

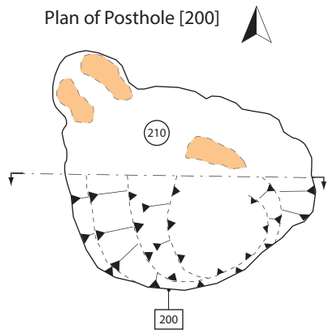
Figure 5
Plans & sections of Postholes [129], [123], [125], [132], [106] and Stake holes [118], [127], [104], [108] & [110]
Scale: 1:10 @ A3

ARCHAEOLOGY WALES
Revealing the past, informing the future

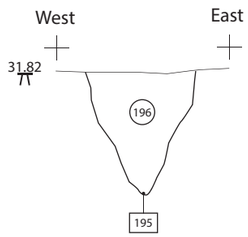
Section of Posthole [200]



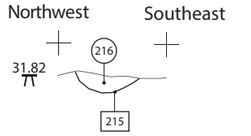
Plan of Posthole [200]



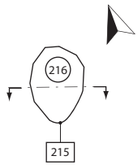
Section of Stake hole [195]



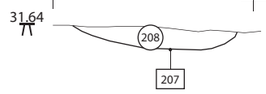
Section of Stake hole [215]



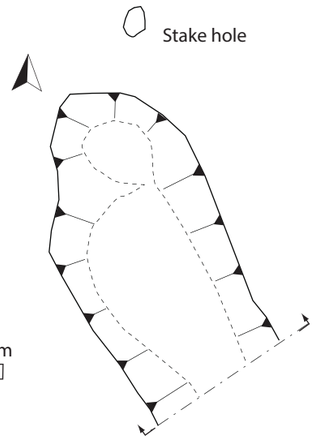
Plan of Stake hole [215]



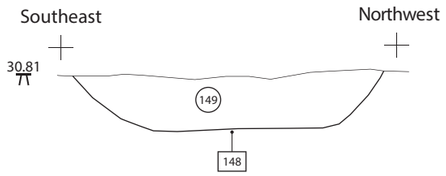
Section of Pit [207]



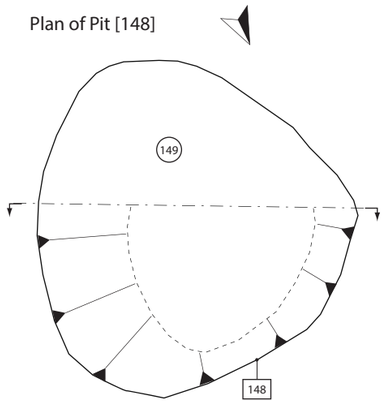
Plan of Pit [207]



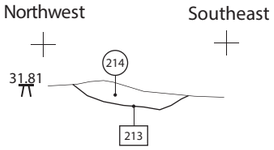
Section of Pit [148]



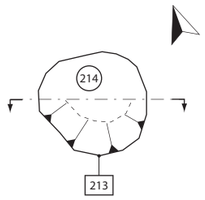
Plan of Pit [148]



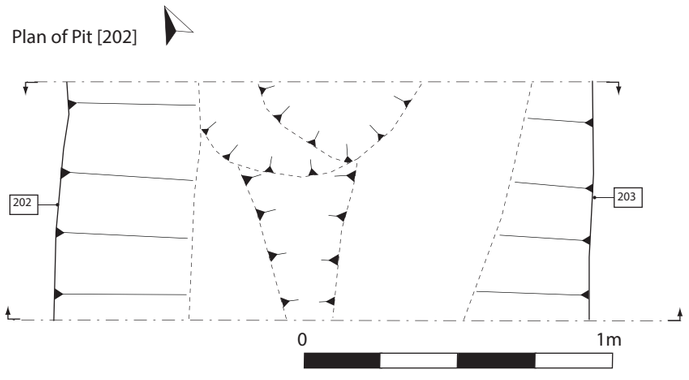
Section of Stake hole [213]



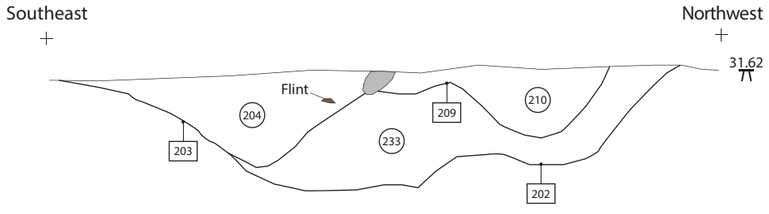
Plan of Stake hole [213]



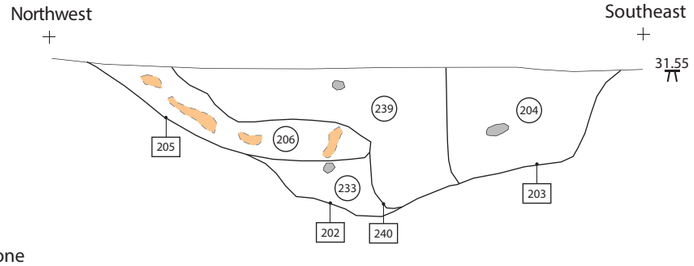
Plan of Pit [202]



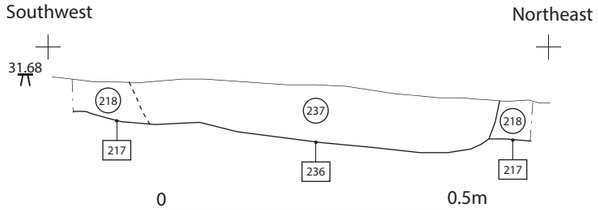
Section of Pit [202]



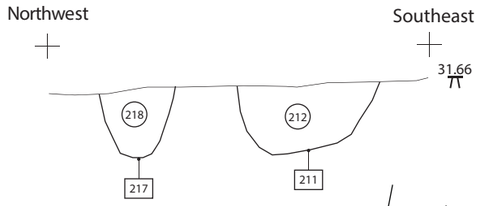
Section of Pit [202]



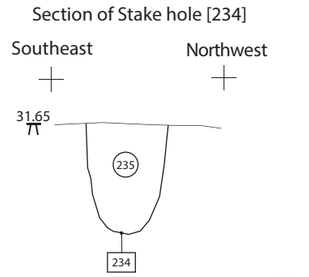
Section of Pit [236] and Gully [217]

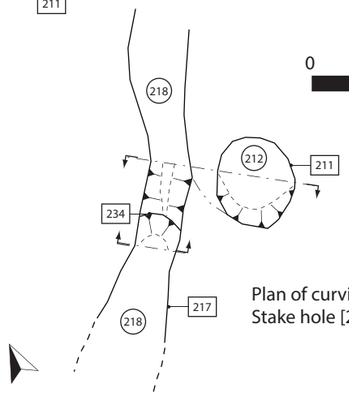


Section of Gully [217] and Stake hole [211]

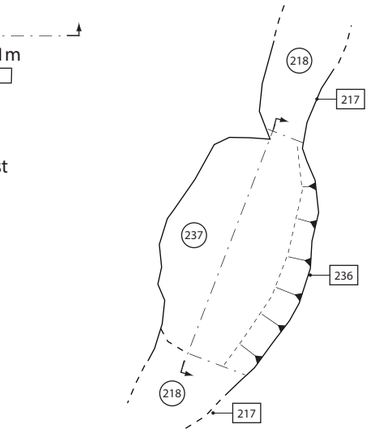


Section of Stake hole [234]





Plan of curvilinear Gully [217], Stake hole [211] and Pit [236]



Key

Stone

Fired clay

Figure 6
Plans & sections of Posthole [200], Stake holes [195], [211], [213], [215], [234], Pits [202], [236], [148], [207] and Gully [217]

Scale: 1:10 & 1:20 @ A3

Note: all heights are metres above Ordnance Datum

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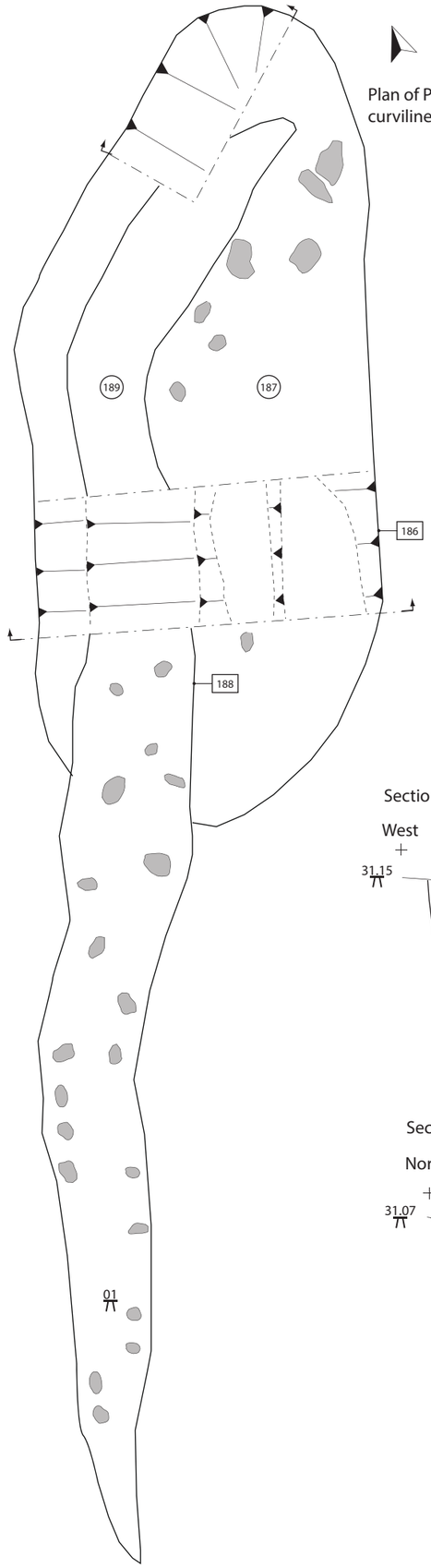
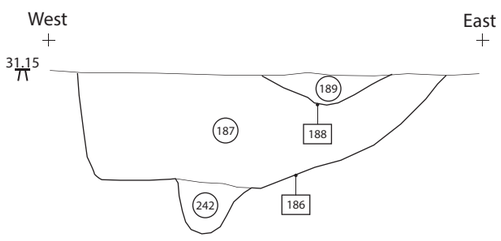
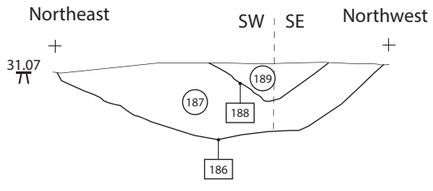


Plan of Pit [186] and curvilinear Gully [188]

Section of Pit [186] and curvilinear Gully [188]

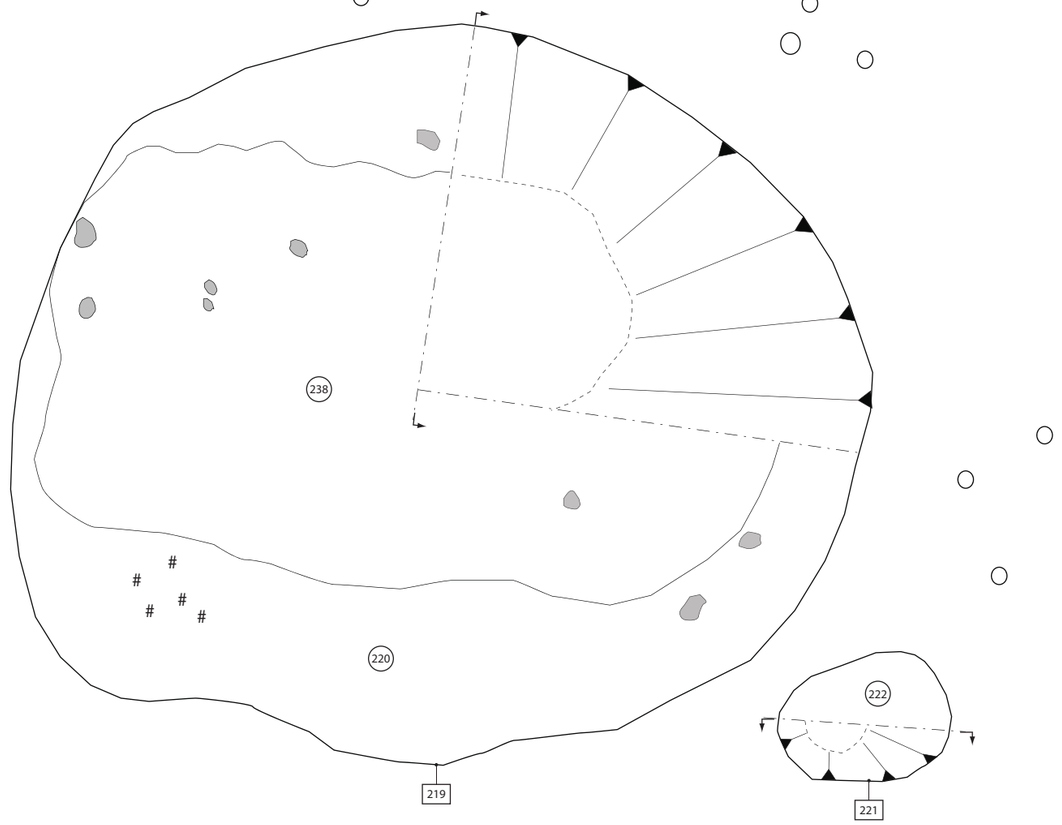


Section of Pit [186] and curvilinear Gully [188]



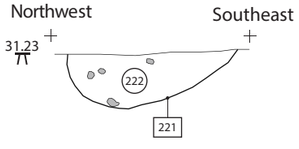
Plan of Pit [219], Pit or Posthole [221] and Stake holes [243]

Stake holes Group [243]



Section of Pit [219]

Section of Pit or Posthole [221]



Key

Stone

Charcoal flecks

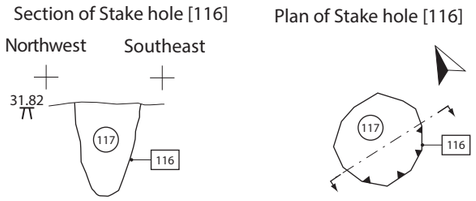
Note: all heights are metres above Ordnance Datum

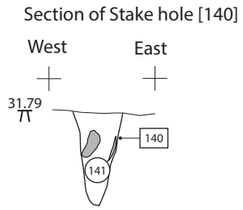
0 1 2m

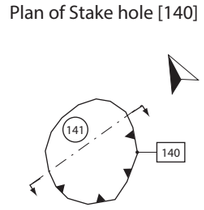
Figure 7
Plans & sections of Pits [186], [219], possible Pit or Posthole [221], stakehole [243] and curvilinear Gully [188]

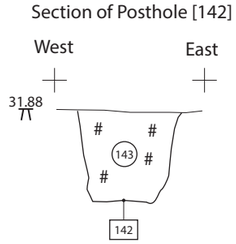
Scale: 1:20 @ A3

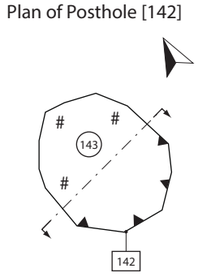
ARCHAEOLOGY WALES
Revealing the past, informing the future

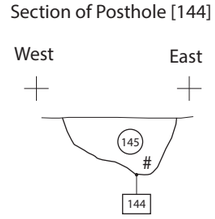




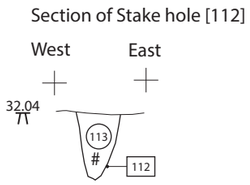


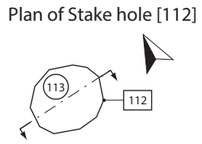


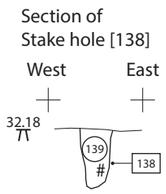


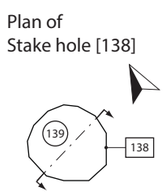


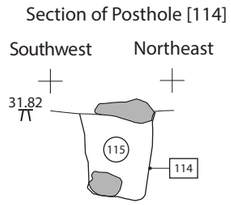
No plan available of PH [144] due to bad weather conditions

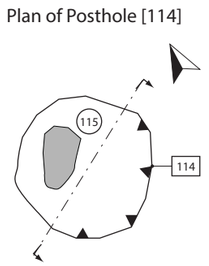










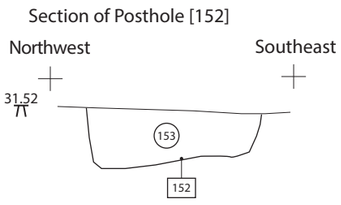


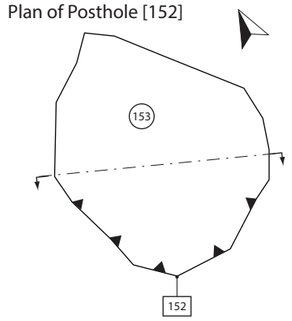
Key

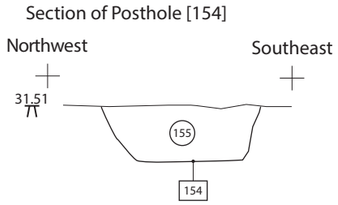
Stone

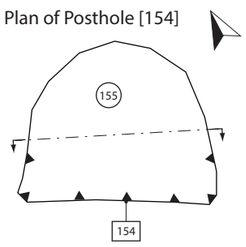
Charcoal flecks

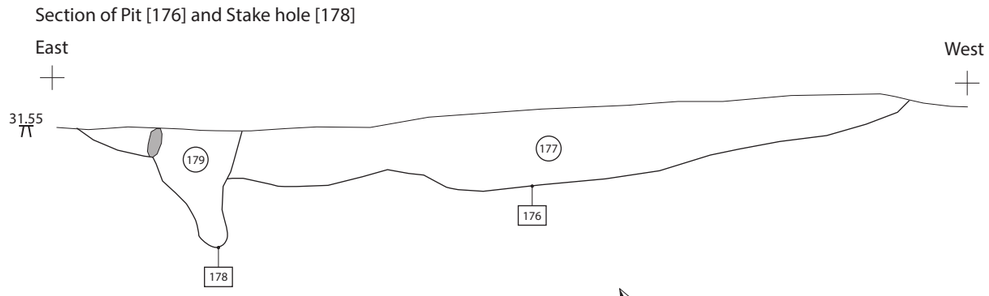
Note: all heights are metres above Ordnance Datum











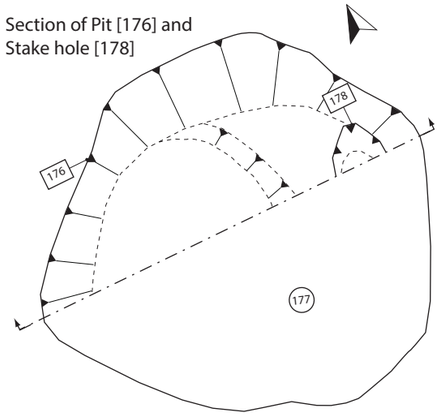


Figure 8
Plans & sections of Pit [176], Postholes [142], [152], [114], [144] [154] and Stake holes [116], [140], [112], [138] & [178]

Scale: 1:10 & 1:20 @ A3

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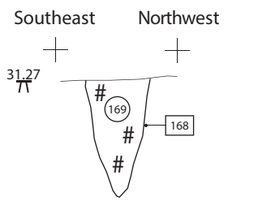
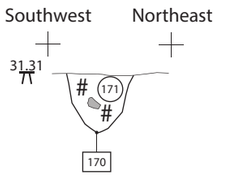
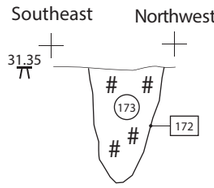
Section of Stake hole [168]



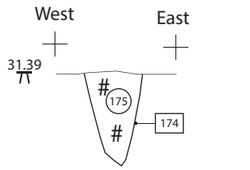
Section of Stake hole [170]



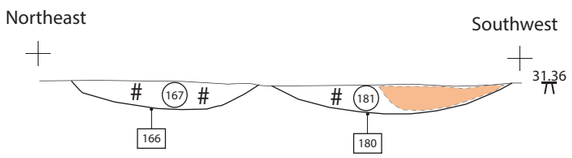
Section of Stake hole [172]



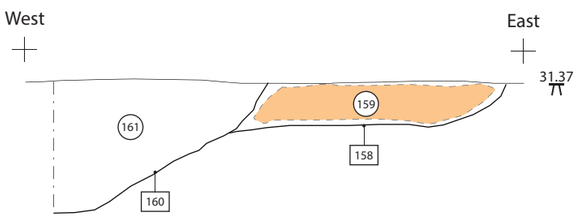
Section of Stake hole [174]



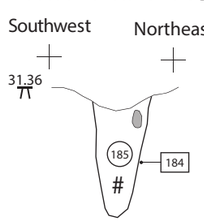
Section of possible Pits [166] and [180]



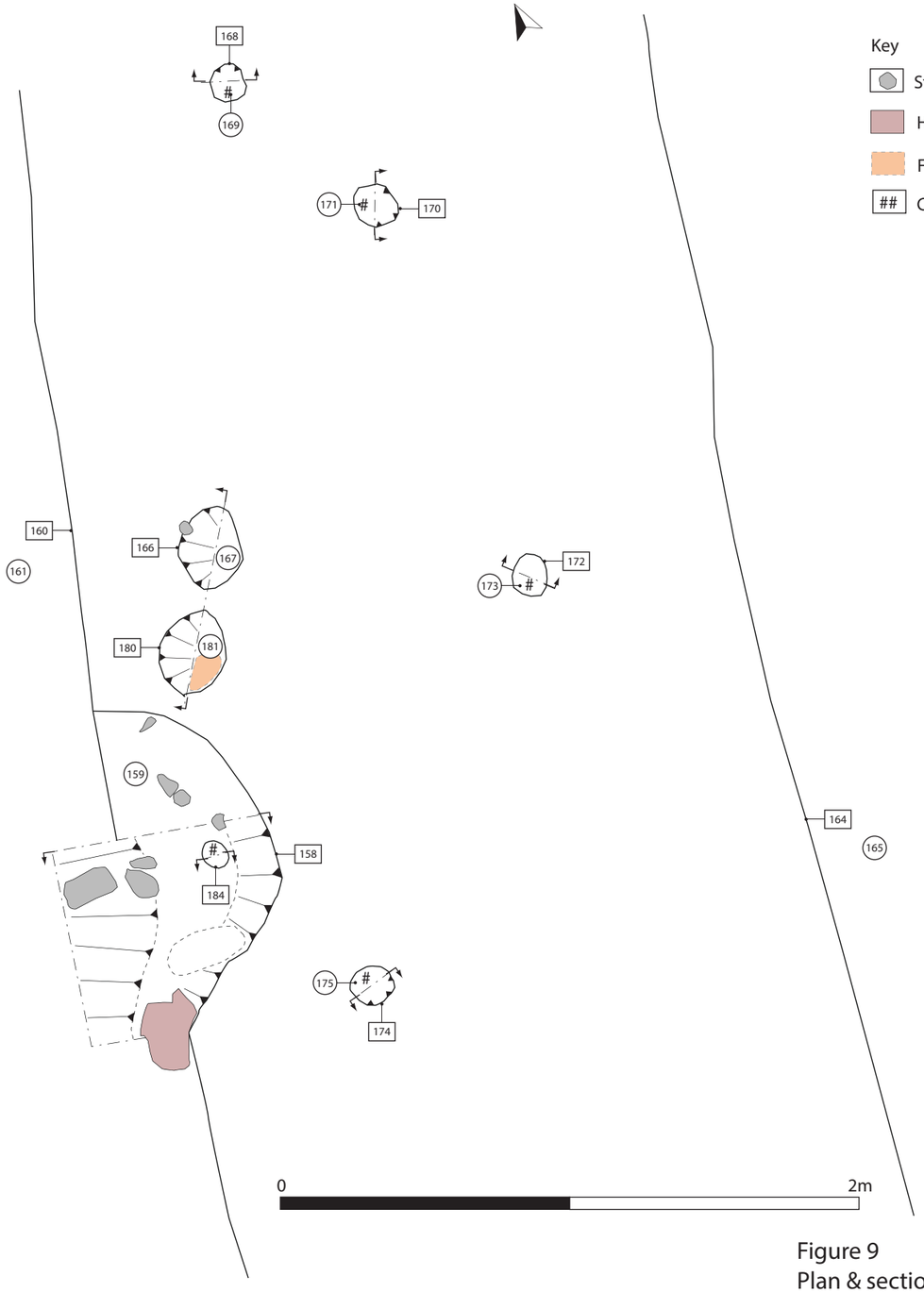
Section through Pit/Hearth [158]



Section of Stake hole [184]



0 1m



Key

- Stone
- Heat affected stone
- Fired clay
- ## Charcoal flecks

Scale: 1:10 & 1:20 @ A3

Note: all heights are metres above Ordnance Datum

Figure 9
Plan & sections of Pit/Hearth [158], Pits [166], [180] and Stake holes [168], [170], [172], [174] & [184]

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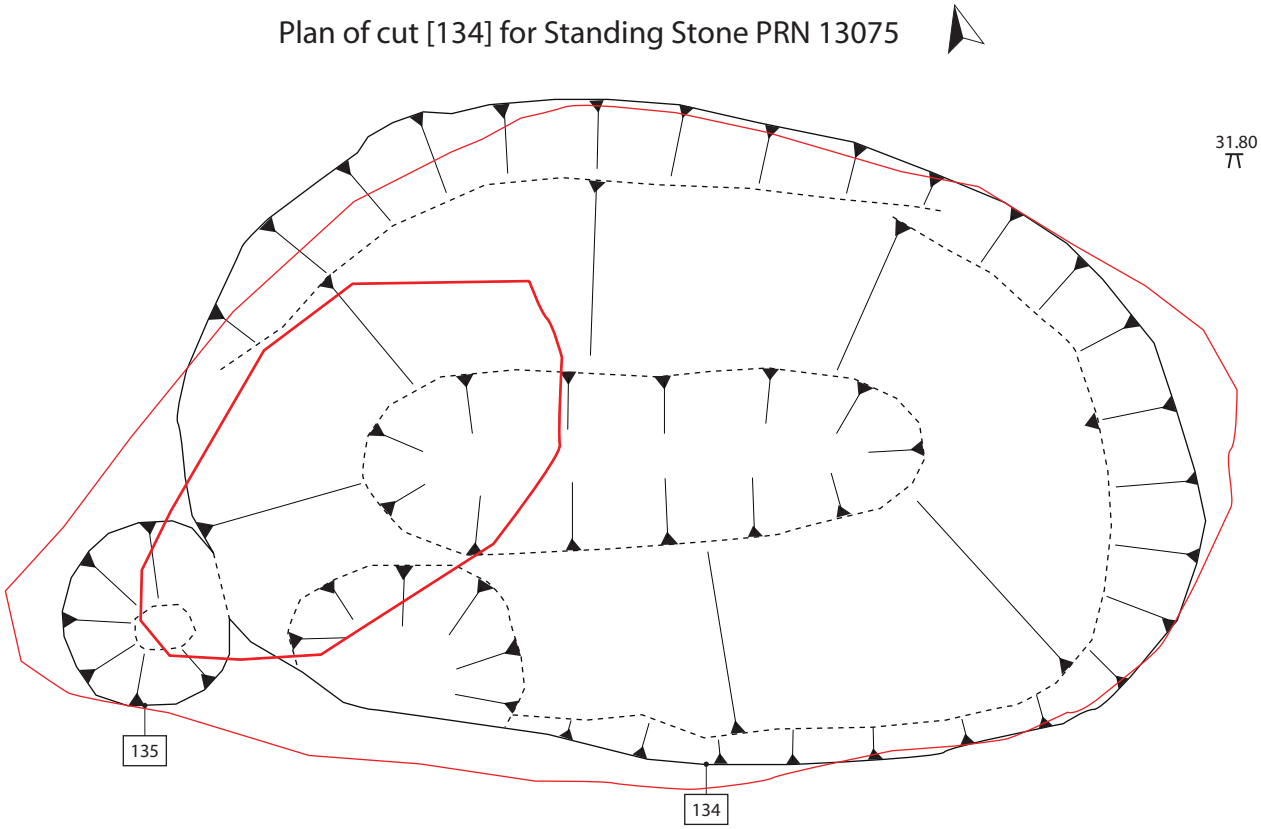
Plan of cut [134] for Standing Stone PRN 13075



Note: all heights are metres above Ordnance Datum

Figure 10
Plan of cut [134] for Standing Stone and pit [135]. Overlaid in red with plan of pit and location of stone taken from previous investigation (Poucher 2016d)

Scale 1:20@ A4

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Photo 1: View northeast of site after topsoil removal.

Photo 2: View east of site after topsoil removal.

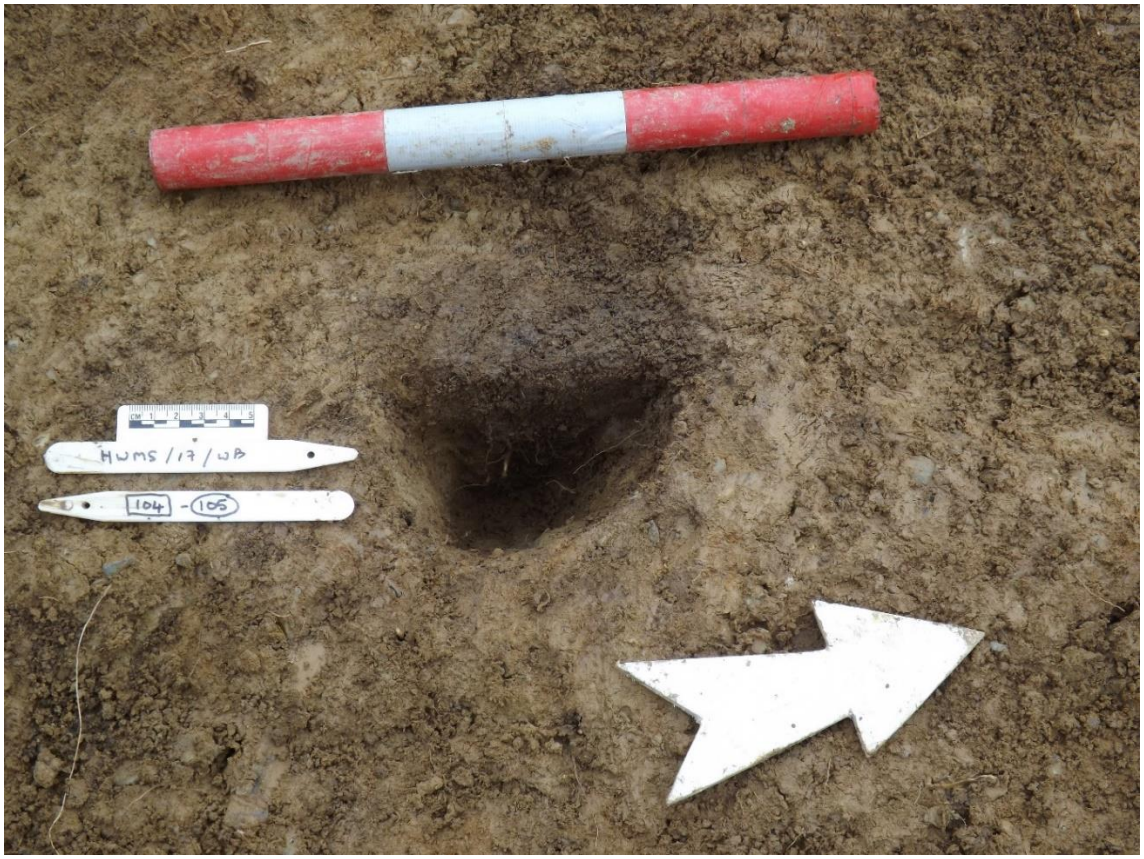

Photo 3: View west of section of stake hole [104]. 0.3m scale.

Photo 4: View northwest of sections of post hole [106] and stake hole [108]. 0.3m scale.

Photo 5: View north of section of post hole [114]. 0.3m scale.

Photo 6: View northwest of section of post hole [123]. 0.3m scale.

Photo 7: View north of section of post hole base [129]. 0.3m scale.

Photo 8: View north of section of post hole [142]. 0.3m scale.

Photo 9: View northwest of section of stake hole [110]. 0.3m scale.

Photo 10: View north of Pit [202] pre-excavation. 2m & 1m scale.

Photo 11: View south of section of pit [202]. 2m scale.

Photo 12: View north of section of pit [202]. 2m scale.

Photo 13: View southwest of section of shallow pit [207]. 0.5m scale.

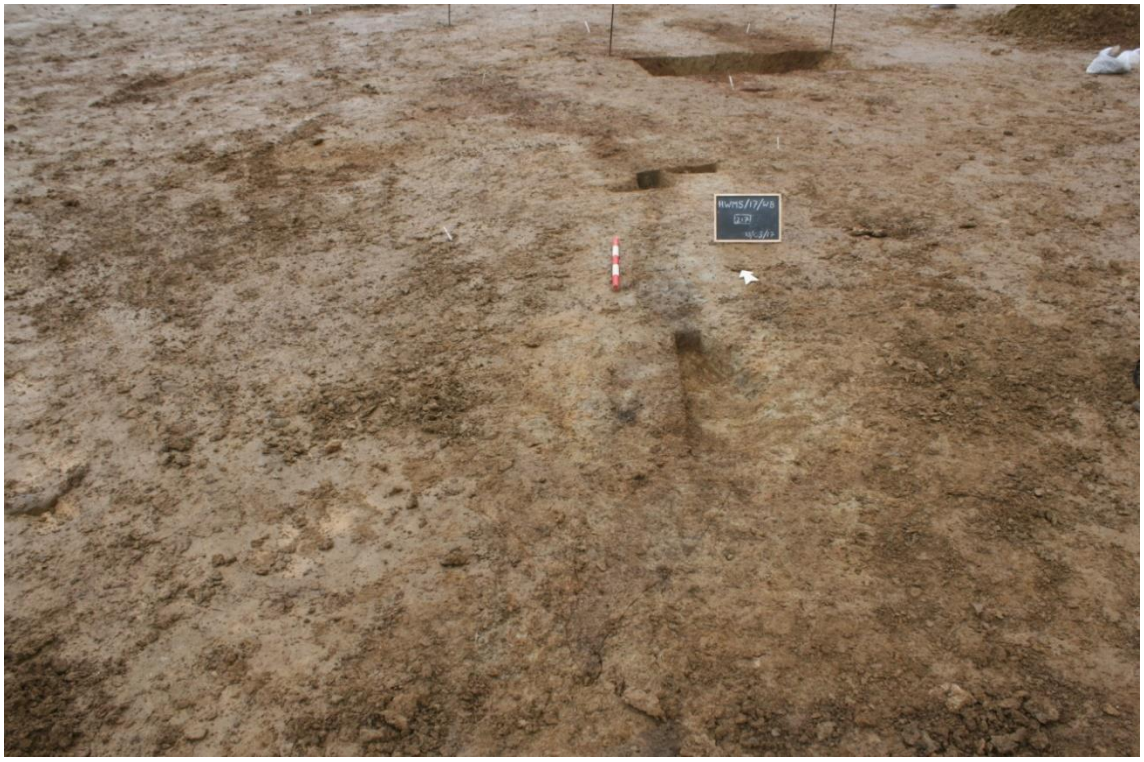

Photo 14: View north of curvilinear gully [217]. 0.5m scale.

Photo 15: View north of sections of gully [217] and post hole [211]. 0.5m scale

Photo 16: View southwest of sections of gully [217] and post hole [234]. 0.5m scale.

Photo 17: View south of section of pit/tree bowl [197]. 1m scale.

Photo 18: East facing view of post hole [132]. 0.3m scale.

Photo 19: View northeast of pit [219], pre-excavation. 2m & 1m scale.

Photo 20: View northwest of section of pit [219], also with white labels indicating separate stake holes within stake hole group [243]. 2m & 1m scale.

Photo 21: View northwest of section of pit [219]. 1m scale.

Photo 22: View northeast of section of pit [221]. 1m scale.

Photo 23: View southeast of section in northeast end of pit [186] and gully [188]. 0.5m scale.

Photo 24: View southwest of section across centre of pit [186]. 1m scale.

Photo 25: View south of section of pit [148]. 1m scale.

Photo 26: View northeast of section of post hole [200]. 1m scale.

Photo 27: View northeast of pit/hearth [158] and adjacent stakes holes [174], [172], [170] & [168], post hole [166] and pit [180], pre-excavation. 1m scales.

Photo 28: View northeast of section of field boundary [160] truncating the western side of pit/hearth [158]. Also showing underlying stake hole [184]. 0.3m scale.

Photo 29: North facing shot of standing stone pit [134], with pit [135] protruding to the left. 1m scales.

Photo 30: View northeast along field boundary ditch [160] and [164].

Photo 31: View northeast along modern services gully [100]. 1m & 0.3m scale.

Photo 32: View southwest of Second World War barrack block foundations, with upstanding picket post to the rear.

Photo 33: View north towards Haverfordwest airfield, with Second World War barrack block foundations in the foreground.

Appendix I – Context List

Context	Context Description	Type	Dimensions
100	Cut	WWII services. Curvilinear, moderate straight sides, concave base. Filled by (101).	10m x 0.12m x 0.08m
101	Fill	Fill of [100]. Moderate, mid brown clay silt fill of [100]. Inc: Rare, very-small sub-angular stone. Rare, small coal. No finds.	10m x 0.12m x 0.08m
102	Cut	Tree bole. Irregular. Filled by (103)	2.3m x 0.85m
103	Fill	Fill of [102]. Compact, light brown clay silt. No finds.	2.3m x 0.85m
104	Cut	Stake hole. Sub-circular, steep sides, pointed base. Filled by (105)	0.11m x 0.11m x 0.18m
105	Fill	Fill of [104]. Moderate, mid brown silt clay. Inc: Abundant charcoal flecks. Rare very small angular stone. No finds.	0.11m x 0.11m x 0.18m
106	Cut	Post hole. Sub-circular, steep sides, flat base Filled by (107)	0.18m x 0.18m x 0.07m
107	Fill	Fill of [106]. Compact, light brown clay silt. Inc: Abundant small sub-rounded stone. No finds.	0.18m x 0.18m x 0.07m
108	Cut	Stake hole Sub-circular, steep sides, tapered base Filled by (109).	0.05m x 0.05m x 0.07m
109	Fill	Fill of [108] Fairly compact, mid brown clay silt. Inc: Common charcoal flecks No finds	0.05m x 0.05m x 0.07m
110	Cut	Stake hole. Sub-circular, steep sides, tapered base. Filled by (111).	0.05m x 0.05m x 0.12m
111	Fill	Fill of [110] Loose, mid grey-brown silty clay. Inc: Rare small sub-angular stone. Rare charcoal flecks. No finds	0.05m x 0.05m x 0.12m
112	Cut	Stake hole Sub-oval, steep sides, pointed base. Filled by (113)	0.06m x 0.05m x0.12m

Context	Context Description	Type	Dimensions
113	Fill	Fill of [112]. Loose, mid grey-brown silty clay. Inc: Rare charcoal flecks. No finds	0.06m x 0.05m x0.12m
114	Cut	Post hole Sub-circular, vertical sides, flat base Filled by (115)	0.15m x 0.15m x 0.15m
115	Fill	Fill of [114] Fairly compact, mid brown clay silt. Inc: Rare medium sub-rounded stone. Rare charcoal flecks No finds	0.15m x 0.15m x 0.15m
116	Cut	Stake hole Sub-circular, steep sides, concave base. Filled by (117).	0.10m x 0.10m x 0.15m
117	Fill	Fill of [116]. Fairly compact, mid brown clay silt. Inc: Rare medium sub-rounded stone. Rare charcoal flecks No finds	0.10m x 0.10m x 0.15m
118	Cut	Post hole/Stake hole Sub-circular, steep concave sides, pointed base Filled by (119)	0.25m x 0.25m x 0.35m
119	Fill	Fill of [118]. Fairly compact, mid brown clay silt. Inc: Rare medium sub-rounded stone. Rare charcoal flecks No finds	0.25m x 0.25m x 0.35m
120	Cut	Modern post hole Sub-rectangular, vertical sides, flat base. Filled by (121) & (122)	0.50m x 0.40m x 0.26m
121	Fill	Fill of [120] Fairly compact, mottled orange to mid brown clay silt.	0.50m x 0.40m x 0.26m
122	Fill	Fill of [120] – post pipe Moderate, mid brown clay silt.	0.20m x 0.20m x 0.26m
123	Cut	Post hole Sub-circular, steep irregular sides, pointed base Filled by (124)	0.50m x 0.50m x 0.35m
124	Fill	Fill of [123]. Moderate, light yellowish brown clay silt. Inc: Rare small sub-angular stone. Rare daub/charcoal flecks No finds	0.50m x 0.50m x 0.35m
125	Cut	Large, truncated post hole Oval, shallow sides, shallow concave base. Filled by (126)	0.50m x 0.40m x 0.10m

Context	Context Description	Type	Dimensions
126	Fill	Fill of [125] Moderate, light brown clay silt. Inc: Rare charcoal flecks 2 flint fragments	0.50m x 0.40m x 0.10m
127	Cut	Stake hole Sub-circular, very steep sides, irregular base Filled by (128)	0.12m x 0.12m x 0.18m
128	Fill	Fill of [127]. Fairly compact, mid reddish brown clay silt. Inc: Rare very small angular stone. Very rare charcoal flecks No finds.	0.12m x 0.12m x 0.18m
129	Cut	Post hole Circular, very steep sides, flat base. Filled by (130) & (131)	0.29m x 0.29m x 0.08m
130	Fill	Upper Fill of [129]. Moderate, mid brown clay silt. 1 flint fragment. 1 quartz pebble	0.25m x 0.25m x 0.08m
131	Fill	Lower (Primary) Fill of [129]. Fairly compact, light grey clay. Inc: Rare very small sub-rounded stone No finds	0.17m x 0.15m x 0.08m
132	Cut	Post hole Oval, irregular sides, concave base Filled by (133)	0.4m x 0.4m x 0.08m
133	Fill	Fill of[132]. Loose, light greyish brown clay silt. Inc: Rare small-medium stone. Rare charcoal flecks. 1 flint fragment	0.4m x 0.4m x 0.08m
134	Cut	Pit Oval – as previously recorded	2.60m x 1.70m x 0.50m
135	Cut	Pit Sub-circular, concave sides, concave base. Filled by (136)	0.40m x 0.40m x 0.10m
136	Fill	Fill of [135]. Fairly compact, light greyish brown silty clay. Inc: Rare small sub-angular stone	0.40m x 0.40m x 0.10m
137	Fill	Modern backfill of Pit [135]. Redeposited during backfilling of previous evaluation trench	N/A
138	Cut	Stake hole Sub-oval, very steep sides, concave base. Filled by (139)	0.05m x 0.05m x 0.09m
139	Fill	Fill of [138] Moderate, mid grey-brown clay silt. Inc: Very rare small sub-angular stone. Rare charcoal flecks No finds.	0.05m x 0.05m x 0.09m

Context	Context Description	Type	Dimensions
140	Cut	Stake hole Sub-oval, very steep sides. Filled by (141)	0.08m x 0.08m x 0.05m
141	Fill	Fill of [140]. Mid grey-brown clay silt. Inc: Very rare small stone. Rare charcoal flecks. No finds	0.08m x 0.08m x 0.05m
142	Cut	Post hole Circular, very steep sides, flat base. Filled by (143)	0.14m x 0.14m x 0.14m
143	Fill	Fill of [142] Moderate, mid brown clay silt. Inc: Abundant charcoal flecks. No finds	0.14m x 0.14m x 0.14m
144	Cut	Post hole-Modern Sub-rectangular, steep sides, pointed base Filled by (145)	0.21m x 0.18m x 0.10m
145	Fill	Fill of [144]. Compact, light brown clay silt.	0.21m x 0.18m x 0.10m
146	Cut	Post hole- Modern Sub-oval, very steep sides, flat base Filled by (147)	0.24 x 0.21m x 0.12m
147	Fill	Fill of [146] Loose, dark brown clay silt.	0.24 x 0.21m x 0.12m
148	Cut	Pit Sub-circular, moderate sides, flat base Filled by (149)	1.10m x 1.02m x 0.15m
149	Fill	Fill of [148]. Moderate, mid brown clay silt. Inc: Rare small sub-angular stone. Very rare charcoal flecks. 3 flint fragments. 1 chert fragment	1.10m x 1.02m x 0.15m
150	Natural feature	Tree bole. Disturbed tree bole material contained 1 flint fragment.	N/A
151	Natural feature	Tree bole	N/A
152	Cut	Post hole-Modern Sub-rectangular, steep sides, flat base Filled by (153)	0.29m x 0.25m x 0.10m
153	Fill	Fill of [152]. Compact, light brown clay silt. No finds	0.29m x 0.25m x 0.10m
154	Cut	Post hole – Modern Sub-rectangular, very steep sides, flat base. Filled by (155)	0.29m x 0.25m x 0.10m

Context	Context Description	Type	Dimensions
155	Fill	Fill of [154]. Compact, mid brown clay silt. Inc: Frequent small sub-angular stone. Coal fragments. No finds	0.29m x 0.25m x 0.10m
156	Cut	Post hole-Modern Sub-rectangular, very steep sides, flat base Filled by (157)	0.28m x 0.25m x 0.12m
157	Fill	Fill of [156] Fairly compact, dark brown clay silt. Inc: Abundant small coal & brick fragments No finds.	0.28m x 0.25m x 0.12m
158	Cut	Hearth? Sub-circular, moderate sides, flat base. Filled by (159)	1.10m x 0.48m x 0.07m
159	Fill	Fill of [158] Moderate, brownish red silty clay. Inc: Abundant charcoal flecks. Rare small heat-affected stone. No finds Cut by [160]	1.10m x 0.48m x 0.07m
160	Cut	Ditch (Field boundary 18th century?) Linear Filled by (161)	3m wide, >100m long
161	Fill	Fill of [160] Moderate mid brown clay silt. Inc: Abundant mixed stone Cut by [162]	3m wide, >100m long, >0.3m thick
162	Cut	Cut for ceramic drain (WII) Linear Filled by (163)	>100m long, 0.3m wide
163	Fill	Ceramic pipe and stone fill of [162]	>100m long, 0.3m wide
164	Cut	Ditch (Field boundary 18th century?) Linear Filled by (165)	3m wide, >100m long
165	Fill	Fill of [164] Moderate, mid brown clay silt.	3m wide, >100m long
166	Cut	Post hole Oval, shallow sides, concave base Filled by (167)	0.30m x 0.20m x 0.05m
167	Fill	Fill of [166]. Loose, mid greyish brown clay silt. Inc: Rare very small angular stone. Rare charcoal flecks No finds	0.30m x 0.20m x 0.05m
168	Cut	Stake hole Sub-circular, very steep sides, pointed base Filled by (169)	0.10m x 0.10m x 0.18m

Context	Context Description	Type	Dimensions
169	Fill	Fill of [168]. Loose, mid grey-brown clay silt. Inc: Rare charcoal flecks 1 flint flake	0.10m x 0.10m x 0.18m
170	Cut	Stake hole Circular, steep sides, pointed base Filled by (171)	0.10m x 0.10m x 0.10m
171	Fill	Fill of [170] Loose, mid greyish brown clay silt. Inc: Very rare small sub-angular stone. Rare charcoal flecks No finds	0.10m x 0.10m x 0.10m
172	Cut	Stake hole Circular, very steep sides, concave base Filled by (173)	0.11m x 0.11m x 0.15m
173	Fill	Fill of [172] Loose, mid greyish brown clay silt. Inc: Abundant small charcoal flecks No finds	0.11m x 0.11m x 0.15m
174	Cut	Stake hole Sub-circular, steep sides, pointed base Filled by (175)	0.10m x 0.10m x 0.15m
175	Fill	Fill of [174] Loose, mid greyish brown clay silt. Inc: Abundant charcoal flecks No finds	0.10m x 0.10m x 0.15m
176	Cut	Pit Sub-rectangular, moderate sides, irregular base Filled by (177)	1.10m x 1.00m x 0.14m
177	Fill	Fill of [176] Moderate, mid brown clay silt. Inc: Rare small sub-rounded stone 1 flint fragment. 1 chert fragment	1.10m x 1.00m x 0.14m
178	Cut	Stake hole Circular, moderate/steep sides, pointed base Filled by (179)	0.16m x 0.16m x 0.10m
179	Fill	Fill of [178] Moderate, mid to dark brown clay silt.	0.16m x 0.16m x 0.10m
180	Cut	Pit	0.40m x 0.20m x 0.05m
181	Fill	Fill of [180] Mixed, moderate mid greyish brown to reddish brown clay silt. No finds	0.40m x 0.20m x 0.05m
182	Layer	Subsoil surface Moderate, mid yellow silty-clay Inc: Rare small stone	Across site
183	Topsoil	Topsoil/Plough soil Moderate, dark brown silty-clay	0.25m thick

Context	Context Description	Type	Dimensions
184	Cut	Stake hole Sub-circular, very steep sides, pointed base Filled by (185)	0.07m x 0.07m x 0.09m
185	Fill	Fill of [184] Loose, light brown clay silt. Inc: Rare very small stone. Very rare charcoal fleck Cut by [158]	0.07m x 0.07m x 0.09m
186	Cut	Post hole/Pit Sub-oval, moderate sides, concave base Filled by (242) & (187)	2.6m x 1.18m x 0.50m
187	Fill	Upper Fill of [186] Moderate, mottled light greyish orange silt clay. Inc: Common, small sub-angular stone. 5 flint fragments Cut by [188]	2.6m x 1.18m x 0.35m
188	Cut	Cut of gully Linear, V-shape profile Filled by (189)	5.40m x 0.40m x 0.14m
189	Fill	Fill of [188] Moderate, blackish brown silty clay Inc: Rare charcoal flecks 2 flint fragments	5.40m x 0.40m x 0.14m
190	Cut	Tree bole Sub-oval, shallow sides, irregular base Filled by (191) & (192)	3m x 0.87m x 0.18m
191	Fill	Fill of [190] Moderate, dark brown silty clay 1 flint fragment	3m x 0.87m x 0.18m
192	Fill	Fill of [190] Moderate, light yellow-brown silty clay	3m x 0.87m x 0.15m
193	Cut	Tree bole Filled by (194)	N/A
194	Fill	Fill of [193]	N/A
195	Cut	Stake hole Sub-oval, moderate sides, pointed base Filled by (196)	0.18m x 0.18m x 0.20m
196	Fill	Fill of [195] Loose, dark greyish brown silty clay. Inc: Very rare very small sub-rounded stone. Rare charcoal flecks. No finds	0.18m x 0.18m x 0.20m
197	Cut	Irregular shaped pit Irregular, irregular sides, pointed base Filled by (198) & (199)	2.60m x 1.10m x 0.40m
198	Fill	Lower Fill of [197] Moderate, mixed orange and blackish brown silt clay. Inc: Rare, small sub-rounded stone No finds	2.60m x 1.10m x 0.20m

Context	Context Description	Type	Dimensions
199	Fill	Upper Fill of [197] Moderate, mid to dark brown silty clay. Inc: Rare small sub-rounded stone 1 flint fragment	2.60m x 1.10m x 0.40m
200	Cut	Post hole Sub-circular, irregular/vertical sides, concave base Filled by (201)	0.40m x 0.32m x 0.29m
201	Fill	Fill of [200] Fairly compact, mid reddish brown silty clay. Inc: Rare small sub-angular stone. Rare charcoal flecks No finds	0.40m x 0.32m x 0.29m
202	Cut	Pit Semi-oval, moderate/steep sides, irregular base. Filled by (233), (239)	4.40m x 1.8m x 0.46m
203	Cut	Re-cut in pit [202] Curvilinear, steep sides, flat base Filled by (204)	3.40m x 0.42m x 0.37m
204	Fill	Fill of [203]. Moderate, dark brown silty clay. Inc: Abundant, small sub-angular stone. Abundant charcoal flecks 28 flint fragments 1 chert fragment 1 large ?hammerstone	3.40m x 0.42m x 0.37m
205	Cut	Re-cut in pit [202] Curvilinear, gentle/moderate sides, flat base Filled by (206)	3m x 0.75m x 0.12m
206	Fill	Fill of [205] Moderate, dark reddish brown silty clay Inc: Rare small sub-angular stone 2 flint fragments Cut by [240]	3m x 0.75m x 0.12m
207	Cut	Sub linear pit Sub-linear, rounded corners, moderate sides, irregular base Filled by (208)	2.06m x 0.46m x 0.08m
208	Fill	Fill of [207] Moderate, mid reddish brown silty clay. Inc: Rare small sub-angular stone 3 flint fragments	2.06m x 0.46m x 0.08m
209	Cut	Post hole Circular, steep/moderate sides, concave base Filled by (210)	0.53m x 0.53m x 0.21m
210	Fill	Fill of [209] Moderate, dark reddish brown silty clay Inc: Rare small sub-angular stone 2 flint fragments	0.53m x 0.53m x 0.21m

Context	Context Description	Type	Dimensions
211	Cut	Post hole Circular, steep/moderate sides, concave base Filled by (212)	0.22m x 0.22m x 0.12m
212	Fill	Fill of [211] Moderate, mid to dark brown silty clay Inc: Abundant small sub-angular stone 1 flint fragment	0.22m x 0.22m x 0.12m
213	Cut	Stake hole Circular, moderate sides, concave base Filled by (214)	0.18m x 0.18m x 0.04m
214	Fill	Fill of [213] Moderate, dark reddish brown silty clay Inc: Abundant charcoal flecks No finds	0.18m x 0.18m x 0.04m
215	Cut	Stake hole Circular, moderate sides, concave base Filled by (216)	0.13m x 0.13m x 0.04m
216	Fill	Fill of [215] Moderate, mid reddish brown silty clay Inc: Abundant charcoal flecks. 1 flint flake	0.13m x 0.13m x 0.04m
217	Cut	Curvilinear gully Curvilinear, steep sides, concave base Filled by (218)	4m x 0.08 x 0.10m
218	Fill	Fill of [217] Moderate, mid greyish brown silty clay Inc: Rare small sub-angular stone 1 flint fragment Cut by [236]	4m x 0.08 x 0.10m
219	Cut	Pit Sub-oval, steep sides, flat base Filled by (220) & (238)	2.70m x 2.20 x 0.50m
220	Fill	Lower Fill of [219] Moderate, mid reddish brown gritty clay silt Inc: Abundant medium sub-angular stone. Abundant charcoal flecks 21 flint fragments	2m x 0.4m x 0.45m
221	Cut	Pit Sub-oval, moderate sides, flat/concave base Filled by (222)	0.56m x 0.42m x 0.18m
222	Fill	Fill of [221] Moderate, light brown clay silt Inc: Rare charcoal flecks 4 flint fragments 1 chert fragment	0.56m x 0.42m x 0.18m
223	Cut	Post hole (unexcavated)	N/A
224	Fill	Fill of [223]	N/A
225	Cut	Post hole (unexcavated)	N/A

Context	Context Description	Type	Dimensions
226	Fill	Fill of [225]	N/A
227	Cut	Post hole (unexcavated)	N/A
228	Fill	Fill of above [227]	N/A
229	Cut	Pit (unexcavated)	N/A
230	Fill	Fill of pit [229]	N/A
231	Cut	Cut of modern burnt pit (Unexcavated)	N/A
232	Fill	Fill of [231]	N/A
233	Fill	Fill of [202] Moderate, light yellowish brown clay. Inc: Rare small sub-angular stone 4 flint fragments Cut by [209], [213], [215]	4.40m x 1.8m x 0.20m
234	Cut	Post hole Circular, steep sides, concave base Filled by (235)	0.14m x 0.14m x 0.17m
235	Fill	Fill of [234] Moderate, mid greyish brown silty clay. Inc: Rare charcoal flecks 1 flint fragment	0.14m x 0.14m x 0.17m
236	Cut	Pit Sub-linear, moderate/steep sides, flat base Filled by (237)	0.60m x 0.50m x 0.08m
237	Fill	Fill of [236]. Moderate, light to mid brown silty clay. Inc: Rare small sub-angular stone No finds	0.60m x 0.50m x 0.08m
238	Fill	Upper Fill of [219] Compact, light brown clay. Inc: Abundant small sub-angular stone. Rare charcoal flecks 17 flint fragments	2.70m x 2.40m x 0.50m
239	Fill	Fill of [240] Moderate, light to mid brown silty clay. Inc: Abundant small sub-angular stone. Abundant charcoal flecks No finds Cut by [203]	0.48m thick
240	Cut	Re-cut in pit [202] Irregular, steep sides, irregular base Filled by (239)	3m x 1.4m x 0.48m
241	Void	Void	N/A
242	Fill	Lower Fill of [186] Moderate, mottled blackish brown silty clay. Inc: Rare small sub-angular stone No finds	2.6m x 1.18m x 0.15m

Context	Context Description	Type	Dimensions
243	Cut	Group number for stake hole arrangement surrounding pit [219]	N/A
244	Natural	Geological Subsoil Moderate, mid yellow silty-clay Inc: Rare small stone	Across site

Appendix II – Finds Quantification

Area	Context Number	Object Type	Quantity	Weight (g)	Description
	100	Lithics	16	140	Natural pieces
	126	Lithics	2	14	Natural pieces
	130	Lithics	2	103	Natural pieces
	133	Lithics	1	23	Natural pieces
	136	Lithics	2	23	Natural pieces
	137	Lithics	3	256	Natural pieces
	149	Lithics	4	175	Natural pieces, Flake fragment x 1
	150	Lithics	1	20	Natural pieces
	177	Lithics	2	3	Complete Flake x 1, Flake fragment x 1
Grid 930E - 870N	182	Lithics	12	58	Natural pieces x10,worked chunk x1, Blade fragment x1
Grid 900E - 860N	182	Lithics	8	63	Natural pieces
Grid 910E - 860N	182	Lithics	11	137	Natural pieces
Grid 920E - 870N	182	Lithics	7	128	Natural pieces x5, flake fragments x2
Grid 910E - 880N	182	Lithics	2	15	Natural pieces
Grid 930E - 870N	182	Lithics	4	44	Natural pieces x1, Anthracite x1, worked chunk x1, Flake x1
Grid 900E - 870N	182	Lithics	3	104	Natural pieces
Grid 940E - 850N	182	Lithics	2	23	Natural pieces
Grid 940E - 860N	182	Lithics	3	13	Natural pieces
Grid 910E - 870N	182	Lithics	5	25	Natural pieces
Grid 920E - 860N.	182	Lithics	10	50	Natural pieces x9 chert Natural Piece x1
near [168]	182	Lithics	1	15	Natural pieces
within 1m of [190]	182	Lithics	7	41	Natural pieces x6, Bladelet x1
within 1m of [200]	182	Lithics	12	25	Natural pieces x8, Fragments x2, Bladelet x1, Bladelet fragment x1
found around [219]	182	Lithics	4	102	Natural pieces
Grid 910E - 890N	182	Lithics	11	138	Natural pieces, Bladelet x1
Grid 920E - 890N	182	Lithics	6	37	Natural pieces x5, Flake x1

Area	Context Number	Object Type	Quantity	Weight (g)	Description
Grid 920E - 900N	182	Lithics	3	19	Natural pieces
	183	Pottery	1	114	China coffee cup (half). Includes swastika + German army mark on bottom
	183	Pottery	8	77	5 (incl. 1 Staffordshire) Post-Med. And 3 Gravel Tempered Ware
	183	Pottery	2	55	Gravel Tempered Ware
NE corner of Site	183	Lithics	15	320	Natural pieces x15, Blade frag x1, Microburin fail x1
North side of Site	183	Lithics	3	110	Natural pieces x3
	183	CuA	1	6	Gold plated CuA livery button
	183	Clay Tobacco Pipe	1	3	Undiagnostic pipe stem
	187	Lithics	5	24	Natural pieces x3, Fragments x2
	189	Lithics	2	141	Natural pieces x2
	191	Lithics	1	2	Natural pieces x1
	199	Lithics	1	8	Natural pieces x1
	204	Lithics	11	122	Natural pieces x5, Fragment x1, Bladelet x1,Flakes x3, Core x1
	204	Lithics	18	144	Natural pieces x7, Chert x1, Blade Frag x3, Blade x2, Fragment x1, Flake x1, Flake Frag x1, Chunk x1
	206	Lithics	2	3	Natural pieces x1, Blade x1
	208	Lithics	3	22	Natural pieces x2, Blade fragment x1
	210	Lithics	2	5	Natural pieces x1, Fragment x1
	212	Lithics	1	< 1	Fragment x1
	216	Lithics	1	< 1	Natural pieces x1
	218	Lithics	1	8	Natural pieces x1
	220	Lithics	21	69	Natural pieces x6, Blade x7, Blade Frags x2, Flake x1, Fragments x5.
	222	Lithics	5	28	Natural pieces x2, Blade fragments x1, Flakes x2
	224	Lithics	5	8	Natural pieces x4, Flake x1
	233	Lithics	15	135	Natural pieces x9, Chunks x2, Flakes x4.
	235	Lithics	1	< 1	Natural pieces x1
	238	Lithics	13	96	Natural pieces x12, Blade x1, Blade fragment x1
	U/S	Lithics	1	<1	Blade fragment x1

Archaeology Wales

WRITTEN SCHEME OF INVESTIGATION

FOR AN ARCHAEOLOGICAL WATCHING BRIEF

AT

Haverfordwest Welsh Medium School, Withybush, Haverfordwest

Prepared for:

Willmott Dixon

January 2017

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NON TECHNICAL SUMMARY

This Written Scheme of Investigation (WSI) details the proposal for an archaeological watching brief during development works at Haverfordwest Welsh Medium School in Withybush, Haverfordwest, Pembrokeshire. It has been prepared by Archaeology Wales Limited for Willmott Dixon.

1. Introduction and archaeological background

The scope of the construction work to be undertaken at the site (NGR SM 962 174) includes the construction of a new Welsh Medium School along with associated works on land near to the Withybush Industrial Estate in Haverfordwest, Pembrokeshire (Figures 1 - 3). Planning Consent for the development has been granted (planning application no. 16/0446/PA) subject to Conditions, the local planning authority is the Pembrokeshire County Council (henceforth – PCC).

This WSI has been prepared by Philip Poucher, Project Manager, Archaeology Wales Ltd (henceforth - AW) at the request of Willmott Dixon. It provides information on the methodology which will be employed by AW during an archaeological watching brief. The watching brief will be undertaken during ground-breaking activity associated with the development of the site.

Dyfed Archaeological Trust – Development Management (Henceforth – DAT-DM), in its capacity as archaeological advisors to the local planning authority, have recommended that a programme of archaeological work be agreed and undertaken prior to and during any groundworks. The relevant Planning Condition reads:

> **No development shall take place until the applicant, or their agents or successors in title, has secured the implementation of a programme of archaeological work. This shall be in accordance with a written scheme of investigation which has been submitted and approved in writing by the Local Planning Authority.**
>
> **Reason: To ensure the recording of any items of archaeological interest; to accord with Policy GN.38 of the Local Development Plan for Pembrokeshire (adopted 28 February 2013).**

The details set out in this document outline procedures to be undertaken during an archaeological watching brief during ground-breaking activity. This WSI will be submitted to DAT-DM for approval on behalf of the local planning authority.

All work will be undertaken in accordance with the standards and guidelines of the Chartered Institute for Archaeologists (2014).

2. Site description

The site covers an area of approximately 8.4 hectares of relatively level land, rising slightly to the south from 32m OD to 37m OD. The site is currently defined by four fields, defined by straight-sided hedgerow boundaries. The site is bounded by the Withybush Road to the northeast, beyond which lies the Withybush Industrial Estate and Haverfordwest Airport. To the south the site is bounded by the A40 (T) beyond which lies residential development of Prendergast on the northern side of Haverfordwest. To the north and east lies further agricultural land and the village of

Crundale.

Haverfordwest lies on the Western Cleddau (which lies *c.*600m to the west of the proposed development site) in central Pembrokeshire. The site is located on the northern fringes of development around Haverfordwest, the town centre lies some 1.7km to the south, on the western side of the river.

The underlying bedrock of the proposed development area comprises mudstones of the Slade and Redhill Formation, partly overlain to the east by sand and gravel glacio-fluvial deposits (BGS 2016).

Development plans include the construction of the main school building, along with sports pitches, landscaping and associated infrastructure.

3. Previous archaeological investigations

A desk based assessment has previously been undertaken by Archaeology Wales Ltd (Poucher 2016a), which details the historical and archaeological background to the site. In summary, a number of specific archaeological sites have been identified within the proposed development area. These comprise a standing stone (PRN 13075) and the site of a second removed stone (HWMS 01). Also included in this area are several structures that form a former accommodation area (PRN 102563) associated with the Second World War airfield to the north. Two buildings remains as standing structures, with the concrete footings of several other structures lying nearby and the site of more structures recorded on aerial photography.

A geophysical survey was subsequently undertaken across the site (Poucher 2016b). Although standing stone PRN 13075 remains as a visible upstanding feature, no features were revealed on the geophysical survey that were interpreted as prehistoric in origin, with the possible exception of one discrete feature (Feature 9) that may potentially represent a cut feature, such as a pit or posthole. A number of linear features were identified. These included two features that are marked as field boundaries on historic mapping (Feature 5 & 8), along with several linear features (Features 1, 2, 4 & 6) lying to the north of the remains of the Second World War buildings. It was suggested that these features may be related to those buildings, and are therefore modern in origin. Several modern anomalies were also identified, representing areas of recent ground investigations or surface detritus (Features 3 & 7).

A subsequent archaeological evaluation (Poucher 1016c) was undertaken to investigate features identified in the previous studies, as well as the general archaeological potential of the site. The evaluation confirmed that many of the linear features related to post-medieval field boundaries, or modern services associated with the WWII buildings. Other identified features included a small un-dated ditch, stakehole and posthole spread throughout the site. These features are suggested to be post-medieval or modern in origin however.

The evaluation also investigated the sites of the standing stones. No evidence of the now-vanished standing stone (HWMS 01) was revealed. The extant standing stone (PRN 13075) was shown to stand within a large pit or ditch terminus, exhibiting episodes of re-cutting. All excavated features contained post-medieval pottery, and it was suggested that the stone represented a glacial erratic found on site, and erected in the post-medieval period as a cattle-rubbing stone. However, the entirety of the feature within which the stone was placed was not revealed. No evidence of prehistoric activity was revealed within the evaluated area.

Prior to development work commencing the area around the standing stone was further investigated (Poucher 2017a). This work confirmed the location of the stone within a pit and its likely erection at the site of its discovery at some point in the post-medieval period. This work also included a building recording survey of the remains of the WWII structures within the development site (Poucher 2017b).

3 Site specific objectives

The primary objective of the watching brief, as defined by the CIfA (2014) are:

- To allow a rapid investigation and recording of any archaeological features that are uncovered during the proposed groundworks within the application area.
- To provide the opportunity, if needed, for the watching archaeologist to signal to all interested parties, before the destruction of the material in question, that an archaeological find has been made for which the resources allocated to the watching brief are not sufficient to support the treatment to a satisfactory or proper standard.

A written report will be compiled following the fieldwork. Sufficient desk-top research will be undertaken to ensure that the results of this work are properly understood, interpreted and reported.

The report will include a comprehensive assessment of the historic context within which the archaeological evidence rests and will aim to highlight any relevant research issues within regional, national and, if relevant, international research frameworks.

4 Watching Brief Methodology

General

All work will be undertaken by AW staff following professional best practice.

All work will be carried out by suitably qualified archaeologists with relevant level membership of the Chartered Institute for Archaeologists (CIfA) and will follow the CIfA Standard and Guidance for an archaeological excavation (2014).

Detailed

The watching brief will be focused on the area around the previously identified archaeological features of the standing stone PRN 13075 and WWII encampment PRN 102563), located in the southern half of the field in the north-eastern area of development. The area upon which the watching brief will be focused is illustrated in Figure 3.

The Watching Brief will be carried out by a suitably qualified archaeologist on groundworks associated with the development in this area (such as stripping, levelling, foundation excavation, drainage and services excavation) where sub-surface deposits are likely to be exposed or cut into. The mechanical excavation will be undertaken by a machine using a toothless ditching bucket wherever possible.

If archaeological features, finds or deposits are uncovered, work will be stopped in the area of the exposed feature in order that the supervising archaeologist can clean and identify the extent and nature of the feature and for excavation and recording to take place.

All archaeological deposits that are identified will be mapped, cleaned, recorded and fully excavated. The developer will provide a safe working area and sufficient time to record and excavate all features to the satisfaction of AW and DAT-DM. Full excavation of identified features will not be compromised by the construction programme.

Contingency Arrangements

In the event of significant or complex archaeological features being discovered all activities in this area of the site can be temporarily suspended, those areas will fenced off and highlighted to all contractors employed on the site. Machines or contractors shall not enter this area until archaeological recording has been completed. If significant archaeological features are revealed during the work a meeting between the client, their agent, main contractor, DAT-DM and AW should be called at the earliest convenience.

To comply with professional guidelines, a contingency for further access to each such area with a suitably sized team of archaeologists to enable appropriate and agreed archaeological recording should be provided. Contingency costs will be agreed in advance before any extension to the programme commences and will follow a site meeting between the archaeological contracting company, the client (or their agent) and DAT-DM. Such work may be also subject to the approval by the LPA of an additional Written Scheme of Investigation.

Recording

Recording will be carried out using AW recording systems (pro-forma context sheets etc), using a continuous number sequence for all contexts.

Plans and sections will be drawn to a scale of 1:50, 1:20 and 1:10 as required and related to Ordnance Survey datum and published boundaries where appropriate.

All features identified will be tied in to the OS survey grid and fixed to local topographical boundaries. This can be achieved through measured triangulation from various points within the site boundary due to the proximity of extant buildings and other permanent features and their known locations. If required this could be further supplemented using a Topcon GTS725 total station.

Photographs will be taken in digital format, using a camera capable of taking photos of at least 10mp, with photographs stored in Tiff format.

The archaeologist undertaking the watching brief will have access to the AW metal detector and be trained in its use.

Artefacts

Archaeological artefacts recovered during the course of the excavation will be cleaned and labelled using an accession number, which will be obtained from a suitable museum. A single number sequence will be allocated to all finds. The artefacts will be stored appropriately until they are deposited with a suitable local museum. If no suitable local repository exists then attempts will be made to deposit the artefacts at the National Museum, Cardiff. In the interim any recovered artefacts will be stored in secure premises at AW's offices.

All finds of gold and silver will be removed to a safe place and the client, the local Finds Liaison Officer and the local coroner informed, within the guidelines of the

Treasure Act 1996.

Any finds which are considered to be in need of immediate conservation will be referred to a UKIC qualified conservator (Phil Parkes at Cardiff University).

Human remains

In the event of burials or cremations being found all work will be halted in the area of the burials and their extent and nature established. The client, DAT-DM and the Ministry of Justice will be informed and a methodology of excavation agreed which will adhere to Ministry of Justice Guidelines.

Environmental and technological samples

Deposits with a significant potential for the preservation of palaeoenvironmental material will be sampled, by means of the most appropriate method (bulk, column etc). Where sampling will provide a significant contribution to the understanding of the site AW will draw up a site-specific sampling strategy alongside a specialist environmental archaeologist. All environmental sampling and recording and will follow English Heritage's *Guidelines for Environmental Archaeology* (2002).

Specialists

In the event of certain finds/features etc. being discovered, AW will seek specialist opinion for assistance. Such specialists will be accessed either internally within AW itself or from an external source. A list of external specialists is given in the table below.

Artefact type	**Specialist**
Flint	Kate Pitt (Archaeology Wales)
Animal bone	Richard Madgwick (Cardiff University)
CBM, heat affected clay, Daub etc.	Rachael Hall (APS)
Clay pipe	Hilary Major (Freelance)
Glass	Rowena Hart (Archaeology Wales)
Cremated and non-cremated human bone	Malin Holst (University of York)/Richard Madgwick (Cardiff University)
Metalwork	Kevin Leahy (University of Leicester)/ Quita Mold (Freelance)
Metal work and metallurgical residues	Dr Tim Young (GeoArch)
Neo/BA pottery	Dr Alex Gibson (Bradford University)
IA/Roman pottery	Jane Timby (Freelance)
Roman Pottery	Rowena Hart (Archaeology Wales)/ Peter Webster (Freelance)
Post Roman pottery	Stephen Clarke (Monmouthshire Archaeology)
Charcoal (wood ID)	John Carrot (Freelance)
Waterlogged wood	Nigel Nayling (University of Wales – Lampeter)
Molluscs and pollen	Dr James Rackham

Charred and waterlogged plant remains	Wendy Carruthers (Freelance)

Specialist finds and palaeoenvironmental reports will be written by AW specialists, or sub-contracted to external specialists when required.

Monitoring

DAT-DM will be contacted approximately five days prior to the commencement of site works, and subsequently once the work is underway.

Any changes to this WSI that AW may wish to make after approval will be communicated to DAT-DM for approval on behalf of the Planning Authority.

Representatives of DAT-DM will be given access to the site so that they may monitor the progress of the building recording and/or watching brief. DAT-DM will be kept regularly informed about developments, both during the site works and subsequently during the post-fieldwork programme.

If significant detail is discovered, all works will cease and a meeting will be convened with DAT-DM to discuss the most appropriate way forward.

6 Post Field-work programme

Conservation

After agreement with the client, DAT-DM and any identified landowner arrangements will be made for the long term conservation and storage of all artefacts in an appropriate local or national museum.

Site Archive

An ordered and integrated site archive will be prepared in accordance with: Management of Research Projects in the Historic Environment (MoRPHE) (Historic England 2006) upon completion of the project.

The site archive (including artefacts and samples) will be will be prepared in accordance with the National Monuments Record (Wales) agreed structure and deposited with an appropriate receiving organisation, in compliance with CIfA Guidelines (*Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives'*, 2014). The legal landowners consent will be gained for deposition of finds.

Analysis

A draft report will be submitted to the client for comments within 2 months of the watching brief being completed.

A full client report of the results of the archaeological work will be prepared within 3 months of the end of the on-site works. Copies of the report will be sent to the client and DAT-DM, and for inclusion in the regional Historical Environment Record. Digital copies will also be provided in pdf format.

Terminology will be consistent with the English Heritage Thesaurus.

The client report will contain, as a minimum, the following elements:

- Non-technical summary

- Location plan showing the area/s covered by the watching brief, all artefacts, structures and features found
- Plan and section drawings (if features are encountered) with ground level, ordnance datum and vertical and horizontal scales.
- Written description and interpretation of all deposits identified, including their character, function, potential dating and relationship to adjacent features. Specialist descriptions and illustrations of all artefacts and soil samples will be included as appropriate.
- An indication of the potential of archaeological deposits which have not been disturbed by the development
- A discussion of the local, regional and national context of the remains by means of reviewing published reports, unpublished reports, historical maps, documents from local archives and the regional HER as appropriate.
- A detailed archive list at the rear listing all contexts recorded, all samples finds and find types, drawings and photographs taken. This will include a statement of the intent to deposit, and location of deposition, of the archive.

A search of the regional Historic Environment Record (HER), held and maintained by Dyfed Archaeological Trust, may also be required to help place the findings of the archaeological work into context.

Report and archive deposition

Copies of all reports associated with the watching brief, together with inclusion of supporting evidence in appendices as appropriate, including photographs and illustrations, will be submitted to Willmott Dixon and DAT-DM upon completion.

After an appropriate period has elapsed, copies of all reports will be deposited with the relevant county Historical Environment Record, the National Monuments Record and, if appropriate, Cadw.

Short archaeological reports will be submitted for publication in relevant journals; as a minimum, a report will be submitted to the annual publication of the regional CBA group or equivalent journal.

Where it is considered that remains have been revealed that may satisfy the criteria for statutory protection, AW will submit preliminary notification of the remains to Cadw.

The final archive (site and research) will, whenever appropriate, be deposited with a suitable receiving institution, usually the relevant Local Authority museums service. Arrangements will be made with the receiving institution before work starts.

Although there may be a period during which client confidentiality will need to be maintained, copies of all reports and the final archive will be deposited no later than six months after completion of the work.

Copies of all reports, the digital archive and an archive index will be deposited with the *National Monuments Record*, RCAHMW, Aberystwyth.

Wherever the archive is deposited, this information will be relayed to the HER. A summary of the contents of the archive will be supplied to DAT-DM.

The finds, including artefacts and ecofacts, excepting those which may be subject to

the Treasure Act, will be deposited with the same institution, subject to the agreement of the legal land owners.

6 Additional Considerations

Standards

AW works to the standards and guidance provided by the *Chartered Institute for Archaeologists*. AW fully recognise and endorse the Chartered Institute for Archaeologists' *Code of Conduct*, *Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology* and the *Standard and Guidance for archaeological watching briefs* currently in force. All employees of AW, whether corporate members of the Chartered Institute for Archaeologists or not, are expected to adhere to these Codes and Standards during their employment.

Project Tracking

The designated AW manager will monitor all projects in order to ensure that agreed targets are met without reduction in quality of service.

Staff

The project will be undertaken by suitably qualified AW staff. The project will be managed by Philip Poucher.

Equipment

The project will use existing AW equipment.

Expected timetable of archaeological works

The on-site work will be undertaken at the convenience of the client. A date of early February has been put forward as an likely start date for development works, although it is anticipated that work requiring an archaeological watching brief will not commence immediately.

Insurance

AW is fully insured for this type of work, and holds Insurance with Aviva Insurance Ltd and Hiscox Insurance Company Limited through Towergate Insurance. Full details of these and other relevant policies can be supplied on request.

Arbitration

Disputes or differences arising in relation to this work shall be referred for a decision in accordance with the Rules of the Chartered Institute of Arbitrators' *Arbitration Scheme for the Institute for Archaeologists* applying at the date of the agreement.

Health and safety

Prior to the commencement of work AW will carry out and produce a formal Health

and Safety Risk Assessment in accordance with *The Management of Health and Safety Regulations* 1992. A copy of the risk assessment will be kept on site and be available for inspection on request. A copy will be sent to the client (or their agent as necessary) for their information. All members of AW staff will adhere to the content of this document.

AW will adhere to best practice with regard to Health and Safety in Archaeology as set out in the FAME (Federation of Archaeological Managers and Employers) health and safety manual *Health and Safety in Field Archaeology (2002)*.

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Poucher, P. 2017a, *Haverfordwest Welsh Medium School, Withybush, Haverfordwest. Standing Stone PRN 13075: Archaeological Excavation*, AW Report No.1533

Poucher, P. 2017b, *Haverfordwest Welsh Medium School, Withybush, Haverfordwest. WWII Encampment PRN 102563: Building Recording*, AW Report No.1534

Appendix IV:

ARCHIVE COVER SHEET

Haverfordwest Welsh Medium School, Withybush, Haverfordwest

Site Name:	Haverfordwest Welsh Medium School
Site Code:	HWMS/17/WB
PRN:	13075, 102563
NPRN:	-
SAM:	-
Other Ref No:	-
NGR:	NGR SM 9626 1744
Site Type:	School development on former pasture fields
Project Type:	Watching Brief
Project Manager:	Philip Poucher
Project Dates:	March-June 2017
Categories Present:	Mesolithic, Modern
Location of Original Archive:	AW
Location of duplicate Archives:	RCAHMW, Aberystwyth
Number of Finds Boxes:	2
Location of Finds:	TBC Intended recipient of lithic artefacts – Scolton Manor Museum, Haverfordwest Intended recipient of modern artefacts – Pembroke Dock Heritage Centre, Pembroke Dock
Museum Reference:	TBC Information to be relayed to DAT upon confirmation
Copyright:	AW
Restrictions to access:	None

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