

**South Wales Gas Pipeline Project
Site 23.04
Land South-West of Pen-y-Banc
Manordeilo and Salem
Carmarthenshire
Archaeological Excavation**

for
Rhead Group
on behalf of
National Grid

CA Project: 9150
CA Report: 13272
Event: DAT108798

November 2013

South Wales Gas Pipeline Project Site 23.04

Archaeological Excavation

CA Project: 9150
CA Report: 13272
Event: DAT102846

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| prepared by | Greg Crees, Project Supervisor |
| date | 15 November 2013 |
| checked by | Karen E Walker, Post-Excavation Manager |
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| approved by | Martin Watts, Project Director, Head of Publications |
| signed | |
| date | |
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| | | |
|--|--|---|
| Cirencester Building 11 Kemble Enterprise Park Kemble, Cirencester Gloucestershire, GL7 6BQ t. 01285 771022 f. 01285 771033 | Milton Keynes Unit 4 Cromwell Business Centre Howard Way, Newport Pagnell MK16 9QS t. 01908 218320 | Andover Office 49 Basepoint Business Centre Caxton Close, Andover Hampshire, SP10 3FG t. 01264 326549 |
| e. enquiries@cotswoldarchaeology.co.uk | | |

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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

SUMMARY

Project Name: South Wales Gas Pipeline Project

Location: Site 23.04, Land South-West of Pen-y-Banc, Manordeilo and Salem, Carmarthenshire

NGR: SN 6088 2383

Location of Archive: To be deposited with RCAHMW (original paper archive) and Carmarthenshire Museum (digital copy of paper archive; accession number CAASG 2008.0282)

Site Code: MHA06

An archaeological excavation was undertaken by Cambrian Archaeological Projects 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.

Two parallel curvilinear ditches separated by a bank were excavated. These features extended to the baulk and the bank continued as a slight earthwork beyond the pipeline easement in an adjacent field. The features were undated and whilst the function of these features is unclear, they may have formed part of a hedge-bank boundary or an enclosure. No corresponding boundary is shown on the 1st Edition Ordnance Survey map of the area and although the features lie close to the junction of three Communities, it is not known if this location is of significance.

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 section of 89km, 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 In May 2006 CAP carried out an excavation at Site 23.04, Land South-West of Pen-y-Banc, Llandeilo, Carmarthenshire (centred on NGR: SN 6088 2383; Fig. 1). The objective of the excavation was to record all archaeological remains exposed on site 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, 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 The site is located within a field on a low-lying area of land at the base of a steep hill along the northern edge of King's Lodge Wood (Fig. 1). A number of small unnamed streams are nearby and it is close to the modern junction of three Community boundaries. The site lies at approximately 45m AOD.

- 1.5 The underlying solid geology of the area is mapped as the Ordovician Llandeilo Group (Sandstone), overlain by superficial Quaternary deposits (BGS 2013).

Archaeological background

- 1.6 No archaeological remains were identified within the site during the preliminary *Archaeology and Heritage Survey* (CA 2006). The site lies close to the interface between the historic Communities of Manordeilo and Salem, Llandilo Fawr and Llangathen. Within the vicinity documentary evidence records the presence of a post-medieval or modern lodge, c. 180m to the south-west of the site (CA 2006 Ref. ID 1026), in addition to a small bank forming the south-eastern boundary of Kings Lodge Wood (CA 2006 Ref. ID 6066).
- 1.7 A geophysical survey undertaken as part of the pipeline works investigated a small area of the site but did not record any archaeological anomalies (NLM 2012b). Nearby, Site 23.02 was recorded during the pipeline project and contained a single undated charcoal-rich layer (CA 2013).

Archaeological objectives

- 1.8 The objectives of the archaeological works were:-
- to monitor groundwork, and to identify, investigate and record all significant buried archaeological deposits revealed on the site during the course of the development groundwork; and
 - 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 followed the methodology set out within the *WSI* (NLM 2006). An archaeologist was present during intrusive groundwork comprising stripping of the pipeline easement to the natural substrate (Fig. 1).
- 1.10 Archaeological remains were initially identified on the site during a watching brief along the pipeline easement, following which the site was recorded by excavation.

1.11 The post-excavation work was undertaken following the production of the UPD (GA 2012). Finds and environmental evidence was taken from the assessment reports (NLM 2012) 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 2006);
- Dyfed Archaeological Trust HER data (received July 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.

1.12 The archive is currently held by CA at their offices in Kemble and will be deposited with Carmarthenshire Museum under accession number CAASG 2008.0282, along with a digital copy of the paper archive. The original paper archive will be deposited with the RCAHMS.

2. RESULTS (FIGS 2–4)

2.1 This section provides an overview of the excavation results; detailed summaries of the recorded contexts, finds and environmental samples (palaeoenvironmental evidence) are to be found in Appendices A, B and C.

2.2 The natural geological substrate was cut by a pair of parallel curvilinear ditches separated by a bank. These features were aligned broadly east/west and curved to continue beyond the pipeline easement (Fig. 2). In addition to these features, two unstratified flints (a flake struck from a blade core of Mesolithic or Neolithic date, and an undatable piece of burnt microdebitage) were recovered.

2.3 The northernmost original ditch (234015) comprised a steep-sided, flat-based cut which was 1.05m deep (Fig. 2). It had been re-cut up to three times along its northern side and the latest re-cut was 1.1m wide. The ditch and re-cuts contained a series of orange-grey silty clay fills but monolith samples taken through these suggest that any apparent differences between these fills reflect post-depositional

changes and that the deposits were more homogenous than their appearance suggested (Appendix C; Fig. 2). The only finds from these fills were two pieces of iron slag from the lowest fill (234013) of the latest re-cut but these were not retained for examination and close identification of this material is not possible.

- 2.4 The southernmost ditch (234027) had a somewhat different profile and comprised a U-profiled cut up to 1.35m wide and 0.4m deep. No re-cutting of this ditch was identified and it was filled with material comparable to that within the inner ditch.
- 2.5 These ditches lay either side of bank 234049, a 0.5m-wide bank of grey clay silt overlying the subsoil (the latter was not recorded on the field section drawing). This material was cut by ditch 24113 and it is assumed here that it was also cut by ditch 243027, although that relationship was not recorded. During fieldwork, it was observed that the bank may continue north-eastwards into the adjacent field as a slight earthwork, although this is not recorded on Ordnance Survey mapping.
- 2.6 Later agricultural activity was represented by two ditches, a possible furrow, a stone drain and several postholes cut through the subsoil (of these, only the drain has been illustrated). No description of the subsoil was made and it was not dated, but these features are likely to have been medieval or later in date.

Discussion

- 2.7 The double ditch and bank feature was not fully exposed and remains undated, restricting the level of interpretation that is possible. However, several observations can be made. The presence of subsoil beneath the bank and the two slag pieces within a ditch fill (albeit within the latest re-cut), may suggest a medieval or later date for this feature, although dating within the later prehistoric or Roman periods cannot be ruled out. The feature is not depicted on the 1st Edition of the Ordnance Survey 1:2500 Series map (1886), and this also indicates pre-modern origins. The results from monolith samples (Rackham below) suggest a slow gradual infilling of the ditches, with the development of soil structure within the deposits as they built up. There is no evidence for any waterlogging within the sequences although the ditches may have been seasonally wet.
- 2.8 The function of the ditch/bank feature is also unclear, although it most probably took the form of a hedge-bank boundary flanked by ditches. It might represent part of a field boundary, but could also have formed part of an enclosure. The feature lies at

the junction of three Communities (Manordeilo and Salem, Llandeilo and Llangathen) but the significance of this cannot be determined with the current data.

3. PROJECT TEAM

Fieldwork was undertaken by Cambrian Archaeological Projects. This report was written by Greg Crees with comments by Jonathan Hart and 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 CAP by Kevin Blockley and the post-excavation was managed for CA by Karen Walker.

DRAFT



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APPENDIX A: CONTEXT DESCRIPTIONS

| Site | Context | Fill of | Type | Description | Width (m) | Depth (m) |
|------|---------|---------|-------------------------|--|------------|-----------|
| 23.4 | 234001 | n/a | Feature number | Curvilinear ditch contains up to 4 re-cuts; parallel to outer ditch and an associated bank | 6.5m total | |
| 23.4 | 234002 | | Outer ditch | Same as 234027 | | |
| 23.4 | 234003 | | Outer ditch | Same as 234027 | | |
| 23.4 | 234004 | 234003 | 2nd fill of outer ditch | Grey sand silt | | |
| 23.4 | 234005 | 234003 | 1st fill of outer ditch | Grey clay | | |
| 23.4 | 234006 | 234002 | 2nd fill of outer ditch | Brown grey clay silt | | |
| 23.4 | 234007 | 234002 | 1st fill of outer ditch | Grey silt clay | | |
| 23.4 | 234008 | | Bank | Same as 2340049 | | |
| 23.4 | 234009 | | 3rd cut of inner ditch | Curvilinear ditch, primary cut | 1.05 | 0.6 |
| 23.4 | 234010 | 234009 | 3rd fill of inner ditch | Grey brown silt clay | 0.9 | 0.2 |
| 23.4 | 234011 | 234009 | 2nd fill of inner ditch | Grey silt clay | 0.7 | 0.3 |
| 23.4 | 234012 | | | Context not used | | |
| 23.4 | 234013 | 234009 | 1st fill of inner ditch | Grey clay | 0.4 | 0.2 |
| 23.4 | 234014 | | | Context not used | | |
| 23.4 | 234015 | | 1st cut of inner ditch | Curvilinear ditch, recut of 234009 | | 0.55 |
| 23.4 | 234016 | 234015 | 1st fill of inner ditch | Orange grey clay | 0.65 | 0.15 |
| 23.4 | 234017 | 234015 | 2nd fill of inner ditch | Grey silt clay | | 0.5 |
| 23.4 | 234018 | | 2nd cut of inner ditch | Curvilinear ditch, recut of 234009 | | 0.45 |
| 23.4 | 234019 | 234018 | 1st fill of inner ditch | Grey clay | | 0.1 |
| 23.4 | 234020 | 234018 | 2nd fill of inner ditch | Orange clay | | 0.4 |
| 23.4 | 234021 | | | Context not used | | |
| 23.4 | 234022 | | | Context not used | | |
| 23.4 | 234023 | | Outer ditch | Same as 234027 | | |
| 23.4 | 234024 | 234023 | 2nd fill of outer ditch | Grey clay sand | | |
| 23.4 | 234025 | 234023 | 1st fill of outer ditch | Grey sand clay | | |
| 23.4 | 234026 | | Bank | Same as 234049 | | |
| 23.4 | 234027 | | Outer ditch | Curvilinear ditch | 1.2 | 0.35 |
| 23.4 | 234028 | 234027 | 2nd fill of outer ditch | Orange grey silt sand | 0.85 | 0.2 |
| 23.4 | 234029 | 234027 | 1st fill of outer ditch | Grey silt clay | 1.2 | 0.25 |
| 23.4 | 234030 | | 3rd cut of inner ditch | Same as 234009 | | |
| 23.4 | 234031 | 234030 | 3rd fill of inner ditch | Grey brown sand clay | | |
| 23.4 | 234032 | 234030 | 2nd fill of inner ditch | Grey clay sand | | |
| 23.4 | 234033 | 234030 | 1st fill of inner ditch | Grey sand clay | | |
| 23.4 | 234034 | | 2nd cut of inner ditch | Same as 234018 | | |

| | | | | | | |
|------|--------|--------|--------------------------|---|------|------|
| 23.4 | 234035 | | 1st cut of inner ditch | Same as 234015 | | |
| 23.4 | 234036 | 234034 | 2nd fill of inner ditch | Orange grey sand | | |
| 23.4 | 234037 | 234034 | 1st fill of inner ditch | Brown grey sand clay | | |
| 23.4 | 234038 | 234035 | 2nd fill of inner ditch | Brown grey sand clay | | |
| 23.4 | 234039 | | 1st cut of inner ditch | Same as 234015 | | |
| 23.4 | 234040 | 234039 | 1st fill of inner ditch | Grey clay | | |
| 23.4 | 234041 | 234039 | 2nd fill of inner ditch | Grey clay silt | | |
| 23.4 | 234042 | | 3rd cut of inner ditch | Same as 234009 | | |
| 23.4 | 234043 | 234042 | 1st fill of inner ditch | Grey silt clay | | |
| 23.4 | 234044 | 234042 | 2nd fill of inner ditch | Grey clay | | |
| 23.4 | 234045 | 234042 | 3rd fill of inner ditch | Grey clay silt | | |
| 23.4 | 234046 | | 4th cut of inner ditch | Curvilinear ditch | | |
| 23.4 | 234047 | 234046 | 2nd fill of inner ditch | Grey silt clay | | |
| 23.4 | 234048 | 234046 | 3rd fill of inner ditch | Grey clay silt | | |
| 23.4 | 234049 | | Bank | Grey silt clay | | |
| 23.4 | 234050 | 234035 | 1st fill of ditch | Orange grey clay | | |
| 23.4 | 234051 | | Small ditch | Linear with shallow sides to irregular concave base | 0.55 | 0.1 |
| 23.4 | 234052 | 234051 | Fill of small ditch | Grey orange silt clay | 0.55 | 0.12 |
| 23.4 | 234053 | 234039 | 3rd fill of inner ditch | Grey silt clay | | |
| 23.4 | 234054 | | Small ditch | Linear with moderate sides | 0.58 | 0.13 |
| 23.4 | 234055 | 234054 | Fill of small ditch | Grey orange silt clay | 0.58 | 0.13 |
| 23.4 | 234056 | | Possible ditch or furrow | Linear with shallow moderate sides and uneven base | 0.85 | 0.08 |
| 23.4 | 234057 | 234056 | Fill of small ditch | Grey orange silt clay | 0.85 | 0.08 |
| 23.4 | 234058 | | Outer ditch | Same as 234027 | | |
| 23.4 | 234059 | 234058 | 4th fill of outer ditch | Brown grey sand | | |
| 23.4 | 234060 | 234058 | 3rd fill of outer ditch | Grey clay sand | | |
| 23.4 | 234061 | 234058 | 2nd fill of outer ditch | Grey clay sand | | |
| 23.4 | 234062 | 234058 | 1st fill of outer ditch | Brown grey sand clay | | |
| 23.4 | 234063 | | 1st cut of inner ditch | Same as 234015 | | |
| 23.4 | 234064 | 234063 | 4th fill of inner ditch | Brown grey sand | | |
| 23.4 | 234065 | 234063 | 3rd fill of inner ditch | Grey clay sand | | |
| 23.4 | 234066 | 234063 | 2nd fill of inner ditch | Grey clay sand | | |
| 23.4 | 234067 | 234063 | 1st fill of inner ditch | Red brown sand clay | | |
| 23.4 | 234068 | | 2nd cut of inner ditch | Same as 234018 | | |

| | | | | | | |
|------|--------|--------|-------------------------|--|-----|------|
| 23.4 | 234069 | 234068 | 4th fill of inner ditch | Brown grey sand | | |
| 23.4 | 234070 | 234068 | 3rd fill of inner ditch | Brown clay sand | | |
| 23.4 | 234071 | 234068 | 2nd fill of inner ditch | Red brown sand clay | | |
| 23.4 | 234072 | 234068 | 1st fill of inner ditch | Grey sand clay | | |
| 23.4 | 234073 | | 3rd cut of inner ditch | Same as 234009 | | |
| 23.4 | 234074 | 234073 | 2nd fill of inner ditch | Red grey sand clay | | |
| 23.4 | 234075 | 234073 | 1st fill of inner ditch | Brown grey clay | | |
| 23.4 | 234076 | | Box drain | Linear with steep sides | 0.6 | 0.3 |
| 23.4 | 234077 | | 3rd cut of inner ditch | Same as 234009 | | |
| 23.4 | 234078 | | 4th cut of inner ditch | Same as 234046 | | |
| 23.4 | 234079 | 234077 | 1st fill of inner ditch | Grey silt clay | | |
| 23.4 | 234080 | 234077 | 2nd fill of inner ditch | Grey silt clay | | |
| 23.4 | 234081 | 234077 | 3rd fill of inner ditch | Grey silt clay | | |
| 23.4 | 234082 | 234078 | 1st fill of inner ditch | Grey silt clay | | |
| 23.4 | 234083 | 234078 | 2nd fill of inner ditch | Grey silt clay | | |
| 23.4 | 234084 | | | Context not used | | |
| 23.4 | 234085 | 234076 | Drain | Flat stones forming sides and top of drain | ? | ? |
| 23.4 | 234086 | 234076 | Fill within box drain | Orange grey silt clay | 0.5 | 0.15 |
| 23.4 | 234087 | | Same as 234076 | Continuation of 234076 (but no masonry recorded) | 0.5 | 0.3 |
| 23.4 | 234088 | 234087 | Fill of drain | Grey clay sand | 0.5 | 0.3 |
| 23.4 | 234089 | | Posthole | Circular, steep sides tapers to rounded base | | 0.15 |
| 23.4 | 234090 | 234089 | Fill of posthole | Grey clay sand | | 0.15 |
| 23.4 | 234091 | | Posthole | Circular, steep sides tapers to v-shaped base | | 0.15 |
| 23.4 | 234092 | 234091 | Fill of posthole | Grey clay sand | | 0.15 |
| 23.4 | 234093 | | Posthole | Circular, steep sides tapers to v-shaped base | | 0.06 |
| 23.4 | 234094 | 234093 | Fill of posthole | Grey clay sand | | 0.06 |
| 23.4 | 234095 | | 1st cut of inner ditch | Same as 234015 | | |
| 23.4 | 234096 | 234095 | 4th fill of inner ditch | Orange red brown clay sand | | |
| 23.4 | 234097 | 234095 | 3rd fill of inner ditch | Red yellow sand clay | | |
| 23.4 | 234098 | 234095 | 2nd fill of inner ditch | Yellow grey | | |
| 23.4 | 234099 | | 2nd cut of inner ditch | Same as 234018 | | |
| 23.4 | 234100 | 234099 | 5th fill of inner ditch | Grey brown sand silt clay | | |
| 23.4 | 234101 | 234099 | 4th fill of inner ditch | Yellow red grey clay sand | | |
| 23.4 | 234102 | 234999 | 3rd fill of inner ditch | Orange grey silt clay | | |
| 23.4 | 234103 | | Possible stakehole | Circular, steep sides tapers to rounded base | | 0.12 |

| | | | | | | |
|------|--------|--------|----------------------------|-----------------------|------|------|
| 23.4 | 234104 | 234103 | Fill of possible stakehole | Grey clay sand | | 0.12 |
| 23.4 | 234105 | 234095 | 1st fill of inner ditch | Grey yellow clay | | |
| 23.4 | 234106 | 234099 | 2nd fill of inner ditch | Grey sand clay | | |
| 23.4 | 234107 | 234099 | 1st fill of inner ditch | Grey orange sand clay | | |
| 23.4 | 234108 | | 1st cut of inner ditch | Same as 234015 | | |
| 23.4 | 234109 | 234108 | 1st fill of inner ditch | Grey yellow clay | | |
| 23.4 | 234110 | 234108 | 2nd fill of inner ditch | Grey silt clay | | |
| 23.4 | 234111 | 234108 | 3rd fill of inner ditch | Grey silt clay | | |
| 23.4 | 234112 | 234018 | 3rd fill of inner ditch | Grey silt clay | 0.53 | 0.22 |
| 23.4 | 234113 | 234015 | 3rd fill of inner ditch | Grey silt clay | 0.44 | 0.2 |
| 23.4 | 234114 | 234046 | 1st fill of inner ditch | Grey clay | | |

APPENDIX B: THE FINDS

The Lithics (Pannett 2009)

A flake struck from a blade core and of Mesolithic or Neolithic date and an undateable piece of burnt microdebitage were recovered as surface finds.

APPENDIX C: THE PALAEOENVIRONMENTAL EVIDENCE BY JAMES RACKHAM

Two samples were taken, one from the primary fill of ditch 234009 and the second from a stone box drain. The latter has been assigned to the medieval to modern periods, whilst the ditch remains undated. In addition to the bulk samples, three monolith samples (2343003, 2343004 and 2343005) were taken from the fills of ditch 234015. The samples were processed in the manner described in the assessment report (Carruthers 2008), with the additional refloating of the dried sample residues whose flot volume (2nd flot) is indicated in Table 2. The second flots were then sorted for charred macrofossils and the residue for other finds and a magnetic component.

Table 1. Bulk environmental and monolith samples from Site 23.04

| Sample | Context | Feature | Description | Weight (kg) | Vol. (l) |
|---------|---------|---------|--------------------------------|-------------|----------|
| 2343000 | 234013 | 234009 | 1st fill of inner ditch | 9.5 | 15 |
| 2343001 | 234086 | 234076 | Fill within box drain | 11 | 15 |
| 2343003 | | 234009 | Fills of 2 nd recut | monolith | |
| 2343004 | | 234018 | Fills of 1 st recut | monolith | |
| 2343005 | | 234015 | Fills of 1 st ditch | monolith | |

Table 2. Data for the environmental sample from Site 23.04

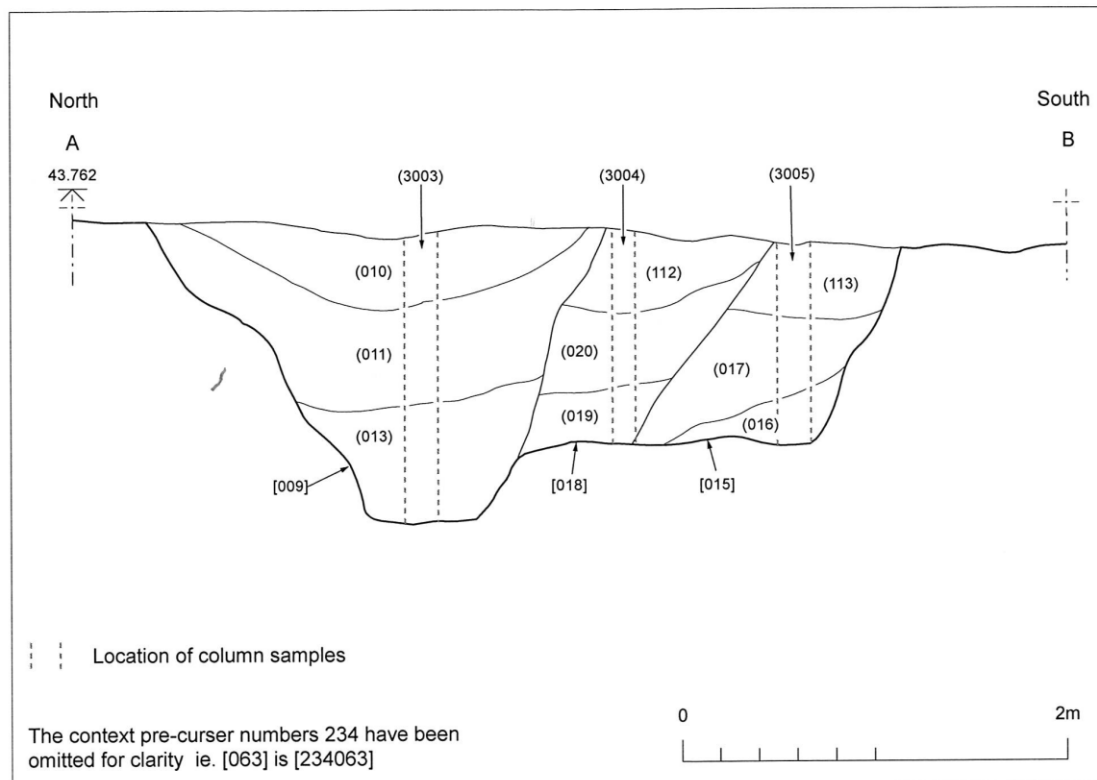
| Sample | Context | Processed weight (kg) | 1st flot vol. (l) | 2nd flot vol. (l) | Residue weight (g) | Comments |
|---------|---------|-----------------------|-------------------|-------------------|--------------------|-----------|
| 2343000 | 234013 | 9.5 | 1 | 0.5 | 78 | |
| 2343001 | 234086 | 11 | 3 | 0 | 120 | Barley x1 |

No archaeological finds were observed in the residues and no magnetic material was present (Table 2). Very little environmental evidence was present with just one or two fragments of charcoal in the flot from the inner ditch, and a few more in the drain, which also produced a single degraded barley grain.

Monoliths

A series of three monoliths were taken from the fills of the ditch and its recuts.

Fig. 1. West facing section through the 3 phases of the large inner ditch 234015, Site 23.04, showing location of the monolith (column) samples



Monolith 2343003

This monolith was taken from the second recut (234009) of the ditch (Fig. 1). The basal few centimetres are probably the natural clays. The infilling sediments of the ditch suggest a well worked (by soil processes) slow infilling with a well-developed ped structure in the upper 62cm of sediment. The visible 'stratigraphy' is largely colour related, and due to differences in the level of iron deposition and mottling, combined with the extent of structural development. Both these factors are post-depositional in nature and do not imply depositional events.

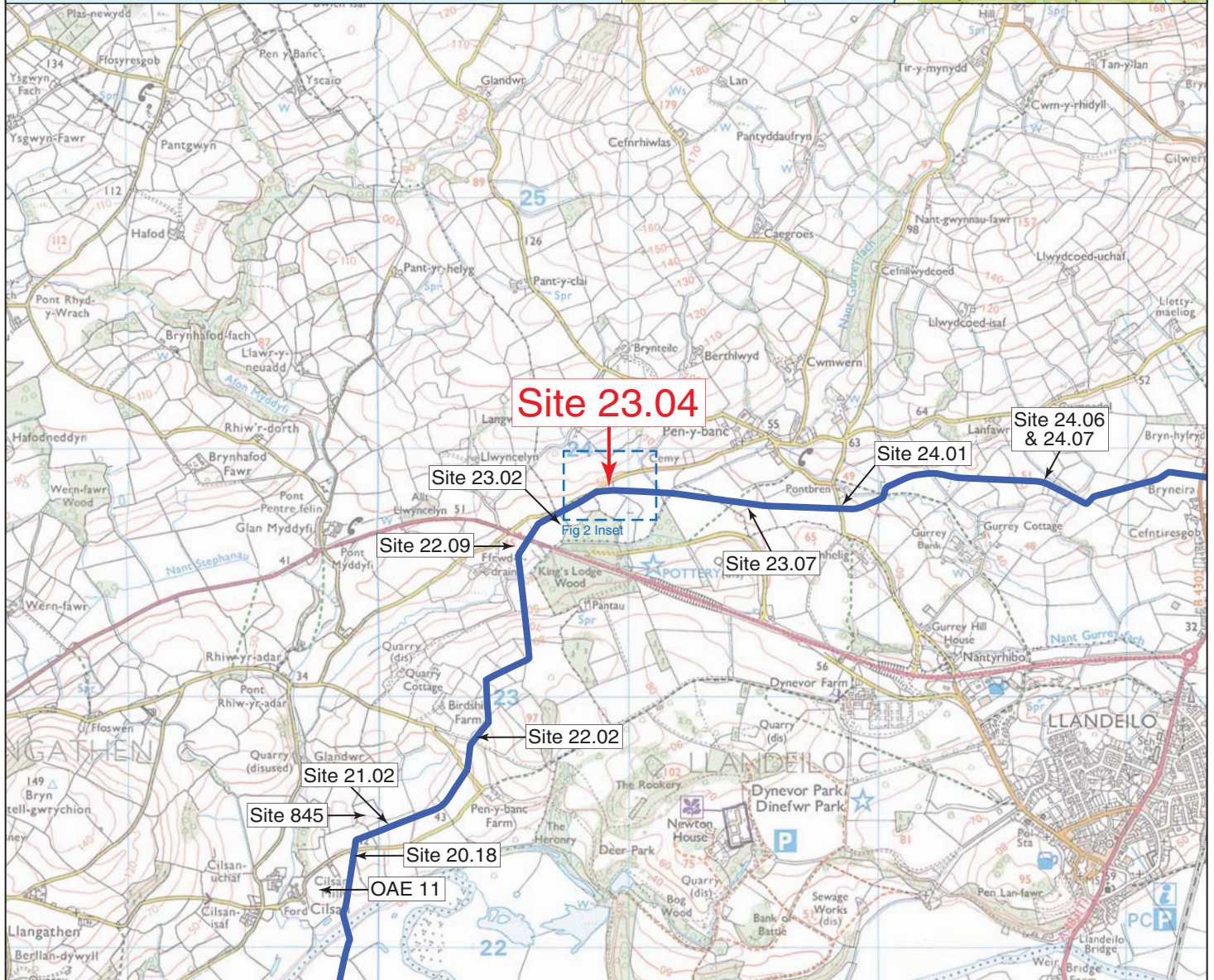
Monolith 2343004

Monolith 2343004 was taken from the first recut (234018) of the ditch. This sequence shows a similar pattern to the sediments in the second recut. The deposits suggest a natural slow infilling of the ditch, with the development of a weakish ped structure in the upper half. As in the previous monolith much of the 'stratigraphy' may reflect post-depositional changes to the colour and structure of the deposits rather than sedimentary events. There are no stabilisation horizons and the ditch probably silted up fairly slowly and uniformly. There is no evidence that the ditch was waterlogged at any time, although it may have been seasonally wet. The basal few centimetres suggest the 'natural' into which the ditch has been cut. There is no organic survival, and pollen preservation is likely to be very poor. No further work can be recommended although it may be useful to study the photographs of the ditch section and clarify whether the record 'stratigraphy' reflects post-depositional or depositional events.

Monolith 2343005

This monolith was taken from the fills of the first ditch cut, 234015. It differs from the above sequences in one respect. The upper part (0-34cm) of the sequence is similar to the sediments from the recuts except for the unit between 10 and 17/19cm. This unit has no structure, is composed of malleable silty clay, is heavily mottled and has an oblique lower boundary. The character of this unit suggests that it is probably a 'lump' of natural or the unworked (by soil processes) lower portion of a deposit of natural (i.e. unaffected by the soil processes that worked the deposits above). An unworked lump of natural might imply erosion and slip of the adjacent bank leading to the redeposition of a clod or spade full of 'natural' from the bank, while a weathered/worked lower part of a larger redeposited 'natural' layer might suggest that this unit and the deposits above were perhaps dumped during the recutting of the ditch on the fills of the primary ditch. The lowest part of the sequence, before what is assumed to be the cut, shows similar characteristics, and may include primary slipping from the recently constructed bank along the ditch edge. The basal six centimetres is assumed to be the natural clays of the site. There is no organic survival, and pollen preservation is likely to be very poor.

Overall the results from these monoliths suggest a slow gradual infilling of the ditch, with the development of soil structure within the deposits as they built up. There is no evidence for any waterlogging within the sequences although the ditches may have been seasonally wet. A slight difference in the filling of ditch 234015 suggests that unworked 'natural' either from the bank or the recut slipped in or was dumped over the lower natural infilling of the ditch. Much of the 'stratigraphy' recorded for these sediments may be post-depositional in origin rather than recording sedimentary events.



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

0 1km

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Cotswold Archaeology Ltd 100002109



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

PROJECT TITLE

South Wales Pipeline. Site 23.04, Land South-West of Pen-y-Banc, Mordeilo and Salem, Carmarthenshire

FIGURE TITLE

Site location plan

PROJECT NO. 9150 DATE 08-11-2013
DRAWN BY DJB REVISION 00
APPROVED BY LM SCALE@A4 1:25,000

FIGURE NO.

1

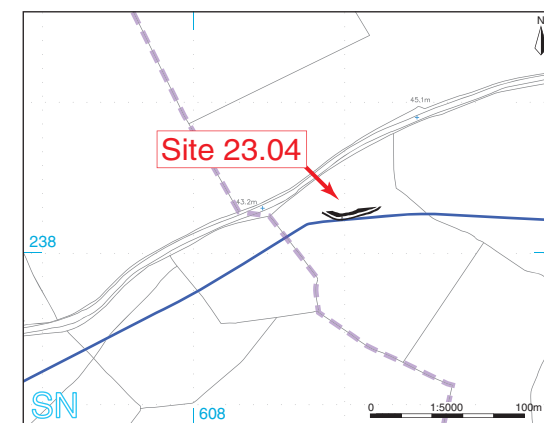
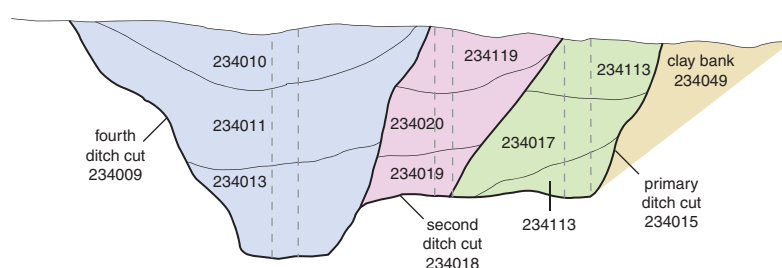
SN
60886
23834



Section AA

N
42.75m
AOD

S



- pipeline centreline
- - - Community boundary
- 1st ditch cut
- 2nd ditch cut
- 3rd ditch cut
- 4th ditch cut
- ||| location of monoliths

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Cirencester 01285 771022
Milton Keynes 01908 218320
Andover 01264 326549
w www.cotswoldarchaeology.co.uk
e enquiries@cotswoldarchaeology.co.uk

PROJECT TITLE

South Wales Pipeline. Site 23.04, Land South-West of Pen-y-Banc, Mordeilo and Salem, Carmarthenshire

FIGURE TITLE

Plan and section of ditch and re-cuts

| | | | | |
|-------------|------|----------|------------|------------|
| PROJECT NO. | 9150 | DATE | 06-11-2013 | FIGURE NO. |
| DRAWN BY | DJB | REVISION | 00 | 2 |
| APPROVED BY | LM | SCALE@A3 | 1:100 1:50 | |



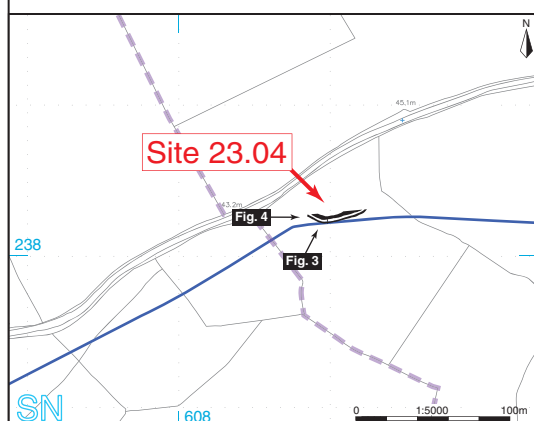
3

General view of Site 23.04 within its landscape setting, looking north-east



4

General view of Site 23.04 ditches during excavation, looking east



— pipeline centreline
 [Fig. 2] photograph locator

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

PROJECT TITLE

South Wales Pipeline. Site 23.04, Land South-West of Pen-y-Banc, Mordeilo and Salem, Carmarthenshire

FIGURE TITLE

Photographs

PROJECT NO. 9150 DATE 06-01-2016
 DRAWN BY DJB REVISION 00
 APPROVED BY LM SCALE@A4 NA

FIGURE NO.

3 & 4