## GERDDI BACH, WAUN FAWR

### Archaeological Watching Brief





## GERDDI BACH, WAUN FAWR

### **Archaeological Watching Brief**

Prosiect Rhif / Project No. G2525

Adroddiad Rhif / Report No.1392

Prepared for: Grwp Cynefin

May 2017

Written by: Ken Owen, Spencer Smith & John Roberts

\*front cover image: General shot of ground investigation works as viewed from the north (G2492\_030)

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### CONTENTS

1	NON-TECHNICAL SUMMARY	3
2	INTRODUCTION	4
3	ARCHAEOLOGICAL AND HISTORICAL BACKGROUND	6
4	METHODOLOGY	7
	4.1 Watching Brief	7
5	RESULTS	9
	5.1 Test Pit No.1	
	5.2 Test Pit No.2	
	5.3 Test Pit No.3	
6	CONCLUSION	
7	SOURCES CONSULTED	13
Α	PPENDIX I	15
	Reproduction of Gwynedd Archaeological Trust project design for an archaeological	
	watching brief	
A	PPENDIX II	16
	Gwynedd Archaeological Trust photographic metadata	16

#### **FIGURES**

Figure 01: Reproduction of Cadnant Consulting Engineers site location plan (Drawing No.

EL (9-) 01) with amendments by Gwynedd Archaeological Trust to show location of test pits.

Figure 02: Reproduction of Ordnance Survey 1-inch to 25-mile County Series Map Sheet XVI.10 First Edition (1889/90), with amendments by Gwynedd Archaeological Trust to show location of test pits. Scale: 1:1250@A4.

#### **PLATES**

Plate 01: View from the northwest of entrance to Gerddi Bach; scale: 1.0m (archive image: G2525\_001)

Plate 02: View from the southeast of entrance to Gerddi Bach (archive image: G2525\_002)

Plate 03: View from the northwest of entrance of Gerddi Bach prior to site investigation work; scale: 1.0m (archive image: G2525\_003)

Plate 04: Test Pit 01 - View from the northeast on completion of excavation; scale: 1.0m (archive image: G2525\_004)

Plate 05: Test Pit 01 - View from the eastsoutheast on completion of excavation; scale: 1.0m (archive image: G2525\_005)

Plate 05: Test Pit 01 - View from the southwest on completion of excavation; scale: 1.0m (archive image: G2525\_006)

Plate 07: Test Pit 02 - View from the eastsoutheast during excavation; scale: 1.0m (archive image: G2525 007)

Plate 08: Test Pit 01 - View from the northeast during excavation; scale: 1.0m (archive image: G2525\_008)

Plate 09: Test Pit 03 - View from the southsouthwest during excavation; scale: 1.0m (archive image: G2525\_009)

Plate 10: Test Pit 03 - View from the southsouthwest during excavation; scale: 1.0m (archive image: G2525\_010)

Plate 11: Test Pit 03 - West facing section detailing building material; scale: 1.0m (archive image: G2525\_011)

Plate 12: Test Pit 03 - West facing section; scale: 1.0m (archive image: G2525\_012)

Plate 13: Test Pit 03 - West facing section detailing building material; scale: 1.0m (archive image: G2525 013)

Plate 14: Test Pit 03 - View from the southsouthwest after excavation; scale: 1.0m (archive image: G2525\_014)

Plate 15: Test Pit 01 - View from the northwest showing limit of excavation; scale: 1.0m (archive image: G2525\_015)

Plate 16: Test Pits 02 and 03 - general location shot (archive image: G2492\_016)

#### 1 NON-TECHNICAL SUMMARY

Ymgymrydodd Ymddiriedolaeth Archeolegol Gwynedd brîff gwylio archeolegol yn ystod gwaith ymholiad geotechnegol a'r safle awgrymedig datblygiad tai yn Gerddi Bach, Waunfawr, Gwynedd. Roedd y brîff gwylio yn cael ei leoli maes oedd gan gynnwys tyddyn o dai, cytiau a chaeau bach. Nid oedd yna dystiolaeth amlwg o'r tyddyn a'r tir gwastad ac roedd y brîff wylio yn ofodol er mwyn arolygu unrhyw weddillion is-dear. Cloddiodd cyfanswm o dri phrawf pydew i'r gwaith ymholiad y safle. Roedd tystiolaeth o weithgaredd adeiledd ei dynoda mewn Prawf Pydew 3, yn cynnwys cerrig rhydd siâp afreolaidd a llechi. Wnaeth archwiliad o fapiau hanesyddol awgrymu fod gall hwn bod perthyn i wal terfyn yn y lleoliad y prawf pydew. Nid oedd yna unrhyw weithgaredd adeiledd wedi ei nodi tu fewn Prawf Pydew 1 a 2, o'n roedd pob prawf pydew yn gynnwys dyddodion o dir gwneuthuredig, arwyddol o ddyddodion gwastataol cyn i'r dymchweliad o'r tyddyn.

Gwynedd Archaeological Trust undertook an archaeological watching brief during geotechnical site investigation works for a proposed housing development at Gerddi Bach, Waunfawr, Gwynedd. The watching brief was located within a field which previously included smallholdings comprising houses, outbuildings and small fields. No evidence for the smallholdings was visible at ground level and the watching brief was required to monitor for any subsurface remains. A total of three test pits were excavated for the site investigation works. Evidence for structural activity was identified in Test Pit 3, comprising loose irregular shaped stone and slate. An examination of historic map evidence suggested this may relate to a boundary wall at the location of the test pit. No structural activity was identified in Test Pits 1 and 2, but all the test pits contained thick deposits of made ground, indicative of a levelling deposit subsequent to the demolition of the smallholdings.

#### 2 INTRODUCTION

Gwynedd Archaeological Trust (GAT) was commissioned by *Grwp Cynefin* to undertake an archaeological watching brief during geotechnical site investigation works (SI) for a proposed housing development at Gerddi Bach, Waunfawr, Gwynedd (NGR SH 5260 5919; Figure 01). The area was located within a field close to the junction of a lane with the A4085 Caernarfon to Beddgelert road. The proposed housing development will be undertaken in accordance with planning application C17/0273/26/LL, although the design of the foundations has not been confirmed. A separate watching brief will be undertaken during the groundworks for the housing development.

The watching brief monitored the following SI locations (Figure 01).

- Test Pit 1 depth 2.4mm;
- Test Pit 2 depth 0.6m; and
- Test Pit 3 depth 2.3m.

The SI was undertaken by Cadarn Consulting Engineers on 24th May 2017.

The watching brief was monitored by the Gwynedd Archaeological Planning Services (GAPS). GAT prepared a project design in advance of fieldwork that was submitted to GAPS for approval (Appendix I).

The watching brief was completed in accordance with the following guidance:

- Standard and Guidance for Archaeological Watching Brief (Chartered Institute for Archaeologists, 2014);
- Historic England, 2004 Historic England. Human Bones from Archaeological Sites.
   Guidelines for producing assessment documents and analytical reports;
- Management of Archaeological Projects (English Heritage, 1991);
- Management of Research Projects in the Historic Environment: The MoRPHE Project Managers' Guide (Historic England, 2015); and

 Guidelines for digital archives Royal Commission on Ancient and Historic Monuments of Wales 2015.

Gwynedd Archaeological Trust is certified to ISO 9001:2008 and ISO 14001:2004 (Cert. No. 74180/A/0001/UK/En) and is a Registered Organisation with the Chartered Institute for Archaeologists and a member of the Federation of Archaeological Managers and Employers (FAME).

#### 3 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

The housing development is located within an area characterised by post-medieval agricultural and industrial activity as represented by local slate quarries and the settlement of Waunfawr.

A brief examination of the regional Historic Environment Record confirmed that there were a limited number of known archaeological receptors within the immediate area. These included the Roman road from Segontium to Tomen-y-Mur located in the immediate vicinity of the scheme (GAT PRN 17533), Cae Glas Post Medieval farmstead, 220m to the northwest (GAT PRN 12124) and Ty Hen Post Medieval farmhouse, 390m to the northeast (GAT PRN 57010). The site was located within the Historic Landscape Characterisation area of Waunfawr (Area 16). This landscape area was characterised as part of Waun Fawr Treflan, a common where the tenants of Treflan had the right to graze their animals. The present village is a nineteenth-century ribbon development reflecting the development of slate quarrying and also the opening of the North Wales Narrow Gauge Railway in 1878, which made possible the development of a nucleated community.

The first to third edition Ordnance Survey 1-inch to 25-mile County Series maps of the area published in 1889/90, 1900 and 1914 respectively (Sheet XVI.10; cf. Figure 02 for the first edition) detail an agglomeration of smallholdings, comprising small fields and properties. The properties are mostly concentrated at the northern end of the site, with the central and southern portions of the comprising irregular shaped fields. The smallholdings were removed during the twentieth century and the area converted into a large open field.

#### 4 METHODOLOGY

#### 4.1 Watching Brief

An archaeological watching brief is defined by the Chartered Institute for Archaeologists as a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons 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 (CiFA, 2014).

An archaeological watching brief can divided into four categories:

- comprehensive (present during all ground disturbance)
- intensive (present during sensitive ground disturbance)
- intermittent (viewing the trenches after machining)
- partial (as and when seems appropriate).

For this scheme, the archaeological watching brief has been undertaken on a comprehensive basis, specifically monitoring the excavation of all soil horizons as far as an archaeological horizon, the glacial horizon, or the limit of the SI test pit, whichever came first.

All GAT attendances and identified features were recorded using GAT watching brief proformas. Photographic images were taken using a digital SLR (Nikon D3100) camera set to maximum resolution (4608 × 3072 12.7 effective megapixels) in RAW format and were converted to TIFF format for archiving using Adobe Photoshop. The photographic record was maintained on site using GAT pro-formas and digitised in *Microsoft Access* as part of the fieldwork archive and dissemination process; a total of 16 images were taken (G2525\_001 to 016; q.v. Appendix II);

The final archive will be prepared on approval of the report: the paper records will be retained at GAT, along with a copy of the digital records. The digital records will also be submitted to the Royal Commission on the Ancient and Historical Monuments of Wales in accordance with the *RCAHMW Guidelines for Digital Archives Version 1*. Digital information will include the photographic archive and associated metadata, and the approved report (text and Adobe pdf versions).

In line with the regional Historic Environment Record (HER) requirements, the HER was contacted at the onset of the project and a HER Enquiry Form, provided by the HER, was completed and submitted. A copy of the report will be retained by the HER for public access.

#### 5 RESULTS

#### 5.1 Test Pit 1

Dimensions: 2.4m (I) x 0.60m (w) x 2.4m (d)

Location: NGR SH5260 5918

Plates: 4-6 inc. Description:

Test Pit 1 was excavated to a depth of 2.4m and comprised the following stratigraphy:

 Context 101 – Mid grey brown sandy silt topsoil, softly compacted and containing a moderate amount of pebble sized stone; maximum depth of 0.25m.

 Context 102 – Light/mid grey-brown sandy silt, softly compacted deposit of made ground. Contained a moderate amount of pebble and cobble sized sub-angular and sub-rounded stone. The deposit also contained some copper wire, plastic, glass, fragmented brick and pot. There was a thin band of ash and coal near the base of the deposit, which was underlain by quite large boulders deposited at the base, at the natural horizon. (Plate 04). Maximum depth of deposit 1.65m

• Context 103 – A light orange yellow silty sand, soft compaction. As the test pit was quite deep and narrow a full inspection of the natural at this depth could not be undertaken in-situ, only the small amount of excavated material (Plate 05 and 06).

No archaeological activity was found within Test Pit 1, only the modern finds mentioned within the above text, which were not retained. No waterlogged/organic soil deposits were encountered. Most of the Test Pit was composed of made ground to a depth of c2m, with very large boulders on the made ground natural interface.

#### **5.2 Test Pit 2**

Dimensions: 2.8m (I) x 0.70m (w) x 0.5m (d) NW-SE

2.0m (I) x 0.70m (w) x 0.6m (d) SW-NE

Location: NGR SH5260 5921

Plates: 7,8,15,16.

Description:

Test Pit 2 was an L-shaped trench located at the northwest area of the field, quite close to the field entrance. Test Pit 2 was excavated to a maximum depth of 0.6m comprised the following stratigraphy:

 Context 201 – Mid grey brown sandy silt topsoil, softly compacted with occasional stones, also contained modern finds consisting of paper, wire and glass. maximum depth of 0.2m.

 Context 202 – Made ground consisting of a light grey-brown-yellow silty sand, quite firmly compacted and containing a moderate amount of pebble and cobble sized stone, mainly sub-angular. and small to medium sub-angular and sub-rounded stones (Plate 07 and 08). A few fragments of brick, pot and glass was found within this deposit. Maximum depth of deposit 0.3m

• Context 203 – Directly below the above deposit bedrock was encountered, which had a covering of a light yellow grey silty sand. At this point further excavation on this Test Pit was abandoned (Plate 15).

No archaeological activity was identified within the confines of Test Pit 2 and no waterlogged/organic soil deposits were encountered. The modern finds found were noted but not retained.

#### **5.3 Test Pit 3**

Dimensions: 2.4m (I) x 0.70m (w) x 2.3m (d)

Location: NGR SH5260 5920

Plates: 9-14 inc.

Description:

Test Pit 3 was located only 3m to the south of Test Pit 2, due to the location of the outcrop found in Test Pit 2. Test Pit 3 was excavated to a depth of 2.3m and comprised the following stratigraphy:

Context 301 – Dark grey brown sandy silt topsoil, softly compacted and containing a
moderate amount of pebble sized stone and frequent amounts of fragmented brick,
wire and plastic. Maximum depth of 0.3m (Plate 09).

 Context 302 – Made ground comprising of a light grey-brown sandy clayey-silt, with small to medium mainly sub-angular stones. The deposit contained a very large amount of building material consisting of roofing slate, fragmented brick, mortar, pot and glass. (Plates 11-13). Depth of material 1.1m

 Context 303 – A light grey-yellow clayey silty sand, fairly wet and firmly compacted (Plate 14). The deposit contained some stone and seemed to be artefact free, and may be a natural deposit. It was only possible to inspect the excavated material on the surface.

A large amount of demolition material was found within the Test Pit, which was located only 3m from the outcrop in Test Pit 2. The demolition material is consistent with evidence for a demolished building at this location.

#### 6 CONCLUSION

A total of three geotechnical test pits were excavated at the northern end of the development and were located within former site of multiple smallholdings. Specific evidence for the smallholdings was limited to activity in Test Pit 3, which comprised fragments of irregular shaped stone and slate. These fragments may be related to the demolished smallholding structures. An examination of the first to third edition Ordnance Survey 1-inch to 25-mile County Series maps of the area published in 1889/90, 1900 and 1914 respectively (Sheet XVI.10; cf. Figure 02 for the first edition), suggest that Test Pit 3 was located in close proximity to a north-south boundary wall and the stone fragments may include remnants of this. Whilst Test Pit 2 was also located along the boundary wall line, no evidence for this was identified. Test Pit 2 was, however, characterised by shallow bedrock, so any structures here may have been built onto the bedrock. All three test pits were characterised by a thick made ground deposit that appeared to have been a levelling layer to consolidate the site after the removal of the smallholdings. The fragments of building material within the made ground may relate to the demolished structures.

As evidenced by the test pits, activity associated with the smallholdings is still present on site at subsurface level and it is likely that further activity will be identified during the development groundworks.

#### 7 SOURCES CONSULTED

Brunning, R and Watson, J 2010 Waterlogged Wood: Guidelines on the Recording, Sampling, Conservation and Curation of Waterlogged Wood (3<sup>rd</sup> ed). Swindon: English Heritage

Cadarn Consulting Engineers Drawing No. EL (9-) 01 A

Cadarn Consulting Engineers Drawing No. EL (9-) 08

English Heritage, 1991, Management of Archaeological Projects

English Heritage 1995 Guidelines for the Care of Waterlogged Archaeological Leather . Scientific and Technical Guidelines 4. London: English Heritage

Grwp Cynefin Drawing No. A.00.1

Gwyn, D and Thompson, D 2001 Historic Landscape Characterisation, Caernarfon/Nantlle – Area 16 Waunfawr <a href="http://www.heneb.co.uk/hlc/caernarfon-nantlle/caer16.html">http://www.heneb.co.uk/hlc/caernarfon-nantlle/caer16.html</a>

Gwynedd County Council planning application C17/0273/26/LL

Historic England, 2004. Human Bones from Archaeological Sites Guidelines for producing assessment documents and analytical reports

Historic England, 2011, Environmental Archaeology: a guide to the theory and practice of methods, from sampling and recovery to post-excavation

Historic England, 2015, Management of Research Projects in the Historic Environment (MoRPHE).

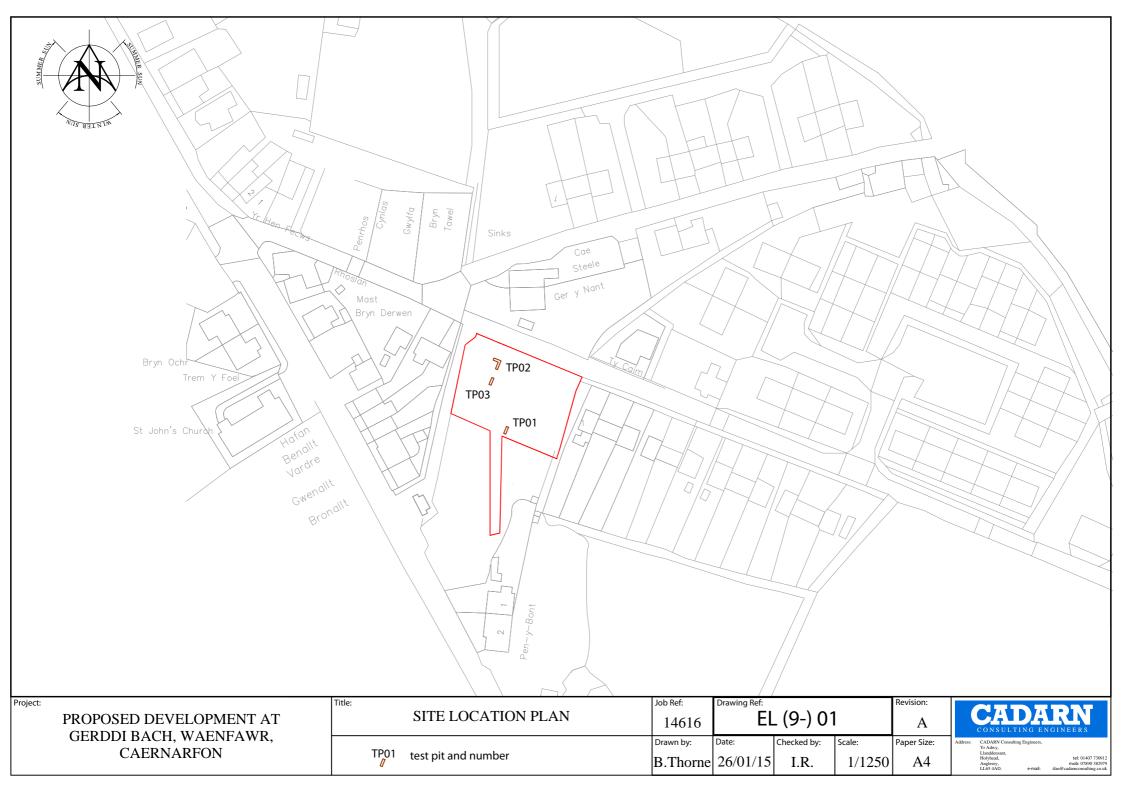
Ordnance Survey 1-inch to 25-mile County Series Map Sheets XVI.04, XVI.08, XVII.05 and XVII.01 First Edition (1889 & 1890)

Ordnance Survey 1-inch to 25-mile County Series Map Sheets XVI.04, XVI.08, XVII.05 and XVII.01 Second Edition (1900)

Ordnance Survey 1-inch to 25-mile County Series Map Sheets XVI.04, XVI.08, XVII.05 and XVII.01 Third Edition (1914)

Royal Commission on Ancient and Historic Monuments of Wales 2015 *Guidelines for digital* archives

Standard and Guidance for an archaeological watching brief (Chartered Institute for Archaeologists, 2014).



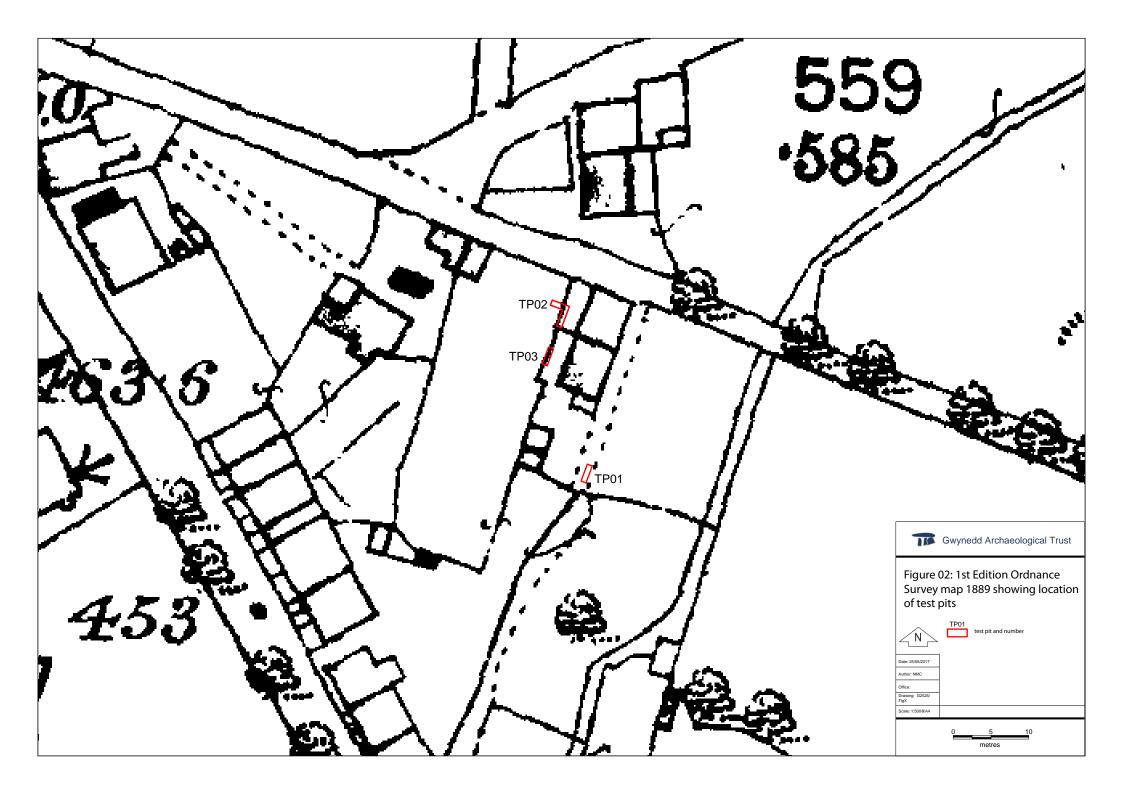




Plate 01: View from the northwest of entrance to Gerddi Bach; scale: 1.0m (archive image: G2525\_001)



Plate 02: View from the southeast of entrance to Gerddi Bach (archive image: G2525\_002)



Plate 03: View from the northwest of entrance of Gerddi Bach prior to site investigation work; scale: 1.0m (archive image: G2525\_003)



Plate 04: Test Pit 01 - View from the northeast on completion of excavation; scale: 1.0m (archive image: G2525\_004)



Plate 05: Test Pit 01 - View from the eastsoutheast on completion of excavation; scale: 1.0m (archive image: G2525\_005)



Plate 05: Test Pit 01 - View from the southwest on completion of excavation; scale: 1.0m (archive image: G2525\_006)



Plate 07: Test Pit 02 - View from the eastsoutheast during excavation; scale: 1.0m (archive image: G2525\_007)



Plate 08: Test Pit 01 - View from the northeast during excavation; scale: 1.0m (archive image: G2525\_008)



Plate 09: Test Pit 03 - View from the southsouthwest during excavation; scale: 1.0m (archive image: G2525\_009)



Plate 10: Test Pit 03 - View from the southsouthwest during excavation; scale: 1.0m (archive image: G2525\_010)



Plate 11: Test Pit 03 - West facing section detailing building material; scale: 1.0m (archive image: G2525\_011)



Plate 12: Test Pit 03 - West facing section; scale: 1.0m (archive image: G2525\_012)



Plate 13: Test Pit 03 - West facing section detailing building material; scale: 1.0m (archive image: G2525\_013)



Plate 14: Test Pit 03 - View from the southsouthwest after excavation; scale: 1.0m (archive image: G2525\_014)



Plate 15: Test Pit 01 - View from the northwest showing limit of excavation; scale: 1.0m (archive image: G2525\_015)



Plate 16: Test Pits 02 and 03 - general location shot (archive image: G2492\_016)

# GERDDI BACH, WAUNFAWR, GWYNEDD (G2525)

# PROJECT DESIGN FOR ARCHAEOLOGICAL WATCHING BRIEF

Prepared for

Grwp Cynefin

May 2017

Ymddiriedolaeth Archaeolegol Gwynedd Gwynedd Archaeological Trust

Approvals Table				
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Reviewed by	Document Reviewer	S. REILLY	S. Reilly	18/09/17
Approved by	Principal Archaeologist	J. ROBERTS	AM	18/08/17

Revision History					
Rev No.	Summary of Changes	Ref Section	Purpose of Issue		

All GAT staff should sign their copy to confirm the project specification is read and understood and retain a copy of the specification for the duration of their involvement with the project. On completion, the specification should be retained with the project archive:

Name Signature Date

## GERDDI BACH, WAUNFAWR, GWYNEDD PROJECT DESIGN FOR ARCHAEOLOGICAL WATCHING BRIEF

Prepared for Grwp Cynefin, May 2017

#### CONTENTS

1.	. INTRODUCTION	5
2.	. Archaeological and Historical background	7
3.	· · · · · · · · · · · · · · · · · · ·	
	3.1 Watching Brief	8
	3.2 Fieldwork Methodology	
	3.3 Human Remains	
	3.4 Ecofacts	
	3.5 Artefacts	
	3.6 Fieldwork Archiving	
	3.7 Historic Environment Record	
4.		17
5.		18
6.		
7.		
8.		
9.		
-	IGURE 01	
	Reproduction of Site Location Plan Drawing No. EL (9-) 01 A, detailing	
	the watching brief area. Scale: 1:1250@A4	
F	IGURE 02	
	Reproduction of GI Locations Drawing No. EL (9-) 08, detailing GI locations. Scale 1	
	and 1:500@A1	
F	IGURE 03	
	Reproduction of Ordnance Survey 1-inch to 25-mile County Series Map	
	Sheet XVI.10 First Edition (1889), including Grwp Cynefin watching brief area. Scale	
	1:1250@A4	
F	IGURE 04	
	Reproduction of Ordnance Survey 1-inch to 25-mile County Series Map	27
	Sheet XVI.10 Second Edition (1900), including Grwp Cynefin watching	
	brief area. Scale: 1:1250@A4.	
F	IGURE 05	
	Reproduction of Ordnance Survey 1-inch to 25-mile County Series Map	
	Sheet XVI.10 Third Edition (1914), including Grwp Cynefin watching	
	brief area. Scale: 1:1250@A4	
A	ppendix I	
1	Gwynedd Archaeological Trust photographic metadata pro-forma	29
A	ppendix II	
-1	Gwynedd Archaeological Trust watching brief pro-forma	
	, , , , , , , , , , , , , , , , , , , ,	

#### 1. INTRODUCTION

Gwynedd Archaeological Trust (GAT) has been asked by *Grwp Cynefin* to prepare a project design for an archaeological watching brief during geotechnical ground investigation works (GI) for a proposed housing development at Gerddi Bach, Waunfawr, Gwynedd (NGR SH 5260 5919; Figure 01). The area is located within a field close to the junction of a lane with the A4085 Caernarfon to Beddgelert road. The development will be undertaken according to the information contained within planning application C17/0273/26/LL, although the design of the foundations has not been confirmed. The watching brief will monitor the GI locations as detailed in Cadarn Drawing No. EL (9-) 08 (Figure 02).

- TP-1 required depth 3.0m;
- TP-2 required depth 3.0m; and
- TP-3 required depth 3.0m.

The GI will be undertaken by Cadarn Consulting Engineers and is scheduled to be undertaken in May 2017.

The watching brief will be completed in accordance with the following guidance:

- Standard and Guidance for Archaeological Watching Brief (Chartered Institute for Archaeologists, 2014);
- Historic England, 2004 Historic England. Human Bones from Archaeological Sites.
   Guidelines for producing assessment documents and analytical reports;
- Management of Archaeological Projects (English Heritage, 1991);
- Management of Research Projects in the Historic Environment: The MoRPHE Project Managers' Guide (Historic England, 2015); and
- Guidelines for digital archives Royal Commission on Ancient and Historic Monuments of Wales 2015.

The watching brief will be monitored by the Gwynedd Archaeological Planning Services (GAPS); the content of this design and all subsequent reporting by GAT must be approved by GAPS prior to final issue.

Gwynedd Archaeological Trust is certified to ISO 9001:2008 and ISO 14001:2004 (Cert. No. 74180/A/0001/UK/En) and is a Registered Organisation with the Chartered Institute for Archaeologists and a member of the Federation of Archaeological Managers and Employers (FAME).

#### 2. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

The housing development is located within an area characterised by post-medieval agricultural and industrial activity as represented by local slate quarries and the settlement of Waunfawr.

A brief examination of the regional Historic Environment Record has confirmed that there are a limited number of known archaeological receptors within the immediate area. These include the Roman road from Segontium to Tomen-y-Mur located in the immediate vicinity of the scheme (GAT PRN 17533), Cae Glas Post Medieval farmstead, 220m to the northwest (GAT PRN 12124) and Ty Hen Post Medieval farmhouse, 390m to the northeast (GAT PRN 57010). Within the plot of the proposed housing development Gwynedd Archaeological Planning Service that the properties depicted on the first to third edition Ordnance Survey 1-inch to 25-mile County Series maps of the area published in 1889/90, 1900 and 1914 respectively (Sheet XVI.10; Figures 03 to 05) were named *Gadlas* and *Castell Gardd*, with the adjoining field to the south named *Castell*. These names have previously been found in association with high-status sites, and there may well have been an earlier property or settlement on the site which was subsequently replaced by these cottages or smallholdings.

The site is located within the Historic Landscape Characterisation area of Waunfawr (Area 16). This landscape area is characterised as part of Waun Fawr Treflan, a common where the tenants of Treflan had the right to graze their animals. The present village is a nineteenth-century ribbon development reflecting the development of slate quarrying and also the opening of the North Wales Narrow Gauge Railway in 1878, which made possible the development of a nucleated community. The field boundaries of the proposed development are the same layout as the present day.

#### 3. METHODOLOGY

#### 3.1 Watching Brief

An archaeological watching brief is defined by the Chartered Institute for Archaeologists as a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons 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 (CiFA, 2014).

An archaeological watching brief can divided into four categories:

- comprehensive (present during all ground disturbance)
- intensive (present during sensitive ground disturbance)
- intermittent (viewing the trenches after machining)
- partial (as and when seems appropriate).

For this scheme, the archaeological watching brief will be completed on a comprehensive basis during groundworks, specifically monitoring the excavation of all soil horizons as far as the glacial horizon. It is currently expected that 1No project archaeologist will be in attendance.

GAT fieldwork methodology is discussed in para. 3.2.

#### 3.2 Fieldwork Methodology

- During the watching brief, all attendances and identified features will be recorded using GAT watching brief pro-formas (<u>Appendix II</u>);
- Photographic images will be taken using a digital SLR (Nikon D40) camera set to maximum resolution (3008 x 2000 6.1 effective megapixels) in RAW format and will be converted to TIFF and JPEG format for archiving using Adobe Photoshop; a photographic record will maintained on site using GAT pro-formas (Appendix I) and digitised in Microsoft Access as part of the fieldwork archive and dissemination process. Photographic images will be archived in TIFF format; the archive numbering system will start from G2525\_001. A photographic ID board will be used during watching brief to record site code, test hole number, date, image orientation and any relevant context numbers. Photographic images will also be taken for each test hole location prior to excavation along with general shots of the area.
- Any subsurface remains will be recorded photographically, with detailed notations and a measured survey;
- If the GAT archaeologist is not allowed access on discovery of archaeological activity, then the trial hole must be backfilled upon exposure of archaeological deposits in order to facilitate their investigation at a later stage of archaeological works (e.g. evaluation trenching). The trial hole will need to be resited to avoid any continuation of the archaeological deposits/features, so far as can be reasonably predicted. If access to the trail holes is allowed to investigate archaeological activity, then any archaeological features/deposits/structures encountered will be manually cleaned and examined to determine extent, function, date and relationship to adjacent features. If encountered, the following minimum strategy will initially apply: 50% sample of each sub-circular feature, 10% sample of each linear feature. In the event of the identification of extensive/complex remains (e.g. burials or structures), additional time, resourcing and costs may be required for GAT to complete an appropriate programme of works; this may also incur a delay to the GI programme;
- Any required sections and detailed elevations to be drawn at a minimum 1:10 scale using GAT A4 or A2 pro-forma permatrace;
- Any required plans to be at a minimum 1:20 scale. Plans will be drawn on GAT A4 or A2 pro-forma permatrace;

Should dateable artefacts, human remains and/or ecofacts be recovered, an interim
report will be submitted summarising the results, along with an assessment of
potential for analysis post-excavation project design (in line with the MAP2 process).
To undertake a post-excavation programme of works, additional time, resourcing and
costs will be required.

#### 3.3 Human Remains

If any human remains identified are to be excavated, and cannot be preserved in situ this will take place under appropriate regulations and with due regard for health and safety issues. In order to excavate human remains, a Ministry of Justice licence is required under Section 25 of the Burials Act 1857 for the removal of any body or remains of any body from any place of burial. In accordance with the Ministry of Justice licence, recovered remains will be reburied once the investigation and/or assessment/analysis are complete; the remains should be reburied inside the church as close as practical to their original location.

Non-fragmented skeletal remains will be excavated using wooden tools and collected and stored in polyethylene bags (with appropriate references for context, grave number, et al) and placed in a lidded cardboard archive box (note: separate boxes for each grave) and stored in a suitable manner within GAT premises. If significant quantities of human remains are encountered, a human osteologist should be contacted and appointed to advise the team during the fieldwork. The osteologist will be an external appointment (Lucy Whittingham | Project Manager (post-excavation) | AOC Archaeology | tel: 0208 843 7380 | email: <a href="mailto:lucy.whittingham@aocarchaeology.com">lucy.whittingham@aocarchaeology.com</a>), who will assist in devising the excavation, recording and sampling strategy for features containing human remains. The osteologist should also help to ensure that adequate post-excavation processing of human remains is carried out so that the material is in a fit state for assessment during the post-excavation stage. For inhumations, this will involve washing, drying, marking and packing.

If human remains are recovered that are deemed suitable for further assessment/analysis, this will be completed in accordance with the osteologist's requirements and with *Human Bones from Archaeological Sites Guidelines for producing assessment documents and analytical reports* (Historic England, 2004).

#### 3.4 Ecofacts

Due to the existing ground conditions and the presence of semi-improved wetland areas, it is likely that waterlogged/organic deposits will be encountered, including peat deposits. Bulk samples will not be taken by GAT from any waterlogged/organic deposits/peat deposits, but the GAT archaeologist will monitor and record the depth and context of the deposit or deposits. Based on initial results and potential, e.g., an extensive depth of peat, recourse may be made to a specialist (via Lucy Whittingham | Project Manager (post-excavation) | AOC Archaeology | tel: 0208 843 7380 | email: <a href="mailto:lucy.whittingham@aocarchaeology.com">lucy.whittingham@aocarchaeology.com</a>) for advice on a palaeoenvironmental assessment and analysis strategy.

Should any archaeological features be identified that include sealed deposits deemed suitable for dating, samples will be taken of not less than 40 litres for bulk samples (or 100% if the feature is smaller). The sampling strategy will be undertaken in accordance with the principles set out in *Environmental Archaeology: a guide to the theory and practice of methods, from sampling and recovery to post-excavation* (Historic England, 2011).

For any ecofact samples taken from human burials, this will be completed in accordance with an appointed osteologist's guidance.

#### 3.5 Artefacts

Diagnostic artefacts will be retained for further examination and identification. Pottery sherds of 19<sup>th</sup> and 20<sup>th</sup> century date will be examined on site and the context from which they were retrieved noted but the sherds will not be retained. The artefacts will be treated according to guidelines issued by the UK Institute of Conservation (Watkinson and Neal 2001) in particular the advice provided within *First Aid for Finds* (Rescue 1999) and Historic England.

Any waterlogged artefacts (e.g. wood or leather) that are to be recovered for post-excavation assessment and analysis will be processed in accordance with *Environmental Archaeology:* a guide to the theory and practice of methods, from sampling and recovery to post-excavation (English Heritage, 2011) and specifically in accordance with Brunning and Watson (2010) for waterlogged wood and English Heritage (1995) for waterlogged leather. In such cases an external specialist will be contacted to agree an appropriate sampling and recovery strategy via Lucy Whittingham | Project Manager (post-excavation) | AOC Archaeology | tel: 0208 843 7380 | email: <a href="mailto:lucy.whittingham@aocarchaeology.com">lucy.whittingham@aocarchaeology.com</a>).

All finds are the property of the landowner; however, it is Trust policy to recommend that all finds are donated to an appropriate museum, (in this case STORIEL, Ffordd Gwynedd, Bangor, Gwynedd LL57 1DT), where they can receive specialist treatment and study. Access to finds must be granted to the Trust for a reasonable period to allow for analysis and for study and publication as necessary. Trust staff will undertake initial identification, but any additional advice would be sought from a wide range of consultants used by the Trust, including National Museums and Galleries of Wales at Cardiff.

All finds of treasure must be reported to the coroner for the district within fourteen days of discovery or identification of the items. Items declared Treasure Trove become the property of the Crown, on whose behalf the National Museums and Galleries of Wales acts as advisor on technical matters, and may be the recipient body for the objects.

The National Museums and Galleries of Wales will decide whether they or any other museum may wish to acquire the object. If no museum wishes to acquire the object, then the Secretary of State will be able to disclaim it. When this happens, the coroner will notify the occupier and landowner that he intends to return the object to the finder after 28 days unless he receives no objection. If the coroner receives an objection, the find will be retained until the dispute has been settled.

GAT will contact the landowner (via Grwp Cynefin) for agreement regarding the transfer of artefacts, initially to GAT and subsequently to the relevant museum (STORIEL, Ffordd

Gwynedd, Bangor, Gwynedd LL57 1DT). A GAT produced pro-forma will be issued to the landowner where they are given the option to donate the finds or to record that they want them returning to them once analysis and assessment has been completed. If artefacts are transferred to STORIEL, this must be in accordance with their current guidelines.

#### 3.6 Fieldwork Archiving

Following the completion of the fieldwork, a programme of field work archiving will be completed based on following task list;

- 1. Pro-formas: all cross referenced and complete;
- 2. Photographic Metadata: completed in *Microsoft Access* and cross-referenced with all pro-formas;
- 3. Sections: all cross referenced and complete with relevant site matrix completed;
- 4. Survey data: downloaded using a Computer Aided Design package;
- 5. Plans: all cross referenced and complete;
- 6. Artefacts (if relevant): quantified and identified; register completed;
- 7. Ecofacts (if relevant): quantified and register completed;
- 8. Context register (if relevant): quantified and register completed;
- 9. Site Matrix (if relevant); all cross referenced and complete.

All data will be processed, final illustrations will be compiled and a report will be produced which will detail and synthesise the results.

#### 3.7 Historic Environment Record

In line with the regional Historic Environment Record (HER) requirements, the HER must be contacted at the onset of the project to ensure that any data arising is formatted in a manner suitable for accession to the HER. At the onset, the HER Enquiry Form provided by the HER, will be completed and submitted.

# 4. PROCESSING DATA, ILLUSTRATION, REPORT AND ARCHIVING

Following completion of the stages outlined above, a report will be produced within one month incorporating the following:

- 1. Non-technical summary
- 2. Introduction
- 3. Background
- 4. Methods and techniques, including details and location of project archive
- 5. Watching Brief Results
- 6. Summary and conclusions (including any further recommendations if relevant)
- 7. List of sources consulted.
- 8. Appendix I approved GAT project specification

Illustrations will include plans of the location, site plans and elevations. Historical maps, when appropriate and if copyright permissions allow, will be included. A draft copy of the report will be sent to the client prior to production of the final report.

#### 5. DISSEMINATION AND ARCHIVING

A full archive including plans, photographs, written material and any other material resulting from the project will be prepared. The archaeological mitigation outlined in this project specification will commence in May 2017. A draft report (or interim report) will be submitted within one month of fieldwork completion (June 2017); a final report will be submitted to the Historic Environment within six months of submitting the draft report (November 2017).

The following dissemination will apply:

- A paper report(s) plus digital report(s) will be provided to the client and GAPS (draft report then final report);
- A paper report plus a digital report will be provided to the regional Historic Environment Record, Gwynedd Archaeological Trust; this will be submitted within six months of report completion (final report only);
- A digital report and archive (including photographic and drawn) data will be provided to Royal Commission on Ancient and Historic Monuments, Wales (final report only);
- Submission of digital information to the Royal Commission on the Ancient and Historical Monuments of Wales shall be undertaken in accordance with the RCAHMW Guidelines for Digital Archives Version 1. Digital information will include the photographic archive and associated metadata;
- Dependent on the results of the watching brief a summary note or a specific article
  will be included in the Council for British Archaeology Wales publication Archaeology
  in Wales. This shall be agreed with GAPS, and client in advance of publication along
  with all publication content. GAPS involvement in the project will be acknowledged
  therein.

#### 6. PERSONNEL

The project will be managed by John Roberts, Principal Archaeologist GAT Contracts Section and attended by a team of project archaeologists. The project archaeologist will be responsible for the watching brief, including all field management duties, e.g., GAPS liaison, main contractor liaison, osteologist or palaeoenvironmentalist liaison (if relevant). The project archaeologist will be responsible for completing the watching brief record sheets as well as all other on site pro-formas and the fieldwork archive itemised in <u>para. 3.9</u>. The project archaeologist will also be responsible for submitting a draft final report (or interim report) for project manager review and approval. The report will then be submitted as per the arrangements defined in <u>para. 5</u>.

#### 7. HEALTH AND SAFETY

The GAT Project Archaeologist(s) will be CSCS certified. Copies of the site specific risk assessment will be supplied to the client and site contractor prior to the start of fieldwork. Any risks and hazards will be indicated prior to the start of work via a submitted risk assessment. All staff will be issued with required personal safety equipment, including high visibility jacket, steel toe-capped boots and hard hat.

#### 8. INSURANCE

#### **Public Liability**

Limit of Indemnity- £5,000,000 any one event in respect of Public Liability

INSURER Aviva Insurance Limited

POLICY TYPE Public Liability

POLICY NUMBER 24765101CHC/000405

EXPIRY DATE 22/06/2017

#### **Employers Liability**

Limit of Indemnity- £10,000,000 any one occurrence.

The cover has been issued on the insurers standard policy form and is subject to their usual terms and conditions. A copy of the policy wording is available on request.

**INSURER** Aviva Insurance Limited

POLICY TYPE Employers Liability

POLICY NUMBER 24765101CHC/000405

EXPIRY DATE 22/06/2017

#### **Professional Indemnity**

Limit of Indemnity- £5,000,000 in respect of each and every claim

**INSURER Hiscox Insurance Company Limited** 

POLICY TYPE Professional Indemnity

**POLICY NUMBER** 

HU PI 9129989/1208

EXPIRY DATE 23/07/2017

#### 9. SOURCES CONSULTED

Brunning, R and Watson, J 2010 Waterlogged Wood: Guidelines on the Recording, Sampling, Conservation and Curation of Waterlogged Wood (3<sup>rd</sup> ed). Swindon: English Heritage

Cadarn Consulting Engineers Drawing No. EL (9-) 01 A

Cadarn Consulting Engineers Drawing No. EL (9-) 08

English Heritage, 1991, Management of Archaeological Projects

English Heritage 1995 Guidelines for the Care of Waterlogged Archaeological Leather . Scientific and Technical Guidelines 4. London: English Heritage

Grwp Cynefin Drawing No. A.00.1

Gwyn, D and Thompson, D 2001 Historic Landscape Characterisation, Caernarfon/Nantlle – Area 16 Waunfawr <a href="http://www.heneb.co.uk/hlc/caernarfon-nantlle/caer16.html">http://www.heneb.co.uk/hlc/caernarfon-nantlle/caer16.html</a>

Gwynedd County Council planning application C17/0273/26/LL

Historic England, 2004. Human Bones from Archaeological Sites Guidelines for producing assessment documents and analytical reports

Historic England, 2011, Environmental Archaeology: a guide to the theory and practice of methods, from sampling and recovery to post-excavation

Historic England, 2015, Management of Research Projects in the Historic Environment (MoRPHE).

Ordnance Survey 1-inch to 25-mile County Series Map Sheets XVI.04, XVI.08, XVII.05 and XVII.01 First Edition (1889 & 1890)

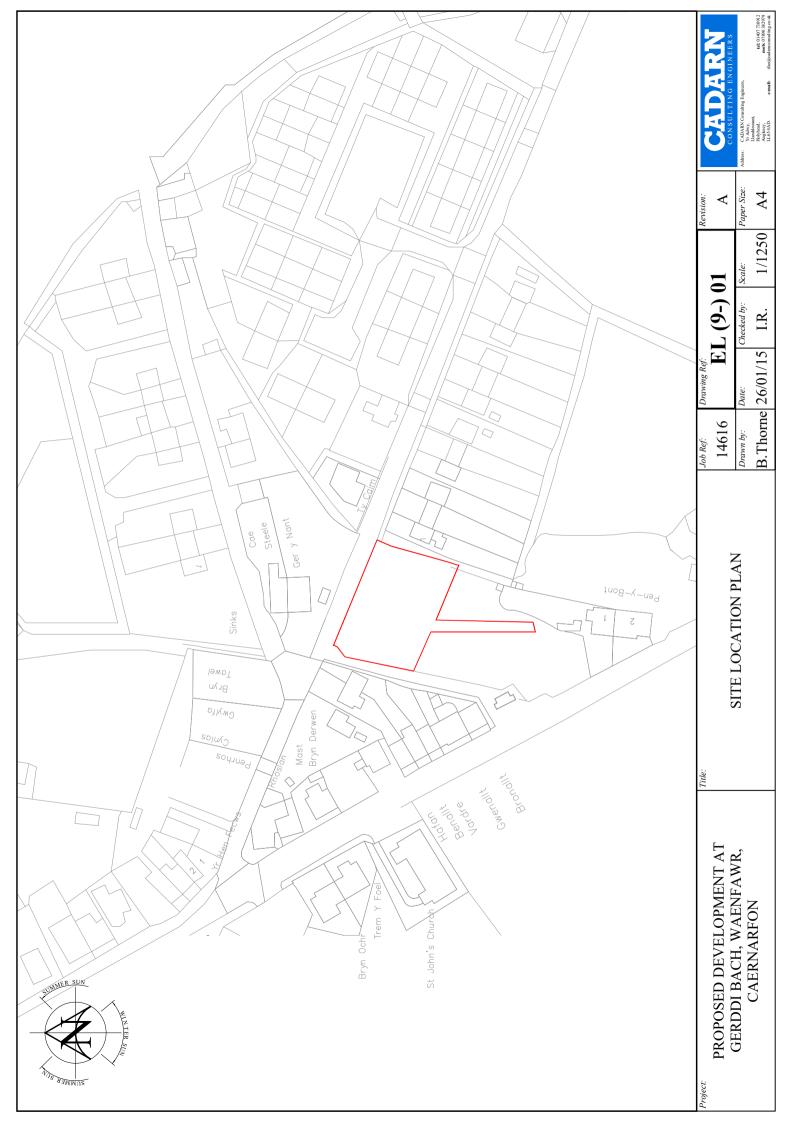
Ordnance Survey 1-inch to 25-mile County Series Map Sheets XVI.04, XVI.08, XVII.05 and XVII.01 Second Edition (1900)

Ordnance Survey 1-inch to 25-mile County Series Map Sheets XVI.04, XVI.08, XVII.05 and XVII.01 Third Edition (1914)

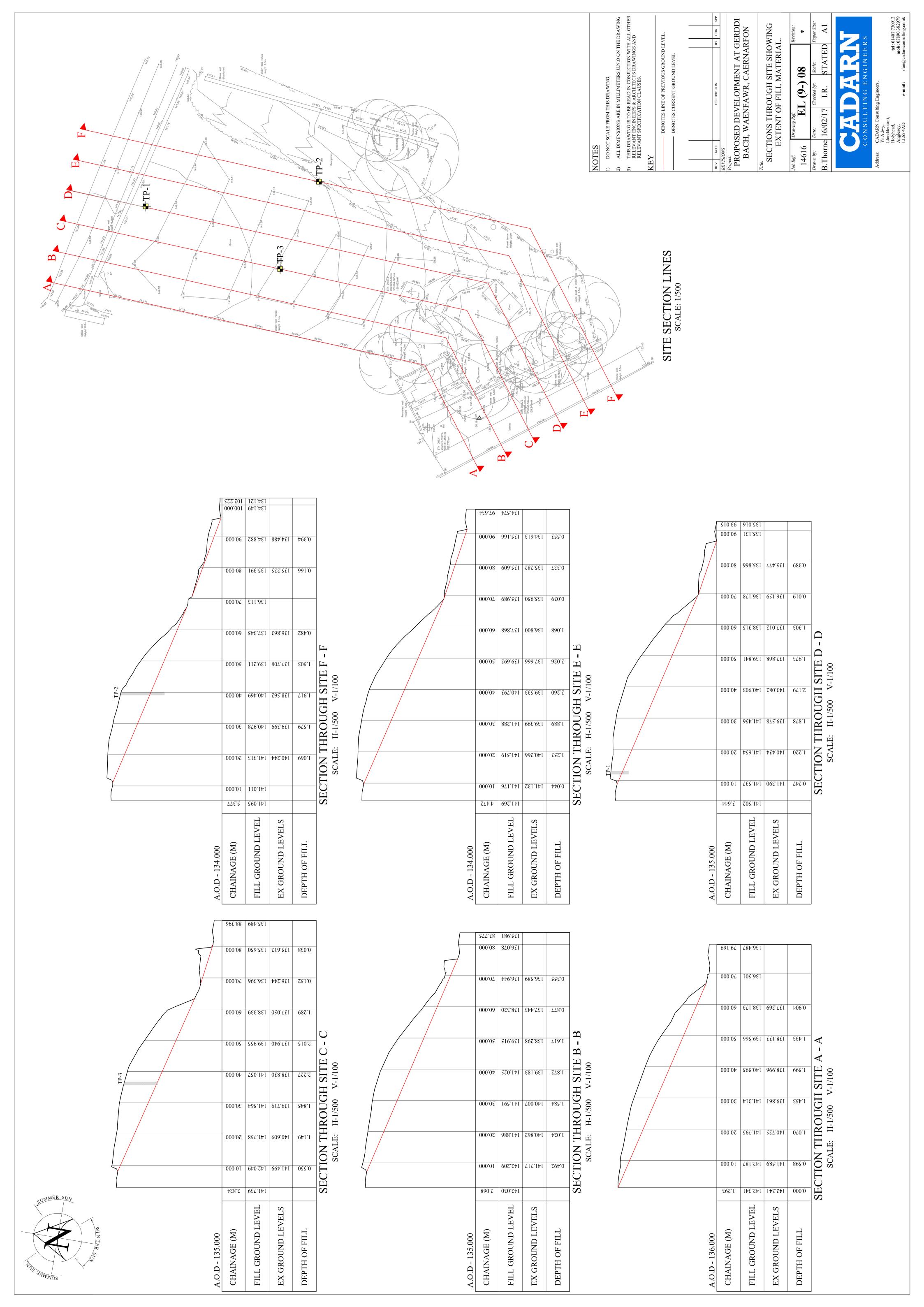
Royal Commission on Ancient and Historic Monuments of Wales 2015 *Guidelines for digital* archives

Standard and Guidance for an archaeological watching brief (Chartered Institute for Archaeologists, 2014).

Reproduction of Site Location Plan Drawing No. EL (9-) 01 A, detailing the watching brief area. Scale: 1:1250@A4.



Reproduction of GI Locations Drawing No. EL (9-) 08, detailing GI locations. Scale 1:100 and 1:500@A1



Reproduction of Ordnance Survey 1-inch to 25-mile County Series Map Sheet XVI.10 First Edition (1889), including Grwp Cynefin watching brief area. Scale: 1:1250@A4.

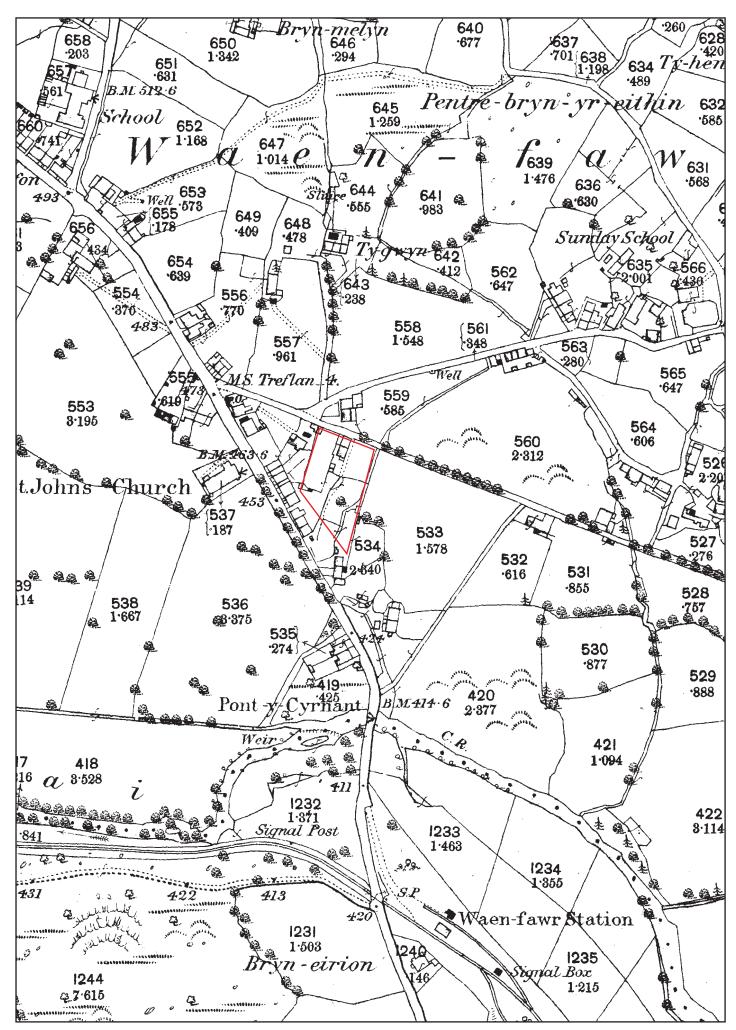


Figure 03: Reproduction of Ordnance Survey 1-inch to 25-mile County Series Map Sheet XVI.10 First Editon (1889) including Grwp Cynefin watching brief area. Scale 1:1250@A4.

Reproduction of Ordnance Survey 1-inch to 25-mile County Series Map Sheet XVI.10 Second Edition (1900), including Grwp Cynefin watching brief area. Scale: 1:1250@A4.

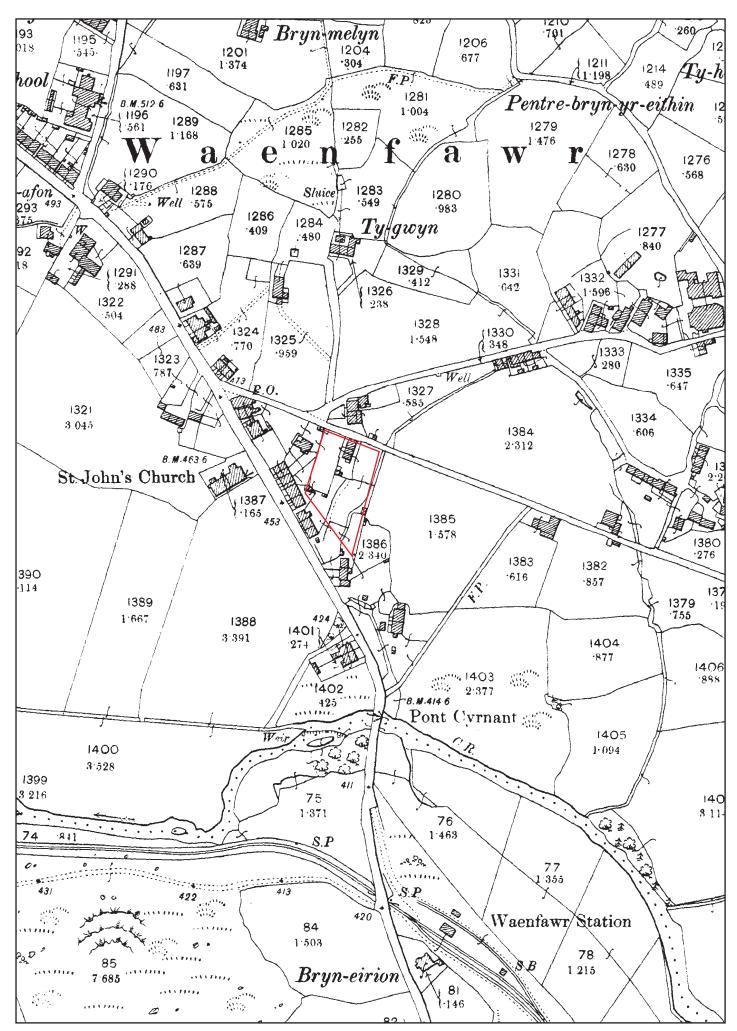


Figure 04: Reproduction of Ordnance Survey 1-inch to 25-mile County Series Map Sheet XVI.10 Second Editon (1900) including Grwp Cynefin watching brief area. Scale 1:1250@A4.

Reproduction of Ordnance Survey 1-inch to 25-mile County Series Map Sheet XVI.10 Third Edition (1914), including Grwp Cynefin watching brief area. Scale: 1:1250@A4.

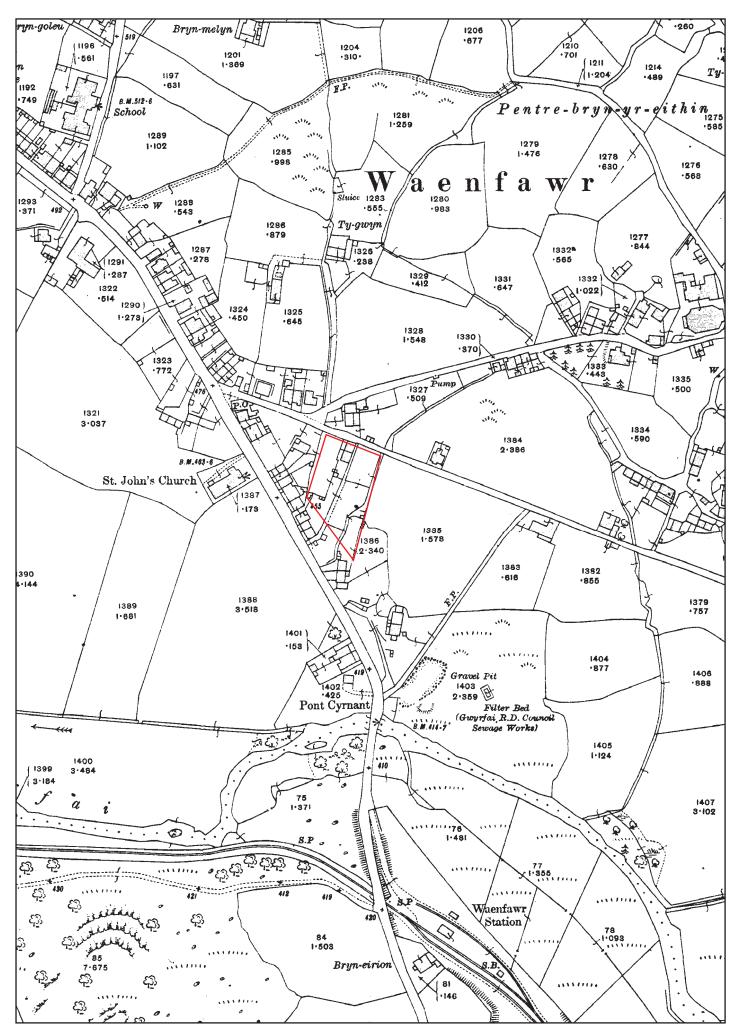


Figure 05: Reproduction of Ordnance Survey 1-inch to 25-mile County Series Map Sheet XVI.10 Third Editon (1914) including Grwp Cynefin watching brief area. Scale 1:1250@A4.

# **APPENDIX I**

Gwynedd Archaeological Trust photographic metadata pro-forma

# Ymddiriedolaeth Archaeolegol Gwynedd Gwynedd Archaeological Trust

# Digital Photographic Record

Include main context numbers for each shot, drawing numbers for sections and any other relevant numbers for cross referencing.

Delete any unwanted photos **immediately** from the camera.

Regularly upload photographs to computer.

Projec	Project Name:		Project Number:				
Photo No.	Trench	Description	Contexts	Scales	View From	Initials	Date

# **APPENDIX II**

**Gwynedd Archaeological Trust watching brief pro-forma** 

YMDDIRIEDOLAETH ARCHAEOLEGOL GW	YNEDD ARCHAEOLOGICA	L TRUST
WATCHING BRIEF DAY RECORD		Date
Project name	Project number	Compiler
Location		
Description		
Times of travelling and on-site		
Drawn record details		
Photographic record details		

# **APPENDIX I**

Reproduction of Gwynedd Archaeological Trust project design for an archaeological watching brief

# **APPENDIX II**

**Gwynedd Archaeological Trust photographic metadata** 

File	Project	Project		View	Scale			Originating	Originating	Plate
reference	name	phase	Description	from	(s)	Туре	Date	person	organisation	
G2525_001	Gerddi Bach, Waunfawr	Watching Brief	Entrance to Gerddi Bach - seen from outside	NW	1 x 1m	Photograph	24/05/2017	Ken Owen	Gwynedd Archaeological Trust	01
G2525_002	Gerddi Bach, Waunfawr	Watching Brief	Entrance to Gerddi Bach - seen from inside	SE	1 x 1m	Photograph	24/05/2017	Ken Owen	Gwynedd Archaeological Trust	02
G2525_003	Gerddi Bach, Waunfawr	Watching Brief	Pre-ex of site	NW	1 x 1m	Photograph	24/05/2017	Ken Owen	Gwynedd Archaeological Trust	03
G2525_004	Gerddi Bach, Waunfawr	Watching Brief	Post-ex of TP01	NE	1 x 1m	Photograph	24/05/2017	Ken Owen	Gwynedd Archaeological Trust	04
G2525_005	Gerddi Bach, Waunfawr	Watching Brief	Section of TP01	ESE	1 x 1m	Photograph	24/05/2017	Ken Owen	Gwynedd Archaeological Trust	05
G2525_006	Gerddi Bach, Waunfawr	Watching Brief	Post-ex of TP01 showing SW facing section	SW	1 x 1m	Photograph	24/05/2017	Ken Owen	Gwynedd Archaeological Trust	06
G2525_007	Gerddi Bach, Waunfawr	Watching Brief	Working shot of TP02	ESE	-	Photograph	24/05/2017	Ken Owen	Gwynedd Archaeological Trust	07
G2525_008	Gerddi Bach, Waunfawr	Watching Brief	Working shot of TP02	NE	-	Photograph	24/05/2017	Ken Owen	Gwynedd Archaeological Trust	08
G2525_009	Gerddi Bach, Waunfawr	Watching Brief	Working shot of TP03	SSW	-	Photograph	24/05/2017	Ken Owen	Gwynedd Archaeological Trust	09
G2525_010	Gerddi Bach, Waunfawr	Watching Brief	Mid-ex shot of TP03	SSW	-	Photograph	24/05/2017	Ken Owen	Gwynedd Archaeological Trust	10

File reference	Project name	Project phase	Description	View from	Scale (s)	Туре	Date	Originating person	Originating organisation	Plate
G2525_011	Gerddi Bach, Waunfawr	Watching Brief	Section of TP03 showing demolition, building material	W	1 x 1m	Photograph	24/05/2017	Ken Owen	Gwynedd Archaeological Trust	11
G2525_012	Gerddi Bach, Waunfawr	Watching Brief	Section of TP03 showing demolition, building material - very poor sun affected shot!	W	-	Photograph	24/05/2017	Ken Owen	Gwynedd Archaeological Trust	12
G2525_013	Gerddi Bach, Waunfawr	Watching Brief	Section of TP03 showing demolition, building material	W	1 x 1m	Photograph	24/05/2017	Ken Owen	Gwynedd Archaeological Trust	13
G2525_014	Gerddi Bach, Waunfawr	Watching Brief	Post-ex of TP03	SSW	1 x 1m	Photograph	24/05/2017	Ken Owen	Gwynedd Archaeological Trust	14
G2525_015	Gerddi Bach, Waunfawr	Watching Brief	Shot showing bedrock in TP02	NW	1 x 1m	Photograph	24/05/2017	Ken Owen	Gwynedd Archaeological Trust	15
G2525_016	Gerddi Bach, Waunfawr	Watching Brief	Post-ex shot of TP02 (furthest), and TP03 (nearest)	S	-	Photograph	24/05/2017	Ken Owen	Gwynedd Archaeological Trust	16



