

MYNYDD Y LLAN HYDROCARBON PIPELINE REPAIR ARCHAEOLOGICAL WATCHING BRIEF



Prepared by DAT Archaeological Services
For: MLP c/o Fisher German



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MYNYDD Y LLAN HYDROCARBON PIPELINE REPAIR ARCHAEOLOGICAL WATCHING BRIEF

By

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**MYNYDD Y LLAN HYDROCARBON PIPELINE REPAIR
ARCHAEOLOGICAL WATCHING BRIEF**

Client MLP c/o Fisher German

Event Record No 125604

Report No 2020-58

Project Code FS20-53

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**MYNYDD Y LLAN HYDROCARBON PIPELINE REPAIR
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MYNYDD Y LLAN HYDROCARBON PIPELINE REPAIR- ARCHAEOLOGICAL WATCHING BRIEF

EXECUTIVE SUMMARY

DAT Archaeological Services were commissioned by MLP c/o Fisher German to undertake an archaeological watching brief during groundworks associated with the repair of a hydrocarbon pipeline.

During the fieldwork only natural occurring soil deposits were encountered which contained no evidence for archaeological deposits or features within the footprint of groundworks.

CRYNODEB GWEITHEREDOL

Comisiynwyd Gwasanaethau Archeolegol YAD gan i MLP c/o Fisher German ymgymryd â brîff gwylio archeolegol yn ystod gwaith daear sy'n gysylltiedig ag atgyweiriad piblinell hydrocarbon.

Yn ystod y gwaith maes dim ond dyddodion pridd sy'n digwydd yn naturiol a ddarganfuwyd nad oedd yn cynnwys unrhyw dystiolaeth o ddyddodion archeolegol na nodweddion o fewn ôl troed gwaith daear.

MYNYDD Y LLAN HYDROCARBON PIPELINE REPAIR- ARCHAEOLOGICAL WATCHING BRIEF

1 INTRODUCTION

1.1 Project Proposals and Commission

- 1.1.1 DAT Archaeological Services were commissioned by MLP c/o Fisher German to provide an archaeological watching brief during groundworks associated with the repair of a hydrocarbon pipeline which is situated along the unclassified road that runs from Twynllann to Trecastle in the Brecon Beacons National Park (Figures 1 and 2).
- 1.1.2 The location of the repair lies in an archaeologically sensitive area, in close proximity to the scheduled remains of a prehistoric burial mound (CM337, PRN 14418) and Gareg-Llwyd Roman marching camp (CM174, PRN 4142) (Photos 1 to 4). The unclassified road is also thought to run along the route of a former Roman road and numerous archaeological sites of prehistoric, Roman and medieval date lie in the larger surrounding area.
- 1.1.3 It is proposed that a trench measuring approximately 5.0m x 5.0m will be opened by mechanical excavator along the line of the pipeline to allow the repair to be carried out.
- 1.1.4 Therefore, it is likely that surviving archaeological features and deposits could extend into the area to be excavated and may be destroyed or damaged by the ground works. Subsequently the Brecon Beacons National Park Archaeological Officer has requested that an archaeological watching brief be carried out during ground works associated with the repair of the pipeline to appropriately investigate and record any archaeological deposits to be affected by the ground works.

1.2 Scope of the Project

- 1.2.1 To comply with the Chartered Institute for Archaeologists (CIFA) Standards and Guidance and Code of Conduct, and before the commencement of works, a Written Scheme of Investigation (WSI) for a watching brief was prepared by DAT Archaeological Services and approved by DAT-DM in their capacity as advisors to the local authority. This WSI sets out the methodology by which the watching brief was undertaken and defines the project objectives as:
 - To monitor groundworks to identify the presence/absence of any archaeological deposits.
 - To establish the character, extent and date range for any archaeological deposits to be affected by the proposed groundworks.
 - To appropriately investigate and record any archaeological deposits to be affected by the groundworks.
 - To produce an archive and report of any results.
- 1.2.2 The overall work can be summarised as: *"Archaeological attendance during ground works associated with the repair of a hydrocarbon pipeline. The location of the repair is situated along the unclassified road that runs from Twynllan to Trecastle in the Brecon Beacons National Park (centred on NGR SN 796730 264230).*

Appropriate investigation and recording of any archaeological remains will be undertaken if revealed. A report and archive of the results of the works will be prepared.

1.3 Report Outline

- 1.3.1 This report describes the location of the development works along with its archaeological background and provides a summary and discussion of the archaeological watching brief and its results.

1.4 Abbreviations

- 1.4.1 Sites recorded on the regional Historic Environment Record (HER) are identified by their Primary Record Number (PRN) and located by their National Grid Reference (NGR). Sites recorded on the National Monument Record (NMR) held by the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW) are identified by their National Primary Record Number (NPRN). Scheduled Monument (SM). Altitude is expressed to Ordnance Datum (OD). References to cartographic and documentary evidence and published sources will be given in brackets throughout the text, with full details listed in the sources section at the rear of the report.

1.5 Illustrations

- 1.5.1 Photographic images are to be found within the report. Printed map extracts are not necessarily reproduced to their original scale.

1.6 Timeline

- 1.6.1 The following timeline is used within this report to give date ranges for the various archaeological periods that may be mentioned within the text.

Period	Approximate date	
Palaeolithic –	c.450,000 – 10,000 BC	Prehistoric
Mesolithic –	c. 10,000 – 4400 BC	
Neolithic –	c.4400 – 2300 BC	
Bronze Age –	c.2300 – 700 BC	
Iron Age –	c.700 BC – AD 43	
Roman (Romano-British) Period –	AD 43 – c. AD 410	Historic
Post-Roman / Early Medieval Period –	c. AD 410 – AD 1086	
medieval Period –	1086 – 1536	
post-medieval Period ¹ –	1536 – 1750	
Industrial Period –	1750 – 1899	
modern –	20 th century onwards	

Table 1: Archaeological and historical timeline for Wales

¹ The post-medieval and industrial periods are combined as the post-medieval period on the Regional Historic Environment Record as held by Dyfed Archaeological Trust

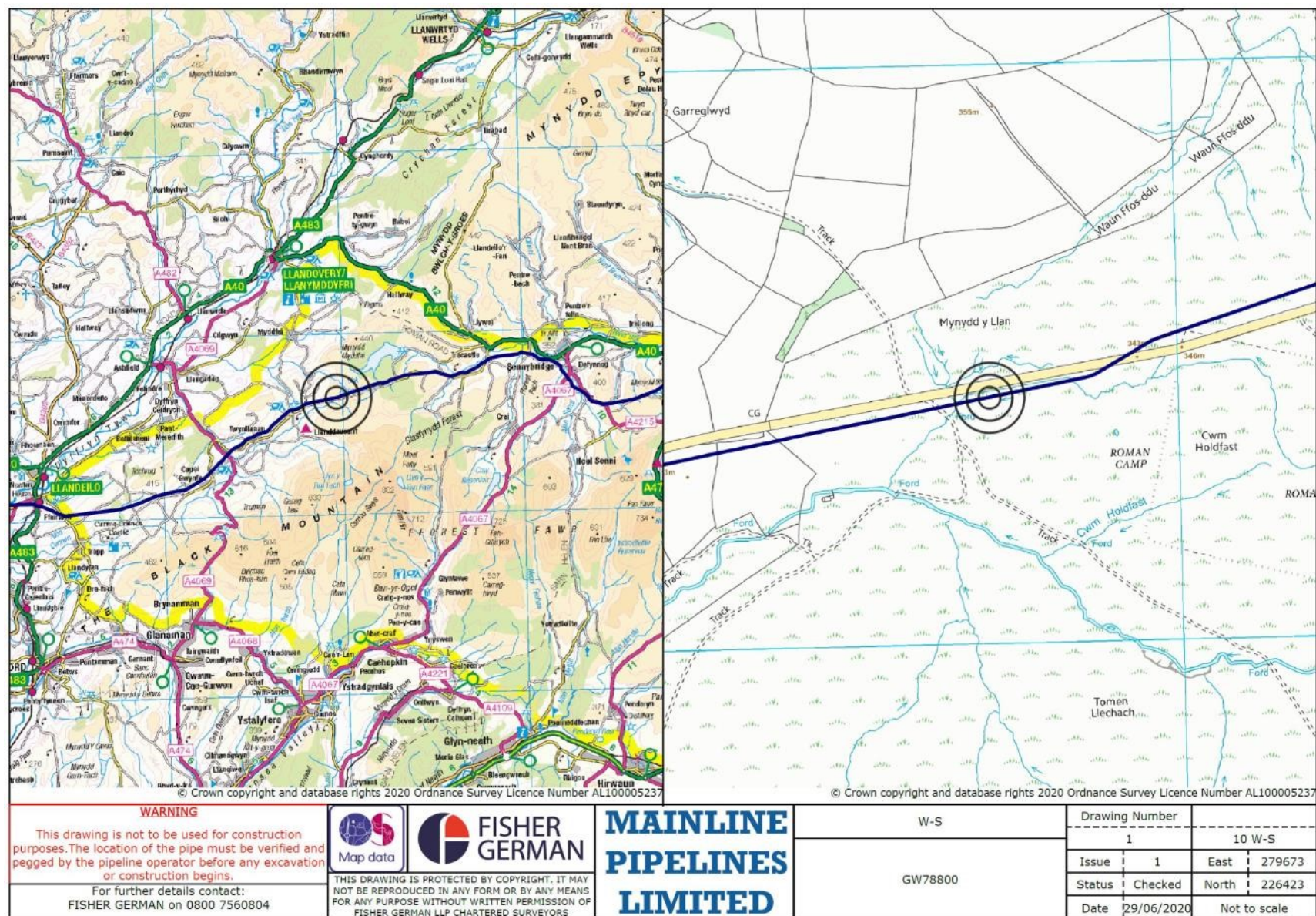


Figure 1: Site location map showing location of repair works. Not to scale

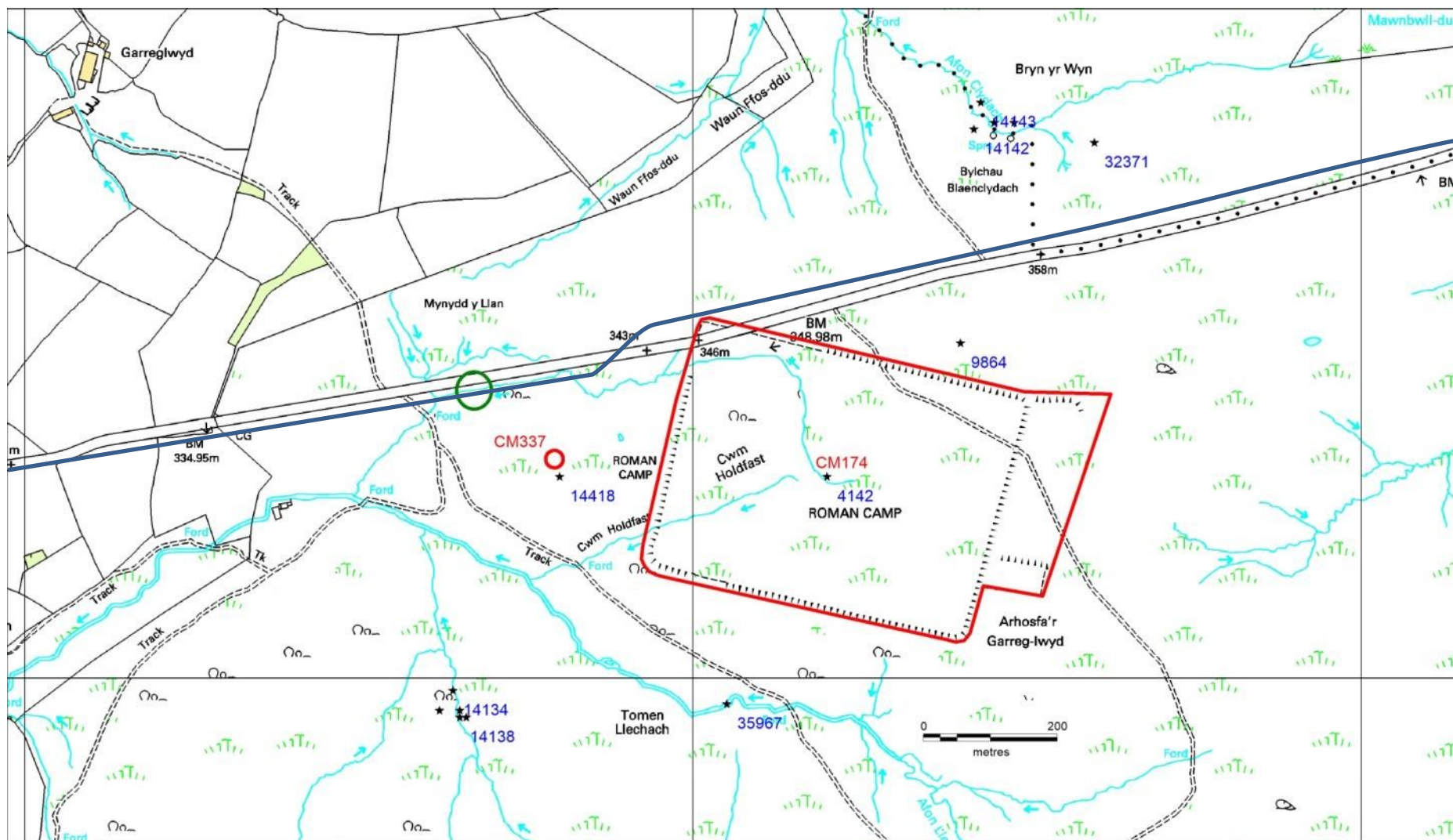


Figure 2: Detailed location map extract showing approximate position of pipeline repair (green circle), scheduled monuments (outlined in red) and HER points (labelled in blue). The route of the hydrocarbon pipeline is also shown. ©Crown copyright and database rights 2020 Ordnance Survey Licence Number AL100005237

2 SITE LOCATION AND TOPOGRAPHY

- 2.1 The site is located to the south of an unnamed road leading from Twynllan to Trecastle situated within the Brecon Beacons National and just to the north east of the village of Llanddeusant, Carmarthenshire (Figures 1 and 2).
- 2.2 The site is situated on common grazing land with a small minor stream situated just to the north of site which joins with Cwm Holdfast to the south. The surrounding land comprises low tussocky grass and lies at 330m OD.
- 2.3 The underlying solid geology of the site comprises the St Maughans formation – Sedimentary – Sandstone which was formed 393 to 419 million years ago during the Devonian period (British Geological Survey 2020).

3. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

- 3.1 The area of repair works lies within an area considered to be of high archaeological potential due to the close proximity of two scheduled ancient monuments, these being Garreg-Lwyd Barrow (CM337)(PRN 14418) which dates to the Bronze Age and Gareg-Llwyd Marching Camp (CM174) (PRN4142); which dates to the Roman period.
- 3.2 Garreg-Lwyd Barrow (CM337) is a Bronze Age round barrow is located just to the southeast of the repair works and recorded on the Dyfed Historic Environment PRN 14418. The site is described on the DAT regional HER as:

'This site is a roughly circular mound, 11.5m diameter x 1m high on its south side, and 0.6m high elsewhere, composed of earth and large stones situated on the west-facing slope of Ahrosfa'r Garreg-lwyd, the summit of which contains the Roman camp. This undoubted barrow is fairly complete apart from a large area of quarrying on its northeast side and several areas of smaller quarrying or investigation. It is located on the spine of a low ridge running east-west, 165m to the west of the bank of the nearby Roman camp. The ground falls away gently to the north and west, and more steeply to the south. The barrow has fine distant view to the west along the narrow valley of the Afon Llechach, and it may have been sited to take advantage of the view. It must also have been still a prominent landscape feature when the Roman camp was constructed. N Cook PFRS 2003'

- 3.3 Gareg-Llwyd Roman marching camp (CM174) is recorded on the Dyfed Historic Environment PRN 4142. The following summary for the site was obtained from the DAT regional HER:

'A rectangular enclosure with rounded corners, the site is a well-preserved Roman temporary camp of the type constructed by armies whilst on campaign. The camp occupies a discrete hollow, its ramparts running along the enclosing ridges and hillocks. its ramparts running along the enclosing ridges and hillocks. It is defined by a low earthen bank about 2m wide and 0.5m high and measures overall some 500m east to west by 370m; it encloses an area of about 17.8ha. At the northwest corner the earthwork has gone. Entrances marked by claviculae are apparent in the south and east sides. An outwork bank is visible running eastward for about 70m from the northeast corner and attached to the camp's east side is an annexe (at grid reference SN 8048 2614). Roughly rectangular, it measures some 100m by 45m and is divided into two unequal

*compartments. These 'outworks' are probably later agricultural features.
JS from RCAHMW, 20 February 2009.'*



Photo 1: View northwest of Garreg-Lwyd barrow (CM337). 2 x 1m scale



Photo 2: View southwest along southeast facing rampart of Gareg-Llwyd Roman marching camp (CM174)



Photo 3: View northeast along southeast facing rampart of Gareg-Llwyd Roman marching camp (CM174)



Photo 4: View northwest along northeast facing rampart of Gareg-Llwyd Roman marching camp (CM174)

- 3.4 Several other multi period sites are also dispersed throughout the nearby area and comprise prehistoric ritual and funerary sites, artefactual find spots, unenclosed settlement and small enclosures relating to past agricultural land management. Short descriptions of each site are provided below (Table 2).

PRN	Period	Site Type	Description
3437	Roman	Dam	The site of a possible dam which has been postulated to be of Roman date
9864	Neolithic	Find spot	An incomplete leaf-shaped arrowhead found on a moorland track. NAP 2004.
14134-14138	Prehistoric, medieval	Hut circles, sheep fold	A discrete group of earthwork remains of possible prehistoric hut circles situated on a north facing slope close to the Afon Dunant, with some later reuse as sheepfolds?
14142-14144	Prehistoric, medieval	Shelter	A group of circular and rectangular structures surviving as earth and stone banks, very difficult to date but more likely to be medieval.
32369	Medieval	Long hut	Rectangular building, 8.7m x 5.2m. Possibly sub-divided in ratio 3:2, the upper compartment being the larger. DE.Morgan 1989. A poorly preserved long hut, maximum size 8m x 5.5m. Stones protrude through grass cover which suggests some internal division, but the plan is not clear. This may be a dwelling associated with a cluster of smaller structures (PRNs 14142-7) and therefore potentially part of a significant group. RPS July 2001
32371	Medieval	Cultivation marks	An area of cultivation ridges.
35967	Medieval	Long hut	Ephemeral long hut or shelter. Appears to have 2 narrow cells. SE cell is 2m wide x 4m long, NE cell is 2m x 5m. 6m NE of structure is a 15m long bank which cuts across the valley suggesting that some effort at stock control was made here.

Table 2: List of undesignated archaeological sites recorded on the Historic Environment Record (HER) shown in Figure 2.

4 WATCHING BRIEF METHODOLOGY

4.1 Fieldwork

- 4.1.1 The watching brief was undertaken following the Chartered Institute of Archaeologists' (CIfA) *Standard and Guidance for an Archaeological Watching Brief* (2014).
- 4.1.2 A written scheme of investigation was prepared by DAT Archaeological Services detailing the proposed archaeological works, which was approved by DAT-DM in their capacity as advisors to the local planning authority.
- 4.1.3 Recording of all archaeological features or deposits conformed to best current professional practice and was carried out following the Recording Manual² used by DAT Archaeological Services. A written, drawn and a photographic record was maintained throughout this watching brief. All contexts encountered during this watching brief were recorded and assigned a unique context number. These numbers are enclosed in brackets in the following text.
- 4.1.4 This watching brief monitored the groundworks associated with the excavation of a worker's compound that was positioned over the route of the existing pipeline. Within the centre of the compound a second smaller rectangular excavation was also placed over the centre of the pipeline and was excavated to create a safe working area in which to repair the two separate areas of corrosion which had been identified along this segment of the pipeline. All groundworks were mechanically excavated by tracked 360° excavator that was equipped with a toothless bucket. All archaeological deposits revealed during the groundworks were examined and recorded to an appropriate level.

4.2 Timetabling of Fieldwork

- 4.2.1 This watching brief took place on the 26th and 30th of November 2020.

4.3 Post-Fieldwork Reporting and Archiving

- 4.3.1 All data recovered during the fieldwork will be collated into a site archive structured following specifications in *Archaeological Archives: a guide to best practice in creation, compilation, transfer and curation* (Brown 2011), and the procedures recommended by the National Monuments Record, Aberystwyth.
- 4.3.2 The results of the fieldwork have been assessed in local, regional and wider contexts. The report includes a desk-based research element to ensure that the site is placed within its wider archaeological context.

² DAT Archaeological Services have adopted the Recording Manual developed by English Heritage Centre for Archaeology. A copy will be available on-site for inspection if required.

5 RESULTS AND DISCUSSION

- 5.1 All numbers within the text within brackets [] refer to the unique context number given to all individual deposits using the open-ended numbering system in accordance with the DAT Archaeological Services' Recording Manual . A context register can be found in Chapter 7.
- 5.2 Initial groundworks included the removal of topsoil within an area measuring approximately 7m north-south by 24m east-west, which was located over the area of corroded pipe allowing for safe access to repair the corroded pipe welds and also acting as a workers compound in which to store both site plant and site tools safely.
- 5.3 The excavated topsoil within the workers compound comprised black peaty loam [1000] which had an average depth of between 0.15 and 0.18m.
- 5.4 Following topsoil removal the underlying subsoil was revealed comprising mid-grey silty clay [1002] which was present on both northern and southern edges of the excavated area but was interrupted in the centre by a bright red east/west aligned linear strip of dark red sandy clay [1001]; evidently the backfilled trench which accommodated the hydrocarbon pipeline.
- 5.5 After completion of the first phase of groundworks on the 26th of November a second phase was undertaken on the 30th of November. This phase comprised, within the topsoil stripped area, the excavation of a smaller rectangular area measuring 5m north/south by 4.5m east/west, located over the specific area of identified corrosion in the buried pipe.
- 5.6 Within the smaller excavation area the backfill of the pipe trench was removed, and the sides of the pipe trench were benched on the northern and southern sides of the trench to allow for safe working within the confines of the excavation. Both areas of benching measured around 1.5m wide. The excavated pipe trench measured approximately 2m wide and 2m deep.
- 5.7 Due to the depth of the emptied pipe trench a clearer stratigraphic soil sequence could be seen. Beneath subsoil layer [1002] was a deposit of mid reddish brown sandy clay [1003] with an average depth of 0.28m.
- 5.8 Natural superficial geology was revealed at 0.53m below existing ground level and proved to be light red sandy clay [1004] which contained frequent inclusions of small sub angular stones.
- 5.9 Over the course of the groundworks no significant archaeological features or deposits were revealed.



Photo 5: View north east of initial removal of topsoil within footprint of the workers compound area



Photo 6: View north east of topsoil removal in progress



Photo 7: View of completed workers compound with backfilled pipe trench visible as a central red corridor of soil [1001], flanked either side by subsoil [1002]. 2 x 1m scales



Photo 8: View north east of excavation of pipe trench and benching of both sides



Photo 9: View northeast of excavation works completed



Photo 10: View north of south facing section displaying soil sequence witnessed at the site. 1 x 1m scale

- 5.8 During the watching brief the on-site archaeologist visited the site of Carreg Lwyd Roman marching camp (CM174) and discovered an area of active erosion on the south east rampart where it crosses Cwm Holdfast at SM 79939 26240 (Photo 11). Due to the size and regularity of the erosion it is considered likely that the erosion may have been caused by grazing

livestock. The following photos below show the area of erosion which has caused the rampart to become exposed in section and possibly the south eastern edge of the camp's ditch (Photos 12, 13 & 14).



Photo 11: Ariel photograph depicting area of erosion over north western rampart of Gareg-Llywd Roman marching camp (CM174). Image obtained from DAT HER.



Photo 12: View north east along north western rampart of Gareg-Llwyd Roman marching camp (CM174) with ranging poles indicating the edges of the rampart. Erosion through rampart and ditch visible in foreground. 2x 1m scales

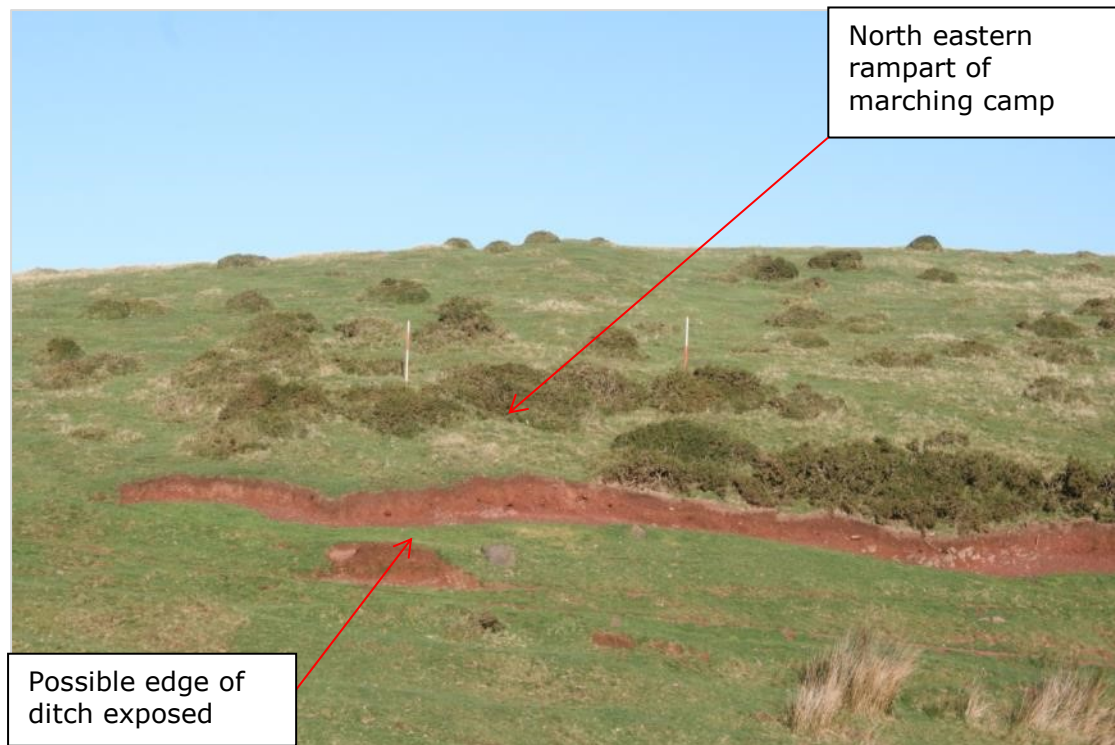


Photo 13: View north east containing greater detail of above photo. 2 x 1m scales



Photo 14: Close up view east of exposed edge of ditch caused by livestock track within rampart. 1 x 1m scale

5.9 The unnamed minor road linking Twynllan with Trecastle is reputed to have Roman origins and during the watching brief the on-site archaeologist viewed an area of erosion on the southern side of the

existing road. Within the exposed section a thin deposit of gravel could be seen located at around 0.20m below the existing ground surface. The gravel appeared relatively level and regular in form and due to its vicinity to the existing roadway it could tentatively be suggested that the gravel deposit may represent the basal remains of a former Roman road. The following two photos display the exposed section (Photos 15 & 16).



Photo 15: View north of exposed section on southern side of existing roadway. 1 x 1m scale



Photo 16: Close up view north of above photo with gravel deposit depicted clearly. 1 x 1m scale

6 CONCLUSIONS

- 6.1. The archaeological watching brief monitored groundworks associated with repair works on a hydrocarbon pipeline situated along the unclassified road that runs from Twynllann to Trecastle in the Brecon Beacons National Park.
- 6.2. During the groundworks the watching brief recorded no significant archaeological features or deposits within the area of excavation.
- 6.3. This watching brief has met the overall aims and objectives set out in the written scheme of investigation by monitoring the groundworks associated with the proposed hydrocarbon pipeline repair. It has determined that no significant archaeological features or deposits were impacted upon within the area of the works.

7 CONTEXT REGISTER

Context No	Description
1000	Topsoil- Black peaty loam
1001	Backfill of pipe trench- Mid reddish brown sandy clay
1002	Subsoil- Mid grey silty clay
1003	Subsoil-Mid reddish brown sandy clay
1004	Superficial natural-Light red sandy clay

8 SOURCES

Published

Brown, D.H., 2011. Archaeological Archives: A guide to best practice in creation, compilation, transfer and curation. Chartered Institute for Archaeologists.

Unpublished

Mynydd y Llan – Pipeline repair, Archaeological Watching Brief 2020 Written scheme of Investigation. DAT Archaeological Services. FS20-053.

Database

Dyfed Archaeological Trust Historic Environment Record, housed with Dyfed Archaeological Trust in The Corner House, Llandeilo, Carmarthenshire, SA19 6AE

RCAHMW Coflein Database: -<http://www.coflein.gov.uk/>

Cof Cymru - National Historic Assets of Wales: -
<http://cadw.gov.wales/historicenvironment/recordsv1/cof-cymru/?lang=en>

Historic Wales: - <http://historicwales.gov.uk>

Websites

British Geological Survey mapping portal. Available at:
<http://mapapps.bgs.ac.uk/geologyofbritain/home.html> [Accessed 02/November 2020]

APPENDIX I

MYNYDD Y LLAN HYDROCARBON PIPELINE REPAIR WRITTEN SCHEME OF INVESTIGATION ARCHAEOLOGICAL WATCHING BRIEF

1 INTRODUCTION

- 1.1 This written scheme of investigation (WSI) or project specification has been prepared by DAT Archaeological Services in response to a request from Fisher German to provide a WSI for an archaeological watching brief during ground works associated with the repair of a hydrocarbon pipeline. The location of the repair is situated along the unclassified road that runs from Twynllan to Trecastle in the Brecon Beacons National Park (centred on NGR SN 796730 264230) (Figure 1).
- 1.2 The location of the repair lies in an archaeologically sensitive area, in close proximity to the scheduled remains of a prehistoric burial mound (CM337, PRN 14418) and Arosfa Gareg-Llwyd Roman marching camp (CM174, PRN 4142) (Photo 1). The unclassified road is also thought to run along the route of a former Roman road and numerous archaeological sites of prehistoric, Roman and medieval date lie in the larger surrounding area; all recorded on the Historic Environment Record (HER) (Figure 2, Table 1).
- 1.3 It is proposed that a trench measuring approximately 5.0m x 5.0m will be opened by mechanical excavator along the line of the pipeline to allow the repair to be carried out.
- 1.4 Therefore, it is likely that surviving archaeological features and deposits could extend into the area to be excavated and may be destroyed or damaged by the ground works. Subsequently the Brecon Beacons National Park Archaeological Officer has requested that an archaeological watching brief be carried out during ground works associated with the repair of the pipeline to appropriately investigate and record any archaeological deposits to be affected by the ground works.
- 1.5 This WSI outlines the method by which DAT Archaeological Services will undertake an archaeological watching brief during ground works associated with the repair to the hydrocarbon pipeline.
- 1.6 This specification is written in accordance with the Chartered Institute for Archaeologists' *Standard and Guidance for Archaeological Watching Briefs* (CIfA³, 2014).
- 1.7 DAT Archaeological Services has considerable experience of this type of project and always operates to best professional practice. DAT Archaeological Services is the contractual arm of Dyfed Archaeological Trust. Dyfed Archaeological Trust has its own Health and Safety Policy, and all works are covered by appropriate Employer's Liability and Public Liability Insurances. Copies of all are available on request.
- 1.8 ***Dyfed Archaeological Trust is a Registered Organisation with the Chartered Institute for Archaeologists.***
- 1.9 **All DAT Archaeological Services staff are CSCS⁴ registered.**

³ Chartered Institute for Archaeologists

⁴ Construction Skills Certification Scheme (Health and Safety Tested)

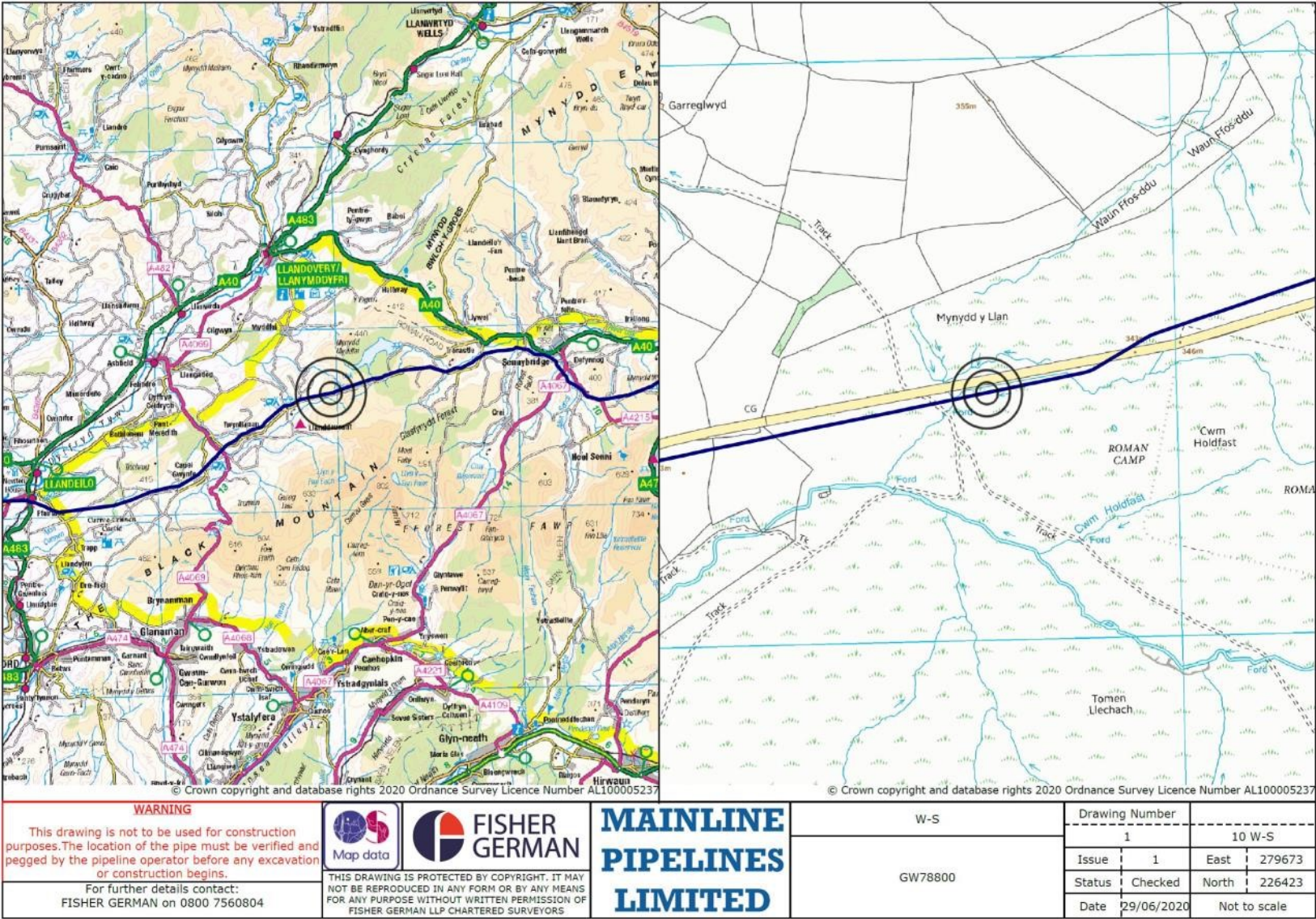


Figure 1: Map extracts showing the location of the pipeline repair. Not produced to original scale.

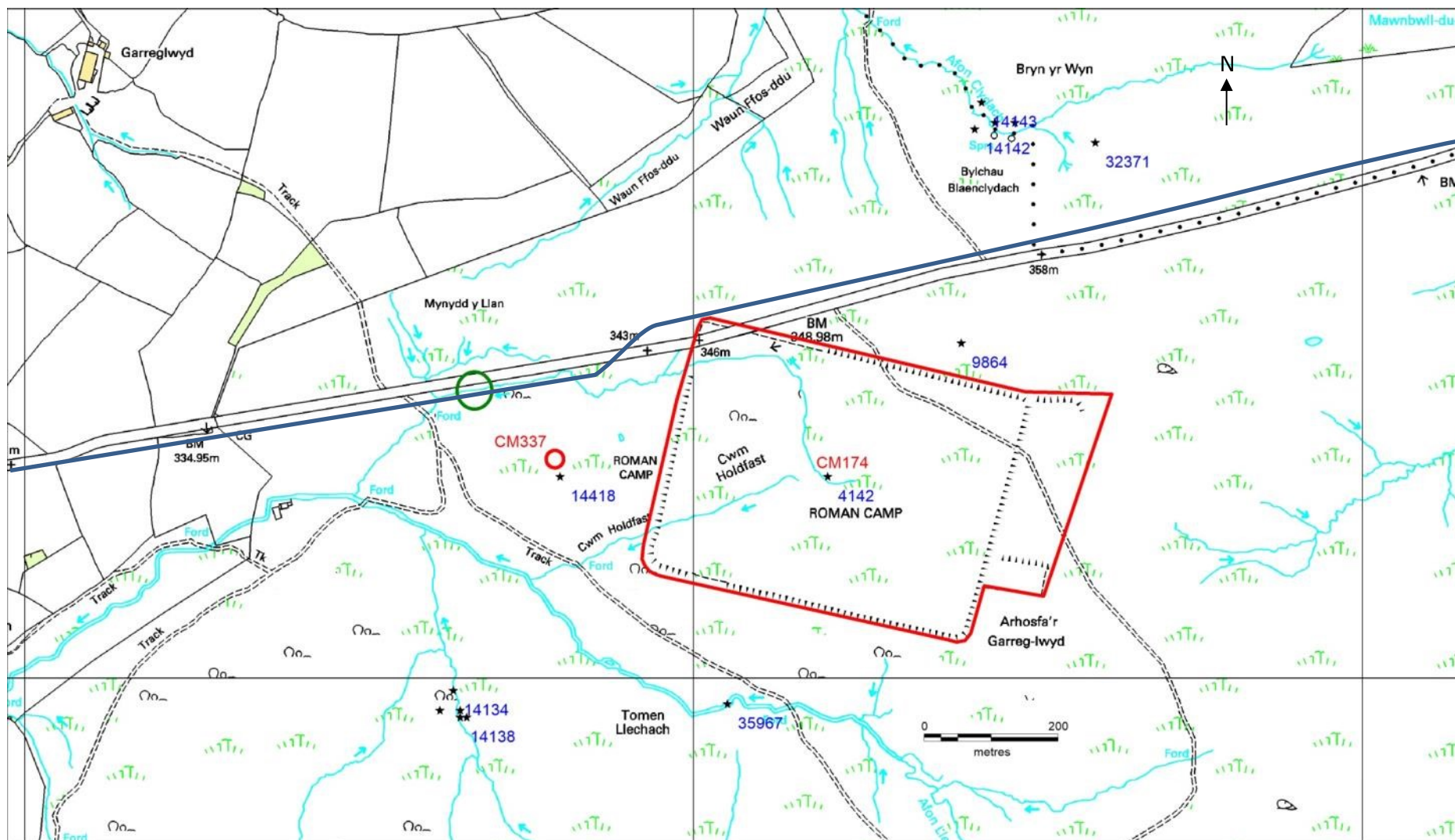


Figure 2: Detailed location map extract showing approximate position of pipeline repair (green circle), scheduled monuments (outlined in red) and HER points (labelled in blue). The route of the hydrocarbon pipeline is also shown. ©Crown copyright and database rights 2020 Ordnance Survey Licence Number 100020930

PRN	Scheduled Monument No	Period	Site Type	Description
3437		Roman	Dam	The site of a possible dam which has been postulated to be of Roman date
4142	CM174	Roman	Marching camp	A rectangular enclosure with rounded corners, the site is a well-preserved Roman temporary camp of the type constructed by armies whilst on campaign. The camp occupies a discrete hollow, its ramparts running along the enclosing ridges and hillocks. its ramparts running along the enclosing ridges and hillocks. It is defined by a low earthen bank about 2m wide and 0.5m high and measures overall some 500m east to west by 370m; it encloses an area of about 17.8ha. At the northwest corner the earthwork has gone. Entrances marked by claviculae are apparent in the south and east sides. An outwork bank is visible running eastward for about 70m from the northeast corner and attached to the camp's east side is an annexe (at grid reference SN 8048 2614). Roughly rectangular, it measures some 100m by 45m and is divided into two unequal compartments. JS from RCAHMW, 20 February 2009.
9864		Neolithic	Find spot	An incomplete leaf-shaped arrowhead found on a moorland track. NAP 2004.
14418	CM337	Bronze Age	Burial mound	This site is a roughly circular mound, 11.5m diameter x 1m high on its south side, and 0.6m high elsewhere, composed of earth and large stones situated on the west-facing slope of Ahrosfa'r Garreg-lwyd, the summit of which contains the Roman camp. This undoubted barrow is fairly complete apart from a large area of quarrying on its northeast side and several areas of smaller quarrying or investigation. It is located on the spine of a low ridge running east-west, 165m to the west of the bank of the nearby Roman camp. The ground falls away gently to the north and west, and more steeply to the south. The barrow has fine distant view to the west along the narrow valley of the Afon Llechach, and it may have been sited to take advantage of the view. It must also have been still a prominent landscape feature when the Roman camp was constructed. N Cook PFRS 2003
14134-14138		Prehistoric, medieval	Hut circles, sheep fold	A discrete group of earthwork remains of possible prehistoric hut circles situated on a north facing slope close to the Afon Dunant, with some later reuse as sheepfolds?
14142-14144		Prehistoric, medieval	Shelter	A group of circular and rectangular structures surviving as earth and stone banks, very difficult to date but more likely to be medieval.
32369		Medieval	Long hut	Rectangular building, 8.7m x 5.2m. Possibly sub-divided in ratio 3:2, the upper compartment being the larger. DE.Morgan 1989. A poorly preserved long hut, maximum size 8m x 5.5m. Stones protrude through grass cover which suggests some internal division, but the plan is not clear. This may be a dwelling associated with a cluster of smaller structures (PRNs 14142-7) and therefore potentially part of a significant group. RPS July 2001
32371		Medieval	Cultivation marks	An area of cultivation ridges.
35967		Medieval	Long hut	Ephemeral long hut or shelter. Appears to have 2 narrow cells. SE cell is 2m wide x 4m long, NE cell is 2m x 5m. 6m NE of structure is a 15m long bank which cuts across the valley suggesting that some effort at stock control was made here.

Table 1: List of archaeological sites recorded on the Historic Environment Record (HER) shown in Figure 2.



Photo 1: Aerial photograph of Arosfa Gareg-Llwyd Roman marching camp (CM174, PRN 4142); looking roughly west. © DAT AP92-108.12

2. WATCHING BRIEF

2.1 The definition of an archaeological watching brief, taken from the Chartered Institute for Archaeologists *Standards and Guidance for Archaeological Watching Briefs* (CIfA 2014) is a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons. This will be within a specified area or site on land, inter-tidal zone or underwater, where there is a possibility that archaeological deposits may be disturbed or destroyed. The programme will result in the preparation of a report and ordered archive.

2.2 The purpose of a watching brief, as laid down in the CIfA guidelines is:

to allow, within the resources available, the preservation by record of archaeological deposits, the presence and nature of which could not be established (or established with sufficient accuracy) in advance of development or other potentially disruptive works;

to provide an opportunity, if needed, for the watching archaeologist to signal to all interested parties, before the destruction of the material in question, that an archaeological find has been made for which the resources allocated to the watching brief itself are not sufficient to support treatment.

2.3 This document provides a scheme of works for:

Archaeological attendance during ground works associated with the repair of a hydrocarbon pipeline. The location of the repair is situated along the unclassified road that runs from Twynllan to Trecastle in the Brecon Beacons National Park (centred on NGR SN 796730 264230).

Appropriate investigation and recording of any archaeological remains will be undertaken if revealed. A report and archive of the results of the works will be prepared.

2.4 The following tasks will be completed:

- Provision of a written scheme of investigation to outline the methodology by which DAT Archaeological Services will undertake the archaeological watching brief.
- To monitor ground works in order to identify the presence/absence of any archaeological deposits.
- To establish the character, extent and date range for any archaeological deposits to be affected by the proposed ground works.
- To appropriately investigate and record any archaeological deposits to be affected by the ground works.
- To produce an archive and report of any results.

3. FIELDWORK

3.1 The watching brief would entail an archaeologist being present during all ground works where there is a potential for archaeological remains to be exposed, damaged or destroyed.

3.2 It is essential coordination between the site contractor's and archaeologist is established at the outset to avoid any potential disturbance to archaeology without an archaeologist being present, or unnecessary visits to the site when works are being carried out that do not require the presence of an archaeologist.

- 3.3 Adequate time must be made available to the visiting archaeologist to ensure that appropriate recording can be undertaken of any archaeological features or deposits exposed during ground works.
- 3.4 Recording of all archaeological features or deposits will conform to best current professional practice and be carried out in accordance with the Recording Manual⁵ used by DAT Archaeological Services. Significant archaeological features or deposits will be drawn at a suitable scale (no less than 1:20) and photographed in an appropriate format.
- 3.5 All archaeologically significant finds will be retained and, where possible, related to the contexts from which they derived. Finds will be temporarily stored by DAT Archaeological Services in stable conditions. All finds, except those deemed to be Treasure, will remain the property of the landowner.
- 3.6 Under the 1996 Treasure Act, "treasure" can be summarised as:
- Any object other than a coin containing at least 10% gold or silver and at least 300 years old;
 - Any prehistoric assemblage of base metal;
 - Coins found together which contain 10% gold or silver (but no single coins) and groups of at least 10 coins of other metals, provided they are at least 300 years old;
 - Any object found associated with treasure except unworked natural objects; and
 - Any object which would have been Treasure Trove before the 1996 Act but not covered above.
- 3.7 In the event that unforeseen archaeological discoveries are made during the development, or that archaeological remains of high significance are exposed, DAT Archaeological Services shall have the power to halt any ground works and shall inform the site agent/project manager and the curatorial officer, and prepare a written statement with plan detailing the archaeological evidence. Following assessment of the archaeological remains by the curatorial officer, DAT Archaeological Services shall, if required, implement on behalf of the Client a contingency scheme for salvage excavation of affected archaeological features. In these instances it would be necessary to employ extra resources to record such features to an appropriate standard.
- 3.8 Should any human remains be encountered the District Coroner's Office and the Police will be notified immediately. All human remains will, where possible, be left *in situ*. If preservation *in situ* is not possible all statutory permissions will be obtained in writing before removal begins.

4. POST-FIELDWORK REPORTING AND ARCHIVING

- 4.1 An archive will be prepared if it meets the requirements of the Dyfed Archaeological Trust archive retention policy (2018). If it does, then data recovered during the evaluation will be collated into a site archive structured in accordance with the specifications in Archaeological Archives: a guide to best practice in creation, compilation, transfer and curation (Brown 2011), and the procedures recommended by the National Monuments Record, Aberystwyth. The National Standards for Wales for

⁵ DAT Archaeological Services have adopted the Recording Manual developed by English Heritage Centre for Archaeology. A copy will be available on-site for inspection if required.

Collecting and Depositing Archaeological Archives produced by the Federation of Museums and Art Galleries of Wales will also be adhered to. Digital archives will be collated using the Royal Commission on the Ancient and Historical Monuments of Wales systems (2015) and deposited with the RCAHMS. The Guidance for the Submission of Data to the Welsh Historic Environment Records (HERs) shall be followed.

- 4.2 The results of the fieldwork will be assessed in local, regional and wider contexts.
- 4.3 The results will be used to inform subsequent design considerations of the proposed development so that they can aim to avoid impacts upon any archaeological remains or that further archaeological mitigation can be implemented before such remains are disturbed.
- 4.4 The project archive, including all significant artefacts and ecofacts (excepting those which may be deemed to be Treasure) will be deposited with an appropriate body following agreement with the landowner (if retained and containing more than just digital information).
- 4.5 DAT Archaeological Services will arrange for the deposition of finds, and ascertain the costs of storage and deposition, with an approved body before the project commences and inform the curator of the arrangement which has been made.
- 4.6 A summary of the project results, excluding any confidential information, may be prepared for wider dissemination (e.g. Archaeology in Wales and special interest and period-specific journals).
- 4.7 The report will be prepared to follow the Standard and Guidance for Archaeological Watching Briefs (CIfA S&G: AWB 2014).
- 4.8 Appropriate specialists to be used by DAT Archaeological Services include:
 - **Industrial Archaeology** –Jennifer Protheroe-Jones, Principal Curator – Industry, National Waterfront Museum, Swansea
 - **Post-medieval / medieval pottery** – Dee Brennan (local independent specialist)
 - **Prehistoric Pottery** – Dr Alex Gibson (formerly of University of Bradford / now Independent pottery specialist)
 - **Prehistoric Flint** – Dr Andrew David (formerly of English Heritage, now independent lithics specialist)
 - **Radiocarbon dating** – Beta Analytic
 - **Animal Bones** – Worcester Archaeology
 - **Fish bones** – Jennifer Browning (University of Leicester Archaeological Services)
 - **Environmental / Pollen analysis** – Worcester Archaeology

5. STAFF

- 5.1 The project will be managed by Fran Murphy, Head of DAT Archaeological Services.
- 5.2 The on-site works will be undertaken by experienced archaeologists, from DAT Archaeological Services.

6. QUALITY ASSURANCE

- 6.1 DAT Archaeological Services has considerable experience of undertaking all categories of archaeological fieldwork and always operates to best professional practice; adhering to CIfA guidelines where appropriate. The Trust is a Registered Organisation with CIfA and all staff abide by their code of conduct and adhere to their relevant standards and guidance.
- 6.2 DAT Archaeological Services operate robust internal monitoring procedures that ensure that the standard of each project is maintained from commencement to completion.

7 MONITORING

- 7.1 The watching brief may require monitoring by the archaeological advisor to the planning authority, Brecon Beacons National Park Archaeological Officer, who should be told of the commencement of the works. The fieldwork may also need to be monitored by the Head of DAT Archaeological Services.
- 7.2 All parties should be provided with free access to the site at any time during the watching brief works.

8 HEALTH AND SAFETY

- 8.1 All DAT Archaeological Services staff are CSCS⁶ registered.
- 8.2 DAT Archaeological Services will carry out a health and safety risk assessment to ensure that all potential risks are minimised.
- 8.3 All known health and safety risk and the presence of any services etc must be made known to the attending archaeologist at the start of any ground works by the client/site contractor.
- 8.4 All relevant health and safety regulations must be followed, including compliance with Welsh Government guidelines on working practices during the current Covid-19 Pandemic, and guidance issued by CIfA.
- 8.5 CIfA advise that Registered Organisations should ensure they are familiar with the latest *Site Operating Procedures*, published by the Construction Leadership Council (Version 4, updated 18th May 2020) and the latest *Covid-19 Working Advice Ver.1.1*, published by Prospect (5th May 2020), which addresses potential issues relating to archaeological site work. These procedures will be attached to the project risk assessment. If the site cannot operate in line with this guidance then the project archaeologist will not be allowed to attend.
- 8.6 The project risk assessment details the precautions put in place to reduce the spread of Covid-19 Coronavirus during fieldwork.
- 8.7 All site inductions, H&S procedures and site rules of the site contractor will be made known to DAT Archaeological Services staff prior to them commencing work on-site.
- 8.8 Safety helmets, high visibility vests and boots are to be used by all site personnel as necessary. The site contractors will make all archaeological staff aware of any other PPE⁷ that may be required and provide them. Archaeological staff must not enter any area where there is a considered

⁶ Construction Skills Certification Scheme (Health and Safety Tested)

⁷ Personal Protection Equipment

to be a health and safety risk that has not or is not being appropriately mitigated against.

- 8.9 DAT Archaeological Services staff must ensure that their presence on site is communicated to all relevant site staff, especially machine operators.

9 ARBITRATION

- 9.1 Any dispute or disagreement arising out of a contract in relation to this work shall be referred for a decision to the Chartered Institute of Archaeologist's arbitration scheme.

