

**South Wales Gas Pipeline Project  
Site 511/514  
Land South-East of Upper Neeston  
Herbrandston  
Pembrokeshire**  
Archaeological Excavation

DRAFT

*for*

**Rhead Group**

*on behalf of*

**National Grid**

CA Project: 9150  
CA Report: 13254  
Event: DAT102846

March 2014

# South Wales Gas Pipeline Project Site 511/514

## Archaeological Excavation

CA Project: 9150  
CA Report: 13254  
Event: DAT102846

prepared by	Alistair Barber, Senior Project Officer and Jonathan Hart, Senior Publications Officer
date	March 2014
checked by	Karen E Walker, Post-Excavation Manager
date	March 2014
approved by	Martin Watts, Project Director, Head of Publications
signed	
date	March 2014
issue	01

*This report is confidential to the client. Cotswold Archaeology accepts no responsibility or liability to any third party to whom this report, or any part of it, is made known. Any such party relies upon this report entirely at their own risk. No part of this report may be reproduced by any means without permission.*

© Cotswold Archaeology

<b>Cirencester</b> Building 11 Kemble Enterprise Park Kemble, Cirencester Gloucestershire, GL7 6BQ t. 01285 771022 f. 01285 771033	<b>Milton Keynes</b> Unit 4 Cromwell Business Centre Howard Way, Newport Pagnell MK16 9QS t. 01908 218320	<b>Andover</b> Office 49 Basepoint Business Centre Caxton Close, Andover Hampshire, SP10 3FG t. 01264 326549
e. <a href="mailto:enquiries@cotswoldarchaeology.co.uk">enquiries@cotswoldarchaeology.co.uk</a>		

## CONTENTS

SUMMARY .....	4
1. INTRODUCTION .....	5
<i>The site</i> .....	5
<i>Archaeological background</i> .....	6
<i>Archaeological objectives</i> .....	7
<i>Methodology</i> .....	7
2. RESULTS (FIGS 2–16).....	9
3. PROJECT TEAM .....	18
4. REFERENCES .....	19
APPENDIX A: CONTEXT DESCRIPTIONS .....	22
APPENDIX B: THE FINDS .....	32
APPENDIX C: THE PALAEOENVIRONMENTAL EVIDENCE .....	42
APPENDIX D: THE RADIOCARBON DATING (BY DR SEREN GRIFFITHS).....	43

DRAFT



## LIST OF ILLUSTRATIONS

- Fig. 1 Site location plan (1:25,000)
- Fig. 2 Plan (1:250) and photograph of Site 511
- Fig. 3 Sections through trough, hearth and burnt mound and section through marsh deposits (1:25)
- Fig. 4 Photograph: burnt mound 511255, looking north-east
- Fig. 5 Photograph: trough with overlying burnt mound and marsh deposits, looking north-west
- Fig. 6 Photograph: hearth 511279 with overlying burnt mound deposits, looking north
- Fig. 7 Photograph: hearth 511279, looking north
- Fig. 8 Photograph: trough, hearth 511279 and adjacent postholes, looking north
- Fig. 9 Photograph: trough, showing underlying silts, looking south
- Fig. 10 Site 514, plan of archaeological features (1:250)
- Fig. 11 Site 514, sections through prehistoric features towards eastern end of site (1:20)
- Fig. 12 Photograph: Early Neolithic ditch 511038, looking north
- Fig. 13 Photograph: hearth 511014, looking north
- Fig. 14 Photograph: Roman enclosure ditch 511098, looking east
- Fig. 15 Photograph: stone layer 511407, looking south
- Fig. 16 Photograph: stone layer 511406, looking north
- Fig. 17 A Bayesian model for the results from site 511
- Fig. 18 The calibrated radiocarbon dates from site 514

## **GLOSSARY**

CA – Cotswold Archaeology

CAP – Cambrian Archaeological Projects

CPAT – Clwyd Powys Archaeological Trust

DAT – Dyfed Archaeological Trust

GGAT - Glamorgan Gwent Archaeological Trust

FTP – Felindre to Brecon gas pipeline

HER – Historic Environment Record

MHA – Milford Haven to Aberdulais gas pipeline

NAL – Network Archaeology Ltd

NLMJV – Nacap Land & Marine Joint Venture

UPD – Updated Project Design

DRAFT



## SUMMARY

<b>Project Name:</b>	South Wales Gas Pipeline Project
<b>Location:</b>	Site 511/514, Land South-East of Upper Neeston, Herbrandston, Pembrokeshire
<b>NGR:</b>	SM 8810 0745
<b>Type:</b>	Excavation
<b>Date:</b>	17 July–10 October 2006
<b>Location of Archive:</b>	To be deposited with RCAHMW (original paper archive) and Scolton Manor Museum (material archive and digital copy of paper archive; accession number 2008.1)
<b>Site Code:</b>	MHA06

An archaeological excavation was undertaken by Cotswold Archaeology during groundworks associated with construction of gas pipelines (part of the South Wales high pressure gas pipeline scheme) between Milford Haven and Aberdulais, and Felindre and Brecon, which were conducted between 2005 and 2007.

A focus of Early Neolithic activity was identified, in the form of a semi-circular ditch containing pottery sherds and charred hazelnut shells, and a pit containing pottery, worked flint tools and microdebitage, a polished stone axe flake and charred hazelnut shells. Post-pits and postholes containing Beaker and Early Bronze Age Food Vessel pottery sherds were also encountered, whilst the rare survival of a waterlogged wooden trough associated with a hearth and burnt mound also attests to Middle Bronze Age activity alongside a former stream course.

A series of ditched plot boundaries and pits within Site 514, associated with later 3rd to 4th-century AD pottery, suggest the presence of a rural settlement in the site vicinity. The Roman pottery assemblage is noteworthy given an apparent paucity of such material documented from this far west in Wales.

forthcoming specialist reports

charcoal, CPR, pollen,

## 1. INTRODUCTION

- 1.1 NACAP Land and Marine Joint Venture (NLMJV), on behalf of National Grid, commissioned RSK Environment (part of the RSK Group) to manage the archaeological works (non-invasive surveys, desk based assessment, evaluation, watching brief, and open area excavation) on a 216km-long section of pipeline from Milford Haven (Pembrokeshire) to Brecon (in Powys). The high pressure gas pipeline (part of the 316km long pipeline route from Milford Haven to Tirley in Gloucestershire) was required to reinforce the gas transmission network. The archaeological work performed in advance of this pipeline was undertaken in a number of sections by a number of archaeological companies. The westernmost section of 122km, from Milford Haven to Aberdulais, was investigated by CA (then Cotswold Archaeological Trust) during 2005–2007 with some additional excavation work carried out by CAP. The 89km section from Felindre to Brecon was investigated by CA during 2006–2007 and CAP during 2007. Assessment reports on the works were completed in January 2012 (NLM 2012a, 2012b) and the current reporting stage was commissioned in February 2013.
- 1.2 Between July and October 2006 CA carried out archaeological excavation at Site 511/514, Land South-East of Upper Neeston, Herbrandston, Pembrokeshire (centred on NGR: SM 8810 0745; Fig. 1). The objective of the excavation was to record all archaeological remains exposed during the pipeline construction.
- 1.3 The excavation was carried out in accordance with professional codes, standards and guidance documents (EH 1991; IfA 1999a, 1999b, 2001a, 2001b, 2001c and IfA Wales 2008). The methodologies were laid out in an *Archaeological Management Plan* (RSK 2006) and associated *Written Statements of Investigation* (WSIs) and *Method Statements*.

### ***The site***

- 1.4 Site 511 lies within a field adjoining the eastern side of a small un-named stream (Fig. 1). The stream is overgrown and issues from a spring 200m north-west of the site and empties into Gelliswick Bay 2km south-east of the site. Site 514 is located within the same field, to the east of Site 511. Both sites lie at 48m AOD on land that falls away gently to the south. The surrounding landscape is one of gently rolling hills and steeply cut water course valleys.

- 1.5 The underlying solid geology of the area is mapped as Milford Haven Group (Argillaceous Rocks and Sandstone) of the Devonian and Silurian Periods (BGS 2013).

### **Archaeological background**

- 1.6 The preliminary *Archaeology and Heritage Survey* (CA 2005) noted a series of features within the vicinity of Sites 511 and 514. These comprise two burnt mounds, a cropmark indicating the presence of a defended enclosure, a 19th century dwelling and place-name evidence alluding to an estate lodge in the area. A Grade II Listed farmhouse also lies just over 500m to the south-east of the sites. No new sites have been recorded on the HER within the study area since the production of the 2005 survey.
- 1.7 Of these recorded heritage assets those representing the prehistoric landscape are of greatest relevance to the interpretation of archaeological features recorded at Sites 511 and 514. A number of HER records of prehistoric activity from the wider vicinity are also of relevance, including a scatter of 336 pieces of flint, of late Mesolithic- early Neolithic date (PRN 100487-8) and a possible dismantled Neolithic long barrow (PRN 3026), c. 1km to the south-west and west-south-west of Site 511 respectively. A Bronze Age urn and possible Bronze Age pits (PRN 100486) were also recorded in the former location.
- 1.8 Aerial photographs taken in the 1950s show a sub-rectangular enclosure c.60m across defined by a low earthwork bank (PRN12177). This was destroyed by the construction of the oil refinery, and no archaeological investigation took place. Based on the form of the enclosure it is thought to have been Iron Age in date, however this is unverified.
- 1.9 A large oval burnt mound (c.6m x 2.5m x 0.1m) partly eroded by an adjacent stream was recorded by Cambria SMR in 1994 (CA 2005, ref. ID 10; PRN 3032).. A further possible burnt mound was also recorded on the county HER in the Upper Neeston locality (CA 2005, ref. ID 9; PRN 3031), although this is reported to have not been found during a 1995 survey.
- 1.7 An earthwork survey undertaken in 2005 within the site in advance of the pipeline construction works recorded several raised areas but no burnt mound material was visible in eroded sections of the stream bank. A subsequent geophysical survey of



the pipeline easement (Bartlett 2005) revealed anomalies within Site 514 which were subsequently investigated by archaeological excavation in advance of the pipeline trenching. Site 511 was discovered during a watching brief during breakthrough works through the field boundary along the stream side.

### **Archaeological objectives**

1.8 The objectives of the archaeological works were:-

- to monitor groundworks, and to identify, investigate and record all significant buried archaeological deposits revealed on the site during the course of the development groundworks;
- at the conclusion of the project, to produce an integrated archive for the project work and a report setting out the results of the project and the archaeological conclusions that can be drawn from the recorded data.

### **Methodology**

1.9 The fieldwork initially followed the methodology set out within the initial *WSI* (NLM 2006). An archaeologist was present during intrusive groundworks comprising stripping of the pipeline easement to the natural substrate.

1.10 Archaeological remains were partially revealed during the initial archaeological watching brief on Site 511. The remains consisted of a partially-exposed waterlogged wooden object, initially conjectured to be the remains of a dugout canoe, within silt deposits of the marshy former stream course and the partially-exposed remains of an adjacent burnt mound. Following on-site consultation between RSK Environment, DAT and CA, an archaeologically controlled topsoil strip was then undertaken to better define the archaeological remains at Site 511. A controlled topsoil strip undertaken at adjacent Site 514 revealed extensive remains including ditches, pits, postholes and stone layers.

1.11 Following completion of the controlled archaeological strip, a second on-site meeting was held between the RSK Archaeologist, National Grid Archaeologist, Dyfed Archaeology (formerly Cambria Archaeology (Heritage Management)), Nigel Nayling (University of Wales, Lampeter) and CA. It was agreed that there was a requirement to investigate and record the features encountered in advance of any further construction works at both sites, and excavation followed between July and October

2006. Sites 511 and 514 were initially assigned as individual site numbers but as it became clear that they were broadly contemporaneous the two sites were excavated and recorded as Site 511/514 using numbers with 511 prefixes throughout.

- 1.12 Investigation of the exposed deposits at Site 511 was conducted in accordance with a site-specific Written Scheme of Investigation (WSI; CA 2006a) Site 514 was excavated in accordance with a second WSI (CA 2006b).
- 1.13 Where archaeological deposits were encountered written, graphic and photographic records were compiled in accordance with CA Technical Manual 1: *Fieldwork Recording Manual*.
- 1.14 Archaeological features were hand-excavated in accordance with the two WSIs. Within Site 511 two parallel machine-cut trenches (subsequently amalgamated into a single trench) were excavated through the former stream course and extant hedged boundary. The adjacent burnt mound was 50% excavated in opposing quadrant and was sampled for palaeoenvironmental remains by means of a 0.5m x 0.5m test pit excavated in 50mm spits from the highest point of the mound through to the underlying original ground surface. Each spit was independently sampled. The relationship between the burnt mound, hearth deposits, the waterlogged wooden object and the stream course was also investigated by means of a series of hand-excavated trenches. Hearth deposits were 100% excavated at the end of this process. Following this, the trough was lifted within a specially constructed frame under the supervision of Nigel Nayling and transported to the Newport Ship facility for conservation and further analysis. At Site 514 up to 20% of ditches/gullies were excavated and a minimum of 50% of each posthole/pit was excavated.
- 1.15 The post-excavation work was undertaken following the production of the UPD (GA 2012) and included re-examination of the original site records. Finds, environmental and radiocarbon-dating evidence was taken from the assessment reports (NLM 2012a) except where the UPD recommended further work, in which case the updated reports were used. The archaeological background to the site was assessed using the following resources:-
  - the *Archaeology and Heritage Survey* which was undertaken in advance of the pipeline construction and which examined a 1km-wide corridor centred on the pipeline centre line, including the then existing HER record (CA 2005b);

- Dyfed Archaeological Trust HER data (received May 2014); and
- other online resources, such as Google Earth and Ordnance Survey maps available at <http://www.old-maps.co.uk/index.html>.

All monuments thus identified that were relevant to the site were taken into account when considering the results of the fieldwork.

- 1.16 The archive and artefacts from the excavations are currently held by CA at their offices in Kemble. Subject to the agreement of the legal landowner the artefacts will be deposited with Scolton Manor Museum under accession number 2008.1, along with a digital copy of the paper archive. The original paper archive will be deposited with the RCAHMW.

## 2. RESULTS (FIGS 2–16)

- 2.1 This section provides an overview of the excavation results; detailed summaries of the recorded contexts, finds, environmental samples (palaeoenvironmental evidence) and radiocarbon dates are to be found in Appendices A, B, C and D. The natural geological substrate, comprising sandstone bedrock and yellow-brown silty clay, was overlain by a 0.1m-thick subsoil and a 0.25m-thick topsoil.

### *Palaeochannel*

- 2.2 Investigation of the marsh at Site 511 revealed that it had formed over what was originally a broad, shallow channel up to 28m wide and 0.6m deep (Fig 2). The channel had filled with successive stony silt and silty clay deposits (511068, 511078 and 511079) prior to the formation of the marsh.

### *Mesolithic*

- 2.3 An unstratified oblique Mesolithic microlith from Site 514 represents the only indication of Mesolithic activity. A few flints dateable as late Mesolithic/early Neolithic were found within Early Neolithic features and were therefore probably of Early Neolithic date.

### *Early Neolithic*

- 2.4 Early Neolithic features were found towards the eastern end of the site. The largest of these was curvilinear ditch 511038. This appeared to partially enclose an area open to the south-west and was 0.4m–0.85m wide and up to 0.4m deep with a V-

shaped to flat-based profile (Fig. 11, sections CC and DD). It contained up to two brown silty clay fills which for the most part were devoid of anthropogenic material other than small quantities of charcoal and burnt stones. An exception to this was lower fill 511055, found towards the south-eastern ditch terminal, which contained six undecorated possible Neolithic pottery sherds (Appendix B) along with a large number of charcoal fragments, some probably from oak, as well as hundreds of charred hazelnut shell fragments, one of which produced a radiocarbon date of 3870–3640 cal BC (Appendix D). Also from this fill was a substantial assemblage of flints (135 pieces), dominated by microdebitage but also including flakes. Some of these flints had been burnt and most were not closely dateable, but 11 pieces of microdebitage were diagnostic of Late Mesolithic/Early Neolithic technology (Appendix B). The overlying fill, 511056, included 24 Early Neolithic Developed Carinated Bowl sherds and a small flint assemblage (12 pieces) including a flake, a blade and two scrapers dateable to the Late Mesolithic/Early Neolithic period (Appendix B). Together, these two fills seem to represent localised dumping of domestic waste.

- 2.5 Pit 511071 was located 5m north of the curvilinear ditch and was 0.5m wide and 0.1m deep with a flat-based profile (Fig. 11, section EE). It contained a single charcoal-rich fill which produced 34 Early Neolithic Developed Carinated Bowl sherds, unburnt and burnt flint microdebitage indicative of Late Mesolithic/Early Neolithic knapping and two Neolithic flint flakes, one struck from a Neolithic polished stone axe and re-worked to form a piercer (Appendix B), along with possible oak charcoal and charred hazelnut shells from which a radiocarbon date of 3760–3640 was obtained (Appendix D).

#### *Beaker/Early Bronze Age*

- 2.6 Within Site 514, a small quantity of finds indicated activity within the Beaker/Early Bronze Age period. Seven residual sherds of probable Early Bronze Age pottery were also recovered from Roman ditch fill 511029.
- 2.7 An upper fill of Early Neolithic ditch 511038 contained three conjoining Early Bronze Age Food Vessel sherds (Appendix B). The same ditch was truncated by pits 511040, 511057, and 511171 and posthole 511125. These were 0.35m to 0.6m wide and 0.35m deep with steep-sided, round-based profiles (Fig. 11, sections DD and FF). All contained similar clay silt fills, and that from pit 511040 yielded two sherds of Beaker pottery along with crumbs of undiagnostic prehistoric pottery,

charcoal fragments and a few charred hazelnut shell fragments. The same pit also contained 21 flints comprising mainly flakes with some debitage as well as a blade and three scrapers. One of the scrapers was Neolithic or Early Bronze Age whilst the other tools comprised residual Neolithic material and the remainder of the assemblage was not closely dateable (Appendix B). Pit 511169 contained no finds but was comparable to the dated Beaker/Early Bronze Age pits and was probably of this period.

### *Middle Bronze Age*

- 2.8 A wooden trough, a hearth and a burnt mound were found on the eastern bank of the palaeochannel (Figs 2–9). The trough, 511353, had been set within purpose-dug pit, 511358, cut into the eastern bank of the palaeochannel (Fig. 2 and Fig. 3, section AA and Fig. 4). Two vertical wooden stakes (511432 and 511433; not illustrated), 0.05m in diameter, may have helped retain the trough. Silt 511388, found beneath the trough, produced a small amount of fragmentary charcoal, two well-preserved charred wheat grains and small fragments of waterlogged wood, but a monolith sample through this material yielded no further organic remains.
- 2.9 The trough itself had been hewn from a single piece of oak now 4.26m long and up to 0.98m wide, although these may not have been the original dimensions. It was hewn to form a flat base with raised sides and post-excavation examination clearly demonstrated that it had not originated as a boat as originally conjectured on site, so the item was probably purpose-built as a trough. A radiocarbon date of 1530–1300 cal. BC (Beta-218656, Appendix D) was obtained from a fragment of oak wood which had become detached from the trough during its initial discovery. Although an attempt to date the trough through dendrochronological analysis failed, the length of the ring sequence did suggest that the parent tree was at least 200 years old, possibly much older, pushing the likely use of the trough towards the later part of the Middle Bronze Age, perhaps between the 13th to 11th centuries BC.
- 2.10 The trough contained horizontal layers of charcoal and burnt stone (511354, 511356, 511357 and 511388). Six column samples through these layers yielded only comminuted charcoal.
- 2.11 At the trough's eastern end, furthest from the water course, a rectangular stone-built hearth (511279) was found. This comprised vertically-set edging stones and a slab-built base set into a shallow pit (Figs 6–8). The stones were unworked and showed

signs of scorching. The hearth contained burnt stone and charcoal deposits (511300, 511298 and 511280/511299) but these produced no artefactual material and samples from them contained only very fragmentary charcoal. A thin charcoal layer (511430) beneath the hearth base had probably accumulated during the use of the hearth as smaller material fell between the stones. It included a few poorly preserved charred cereal grains and weed seeds.

- 2.12 Several small circular postholes were found surrounding the eastern end of the hearth and trough. These may have supported a structure such as a windbreak. To the east of this was pit 511304, a steep-sided, flat-based cut 0.6m wide and 0.15m deep. Other features nearby included pits 511460 and 511462 and pit/posthole 511048.
- 2.13 Burnt mound 511255 was found on slightly higher ground immediately east of the trough and hearth, and overlaid pits 511304, 511460 and 511462. It was oval in plan, although the highest point, located centrally, comprised material with far fewer burnt inclusions than the surrounding deposits, thus giving the mound the appearance of a ring when seen from above (Fig. 2, photograph). It was approximately 12m by 17m in extent with a maximum depth of 0.15m and was comprised of varying proportions of predominantly small to medium (but sometimes large) burnt mudstones and sandstones as well as white (often burnt) quartz, sandstone gravel and coarse-grained grits. No buried soil was present beneath the burnt mound, which had developed directly over the natural substrate.
- 2.14 Relatively large amounts of charcoal were recovered from samples taken from the mound. This was dominated by wood charcoal **details tbc**, with only a few charred cereal grains present. Radiocarbon dating of charcoal and charred grain from the mound gave a consistent date range of 1530–1320 cal. BC (Beta-257710 and -11, SUERC-55517 and -18). Two monolith samples were taken through the burnt mound and overlying silt and peat deposits **results tbc**. **Awaiting CPR and pollen report to update this**
- 2.15 The mound and trough were sealed by alluvial silts which were themselves overlain close to the former watercourse by peat. A monolith sample through these deposits revealed a developing soil horizon but provided no indication as to the development of the channel in relation to the trough.

*Unphased prehistoric features (Fig. 10)*

- 2.16 A number of features within Site 514 were probably prehistoric, but it has proved impossible to phase these more precisely, due a dearth of closely dateable finds and secure stratigraphic or spatial relationships with other, more closely dateable, features. These have been shown on Fig. 10 as unphased prehistoric features.
- 2.17 Pit 511442, at the north-western edge of the site, was 0.45m in diameter and 0.1m deep and produced one sherd of possible prehistoric pottery.

*Hearths*

- 2.18 Hearth 511014 was found within the north-western part of Site 514. It comprised a cut 0.85m wide and 0.2m deep, lined along the sides with stones which had been scorched. Its fill contained a single crumb of prehistoric pottery and an undiagnostic piece of fresh flint microdebitage. Samples from the fill also yielded poorly-preserved charred cereal grains, including barley and possible oats.
- 2.19 South and east of this hearth were further stone-lined features with evidence for *in situ* burning, as well as pits and postholes. All of these were undated by finds, but were probably broadly contemporary with hearth 511014, given their morphology. Hearth 511070 was found 10m south of the hearth 511014 and was a steep-sided, flat-based cut 0.7m wide and 0.35m deep lined with stones, many of which had been scorched red. It had been backfilled with silty clay which contained no anthropogenic material (tbc sample 511009). Hearths 511074 and 511075, 10m south-east of hearth 511014, were also lined with sandstones. Samples from the fills of both hearths yielded fragments of fired clay and a relatively large amount of charcoal, including a few poorly preserved emmer/spelt wheat and wheat grains, in addition to which the hearths contained a small assemblage of flints comprising a single piece of microdebitage and two flakes, one of which was dateable as Neolithic.
- 2.20 Immediately west of hearths 511074 and 511075 were two parallel elongated hearths, 511375 and 511378. These were up to 2.4m long, 0.4m wide and 0.3m deep and were lined and floored with sandstones, many of which had been scorched. Both hearths contained silty clay fills which included charcoal and burnt stones, and samples from these contained a few poorly preserved charred cereal grains including emmer/spelt wheat and wheat/barley.

### *Postholes and stone layers*

- 2.21 To the south-east of these hearths were several postholes. Amongst these, postholes 511341, 511328, 511413 and 511272 all included stone post-packing and may have supported a four-post structure. A cluster of eight postholes south and east of this possible structure also contained stone post-packing, with the best-preserved including clear settings for posts. Further postholes were found on a north/south alignment to the south of this posthole cluster. These included two with post-packing (postholes 511324 and 511249) and one (511326) without, but which had been truncated by a possible Late Roman grave (see Late Roman, below). Immediately west of this north/south alignment of postholes were stone layers 511426 and 511406. Both comprised flat-laid stones set into the natural substrate. These stone layers were undated, no overall shape was discernable from their distribution and parts extended somewhat to the south and east of the postholes. However, it is possible that the stones represent surfacing associated with the postholes, and therefore were of prehistoric date. This suggestion is strengthened by the presence of a pebble hammerstone recovered from a pit or hollow found in association with layer 511406, possibly as a construction cut.
- 2.22 A further stone-packed posthole was found west of the hearths (posthole 511087), close to a bowl-shaped pit (511089), and these are also likely to have been part of the prehistoric activity, given their locations.

### *Pits and postholes near Early Neolithic ditch 511038*

- 2.23 Pit 511367 was located adjacent to Early Neolithic ditch 511038 and although undated, was probably prehistoric given its location. It comprised a 1.1m-wide, 0.6m-deep cut with almost vertical sides and a flat base and contained a single grey-brown silty clay fill. Its steep-sided morphology is suggestive of use as a storage pit. Other features in the vicinity of the Early Neolithic ditch included postholes 511032, 511144, 511187, 511189 and 511258. All were shallow and undated by finds but may have been prehistoric and perhaps defined the northern and eastern edges of a structure or fence line.

### *Late Roman*

- 2.24 Roman features were found across much of Site 514. These comprised ditches set out on a rectilinear system, defining fields or enclosures. The ditches were typically 0.4m–1m wide and 0.15m–0.7m deep with v-shaped profiles. All appear to have filled naturally and overall they produced a small assemblage of abraded Roman



pottery and ceramic building material (Appendix B). Samples from the ditches contained small quantities of charcoal, including charred emmer/spelt wheat, wheat, barley and oat grains.

2.25 Where closely dateable, the pottery from the ditches was typically of later 3rd or 4th-century AD date with a shelly jar sherd from ditch 511031 indicating a *terminus post quem* after *c.* AD 370. The layout of the ditches themselves suggests only one phase of activity was present and the absence of any obvious re-cutting reinforces this suggestion.

2.26 Towards the north-western baulk, pit 511440 contained a 2nd-century AD pottery sherd and this may have been either a Roman feature or a later pit with residual pottery.

#### *Possible grave*

2.27 Sub-rectangular pit 511366 was found 10m south-east of the prehistoric hearths. This pit was 1.8m long, 0.6m wide and 0.15m deep with steep sides and a flattish base. The size and shape of this feature raises the possibility that this was a grave. No burial was found and the feature was filled with grey-brown sandy silt which was devoid of finds, but it is possible that any former inhumation had been entirely destroyed by the local soil conditions. Although undated, this possible grave truncated a probably prehistoric posthole and may have been associated with the Late Roman fields. Occasional burials close to Roman rural boundaries are paralleled on other sites (for example Hart 2008, 17–18).

#### *Post-medieval and modern*

2.28 A series of alluvial silty clay deposits associated with the former stream course and current vegetated marsh were recorded at Site 511. Within Site 514, a small number of pits contained post-medieval pottery. Towards the western end of Site 514, pit 511438 contained a fragment of post-medieval brick (discarded on site) whilst pits 511456 and 511182 were undated by finds but truncated Roman ditches and may have been post-medieval. Similarly, pit 511424 was undated by finds but truncated one of the elongated prehistoric hearths and might have been post-medieval, although could instead have been Roman or have belonged to another phase of prehistoric activity.

*Undated*

- 2.29 Numerous features undated by finds and without spatial or stratigraphic relationships to dated features were found throughout Site 514. Although undated (and shown as such on Fig. 10), most or all are probably best seen as prehistoric, given the presence of comparable prehistoric features on the site, and the absence of significant quantities of Roman or later pottery. Amongst these undated but probably prehistoric features several groups were notable, as described below.

*Possible boundary*

- 2.30 Towards the western end of Site 514 was an alignment of three postholes (511114, 511116 and 511118), probably part of a fence boundary. To the immediate south of this, an alignment of pits (511129 at the western end to 511152 and 511154 at the eastern end) was found broadly parallel to the fence line and these may have been excavated along a boundary. These features were generally fairly shallow, but the deepest, 511154 survived as a bowl-shaped cut 0.5m wide and 0.2m deep with a single clay silt fill devoid of anthropogenic material. A continuation of this possible pit alignment was indicated by further small bowl-shaped pits to the east, with pit 511386 representing the easternmost of these. Again, these were filled with clay silts devoid of finds.

*Quarry pits*

- 2.31 South of the prehistoric hearths within Site 514, three oval pits were found (pits 511091, 511016 and 511018). All were flat-based with steep to moderate sides and contained one or two silty clay fills with no anthropogenic material. It is possible that these were small scale quarries aimed at localised stone outcrops or to extract clay. A small number of comparable pits were found elsewhere on site, including pits 511226 and 511148, 25m to the north-east, and 511239, 511359, 511393 and 511395, 26m to the south-west.

*Small undated pits*

- 2.32 Several other undated pits were present across the site. All were small and filled with silty clays devoid of anthropogenic material, other than occasional charcoal flecks.

*Possible four-post structure at eastern end of site*

- 2.33 A group of four pits (511275, 511281, 511373 and 511372) towards the eastern baulk may have in fact been the remains of postholes which formerly supported a

four-post structure. All were broad, shallow cuts but could represent cuts excavated to dig out disused posts. All were undated and may have been either prehistoric or Roman. Nearby stone layer 511407 was similar to the possible prehistoric stone layers to the west but was not found in association with other features or with any dating evidence.

#### *Discussion*

- 2.34 Unstratified Mesolithic worked flint was identified at Site 514, hinting at activity of this date in the wider landscape, however no features could be attributed to this period during the excavation.
- 2.35 The excavation revealed a discernible focus of Early Neolithic activity within the eastern part of Site 514, in the form of a curvilinear ditch and a pit, which contained Developed Carinated Bowl sherds, worked flint tools and microdebitage, a fragment of stone axe, reworked to form a piercer, and deposited hazelnut shells. Although the function of the ditch and subsequent, adjacent, postholes and pits is uncertain the remains add to a growing corpus of Early Neolithic artefacts from the locality, with pits containing Early Neolithic pottery and hazelnut shells having also been encountered approximately 6km east of the site near Rosemarket (CA Site 509). The Modified or Developed Carinated Bowl pottery from the Early Neolithic features suggests activity within the period c. 3800-3400 cal BC and Bayesian analysis of the radiocarbon dating suggests that the date of Early Neolithic activity can be refined to the earlier part of that date range, in the 38th, or first half of the 37th, century cal BC.
- 2.36 Early Bronze Age activity was represented by five pits cut into the fill of the Early Neolithic ditch. The ditch had clearly silted up before the pits were dug, however the concentration of the pits in this area and the presence of Early Bronze Age pottery in the upper fill of the ditch suggest that it may have survived as a hollow and that a memory of its former use may have survived.
- 2.37 The Middle Bronze Age burnt mound at Site 511 was noteworthy for the survival of its large wooden trough and stone-lined hearth, making it one of the most complete mounds on the pipeline. Analysis of the trough shows that it was hewn from a single oak trunk. There was no evidence for previous use of the trough, for example as a boat, and it is most likely that it was purpose-built for use at the mound. Postholes found at the eastern end of the wooden trough and hearth could have supported a lightweight structure, although the purpose of this structure was unclear from the

distribution of the postholes. Despite the good preservation of the mound and the presence of in situ trough and hearth, there was still no clear evidence of the function of the monument beyond the heating of water using stones. **Maybe updated with CPR results?**

- 2.38 Radiocarbon dates from the mound indicated that it began to be formed in 1500–1410 cal. BC (95% probability; Construct511; Appendix D), most probably in the 50 years between 1470–1420 cal. BC (68% probability; Construct511; Appendix D). The end of activity at this mound is estimated to have occurred in 1490–1350 cal. BC (95% probability) or 1440–1400 cal. BC (68% probability; End511; Appendix D). The dating of the mound correlates with others excavated along the pipeline, the majority of which have been Early or Middle Bronze Age in depth.
- 2.39 A number of further pits, postholes and hearths were broadly assumed to be prehistoric in date, but could not be closely dated. These features in sum appeared to indicate prehistoric settlement activity on the site. The presence of the mound may indicate that any settlement was not Middle Bronze Age in date, as burnt mounds tended to be located away from areas of settlement, although this appears not to be a set rule and the presence of a temporary nearby settlement cannot be discounted.
- 2.40 The identification of a network of late Roman enclosure ditches, and a small number of pits, suggests the presence of a rural settlement in the site vicinity and is noteworthy given that finds of Roman pottery are rare from this far west in Wales.

### 3. PROJECT TEAM

Fieldwork was undertaken by Sam Thorogood, assisted by Jerry Austin, Justine Biddle, Hannah Bowden, Benjamin Brogan, Steven Cox, Ben Curtis, Sarah Dronfield, Matt Edmonds Eleri Farley, Elizabeth Hawksley, Adam Howard, Mike Ings, Lucy Loughman, Tim Power, Anthony Pritchard, Sian Reynish, Dave Roberts, Mike Turner, and Richard Watts. This report was written by Alistair Barber and Jonathan Hart with illustrations prepared by Daniel Bashford. The archive has been compiled by Jonathan Hart, and prepared for deposition by Hazel O'Neill. The fieldwork was managed for CA by Clifford Bateman and the post-excavation was managed for CA by Karen Walker.

#### 4. REFERENCES

- BGS (British Geological Survey) 2013 *Geology of Britain Viewer*. Online resource at <http://mapapps.bgs.ac.uk/geologyofbritain/home.html> accessed 8 November 2013
- Briggs, C. S. (ed) 2003 *Towards a research agenda for Welsh archaeology: proceedings of the IFA Wales/Cymru conference, Aberystwyth 2001* (BAR, British ser., **343**). Oxford, Archaeopress
- Britnell, W. J. and Savory, H. N. 1984 *Gwernvale and Penywyrlod: Two Neolithic Long Cairns in the Black Mountains of Brecknock*. Cardiff, Cambrian Archaeological Association
- CA (Cotswold Archaeology) 2003 *The Taking of Samples for Palaeoenvironmental / Palaeoeconomic Analysis from Archaeological Sites. Technical Manual 2*
- CA (Cotswold Archaeology) 2005 *Milford Haven to Aberdulais Gas Pipeline: Archaeology and Heritage Survey*. CA typescript report **04147**
- CA (Cotswold Archaeology) 2006a *Burnt mound and waterlogged wooden structure to the south of Upper Neeston Farm (RDX 185), Herbrandston, Milford Haven, Pembrokeshire. Milford Haven to Aberdulais Gas Pipeline. Written Scheme of Investigation for an Archaeological Excavation*
- CA (Cotswold Archaeology) 2006b *Possible prehistoric occupation site, Land south of Upper Neeston Farm (RDX 185), Herbrandston, Milford Haven, Pembrokeshire. Milford Haven to Aberdulais Gas Pipeline. Written Scheme of Investigation for an Archaeological Excavation*
- Caffell, A., and Holst, M. 2008 'Assessment report for Human Remains', in NLM 2012
- Clarke, D. L. 1970 *The Beaker Pottery of Great Britain and Ireland*. Cambridge, Cambridge University Press
- EH (English Heritage) 1991 *The Management of Archaeological Projects 2*
- GA (Groundwork Archaeology) 2012 *Milford Haven to Aberdulais and Felindre to Brecon High Pressure Gas Pipelines: Updated Project Design*
- Gibson, A. M. 1995 First Impressions: a review of Peterborough Ware in Wales. In I. Kinnes and G. Varndell (eds) *Unbaked urns of Rudely Shape – Essays on British and Irish Pottery for Ian Longworth*, 23–40. Oxford, Oxbow Books
- Gibson, A. 2013 *Milford Haven to Aberdulais and Felindre to Brecon Gas Pipeline: The Neolithic and Bronze Age Pottery from the Archaeological Investigations*, Gibson typescript report no. **121**
- Giorgi, J. and Martin, G. 2009 'Assessment Report for the Archaeobotanical Remains', in NLM 2012

- Grimes, W. F. 1939 'The Excavation of Ty Isaf Long Cairn, Brecknockshire', *Proc. Prehist. Soc.* **5**, 119–42
- Hall, R. 2008 'Assessment Report for Fired Clay and Daub', in NLM 2012
- Hart, J. 2008 'Excavation Results', in Hart, J. and McSloy, E. R. 'Prehistoric and Early Historic Activity, Settlement and Burial at Walton Cardiff, Near Tewkesbury: Excavations at Rudgeway Lane in 2004–5'. Holbrook, N. (ed) *Iron Age and Romano-British Agriculture in the North Gloucestershire Severn Vale*. Bristol and Gloucestershire Archaeological Report No. **6**, 1–84
- IfA (Institute for Archaeologists) 1999a *Guidelines for Finds Work*. IfA, Birmingham
- IfA (Institute for Archaeologists) 1999b *Standard and Guidance for Finds and Ecofact Studies and Curation*. IfA, Reading
- IfA (Institute for Archaeologists) 2001a *Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials*. IfA, Reading
- IfA (Institute for Archaeologists) 2001b *Standard and Guidance for an Archaeological Watching Brief*
- IfA (Institute for Archaeologists) 2001c *Standard and Guidance for Archaeological Excavation*
- IfA Wales (Institute for Archaeologists of Wales/Cymru) 2008 *Introducing a Research Framework for the Archaeology of Wales*, online resource at <http://www.archaeoleg.org.uk/intro.html> accessed December 2008
- Leahy, K. 2008 'Assessment Report for the Metal Objects, in NLM 2012
- Lynch, F. M. 1975 'Excavations at Carreg Samson megalithic tomb, Mathry, Pembrokeshire', *Archaeologia Cambrensis* **124**, 15–35
- Lynch, F. M. and Musson, C. R. 2004 'A Prehistoric and Early Medieval Complex at Llandegai, near Bangor, North Wales', *Archaeologia Cambrensis* **150**, 17–142
- Martin, G. and Rackham, J. 2009 'Assessment Report for the Column Samples and Monoliths', in NLM 2012
- McGrail, S. 1978 *Logboats of England and Wales*. National Maritime Museum, Greenwich Archaeological Series No.2, BAR Brit. Ser. **51**. Oxford
- Nayling, N. 2008 'Assessment Report for a Bronze Age Oak Trough', in NLM 2012a
- Needham, S. 2005 'Transforming Beaker Culture in North-west Europe: Processes of Fusion and Fission', *Proc. Prehist. Soc.* **71**, 171–217
- NLM (Nacap Land and Marine) 2006 *Milford Haven to Aberdulais Natural Gas Pipeline: Scheme of investigation for a programme of archaeological works*

- NLM (Nacap Land and Marine) 2012a *Milford Haven to Aberdulais High Pressure Gas Pipeline: Archaeology Assessment of Potential for Analysis*
- Pannett, A. 2014 *Milford Haven to Brecon LNG Pipeline: Lithic Analysis Report* A. Pannett typescript report
- Rackham, J. 2009 'Assessment Report for the Charcoal Remains', in NLM 2012
- RCAHMW (Royal Commission on the Ancient and Historical Monuments of Wales) 2013 *Coflein database* online resource at <http://map.coflein.gov.uk/> accessed 8 November 2013
- RSK (RSKENSr) 2006 *Milford Haven to Aberdulais Natural Gas Pipeline: Archaeological Management Plan. Nacap Land and Marine Final*, RSKENSr Environmental Ltd
- Savory, H. N. 1955 'The Excavation of a Neolithic Dwelling and a Bronze Age Cairn at Mount Pleasant farm, Nottage, Glamorgan', *Transactions of the Cardiff Naturalists Society* **81** (1950–52), 75–89
- Savory, H. N. 1980 *Guide Catalogue to the Bronze Age Collections*. Cardiff, National Museum of Wales
- Sheridan J. A. 2007 'From Picardie to Pickering and Pencraig Hill? New Information on the 'Carinated Bowl Neolithic' in northern Britain'. In A. W. R. Whittle and V. Cummings (eds.) *Gowing Over: the Mesolithic – Neolithic Transition in North-West Europe*, 441–92. Oxford, Oxford University Press (Proceedings of the British Academy **144**)
- Thomas. J. 1999 *Understanding the Neolithic*. London, Routledge
- Timby, J. 2013 *Felindre to Brecon Natural Gas pipeline 2006: Roman pottery publication summary* J. Timby typescript report
- Tyers, P. 1996 *Roman pottery in Britain*, Routledge
- Whittle, A., Healy, F. and Bayliss, A. 2011 *Gathering Time. Dating the Early Neolithic Enclosures of Southern Britain and Ireland*. Oxford, Oxbow Books
- Whittle, A. and Wysocki, M. 1998 'Parc le Breos Cwn Transepted Long Cairn, Gower, West Glamorgan: Date, Contents and Context', *Proc. Prehist. Soc.* **64**, 139–82
- Williams, A. 1953 'Clegyr Boia, St Davids (Pemb)', *Archaeologia Cambrensis* **102**, 20–47
- Young, C. J. 1977 *The Roman pottery industry of the Oxford region*, BAR **43**, Oxford

## APPENDIX A: CONTEXT DESCRIPTIONS

Context No.	Fill of	Interpretation	Description	L (m)	W (m)	Depth (m)	Spot date
511001		Natural substrate	Pink to yellow-brown silty clay and sandstone bedrock				
511002		Subsoil	Dark brown clay silt			0.1	
511003		Topsoil	Mid grey-brown clay silt			0.25	
511004	511005	Ditch fill	Brown silt		1.05	0.25	
511005		Ditch	Part of Ditch F: NE/SW aligned, U-shaped profile		1.05	0.25	
511006	511008	Ditch fill	Mid brown sandy silt		0.7	0.1	
511007	511008	Ditch fill	Mid grey-brown silt		1.5	0.4	
511008		Ditch	Part of Ditch E: NW/SE aligned with U-shaped profile		1.0	0.4	
511009		Burnt mound layer	Grey-black burnt stones and charcoal	16.0	14.5	0.1	
511010		Ditch	Part of Ditch G: NW/SE aligned with U-shaped profile		0.7	0.3	
511011	511010	Ditch fill	Light brown silt		0.7	0.3	
511012	511014	Hearth fill	Grey-brown silt	0.7	0.7	0.2	
511013	511014	Hearth lining	Vertical edging stones	0.3	0.2	0.1	
511014		Hearth	Square shape with vertical sides and uneven base	0.85	0.85	0.2	
511015			Context not used				
511016		Pit	Oval with gently-sloping sides and uneven base	1.95	1.0	0.15	
511017	511016	Pit fill	Mid red-brown sandy silt	1.95	1.0	0.15	
511018		Pit	Oval with steeply sloping sides and flat base	2.25	1.0	0.3	
511019	511018	Pit fill	Mid red-brown sandy silt	2.25	1.0	0.3	
511020		Ditch	Part of Ditch G: NW/SE aligned with U-shaped profile		0.5	0.1	
511021	511020	Ditch fill	Light grey-brown silt		0.5	0.1	
511022-511027			Geological features				
511028		Ditch	Part of Ditch E: NW/SE aligned with U-shaped profile		1.1	0.65	
511029	511028	Ditch fill	Upper fill: mid brown-grey silty clay		1.1	0.3	EBA
511030		Ditch	Part of Ditch F: NE/SW aligned with U-shaped profile		1.1	0.3	
511031	511030	Ditch fill	Mid brown-grey silty clay		1.1	0.25	L C4
511032		Posthole	Circular with near vertical sides and concave base		0.3	0.1	
511033	511032	Posthole fill	Mid pink-brown silty sand		0.3	0.1	
511034		Ditch	Curvilinear with U-shaped profile		0.65	0.2	
511035	511034	Ditch fill	Mid pink-brown silt		0.65	0.2	
511036		Ditch	Curvilinear with U-shaped profile		0.5	0.1	
511037	511036	Ditch fill	Mid pink-brown silty sand		0.5	0.1	
511038		Ditch	Curvilinear with U-shaped profile		0.85	0.4	
511039	511038	Ditch fill	Mid pink-brown clay silt		0.85	0.4	
511040		Pit	Circular with near vertical sides and concave base		0.6	0.35	
511041	511040	Pit fill	Mid pink-brown silt		0.6	0.35	Beaker
511042		Ditch	Curvilinear with U-shaped profile		0.8	0.3	
511043	511042	Ditch fill	Dark pink-brown silty clay		0.8	0.3	EBA
511044-511047			Geological features				



511048		Pit/posthole	Circular with steeply sloping sides and flat base		0.5	0.15	
511049	511048	Pit/posthole fill	Grey-orange clay		0.5	0.15	
511050		Marsh deposit	Dark-brown humic silt	3.8		0.1	
511051		Marsh deposit	Dark-brown humic silt			0.1	
511052-511053			Contexts not used				
511054		Ditch	Curvilinear with U-shaped profile		0.65	0.25	
511055	511054	Ditch fill	Dark grey-brown silt		0.65	0.25	?NEO
511056	511054	Ditch fill	Pink-brown silt		0.65	0.25	?NEO
511057		Pit	Circular with steeply sloping sides and flat base		0.6	0.4	
511058	511057	Pit fill	Mid pink-brown silt		0.6	0.4	
511059-511066			Geological features				
511067		Hedge-bank	Red-brown silty clay		4.9	1.1	
511068		Natural substrate	Yellow-orange silty clay				
511069	511071	Pit fill	Brown silt	0.5	0.5	0.1	E NEO
511070		Hearth	Sub-square with moderately sloping sides and concave base		0.7	0.35	
511071		Pit	Circular with moderately sloping sides and concave base	0.5	0.35	0.3	
511072	511070	Hearth fill	Light brown-grey silty clay		0.75	0.1	
511073	511070	Hearth fill	Grey-red stony-clay		0.7	0.25	
511074		Hearth	Square with steeply sloping edges and uneven base	1.25	1.4	0.5	
511075		Hearth	Irregular shape with gently sloping sides and flat base	1.6	0.65	0.05	
511076		Ditch	N/S-aligned ditch associated with extant hedge-bank		1.5	0.15	
511077	511076	Ditch fill	Red-brown silty clay		0.95	0.15	
511078		Marsh deposit	Mid grey silty clay			0.2	
511079		Stone layer	Red sandstone pieces			0.35	
511080		Hedge-bank	Red-brown silty clay		2.8	0.4	
511081		Topsoil	Light brown silty clay			0.35	
511082		Marsh deposit	Mid to dark brown clay silt			0.25	
511083		Marsh deposit	Dark brown clay silt		> 20	0.3	
511084		Marsh deposit	Mid to dark brown silt		> 10	0.3	
511085-511086			Geological features				
511087		Posthole	Circular with steeply sloping sides and flat base	0.2	0.4	0.2	
511088	511087	Posthole fill	Red-brown silty sand	0.2	0.4	0.2	
511089		Pit	Sub-circular with gently sloping sides and uneven base	1.1	0.95	0.15	
511090	511089	Pit fill	Light brown-red silt	1.1	0.95	0.15	
511091		Pit	Sub-circular with steeply sloping sides and flat base	2.65	0.65	0.7	
511092		Field drain			0.5	0.2	
511093	511092	Field drain fill			0.9	0.45	
511094	511091	Pit fill	Mid grey-brown silt	2.65	0.65	0.4	
511095	511091	Pit fill	Dark grey-brown silt	2.65	0.65	0.3	
511096	511098	Ditch fill	Mid brown silt		1.1	0.35	
511097	511098	Ditch fill	Mid brown silt		0.6	0.3	
511098		Ditch	Part of Ditch A: NW/SE aligned with U-shaped profile		1.1	0.7	

511099	511101	Ditch fill	Orange-brown silts and pebbles		1.5	0.4	
511100	511101	Ditch fill	Orange-brown gravel		1.5	0.3	
511101		Ditch	Part of Ditch A: NW/SE aligned with U-shaped profile		1.5	0.6	
511102		Furrow?	E/W-aligned, only partially exposed		0.6	0.2	
511103	511102	?furrow fill	Mid brown-yellow clay silt		0.6	0.2	
511104	511105	Pit fill	Mid brown sandy silt	0.35	0.8	0.1	
511105		Pit	Circular with moderately sloping sides and concave base	0.35	0.8	0.1	
511106-511107			Geological features				
511108			Context not used				
511109			Context not used				
511110	511111	Ditch fill	Mid brown silt		0.6	0.1	
511111		Ditch	Part of Ditch F: NE/SW aligned with U-shaped profile		0.6	0.1	
511112			Context not used				
511113			Context not used				
511114		Posthole	Circular with steeply sloping sides and flat base		0.2	0.1	
511115	511114	Posthole fill	Mid brown-red clay silt		0.2	0.1	
511116		Posthole	Circular with steeply sloping sides and flat base		0.15	0.1	
511117	511116	Posthole fill	Mid brown-red clay silt		0.15	0.1	
511118		Posthole	Circular with steeply sloping sides and flat base		0.15	0.1	
511119	511118	Posthole fill	Mid brown-red clay silt		0.15	0.1	
511120			Context not used				
511121			Context not used				
511122-511123			Geological features				
511124	511125	Posthole fill	Mid pink-brown gravelly silt		0.35	0.35	
511125		Posthole	Circular with steeply sloping sides and concave base		0.35	0.35	
511126		Pit	Oval with steeply sloping sides and concave base	1.7	0.75	0.1	
511127	511126	Pit fill	Mid brown-grey clay silt	1.7	0.75	0.1	
511128		Palaeochannel	NE/SW-aligned with gently sloping sides and concave base		2.5	0.4	
511129		Posthole	Circular with steeply sloping sides and concave base		0.5	0.05	
511130	511129	Posthole fill	Mid brown-grey clay silt		0.5	0.05	
511131	511128	Palaeochannel fill	Grey-brown clay		2.5	0.4	
511132			Natural hollow	1.05	0.8	0.15	
511133	511132	Fill	Fill of natural hollow	1.05	0.8	0.15	
511134		Ditch	Part of Ditch D: NW/SE aligned with U-shaped profile		0.45	0.1	
511135	511134	Ditch fill	Red-brown silt clay		0.45	0.1	
511136		Ditch	Part of Ditch D: NW/SE aligned with U-shaped profile		0.95	0.2	
511137	511136	Ditch fill	Red-brown silt clay		0.95	0.2	
511138		Ditch	Part of Ditch D: NW/SE aligned with U-shaped profile		0.5	0.05	
511139	511138	Ditch fill	Red-brown silt clay		0.5	0.05	
511140			Natural hollow	1.7	0.6	0.15	
511141	511140	Fill	Fill of natural hollow	0.85	0.4	0.1	
511142			= 511140				
511143			= 511141				

511144		Posthole	Circular with steeply sloping sides and concave base		0.5	0.2	
511145	511144	Posthole fill	Dark pink-brown silty clay		0.5	0.2	
511146		Ditch	Part of Ditch G: NW/SE aligned, U-shaped profile		0.25	0.05	
511147	511146	Ditch fill	Brown-grey sandy silt		0.25	0.05	
511148		Pit	Circular with steeply sloping sides and flat base		0.7	0.5	
511149	411148	Pit fill	Mid brown silt		0.7	0.5	
511150		Pit/posthole	Circular with gently sloping sides and concave base		0.5	0.05	
511151	511150	Pit/posthole fill	Mid grey-brown silt		0.5	0.05	
511152		Pit	Circular with gently sloping sides and concave base		0.5	0.1	
511153	511152	Pit fill	Red-grey-brown silt		0.5	0.1	
511154		Pit	Circular with gently sloping sides and concave base		0.5	0.2	
511155	511154	Pit fill	Orange to red-brown clay silt		0.5	0.2	
511156-511161			Geological features				
511162	511074	Hearth fill	Pink-brown silt	1.25	1.4	0.5	
511163	511075	Hearth fill	Pink-brown silt	1.6	0.65	0.05	
511164-511166			Geological features				
511167		Ditch	Curvilinear with U-shaped profile		0.45	0.35	
511168	511167	Ditch fill	Mid brown silt clay		0.45	0.35	
511169		Pit	Circular with moderately sloping sides and concave base		0.8	0.3	
511170	511169	Pit fill	Mid brown silty clay		0.8	0.3	
511171		Pit	Oval with steeply-sloping sides and flat base	0.5	0.4	0.15	
511172	511171	Pit fill	Mid brown silty clay	0.5	0.4	0.15	
511173		Ditch	Part of Ditch H: NE/SW aligned with V-shaped profile		0.65	0.6	
511174	511173	Ditch fill	Grey-brown silty clay		0.65	0.6	
511175	511128	Palaeochannel fill	Yellow to mid grey clay		2.5	0.2	
511176		Pit	Circular with moderately sloping sides and concave base		0.85	0.05	
511177	511176	Pit fill	Mid brown-grey clay silt		0.85	0.05	
511178		Ditch	Part of Ditch G: NW/SE aligned with U-shaped profile		0.45	0.15	
511179		Ditch fill	Grey-brown clay silt		0.45	0.15	
511180			Geological feature				
511181			Geological feature				
511182		Pit	Sub-circular with moderately sloping sides and concave base	1.25	1.0	0.3	
511183	511182	Pit fill	Mid brown silty sand	1.25	1.0	0.3	
511184			Context not used				
511185		Timber	Modern wooden stake				
511186			Context not used	0.65	0.1		
511187		Posthole	Circular with gently sloping sides and concave base		0.3	0.05	
511188	511187	Posthole fill	Light brown silt clay		0.3	0.05	
511189		Posthole	Circular with steeply sloping sides and concave base		0.45	0.1	
511190	511189	Posthole fill	Mid pink-brown silt clay		0.45	0.1	
511191		Pit	Sub-circular with moderately sloping	1.5	0.5	0.1	

			sides and concave base				
511192	511191	Pit fill	Mid brown-grey clay silt	1.5	0.5	0.1	
511193			Geological feature				
511194			Geological feature				
511195		Ditch	Part of Ditch A: NW/SE aligned with U-shaped profile		1.2	0.65	
511196	511195	Ditch fill	Mid pink-brown silt clay		1.2	0.65	
511197			Context not used				
511198			Context not used				
511199			Context not used				
511200-511203			Geological features				
511204	511205	Pit fill	Grey-brown silt		0.9	0.2	
511205		Pit	Circular with moderately sloping sides and concave base	0.45	0.9	0.25	
511206	511074	Hearth lining	Vertical sandstone pieces	1.25	1.4	0.5	
511207	511075	Hearth lining	Vertical sandstone pieces	1.6	0.65	0.05	
511208			Natural feature				
511209			Natural feature				
511210-511217			Geological features				
511218		Ditch	Part of Ditch H: NE/SW aligned with V-shaped profile		0.65	0.4	
511219	511218	Ditch fill	Grey-brown silt		0.65	0.4	
511220-511221			Geological features				
511222		Pit	Sub-circular with moderately sloping sides and concave base	0.7	0.7	0.2	
511223	511222	Pit fill	Pink-brown sand-silt	0.7	0.7	0.2	
511224		Ditch	Part of Ditch H: NE/SW aligned with U-shaped profile		0.55	0.15	
511225	511224	Fill	Mid brown-grey silty sand		0.55	0.15	
511226		Pit	Oval with steeply sloping sides and concave base	1.7	1.4	0.5	
511227	511226	Pit fill	Mid orange silt		0.3	0.05	
511228	511226	Pit fill	Mid orange silt		0.35	0.05	
511229	511226	Pit fill	Mid brown silt		1.1	0.3	
511230	511218	Pit fill	Mid brown clay silt		0.75	0.15	
511232			Geological feature				
511233	511234	Pit fill	Mid brown silty clay		0.6	0.2	
511234		Pit	Sub-circular with moderately sloping sides and concave base	0.7	0.6	0.2	
511235		Ditch	Part of Ditch A: NE/SW aligned with U-shaped profile		0.55	0.55	
511236	511235	Ditch fill	Orange grey-brown silty clay		0.55	0.55	RB
511237	511235	Ditch fill	Grey-brown silty clay		0.55	0.55	
511238	511239	Pit fill	Mid brown sandy silt	0.2	0.4	0.35	
511239		Pit	Sub-square with irregular profile	0.8	0.6	0.35	
511240			Geological feature				
511241	511242	Posthole fill	Mid grey-brown silt	0.25	0.5	0.2	
511242			= 511239				
511243			= 511238				
511244			= 511239	0.3	0.3	0.2	
511245-511246			Geological feature				
511247			Natural hollow		0.8	0.2	
511248	511247	Fill	Mid orange-brown silty clay		0.8	0.2	

511249-511252			Geological features				
511253		Ditch	Part of Ditch B: NE/SW aligned with U-shaped profile		1.5	0.65	
511254	511253	Ditch fill	Grey-brown clay silt		1.5	0.65	L C2-4
511255		Burnt mound deposit	Dark grey-black burnt stones in clay silt matrix with charcoal				1520-1400 Cal. BC
511256		Ditch	Part of Ditch G: NW/SE aligned U-shaped profile		0.8	0.2	
511257	511256	Ditch fill	Mid red-grey silty clay		0.8	0.2	
511258		Pit/posthole	Circular with steeply sloping sides and concave base		0.65	0.15	
511259	511258	Pit/posthole fill	Pink-grey silty clay		0.65	0.15	
511260-511261			Geological features				
511262		Pit	Sub-circular with steeply sloping sides and concave base	0.75	1	0.35	
511263	511262	Pit fill	Mid brown silt-clay	0.75	1	0.35	
511264		Posthole	Circular with vertical sides and flat base		0.3	0.15	
511265	511264	Posthole fill	Red-brown silt		0.3	0.15	
511266	511262	Pit fill	Red-brown silty clay		0.5	0.15	
511267		Posthole	Sub-circular with vertical sides and flat base	0.7	0.4	0.3	
511268	511267	Posthole fill	Red-brown silt and gravel	0.7	0.4	0.3	
511269	511267	Post packing	Sandstone pieces	0.5	0.4	0.3	
511270	511264	Post packing	Sandstone pieces		0.4		
511271		Burnt mound deposit	Mid black-brown gravelly silt	1.7	1.7	0.2	
511272		Posthole	Sub-circular with vertical sides and flat base	0.8	0.6	0.2	
511273	511272	Post packing	Sandstone pieces	0.8	0.6	0.2	
511274	511272	Posthole fill	Mid red-brown silt	0.8	0.6	0.2	
511275		Pit/posthole	Oval with steeply sloping sides and uneven base	0.95	0.85	0.2	
511276	511275	Pit/posthole fill	Yellow-grey silt	0.95	0.85	0.2	
511277		Posthole	Circular with vertical sides and flat base		0.3	0.1	
511278	511277	Posthole fill	Red-brown sandy silt		0.3	0.1	
511279		Hearth	Pitched sandstone pieces	0.6	0.3	0.4	
511280	511279	Hearth fill	Black-grey pebbles and silt	0.6	0.3	0.4	
511281		Pit/posthole	Oval with steeply sloping sides and uneven base	0.9	0.7	0.15	
511282	511281	Pit/posthole fill	Yellow-grey silt		0.65	0.15	
511283	511281	Pit/posthole fill	Yellow-grey pebbles and silt		0.4	0.1	
511284	511195	Ditch fill	Pink-brown silty clay		1.15	0.65	
511285-511286			Geological features				
511287		Timber	Worked wood				
511288		Timber	Worked wood				
511289		Timber	Worked wood				
511290		Timber	Worked wood				
511291		Timber	Worked wood				
511292	511293	Ditch fill	Pink-brown silty clay	0.5	0.25	0.05	
511293		Ditch	Part of Ditch G: NE/SW aligned, U-shaped profile	0.5	0.25	0.05	
511294	511195	Ditch fill	Pink-brown silt-clay	0.8	0.4	0.15	

511295		Ditch	Part of Ditch G: NW/SE aligned, U-shaped profile	0.8	0.4	0.15	
511296	511297	Ditch fill	Pink-brown silty clay	0.8	0.4	0.15	
511297		Ditch	Part of Ditch G: NE/SW aligned, U-shaped profile	0.8	0.4	0.15	
511298		Hearth deposit	Dark black-brown sandy silt		0.5	0.05	
511299		Alluvial deposit	Grey-brown silt		1	0.2	
511300		Burnt mound deposit	Dark black-brown silt		0.4	0.15	
511301		Burnt mound deposit	Dark black-brown silt		1.8	0.25	
511302		Marsh deposit	Brown silty clay			0.15	
511303		Marsh deposit	Dark black-brown silt clay			0.45	
511304		Trough setting	Straight with moderately sloping sides and concave base		0.6	0.15	
511305		Timber	Worked wood				
511306		Iron object	Horseshoe				Mod.
511307		Timber	Worked wood				
511308		?natural deposit	Red sandstone pieces			0.15	
511309		?natural deposit	Light grey-blue silty clay			0.1	
511310	511253	Ditch fill	Red-brown clay silt	0.8	1.0	0.2	
511311		Posthole	Sub-oval with steeply sloping sides and uneven base	0.4	0.35	0.4	
511312	511311	Posthole fill	Dark black-brown silty clay	0.4	0.35	0.4	
511313	511315	Posthole fill	Black-brown silty clay	0.2		0.1	
511314	511315	Posthole fill	Black silt-clay			0.1	
511315		Posthole	Irregular shape with irregular sides and base	0.7		0.15	
511316		Timber	Worked wood				
511317		Timber	Worked wood				
511318		Timber	Worked wood				
511319	511028	Ditch fill	Grey-brown silty clay		1.15	0.4	
511320		Pit	Circular with steeply-sloping sides and uneven base	0.35	0.7	0.1	
511321	511320	Pit fill	Mid brown-red silty sand	0.35	0.6	0.05	
511322		Posthole	Modern posthole	0.4	0.3	0.2	
511323	511322	Posthole fill	Dark red-brown silty clay	0.4	0.3	0.2	
511324		Posthole	Circular with gently sloping sides and uneven base		0.35	0.05	
511325	511334	Posthole fill	Dark red-brown silty clay		0.35	0.05	
511326			Natural feature				
511327			Natural feature				
511328		Posthole	Oval with near vertical sides and flat base	0.45	0.4	0.2	
511329	511328	Post packing	Sandstone pieces	0.45	0.4	0.2	
511330	511328	Posthole fill	Mid red-brown sandy silt	0.45	0.4	0.2	
511331		Timber	Worked wood				
511332		Timber	Worked wood				
511333		Timber	Worked wood				
511334		Timber	Worked wood				
511335		Timber	Worked wood				
511336		Timber	Worked wood				
511337		Timber	Worked wood				
511338		Timber	Worked wood				
511339		Timber	Worked wood				

511340		Timber	Worked wood				
511341		Posthole	Circular with steeply sloping sides and uneven base		0.4	0.2	
511342	511341	Post packing	Red sandstone pieces		0.4	0.2	
511343	511341	Posthole fill	Mid red-brown sandy silt		0.4	0.2	
511344		Ditch	Part of Ditch E: NW/SE aligned, U-shaped profile		0.5	0.1	
511345	511344	Ditch fill	Dark red-brown silty clay		0.5	0.1	
511346	511347	Ditch fill	Light mid grey-brown clay silt		0.65	0.2	
511347		Ditch	Part of Ditch G: NW/SE aligned U-shaped profile		0.65	0.2	
511348		Posthole	Circular with steeply sloping sides and uneven base		0.3	0.05	
511349	511348	Posthole fill	Mid red-brown sandy silt		0.3	0.05	
511350		Posthole	Circular with steeply sloping sides and uneven base		0.35	0.15	
511351	511350	Post packing	Red sandstone pieces		0.35	0.15	
511352	511350	Posthole fill	Mid red-brown sandy silt		0.35	0.15	
511353		Timber	Wooden trough				
511354		Burnt mound deposit	Dark black-brown silt sand			0.15	
511355		Burnt mound deposit	Dark black-brown clay silt			0.1	
511356		Burnt mound deposit	Mid orange-brown pebbles and gravel			0.1	
511357		Burnt mound deposit	Mid black-grey pebbles and gravels			0.25	
511358		Cut for trough	Oval with rounded corners and U-shaped profile, with flat base	4.5	1.0	0.5	
511359		Pit	Circular with steeply sloping sides and uneven base	> 0.9	0.85	0.3	
511360	511359	Pit fill	Light brown-red silty sand	> 0.9	0.85	0.3	
511361	511358	Burnt mound deposit	Dark grey-blue to orange-yellow Silty clay	4.45		0.35	
511362		Ditch	Part of Ditch A: NW/SE aligned U-shaped profile		1.5	0.7	
511363	511362	Ditch fill	Dark grey-brown silty clay		1.5	0.7	RB
511364			= 511359				
511365			= 511360				
511366		?Grave	Rectangular with steeply sloping sides and flat base	1.8	0.6	0.15	
511367		Pit	Circular with steeply sloping sides and flat base	1.1	1.05	0.6	
511368	511367	Pit fill	Pink grey-brown silty clay	1.1	1.05	0.6	
511369	511358	Trough cut fill	Dark brown silty clay	0.9		0.3	
511370	511372	Pit/posthole fill	Mid grey-brown sandy silt		0.65	0.2	
511371	511372	Pit/posthole fill	Mid black-brown sandy silt		0.65	0.05	
511372		Pit/posthole	Circular with moderately sloping sides and concave base		0.65	0.2	
511373		Pit/posthole	Circular with irregular sides and base		0.7	0.15	
511374	511373	Pit/posthole fill	Mid grey-brown silty clay		0.7	0.15	
511375		Hearth	NW/SE-aligned with vertical sides and flat base	2.4	0.4	0.3	
511376	511375	Hearth fill	Large flat stones	2.4	0.4	0.3	PREH
511377	511375	Hearth fill	Dark brown sandy silt	2.4	0.4	0.3	
511378		Hearth	NW/SE-aligned with vertical sides and flat base	1.6	0.4	0.15	
511379	511378	Hearth fill	Large flat stones	1.6	0.4	0.15	

511380	511378	Hearth fill	Dark brown sandy silt	1.6	0.4	0.15	
511381-511382			Contexts not used				
511383		Posthole	Oval with vertical sides and flat base	0.4	0.25	0.15	
511384	511383	Posthole packing	Pink-red stone	0.4	0.25	0.15	
511385	511383	Posthole fill	Mid red-brown silt	0.4	0.25	0.15	
511386		Pit	Circular with vertical sides and concave base		0.4	0.15	
511387	511386	Pit fill	Mid grey-brown silty clay		0.4	0.15	
511388	511358	Trough cut fill	Grey-black stony clay	0.85	0.4	0.25	
511389		Posthole	Circular with vertical sides and concave base		0.3	0.1	
511390	511389	Posthole packing	Sandstone pieces		0.3	0.1	
511391	511389	Posthole fill	Mid red-brown silty sand		0.3	0.1	
511392			Natural feature				
511393			Natural feature				
511394	511395	Pit fill	Light brown-grey clay		0.85	0.1	
511395		pit	N/S-aligned with gently sloping sides and irregular base		1.05	0.2	
511396		Ditch	Part of Ditch A: NW/SE aligned, U-shaped profile	0.5	0.5	0.15	
511397	511396	Ditch fill	Mid grey-brown silt-clay	0.5	0.5	0.15	
511398		Ditch	Part of Ditch A: NW/SE aligned, U-shaped profile	0.95	0.4	0.35	
511399	511398	Ditch fill	Mid orange-brown silty clay	0.95	0.3	0.2	
511400	511398	Ditch fill	Mid grey-brown silt-clay	0.95	0.4	0.15	
511401		Pit	Oval with steeply sloping sides and concave base	1.05	0.55	0.3	
511402	511401	Pit fill	Light brown-yellow silty clay	1.05	0.45	0.2	
511403		Posthole	Circular with near vertical sides and flat base		0.4	0.1	
511404	511403	Posthole packing	Red sandstone pieces		0.4	0.1	
511405	511403	Posthole fill	Mid red-brown sandy silt		0.4	0.1	
511406		Stone layer	Flat sandstones laid flat onto natural substrate	4.45	3.1		
511407		Stone layer	Flat sandstones laid flat onto natural substrate	3.2	0.95		
511408		Ditch	Part of Ditch A: NW/SE aligned, U-shaped profile		0.2	0.15	
511409	511408	Ditch fill	Mid-brown silty clay		0.35	0.05	
511410	511408	Ditch fill	Red-brown silty sand		0.35	0.1	
511411			Context not used				
511412			Context not used				
511413		Posthole	Circular with near vertical sides and flat base		0.4	0.1	
511414	511413	Posthole packing	Red sandstone pieces		0.4	0.1	
511415	511413	Posthole fill	Mid red-brown sandy silt		0.4	0.1	
511416		Timber	Worked wood. RA 511030				
511417			Context not used				
511418			Context not used				
511419	511395	Pit fill	Dark red-brown sandy silt		1.05	0.1	
511420			Natural feature				
511421			Natural feature				
511422			Natural feature				



511423	511362	Ditch fill	Mid grey-brown silty clay		0.55	0.35	
511424		Pit	Circular with near vertical sides and flat base		0.7	0.2	
511425	511424	Pit fill	Dark orange-brown sandy silt		0.7	0.2	
511426			Context not used				
511427	511429	Posthole fill	Mid grey-brown clay silt		0.35	0.15	
511428	511429	Posthole packing	Red sandstone pieces		0.15	0.05	
511429		Posthole	Oval with near vertical sides and Uneven base		0.35	0.15	
511430	511459	Hearth deposit	Black silty clay and stone	1.8	1.2	0.05	
511431		Timber	Worked wood. RA 511032				
511432		Timber	Worked wood. RA 511033				
511433		Timber	Worked wood. RA 511034				
511434		Timber	Worked wood. RA 511035				
511435		Timber	Worked wood. RA 511036				
512436		Timber	Worked wood. RA 511037				
511437	511358	Trough cut fill	Mid grey silty clay	4.3	0.9	0.05	
511438		Pit	Circular with steeply sloping sides and uneven base	0.6	0.5	0.15	
511439	511438	Pit fill	Mid brown silty clay	0.6	0.5	0.15	PM
511440		Pit	Oval with gently sloping sides and concave base	0.45	0.35	0.1	
511441	511440	Pit fill	Mid grey-brown clay silt	0.45	0.35	0.1	RB
511442		Pit	Circular with gently sloping sides and concave base		0.45	0.1	
511443	511442	Pit	Mid grey-brown silty sand		0.45	0.1	PREH
511444-511447			Contexts not used				
511448		Pit	Oval with moderately sloping sides and concave base	0.9	0.5	0.15	
511449	511448	Pit fill	Dark grey-brown silty clay	0.9	0.5	0.15	
511450		Ditch	Part of Ditch C: E/W aligned, U-shaped profile		0.5	0.15	
511451	511450	Ditch fill	Mid yellow-brown clay silt		0.5	0.15	
511452		Ditch	Part of Ditch C: E/W aligned, U-shaped profile		0.6	0.2	
511453	511442	Ditch fill	Mid grey-brown clay silt		0.6	0.2	
511454-511455			Contexts not used				
511456		Pit	Sub-circular with steeply sloping sides and flat base	1.1	1	0.45	
511457	511456	Pit fill	Mid to dark grey silty clay	1.1	1	0.45	C2-4
511458		Topsoil	Yellow-brown silty clay			0.1	
511459		Hearth cut	Sub-circular with steeply sloping sides and irregular base	1.8	1.3		

## APPENDIX B: THE FINDS

### Prehistoric pottery (Gibson 2013)

Weight (g)	No of Contexts	Periods Represented
415	8	Early Neolithic, Beaker, Bronze Age, ?

#### Early Neolithic

##### P1 – 511056 (1)



One rim sherd and twenty one body sherds (122g) in a hard, well-fired and generally well-finished fabric. The rim has fractured along two coil breaks. The rim is strongly everted and has had a diameter in the region of 260mm. The fabric has light brown surfaces and a grey core. It averages 8mm thick and contains crushed quartz inclusions up to 8mm across. Early Neolithic Developed Carinated Bowl.

##### P2 – 511056 (2)



One rim sherd and a small body sherd (4g). The fabric has red- brown surfaces and a grey core. It averages 5mm thick and contains finely crushed quartz. The rim is everted with an estimated diameter of 130mm. Below the rim is a concave neck and traces of the start of a rounded shoulder. Early Neolithic Developed Carinated Bowl.

##### P3 – 511069 (1)



One rim sherd and four body sherds (one joining the rim) (62g) in a hard, well-fired fabric with a dark grey-brown outer surface and brown inner surface. The core of the fabric is grey. The fabric averages 7mm thick and contains abundant finely crushed quartz inclusions which break both surfaces giving the pottery a gritty texture. The rim is rounded and everted with slight external thinning and has an estimated diameter of around 200mm. Early Neolithic Bowl.

##### P4 – 511069 (2)



One rim sherd and 21 body sherds plus crumbs (100g). Hard, well-fired brown fabric with a dark grey core. The fabric averages 7mm thick and contains abundant finely crushed quartz inclusions, many of which break the surfaces of abraded sherds. The rim is upright, thickened and rounded giving to a concave neck. It has an estimated diameter of 190mm and the top has faint radial burnishing facets. Horizontal smoothing marks are visible on the rim exterior and in the neck. 6 sherds (6g) bagged separately. Early Neolithic Developed Carinated Bowl

##### P5 – 511069 (3)



Two rim sherds and four body sherds (42g) In a hard well-fired and well-finished fabric. The surfaces are brown, the core grey, and the fabric averages 10mm thick. It contains abundant crushed quartz inclusions. Where not abraded, the surfaces are very smooth and there are vertical burnishing facets detectable on the inside of the rim. The rim is Rounded and upright and has an estimated diameter of 200mm. There is no trace of a neck so the form is probably a hemispherical bowl. Early Neolithic Bowl.

*P6 – 511069 (4)*

One sherd (8g) in a fine hard and well-fired baric. The fabric has a black outer surface and brown, abraded inner surface. It averages 5mm thick and contains quartz sand. Early Neolithic Bowl.

*P7 – 511055*

Six small sherds (6g). Possibly Neolithic

*Discussion*

Between six and seven vessels are represented in this assemblage given the undiagnostic nature of P7 which could belong to any of the previously described vessels. The fabrics all contain finely crushed quartz. The rounded shoulder of P2 suggests that this and the other vessels in the same fabric almost certainly belong to Developed Carinated Bowls (Sheridan's (2007) Modified CB). These vessels in a comparatively coarse yet hard, well fired and well finished (at least externally) fabric may also be broadly contemporary with the earliest Neolithic bowls in Wales, though recent analysis of the radiocarbon dates suggests a range of c.3800-3400 cal BC (Whittle *et al.* 2011). The modified or thickened rim of P4, and the hemispherical cup form of P6 are also in keeping with this identification as are the faint radial burnishing marks (often felt rather than seen on abraded material) on the inside of the everted rim of P4. Although no thin section work has been undertaken, the macroscopic identification of quartz as the main opening agent might suggest the deliberate selection of this material, a practice that continues into Impressed Ware where white stone appears to be the inclusion of choice (Gibson 1995 and sites 21.2 and 23.7 above).

There are local parallels for these quartz-filled vessels. A hemispherical bowl with thickened rim comes from the floor of the chamber at Carreg Samson and this too is stone-tempered (Lynch 1975). Clegyr Boia provides parallels, largely as a result of the size of the assemblage. Here there are not just thickened rims but also everted rims with radial incisions, upright and out-turned rims in this hard, quartz-filled fabric (Williams 1953). The pottery from Gwernvale and the plain bowls from Ty Isaf match the rims of P1 – P3 (Britnell & Savory 1984: Grimes 1939) though the lugged forms at Ty Isaf are not visible in the present assemblage. P4 also finds parallel at Mount Pleasant, Glamorgan (Savory 1955) and Parc le Breos Cwm, Glamorgan (Whittle & Wysocki 1998) where a single vessel has a *terminus ante quem* date of c.3800-3550 cal BC.

The everted rim forms are also matched in the assemblage from FB59, near to the Early Neolithic house at Llandegai, Gwynedd (Lynch & Musson 2004) though in this case they occur in a vesicular voided fabric resulting from the leaching out of calcitic inclusions. Comparable pottery, in the same fabric though generally with more strongly flaring rims, was associated with the house itself which was dated to c.4000-3600 cal BC.

The radial burnishing on P4 can be compared with the radial decoration on the globular bowls from Mount Pleasant but here the radial decoration is much better defined and is an impressed rather than burnished technique (Savory 1955).

The present assemblage therefore is to be regarded as early, though not necessarily primary, in the Welsh Neolithic. The rounded, slack shoulder of P2, the everted rim forms and the concave necks of P1-4, the radial burnishing of P4 and the hemispherical bowl P6 as well as the fabric are indicative of Modified or Developed Carinated Bowl dating to c. 3800-3400 cal BC.

*Beaker*

P8 – 511041

Two conjoining sherds plus crumbs (13g) in a soft, grey-brown fabric with black core. The sherds are abraded but average some 10-11mm thick. The fabric contains sand and grog. Decoration on the outer surface comprises two encircling lines of toothed comb impressions, above a zone of cross-hatching. It is difficult to discern whether the cross-hatching is combed or incised. The decoration and fabric of this sherd suggests Beaker.

*Discussion*

Toothed comb decoration is rare in pre-Beaker contexts but is found on Beakers, Food Vessels and Collared Urns. The horizontal zone of cross-hatching is a well-known Beaker motif but also occurs on Bronze Age ceramics albeit more rarely. The grog and sand-filled fabric, however, is more typical of fine-ware Beakers, especially in Southern Britain (Clarke 1970). Unfortunately the motif is a long-lived one and this sherd may belong anywhere within the Beaker period c.2450-1650 BC (Needham 2005).

*Early Bronze Age Food Vessel?*

P9 – 511043



One rim sherd and two body sherds (17g) in a soft, grey-brown fabric with black core. The rim and body sherd conjoin. The rim has had a diameter of c.120mm and the fabric, which contains crushed stone inclusions up to 5mm across, averages 6mm thick. The Rim has a sloping undecorated internal bevel. The decoration comprises one horizontal twisted cord line on the rim sherd and traces of two well-spaced lines in the same technique on the body sherd. The profile of the sherd suggests a slightly concave neck and rounded shoulder. Probably Food Vessel.

P10 – 511029

Seven body sherds (14g) in a medium hard fabric with light brown outer surface, and grey interior. The fabric averages 7mm thick and contains fine sand inclusions. Probably Early Bronze Age.

*Discussion*

Whilst twisted cord decoration (P9) occurs on Beakers and Urns, on the former it tends to be close-set. More widely spaced cord lines are much more common on Early Bronze Age ceramics such as the bipartite Collared Urn from Ysceifiog, Clwyd (Savory 1980, Cat. No. 423.2) or the Food vessel from Llanbeblig, Dyfed (ibid 398). The slightly concave neck and rounded shoulder of P9 suggests a vase Food Vessel and as such should be dated c.2200-1500 BC.

*Miscellaneous Pottery*

Contexts 511012 and 511543: undiagnostic crumbs.

**Roman pottery** (Timby 2013)

The pottery from Site 514 is quite diverse and includes several continental and regional imports. Continental imports include two sherds of Central Gaulish samian, one sherd heavily burnt. Regional wares include a small Oxfordshire colour-coated mortarium (Young 1977, type C100; OXF RS); an Oxfordshire white ware mortarium

(OXF WH); further Dorset black burnished ware; South-west black burnished ware (SOW BB1); a Late Roman Midlands shelly ware jar (ROB SH) and a New Forest colour-coated beaker (NFO CC).

Other sherds of unknown origin include a black sandy ware, possibly imitating BB1, a fine oxidised jar or beaker with fine roughcast decoration probably dating to the 2nd-century, and two buff sandy wares. It is uncertain as to whether the latter two pieces are Roman and they may well be medieval or later.

The assemblage is later Roman. In particular the shelly jar from ditch 511031 is likely to indicate a *terminus post quem* after c. AD 370/5. The New Forest and Oxfordshire products are also likely to be 4th-century imports. The black burnished ware includes examples of plain-rimmed dishes more typical of the later 2nd-4th centuries AD, and jars. Unfortunately none of the latter show any featured traits in terms of rim form or surviving decoration with which to refine date other than 2nd-4th century. The samian and oxidised roughcast jar/beaker from ditch 511236 are likely to be 2nd century indicating possible earlier activity at this location. The late Roman shelly ware jar is a less common find and suggests occupation in the last quarter of the 4th century, or possibly the 5th century. This ware generally shows a very sparse distribution in Wales (cf Tyers 1996, fig. 243) and the Milford Haven jar may be the most westerly find-spot of this ware to date.

#### Flint (Pannett 2013)

194 struck lithics were recovered from a series of pits, postholes and ditches on site 511.

Context	Context description	No. Lithics
511012	Upper fill of pit 511014	1
511041	Fill of pit 511040	21
511055	Lower fill of ditch 511054	135
511056	Upper fill of ditch 511054	12
511069	Fill of pit 511071	16
511162	Fill of pit 511074	1
511163	Fill of hearth 511075	2
511223	Fill of pit 511222	1
511363	Fill of ditch 511362	1
511392	Fill of pit 511393	1
511418	Fill of ditch 511417	1
511421	Fill of pit 511420	1
511422	Fill of 511422	1
	Total	194

#### Context 511012

##### Primary Technology

A single piece of fresh flint microdebitage was recovered from the upper fill of pit 511014. The piece is undiagnostic.

*Context 511041**Primary Technology*

An assemblage of 21 struck lithics was recovered from the fill of pit 511040. The assemblage comprises fresh flint of varying colours from light brown to dark grey, with surviving cortex demonstrating the use of a beach flint resource. The assemblage is flake dominated, with 16 complete flakes, 1 blade, 2 pieces of microdebitage and 2 pieces of angular shatter. The complete flakes are, on average, 22mm long, 18mm broad and 5.5mm thick, while the blade is 29mm long, 13mm broad and 4mm thick. Six pieces retain a cortical platform, 1 a planar platform with preparation and 1 a complex platform (retouch used to form platform), while surviving terminations are feathered, hinged, stepped and plunging. Four flakes and the blade have dorsal scar patterns clear enough to show the reduction sequence. Three of the flakes have been struck from single platform flake cores, one from a multiple platform flake core, with the blade struck from a single platform blade core. The blade and one flake, with a prepared platform, are likely to be Early Neolithic in date, the remainder of blanks are undiagnostic.

*Secondary Technology*

Four complete flakes had been retouched, with three worked to form distal end scrapers:

Scraper form	Description	Date
End scraper	Primary flake struck from beach pebble with abrupt and semi-invasive retouch around distal end.	Neolithic
End scraper	Primary flake struck from beach pebble with rough abrupt and semi-invasive retouch along distal end.	Neolithic
End scraper	Abrupt and semi-invasive retouch forming small scraper edge at distal end of primary flake struck from a beach pebble.	Neolithic/EBA

One flake has a short stretch of abrupt retouch along the left hand side ventral edge forming a tool of indeterminate form. This is likely to have been an expedient tool, manufactured for a specific purpose and then discarded.

*Context 511055**Primary Technology*

An assemblage of 135 struck lithics was recovered from the lower fill of ditch 511054. The assemblage comprises 86 fresh flint pieces, 48 burnt flint pieces and a piece of quartz, although this is probably natural. The assemblage is dominated by microdebitage, with 115 pieces recovered. In addition, 8 flakes, 7 flake fragments, 2 burnt chunks and 3 pieces of angular shatter were also recovered. The microdebitage is largely undiagnostic, although 11 pieces had been struck from single platform blade cores and are diagnostically Late Mesolithic/Early Neolithic. The complete flakes are, on average, 13mm long, 13mm broad and 2mm thick. Three flakes retain a cortical platform, with two retaining a planar platform, while surviving terminations are predominantly hinged, with four retaining a feathered termination. One flake displays a dorsal scar pattern indicative of having been struck from a single platform flake core, the remainder are indistinct. The flake assemblage is undiagnostic.

*Secondary Technology*

One distal flake fragment had been retouched, with a short stretch of abrupt retouch forming a shallow notch on the left hand side edge (from ventral surface). The piece is not definable as a specific tool type and is likely to have been manufactured in response to a specific need and then discarded.

*Context 511056**Primary Technology*

An assemblage of 12 struck lithics was recovered from the upper fill of ditch 511054. The assemblage comprises fresh flint pieces of varying colours and with cortex characteristic of a beach pebble resource. The assemblage is flake dominated, with 8 complete flakes, 1 medial flake fragment, 1 blade, 1 burnt chunk and 2 pieces of angular shatter. The complete flakes are, on average, 23mm long, 27mm broad and 6.5mm thick, while the blade is 25mm long, 16mm broad and 7mm thick. The blade had been struck as a core trimming flake, removing hinge fracture scars from the core face. One flake had been struck across the platform of a core of indeterminable form to rejuvenate the platform edges and allow further working. Surviving platforms comprise 3 planar, 3 cortical and 1 complex (with retouch forming the platform), while terminations are predominantly hinged or plunging, with 1 feathered termination and 1 retouched termination also recorded. One flake and the blade display a dorsal scar pattern indicative of having been struck from single platform blade cores and are diagnostically Late Mesolithic/Early Neolithic. The remainder of the blanks are undiagnostic.

*Secondary Technology*

Two complete flakes had been retouched to form scrapers, while the core trimming flake (blade) has damage along one edge indicative of use. The two scraper comprise:

Scraper form	Description	Date
Side scraper	Semi-invasive retouch around left hand side from ventral edge	Neolithic
End scraper	Abrupt retouch around distal and left hand side ventral edge forming concave, hollow, scraper.	Early Neolithic

*Context 511069**Primary Technology*

An assemblage of 16 struck lithics was recovered from the fill of pit 511071. The assemblage comprises predominantly fresh flint struck from beach pebbles and varies in colour from light brown to dark grey. One flake of metamorphic stone (unidentified) was also recovered; this had been struck from a polished stone axe. The assemblage is flake dominated, with 7 complete flakes, 3 flake fragments, 6 pieces of microdebitage and 1 flaked beach pebble. The complete flakes are, on average, 23mm long, 27mm broad and 6.5mm thick. Surviving platforms comprise 4 cortical platforms and 1 planar platform with preparation, while terminations are feathered, stepped, hinged and retouched. Four pieces of the microdebitage display a dorsal scar pattern characteristic of having been struck from single platform blade cores, while two flakes had been struck from single platform flakes cores. The microdebitage pieces are diagnostic of Late Mesolithic/Early Neolithic knapping techniques, while the remainder of the flints are undiagnostic.

*Secondary Technology*

Two flakes had been retouched to form tools. One has semi-invasive and abrupt retouch along the left hand side edge (dorsal surface), forming a slightly concave side scraper. The second retouched piece comprises the flake struck from a polished stone axe which has abrupt retouch around the distal end forming a point. The point is broken, possibly through use as a piercer. Both tools are diagnostically Neolithic.

*Context 511162**Primary Technology*

A single piece of fresh flint microdebitage was recovered from the fill of pit 511074. The piece is undiagnostic.

*Context 511163**Primary Technology*

Two struck lithics were recovered from the fill of hearth 511075. The pieces comprise 1 complete flake and 1 distal flake fragment, and both were manufactured on fresh grey flint. The complete flake is 13mm in length, 14.8mm broad and 2mm thick and retains a cortical platform and a stepped termination, while the distal flake fragment retains a hinged termination.

*Secondary Technology*

The complete flake had abrupt retouch along the right hand side edge (dorsal side) and comprises a flake struck from the working edge of a scraper of indeterminate form. It is likely to have been struck from the scraper edge to allow it to be reworked. It is diagnostically Neolithic.

*Context 511223**Primary Technology*

A single complete flake manufactured on fresh light brown flint was recovered from the fill of pit 511222. The flake measures 19mm in length and is 12mm broad and 3.5mm thick. It has a damaged platform and a feathered termination. It is undiagnostic.

*Context 511363**Primary Technology*

A single distal flake fragment was recovered from the fill of Roman ditch 511362. The fragment was manufactured on fresh dark grey flint with cortex characteristic of a beach pebble resource. It retains a hinged termination and is 16mm in diameter.

*Secondary Technology*

The flake fragment has semi-invasive and abrupt retouch around both sides and the distal end and is a broken fragment from a possible knife or cutting implement. It is possibly Neolithic.

*Context 511392**Primary Technology*

A single piece of indeterminate flake shatter manufactured on dark grey fresh flint was recovered from the fill of pit 511393. It is undiagnostic.

*Context 511418**Primary Technology*

A single distal flake fragment manufactured on dark grey flint was recovered from the fill of ditch 511417. The fragment retains a hinged termination and is 17mm in diameter. It is undiagnostic.

*Context 511421**Primary Technology*

A single proximal flake fragment was recovered from the fill of pit 511420. It was manufactured on fresh mottled grey flint and retains a cortical platform with cortex characteristic of a beach pebble resource. The fragment measures 22mm in diameter and is undiagnostic.



*Context 511422**Primary Technology*

A single, heavy, proximal flake fragment was recovered. It was manufactured on fresh dark grey flint, measures 27mm in diameter and retains a complex platform. The flake had been struck from a single platform flake core.

*Secondary Technology*

The flake has abrupt retouch along the left hand side edge (dorsal surface) and around the shoulder forming a squared side, and abrupt and semi-invasive retouch along the right hand side edge (dorsal surface) forming slight shallow notch. The tool type is unclassifiable and undiagnostic.

*Discussion and Conclusions*

The raw materials used were derived from a beach pebble resource, as demonstrated by surviving cortex, the range of colours represented and the occurrence of miss-strikes caused by flaws in the flint. It is likely that the pebbles worked on the site were collected from nearby beaches. The majority of the struck lithics were found within the fills of ditch 511054, with 147 lithics recovered, including 115 pieces of microdebitage. This ditch fill also produced Early Neolithic pottery. The flints from this ditch included several pieces of microdebitage with dorsal scar patterns characteristic of Early Neolithic working and a hollow scraper diagnostic of Early Neolithic technology. The remainder of the material from the ditch is debitage, together with a notched flake and a side scraper. Collectively the material in the ditch represents knapping debris and was probably deliberately deposited since otherwise the smaller pieces would have been lost.

Pit 511071 produced a broadly similar range of materials to ditch 511054, with microdebitage also present. The diagnostic pieces within the assemblage indicate working in the Early Neolithic period, contemporary with the pottery also found in the pit fill. The most significant piece is the flake struck from a polished stone axe, reworked to form a piercer. It is possible that in an area where good quality raw materials were difficult to find, people made maximum use of any workable stone, reusing axes once they had become broken or redundant. Thomas has also argued, however, that the deliberate destruction of axes may have been a more symbolic act (see Thomas 1999).

The assemblage of struck lithics from pit 511040 includes a number of pieces diagnostic of the later Neolithic/Early Bronze Age, which would fit with the recovery of Beaker pottery in this pit fill. The majority of pieces are more crudely knapped than those from the Early Neolithic deposits, suggesting a later date of manufacture. The presence of four retouched pieces in the assemblage is interesting, and may indicate the manufacture of expedient tools to serve a particular function before being discarded.

**Fired Clay and Daub** (Hall 2008)

Large quantities of fired clay were recovered from burnt mound deposit 511356 and silt layer 511388.

**Metalwork** (Leahy 2008)

Context 511306: Iron horseshoe, both calkins and toe clip are present together with some nails. These are rectangular with expanded heads and are set into slots.

Dimensions: Length 156mm, Width 149mm Thickness

Mass: 495.3g

Condition: Excellent

Identification: Shoe for a heavy horse

Dating: Recent

Find Context: Deposit

Further action: None required

**Ceramic building material** (Hall 2008)

A single undateable fragment (15g) of ceramic building material was recovered from 511453

**Worked Stone** (Vince and Steane 2008)

A single hammerstone (1336g) was recovered from fill 511422 of a hollow associated with stone layer 511406. It was formed from a natural ovoid pebble with impact fractures on one of the narrower ends, suggesting that it was held in the hand and used to hammer another hard material, probably another stone (such as flint). As found, it was broken in half.

**Waterlogged wooden trough** (Nayling 2008)

The recording of the trough has produced a digital archive which will enable repeat examination for information on its post-excavation but pre-conservation form.

*Description*

The trough comprises a single oak (*Quercus* spp.) trunk now 4.26m long with a maximum width of 0.98m. Although generally concave in cross-section, its shape, particularly in profile, changes substantially along its length. At the surviving western end, the maximum thickness is 228mm where a marked 'swelling' occurs particularly along the northern side and the wood is smooth and relatively unmarked by cracking. A number of features at the western end suggest active disturbance, including poorly defined approximately triangular depressions on the upper face which could represent eroded chop marks. This end has a stepped outline viewed from above with exposed radial edges following the grain of the parent tree characteristic of material having been split away. This apparently damaged end is initially only some 60mm thick but thickens to 200mm at a near vertical step approximately transverse to the grain on the southern side. No toolmarks survive on this 'step' but it may represent another aspect of post-depositional damage.

Moving towards the eastern end, approximately 1.05m from the west end the upper surface becomes increasingly fluted, following the angled or spiral grain of the parent tree. Cracks evident on this surface become deeper towards the eastern end, again following the grain. This surface is too poorly preserved to allow survival of tool marks. The close alignment of the linear depressions which give this 'fluted' appearance with the direction of grain suggest they are a function of degradation during the trough's use and/or post-depositional degradation. The thickness of the base also reduces towards the east to approximately 24mm thick with two irregular holes, the larger approximately 290mm by 90mm, occurring on the southern side of the base. Given the eastern end's location furthest away from the watercourse, it may be that the burial environment here was significantly different

in terms of extent and duration of waterlogging, thus influencing the extent of anaerobic conditions. Another possible factor in this differential erosion is the proximity of the eastern end to the stone hearth. The inner face here runs across the grain of the parent tree in keeping with hollowing of the trunk to form the closed end although this may have been accentuated by erosion during use.

The sides of the trough are not only damaged and eroded as a result of decay and possibly intentional damage in the past, but also, to a limited extent, by damage during discovery. Machining damage is evident along the northern edge where the wood has split/torn along a radial face some 670mm in length, and to a lesser extent on the southern edge for a length of some 250mm. The original thickness, let alone heights of the sides of the trough are therefore unclear.

The condition of the underside of the trough is markedly better than the upper surface, presumably due to more continuous waterlogging and less erosion during use. This also has some bearing on the issue of the trough's possible 'pre-use' as a log boat. Possible tool marks were identified in a number of locations, and scanned at higher resolutions than the rest of the underside. Selective photographs were taken of these and also of localised evidence for wood borers. At the western end a number of approximately parallel marks up to 132mm long do not have the sharp, clean nature associated with the use of metal tools. These may be damage caused during the original placement of the trough, particularly given their proximity to the rock cut edge of the feature into which the trough was placed. Towards the middle of the underside, a number of distinct tool marks do survive in good condition. These have been made at varying angles using a metal tool with a width of at least 54mm and probably represent instances when the woodworker has cut rather deeper into the wood than intended during the shaping of the base. Similar, but less extensive tool marks survive towards the eastern end of the underside.

The nature of the parent tree from which the trough was fashioned can be determined to some extent. The tree was an oak with relatively straight but spiral grain. Only one large side branch is suggested by a semicircular depression at the eastern end where a side branch or knot may have been located. The pith, or centre, of the parent tree has not been retained even at the eastern end. It may be that the tree had been half split before the interior has reduced to produce the concave vessel. The form of conversion is most clearly seen where approximately transverse faces are exposed such as at the eastern end and the damaged western section. The earliest surviving annual rings occur at the eastern end and are at their widest (up to 3mm) but were not sampled for dendrochronology due to the fragility of this area. The tree-ring sequence analysed for dating purposes was 114 years long with an average ring width of 1.80mm. This growth rate would be seen as slow and characteristic of a mature oak tree. The length of the ring sequence, excluding as it does both the innermost rings of the trees as well as the outermost surviving rings, present at the outer lower edges of the base, and the sapwood which did not survive, suggests that the parent tree must have been at least 200 years old and could have been considerably older.

#### *Previous Usage?*

No features are present which might be considered diagnostic of an original use as a boat and which might reasonably be expected to survive on the section of the trough examined. Some features such as holes or rebates to take wash-strakes would not have survived given the truncated nature of the sides. Nonetheless, a range of features might be expected such as thickness gauges (McGrail 1978, 31), transverse ridges (*ibid.*, 55), or evidence for the former presence of a fitted transom or bulkheads. Additionally, the thickness of the base, not only in the damaged western end, but even towards the middle of the trough, is excessive for use as a logboat, exceeding that of the largest Bronze Age logboats from England and Wales such as Brigg and Appleby (*ibid.*).

The relative thinness of the base towards the eastern end is most probably a function of erosion during use as a trough or post-depositional decay, so cannot be seen as representative of the trough's original form. Lastly, the presence of surviving tool marks on the underside of the trough would not be in keeping with a previous use as a boat and would almost certainly have been worn away by such usage.

#### *Dendrochronology*

It was clear from soon after the object's discovery that it was constructed from a mature oak tree which had the potential for being dated by dendrochronology. A radiocarbon determination indicated a Bronze Age date and it was hoped that a more precise date could be achieved through tree-ring analysis. A single 12mm increment core was taken by hand from one of the thickest parts of the base. The core was cleaned using razor blades to expose the transverse face and the ring-width sequence was recorded to the nearest 0.01mm using a travelling stage connected via a linear encoder to a computer running Dendro for Windows software. A 114 tree-ring sequence was recorded and the same software was employed to identify any significant computer correlations between this ring-width series and late prehistoric oak chronologies and site masters from Britain and Ireland without success.

### **APPENDIX C: THE PALAEOENVIRONMENTAL EVIDENCE**

import after new reports received

Awaiting

**APPENDIX D: THE RADIOCARBON DATING (BY DR SEREN GRIFFITHS)****Site 511**

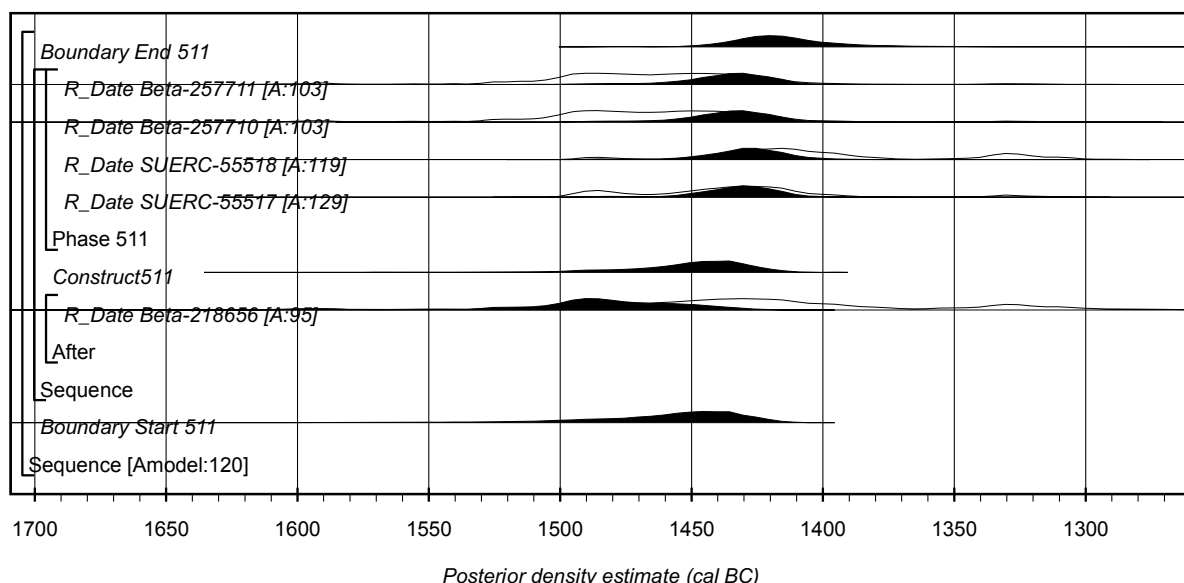
Five radiocarbon results on material associated with a burnt mound at site 511 include four statistically consistent results on shortlife samples ( $T^*=1.9$ ;  $T^*5\%=9.5$ ;  $df=3$ ; Ward and Wilson 1978), which could be of the same actual age. Two results were produced on “charred grain” from layer 511255 (Beta-257710 and Beta-257711), while two were produced on charcoal from the burnt mound layer (SUERC-55517 and -55518). Another result (Beta-218656) was produced on oak wood from the trough, which may be subject to an inbuilt ‘old wood’ offset.

A radiocarbon model that reflects the interpretation that the burnt mound was constructed after the measurement on the mature oak timber from the trough (Beta-218656) estimates that the mound was constructed in 1500–1410 cal BC (95% probable), most probably in the 50 years between 1470–1420 cal BC (68% probable; Construct511; Fig. 17). The end of activity associated with this mound is estimated to have occurred in 1490–1350 cal BC (95% probable; or 1440–1400 cal BC 68% probable; End 511; Fig. 8). The duration of activity represented by the use of the mound is estimated as between 1–70 years (95% probable; or 1–30 years; Duration511). The currency of this structure is nationally important, **as the dated activity is associated with the use of the burnt mound to process cereals in some manner. IS THIS ACTUALLY IN ANY WAY TRUE?**

Context	Feature	Sampled material	Laboratory ref	Measured age	$\delta^{13}C$	Calibrated date (95%)
511009	Burnt mound 511255	<i>Alnus</i> charcoal sp.	SUERC-55517 (GU35203)	3157 +/-30	-27.3	1500–1320 cal BC
511009	Burnt mound 511255	<i>Quercus</i> roundwood charcoal sp.	SUERC-55518 (GU35204)	3134 +/-30	-25.7	1500–1320 cal BC
511255	Burnt mound 511255	Charred grain	Beta-257710	3190 +/-40		1530–1400 cal BC
511255	Burnt mound 511255	Charred grain	Beta-257711	3190 +/-40		1530–1400 cal BC
Trough 511353		Edge of a mature oak wood timber	Beta-218656	3160 +/-50		1530–1300 cal BC

Dating undertaken by Beta Analytic, Miami and Scottish Universities Environmental Research Centre

**Fig. 17** A Bayesian model for the results from site 511. Each distribution represents the relative probability that an event occurred at a particular time. For each distribution two ranges have been plotted. The range in outline represents the calibrated radiocarbon result, the solid distribution represents the posterior density estimate (or Bayesian statistical model output). The large square brackets and CQL2 OxCal keywords define the model exactly.



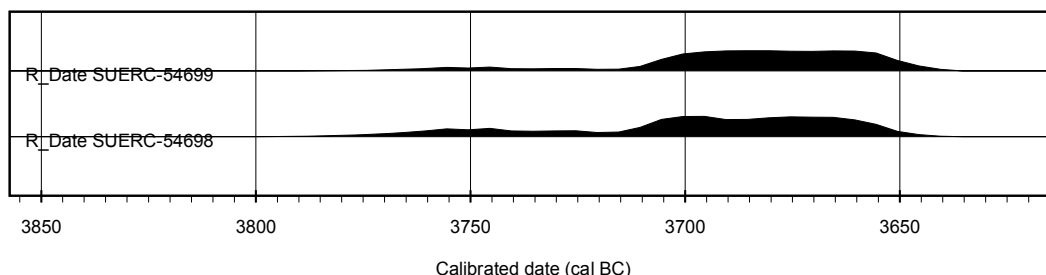
**Site 514**

Two radiocarbon dates were produced from deposits associated with Early Neolithic activity on site 514 (Fig. 18). SUERC-54698 was produced on hazel nutshell from the lower fill of enclosure ditch 511038, which also contained six undecorated possible Neolithic pottery sherds. The fill above this (511056) contained 24 Early Neolithic ‘Developed’ Carinated Bowl sherds (Appendix B). SUERC-54699 was produced on hazel nutshell from the only charcoal-rich fill of pit 511071, which contained 34 Early Neolithic ‘Developed’ Carinated Bowl sherds (Appendix B). These results are statistically consistent ( $T'=0.1$   $T'5\%=3.8$ ;  $df=1$ ; Ward and Wilson 1978). If the results were to represent the same ‘archaeological event’ a weighted mean taken prior to calibration would suggest this activity occurred in the late 38th or first half of the 37th century cal BC.

Context	Feature	Sampled material	Laboratory ref	Measured age	$\delta^{13}C$	Calibrated date (95%)
511055	511038	Hazelnut shell	SUERC-54698 (GU34693)	4925±29	-28	3780–3640 cal BC
511069	511071	Hazelnut shell	SUERC-54699 (GU34694)	4910±29	-24.1	3760–3640 cal BC

Dating undertaken by Beta Analytic, Miami and Scottish Universities Environmental Research Centre

**Fig. 18** The calibrated radiocarbon dates from site 514.



**References**

Ward, G.K. and, Wilson, S.R. 1978 ‘Procedures for Comparing and Combining Radiocarbon Age Determinations: a critique’, in *Archaeometry* **20**, 19–31



- Milford Haven to Aberdulais pipeline
- Felindre to Brecon pipeline
- 0-75m contour
- 75m contour
- 200m contour
- 400m contour
- 600m contour



**Cotswold Archaeology**  
 Cirencester 01285 771022  
 Milton Keynes 01908 218320  
 Andover 01264 326549  
 www.cotswoldarchaeology.co.uk  
 enquiries@cotswoldarchaeology.co.uk

**PROJECT TITLE**  
 South Wales Pipeline. Sites 511 and 514, Land South-East of Upper Neeston, Herbrandston, Pembrokeshire

**FIGURE TITLE**  
**Site location plan**

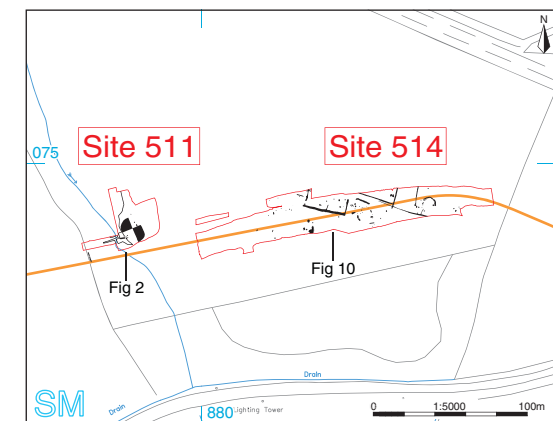


Reproduced from the 2005 Ordnance Survey Explorer map with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office © Crown copyright Cotswold Archaeology Ltd 100002109

<b>PROJECT NO.</b> 9150	<b>DATE</b> 19-02-2014	<b>FIGURE NO.</b>
<b>DRAWN BY</b> DJB	<b>REVISION</b> 00	<b>1</b>
<b>APPROVED BY</b> LM	<b>SCALE@A4</b> 1:25,000	



View showing marsh within former watercourse, burnt mound and trough, looking north-west (scales 2m)



- pipeline centreline
- burnt mound
- hearth
- trough
- marsh/former water course
- photograph locator

Reproduced from the digital Ordnance Survey Explorer map with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationary Office © Crown copyright Cotswold Archaeology Ltd 100002109

**Cotswold Archaeology**  
 Cirencester 01285 771022  
 Milton Keynes 01908 218320  
 Andover 01264 326549  
 www.cotswoldarchaeology.co.uk  
 enquiries@cotswoldarchaeology.co.uk

**PROJECT TITLE**  
 South Wales Pipeline. Sites 511 and 514, Land South-East of Upper Neeston, Herbrandston, Pembrokeshire

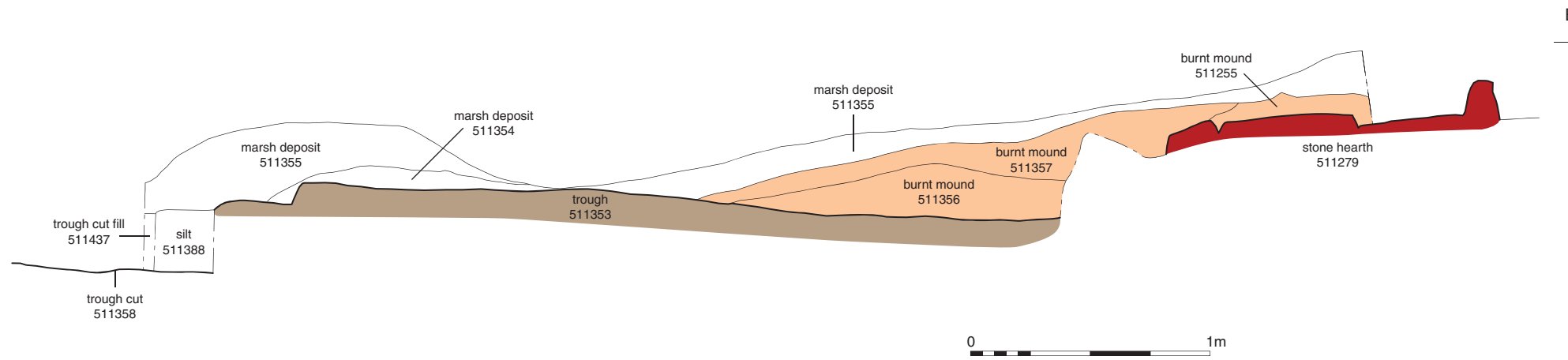
**FIGURE TITLE**  
 Plan and photograph of Site 511

PROJECT NO.	9150	DATE	24-02-2014	FIGURE NO.
DRAWN BY	DJB	REVISION	00	2
APPROVED BY	LM	SCALE@A3	1:250	



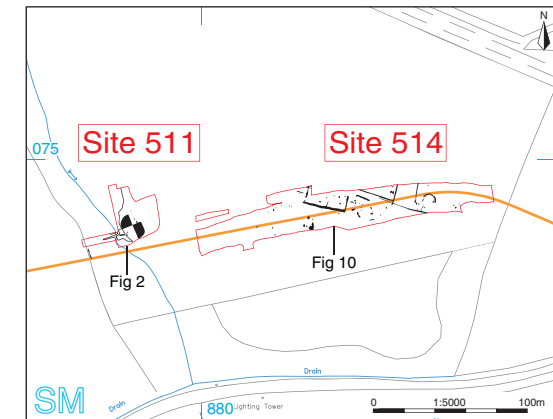
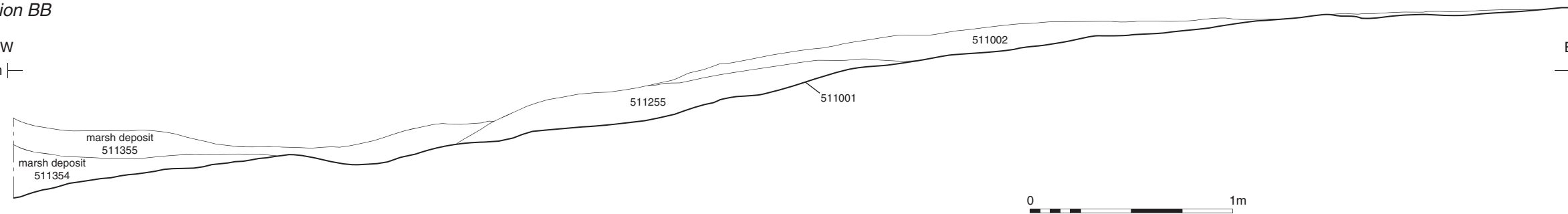
Section AA

W  
48.0m  
AOD



Section BB

W  
48.0m  
AOD



- pipeline centreline
- burnt mound
- trough
- stone hearth

Reproduced from the digital Ordnance Survey Explorer map with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationary Office © Crown copyright Cotswold Archaeology Ltd 100002109

**Cotswold Archaeology**  
 Cirencester 01285 771022  
 Milton Keynes 01908 218320  
 Andover 01264 326549  
 www.cotswoldarchaeology.co.uk  
 enquiries@cotswoldarchaeology.co.uk

**PROJECT TITLE**  
 South Wales Pipeline. Sites 511 and 514, Land South-East of Upper Neeston, Herbrandston, Pembrokeshire

**FIGURE TITLE**  
 Sections through trough, hearth and burnt mound

PROJECT NO.	9150	DATE	24-02-2014	FIGURE NO.
DRAWN BY	DJB	REVISION	00	3
APPROVED BY	LM	SCALE@A3	1:25	



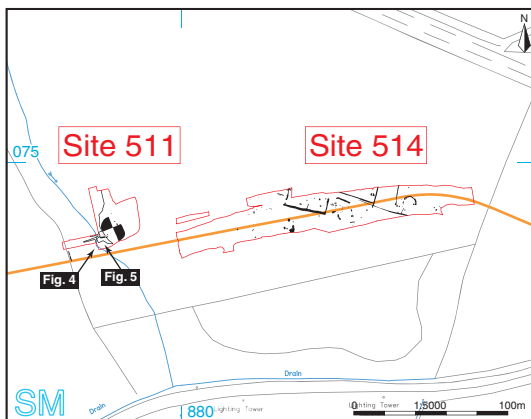
4

Burnt mound 511255, looking north-east (scales 2m)



5

Trough with overlying burnt mound and marsh deposits, looking north-west (scale 2m)



- pipeline centreline
- photograph locator

Reproduced from the digital Ordnance Survey Explorer map with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office © Crown copyright  
Cotswold Archaeology Ltd 100002109



Cirencester 01285 771022  
Milton Keynes 01908 218320  
[www.cotswoldarchaeology.co.uk](http://www.cotswoldarchaeology.co.uk)  
[enquiries@cotswoldarchaeology.co.uk](mailto:enquiries@cotswoldarchaeology.co.uk)

**PROJECT TITLE**

South Wales Pipeline. Sites 511 and 514, Land South-East of Upper Neeston, Herbrandston, Pembrokeshire

**FIGURE TITLE**

**Photographs**

PROJECT NO. 9150 DATE 24-02-2014  
DRAWN BY DJB REVISION 00  
APPROVED BY LM SCALE@A4 N/A

FIGURE NO.

**4 & 5**



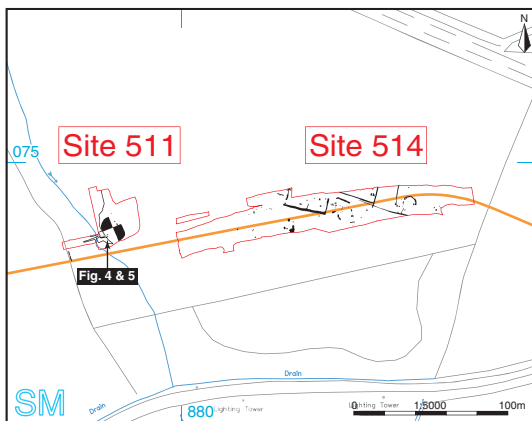
6


Hearth 511279 with overlying burnt mound deposits, looking north (scale 1m)



7

Hearth 511279, looking north (scale 1m)



- pipeline centreline
-  photograph locator

Reproduced from the digital Ordnance Survey Explorer map with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office © Crown copyright  
Cotswold Archaeology Ltd 100002109



Cirencester 01285 771022  
Milton Keynes 01908 218320  
[www.cotswoldarchaeology.co.uk](http://www.cotswoldarchaeology.co.uk)  
[enquiries@cotswoldarchaeology.co.uk](mailto:enquiries@cotswoldarchaeology.co.uk)

**PROJECT TITLE**

South Wales Pipeline. Sites 511 and 514, Land South-East of Upper Neeston, Herbrandston, Pembrokeshire

**FIGURE TITLE**

**Photographs**

PROJECT NO. 9150 DATE 24-02-2014  
DRAWN BY DJB REVISION 00  
APPROVED BY LM SCALE@A4 N/A

**FIGURE NO.**

**6 & 7**



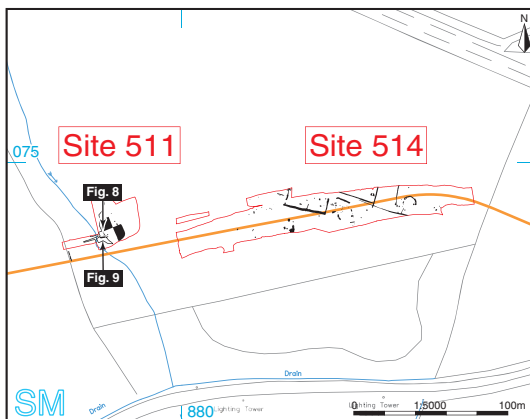
8

Trough, hearth 511279 and adjacent postholes, looking north



9

Trough, showing underlying silts, looking south (scale 1m)



- pipeline centreline
- photograph locator

Reproduced from the digital Ordnance Survey Explorer map with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office © Crown copyright  
Cotswold Archaeology Ltd 100002109



Cirencester 01285 771022  
Milton Keynes 01908 218320  
[www.cotswoldarchaeology.co.uk](http://www.cotswoldarchaeology.co.uk)  
[enquiries@cotswoldarchaeology.co.uk](mailto:enquiries@cotswoldarchaeology.co.uk)

PROJECT TITLE

South Wales Pipeline. Sites 511 and 514, Land South-East of Upper Neeston, Herbrandston, Pembrokeshire

FIGURE TITLE

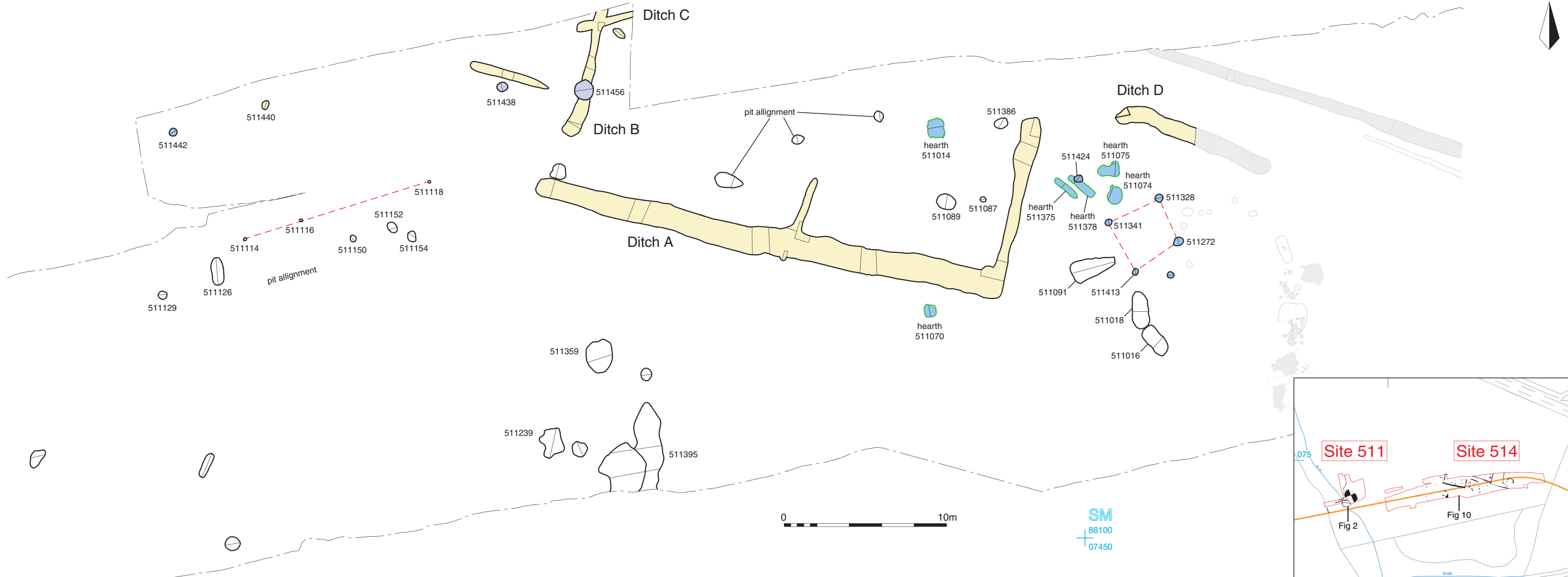
**Photographs**

PROJECT NO. 9150 DATE 24-02-2014  
DRAWN BY DJB REVISION 00  
APPROVED BY LM SCALE@A4 N/A

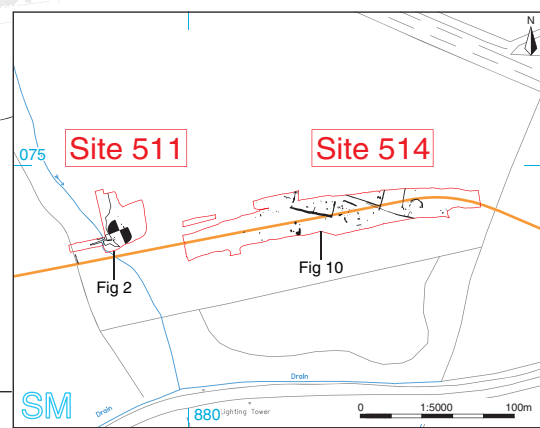
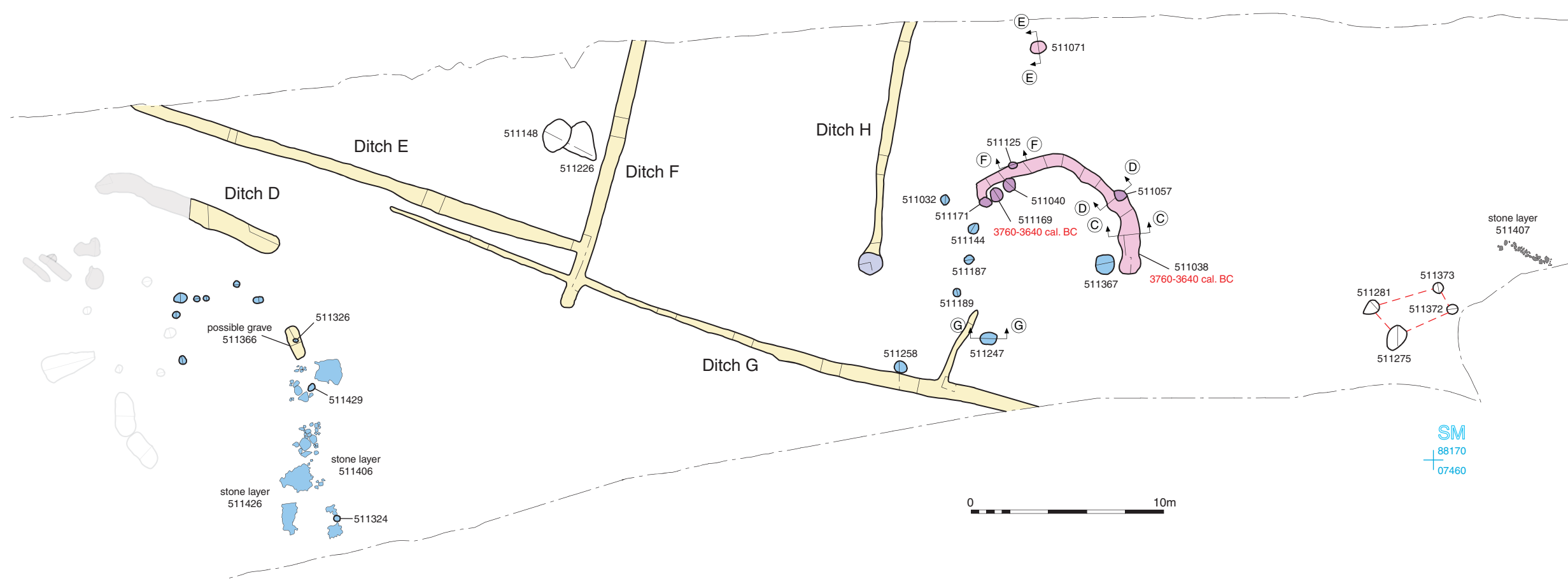
FIGURE NO.

**8 & 9**

Western Area



Eastern Area



- pipeline centreline
- unphased prehistoric
- Early Neolithic
- Beaker/Early Bronze Age
- Late Roman
- post-medieval/modern
- undated
- hearth
- grouped features

Reproduced from the digital Ordnance Survey Explorer map with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationary Office © Crown copyright Cotswold Archaeology Ltd 100002109

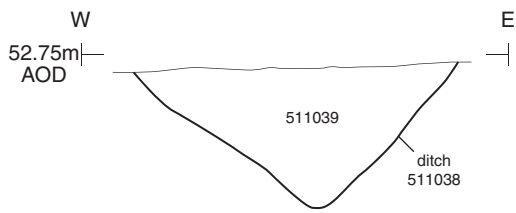
**Cotswold Archaeology**  
 Cirencester 01285 771022  
 Milton Keynes 01908 218320  
 Andover 01264 326549  
 www.cotswoldarchaeology.co.uk  
 enquiries@cotswoldarchaeology.co.uk

**PROJECT TITLE**  
 South Wales Pipeline. Sites 511 and 514, Land South-East of Upper Neeston, Herbrandston, Pembrokeshire

**FIGURE TITLE**  
 Site 514, plan of archaeological features

PROJECT NO. 9150    DATE 24-02-2014    FIGURE NO.  
 DRAWN BY DJB    REVISION 00  
 APPROVED BY LM    SCALE@A3 1:250    **10**

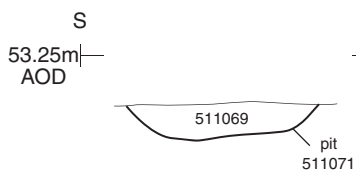
**Section CC**



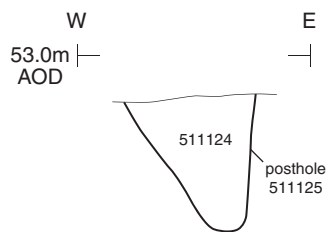
**Section DD**



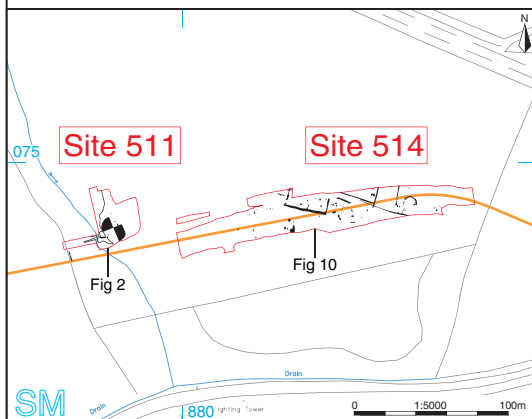
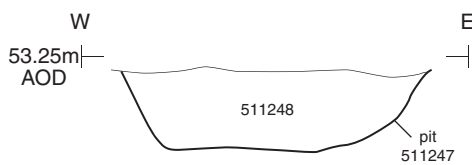
**Section EE**



**Section FF**



**Section GG**



— pipeline centreline

Reproduced from the digital Ordnance Survey Explorer map with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office © Crown copyright  
Cotswold Archaeology Ltd 100002109



Cirencester 01285 771022  
Milton Keynes 01908 218320  
www.cotswoldarchaeology.co.uk  
enquiries@cotswoldarchaeology.co.uk

**PROJECT TITLE**

South Wales Pipeline. Sites 511 and 514, Land South-East of Upper Neeston, Herbrandston, Pembrokeshire

**FIGURE TITLE**

**Sections through prehistoric features towards the eastern end of site**

PROJECT NO. 9150 DATE 25-02-2013  
DRAWN BY DJB REVISION 00  
APPROVED BY LM SCALE@A4 1:20

FIGURE NO.

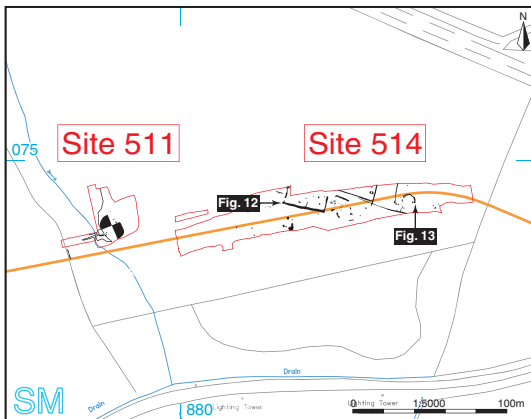
11



Early Neolithic ditch 511038, looking north (scales 1m)



Hearth 511014, looking north (scale 1m)



- pipeline centreline
- photograph locator

Reproduced from the digital Ordnance Survey Explorer map with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office © Crown copyright Cotswold Archaeology Ltd 100002109



Cirencester 01285 771022  
 Milton Keynes 01908 218320  
[www.cotswoldarchaeology.co.uk](http://www.cotswoldarchaeology.co.uk)  
[enquiries@cotswoldarchaeology.co.uk](mailto:enquiries@cotswoldarchaeology.co.uk)

PROJECT TITLE

South Wales Pipeline. Sites 511 and 514, Land South-East of Upper Neeston, Herbrandston, Pembrokeshire

FIGURE TITLE

**Photographs**

PROJECT NO. 9150 DATE 26-02-2014  
 DRAWN BY DJB REVISION 00  
 APPROVED BY LM SCALE@A4 N/A

FIGURE NO.

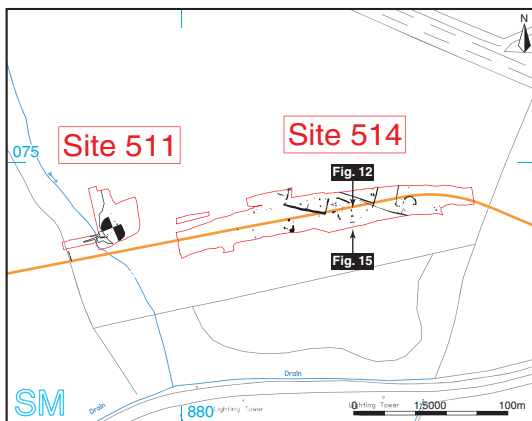
**12 & 13**



Roman enclosure ditch 511098, looking east (scale 1m)



Stone layer 511407, looking south (scales 2m)



- pipeline centreline
- Fig. 5 photograph locator

Reproduced from the digital Ordnance Survey Explorer map with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office © Crown copyright  
Cotswold Archaeology Ltd 100002109



Cirencester 01285 771022  
Milton Keynes 01908 218320  
[www.cotswoldarchaeology.co.uk](http://www.cotswoldarchaeology.co.uk)  
[enquiries@cotswoldarchaeology.co.uk](mailto:enquiries@cotswoldarchaeology.co.uk)

PROJECT TITLE

South Wales Pipeline. Sites 511 and 514, Land South-East of Upper Neeston, Herbrandston, Pembrokeshire

FIGURE TITLE

**Photographs**

PROJECT NO. 9150 DATE 26-02-2014  
DRAWN BY DJB REVISION 00  
APPROVED BY LM SCALE@A4 N/A

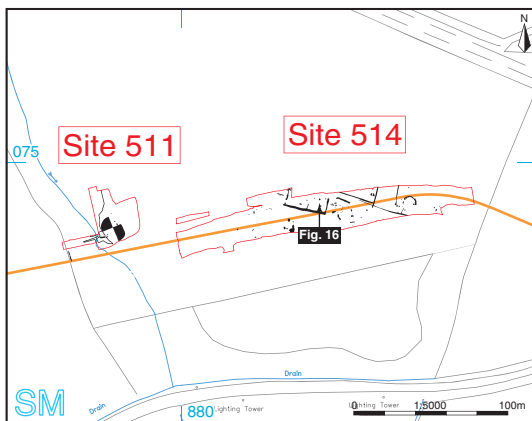
FIGURE NO.

**14 & 15**





Stone layer 511406, looking north (scales 2m)



- pipeline centreline
- Fig. 16** photograph locator

Reproduced from the digital Ordnance Survey Explorer map with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office © Crown copyright  
Cotswold Archaeology Ltd 100002109



Cirencester 01285 771022  
Milton Keynes 01908 218320  
[www.cotswoldarchaeology.co.uk](http://www.cotswoldarchaeology.co.uk)  
[enquiries@cotswoldarchaeology.co.uk](mailto:enquiries@cotswoldarchaeology.co.uk)

**PROJECT TITLE**

South Wales Pipeline. Sites 511 and 514, Land South-East of Upper Neeston, Herbrandston, Pembrokeshire

**FIGURE TITLE**

**Photograph**

<b>PROJECT NO.</b> 9150	<b>DATE</b> 26-02-2014	<b>FIGURE NO.</b> 16
<b>DRAWN BY</b> DJB	<b>REVISION</b> 00	
<b>APPROVED BY</b> LM	<b>SCALE@A4</b> N/A	