Cotswold Archaeology

Air Insulated Substation
Llandyfaelog
Carmarthenshire

Archaeological Monitoring and Recording

for:
Stantec

on behalf of:
National Grid

CA Project: CR1636
CA Report: CR1636_1

May 2024

Andover Cirencester Milton Keynes Suffolk

Air Insulated Substation
Llandyfaelog
Carmarthenshire

Archaeological Monitoring and Recording

CA Project: CR1636
CA Report: CR1636_1

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A	10 May 2024	Noel Boothroyd	Alex Thomson	Draft	Consultant Comment	Steven Sheldon
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LIST OF ILLUSTRATIONS

SUMMARY

Project name:	Air Insulated Substation
Location:	Llandyfaelog, Carmarthenshire
NGR:	241874 213379
Type:	Watching brief
Date:	18 March to 5 April 2024
Location of Archive:	To be deposited with National Museum of Wales (Cardiff) and the Archaeology Data Service (ADS)

In March and April 2024, Cotswold Archaeology carried out a programme of archaeological monitoring and recording during groundworks associated with geotechnical works at a proposed Air Insulated Substation, Llandyfaelog, Camarthenshire.

No features or deposits of archaeological interest were observed during the groundworks and no artefactual material pre-dating the modern period was observed or recovered.

Ym mis Mawrth a mis Ebrill 2024, cynhaliodd Cotswold Archaeology raglen o fonitro a chofnodi archeolegol yn ystod gwaith daear yn gysylltiedig â gwaith geodechnegol ar is-orsaf arfaethedig wedi'i hinswleiddio ag aer, Llandyfaelog, Sir Gaerfyrddin.

Ni welwyd unrhyw nodweddion na darnau o ddiddordeb archaeolegol yn ystod gwaith paratoi'r pridd, ac ni ddaethpwyd o hyd i unrhyw arteffactau.

1. INTRODUCTION

1.1. In March and April 2024, Cotswold Archaeology (CA) carried out a programme of archaeological monitoring and recording at a proposed Air insulated Substation, Llandyfaelog, Carmarthenshire (centred at NGR: 241874 213379; Fig. 1). This programme of archaeological monitoring and recording was undertaken for Stantec, who were acting on behalf of National Grid.

1.2. Ground Investigation (GI) works were undertaken to inform a forthcoming planning application for the construction of a new Air Insulated Substation, which will be submitted to Carmarthenshire County Council (CCC).

1.3. The scope of the archaeological monitoring and recording was defined by Stantec following consultation with Dyfed Archaeological Trust (DAT; now Heneb: The Welsh Archaeological Trust), which established the need for archaeological monitoring and recording. The archaeological monitoring and recording was carried out in accordance with a Written Scheme of Investigation (WSI) prepared by CA (CA 2024) and approved by Heneb.

1.4. The archaeological monitoring and recording was also undertaken in line with:

- *Standard for archaeological monitoring and recording* (CIfA 2023);
- *Universal guidance for archaeological monitoring and recording* (CIfA 2023);
- *Management of Research Projects in the Historic Environment (MoRPHE) PPN 3: Archaeological Excavation* (Historic England 2015); and
- *Management of Research Projects in the Historic Environment: The MoRPHE Project Managers' Guide* (Historic England 2015).
- *Code of Conduct* (CIfA 2022)

1.5. It is to be noted that Historic England guidance was used throughout the WSI in the absence of any Welsh equivalents.

The site

1.6. The proposed development site is approximately 9.5ha in extent and currently comprises portions of eleven fields. It is located approximately 1.6km to the north of Llandyfaelog in a landscape characterised by arable farming. The site lies at approximately 120m AOD in the north-west, sloping south-eastwards to reach *c*. 110m AOD.

1.7. The underlying bedrock geology of the site is mapped as argillaceous and sandstone bedrock of the Milford Haven Group, which formed in the Silurian and Devonian periods, with no overlying superficial deposits recorded (BGS 2024). The natural geological substrate identified during the course of the archaeological monitoring and recording consisted of red-brown clay with mudstone/siltstone.

2. ARCHAEOLOGICAL BACKGROUND

2.1. A Level 1 Survey of the site has been prepared by Stantec (2023). The following is a summary of this survey and of publicly available information regarding the site and its immediate vicinity, including information taken from the Dyfed Historic Environment Record (DHER).

2.2. There are two previous archaeological records from within the site, both relating to the Pontyates to Bancyfelin Gas Pipeline. These comprise a Desk-Based Assessment and an Archaeological Assessment (Crane 2000), which included fieldwalking but no intrusive works (Stantec 2023).

2.3. There is no direct evidence for prehistoric settlement in the vicinity of the site; however, the wider landscape of the valley sides above the River Towy are known to have been settled during this period. Five prehistoric records are noted within the site's vicinity by the DHER, including a possible standing stone of prehistoric date (DHER ref: 11288), a Bronze Age burnt mound recorded *c*. 735m to the north-west of the site (ref: 42757), a possible Bronze Age barrow recorded immediately to the north of the burnt mound (ref: 5357), and a further record a possible standing stone, 950m north-west of the site (Stantec 2023).

2.4. Two Roman records are recorded within the vicinity of the site, and Carmarthen (*Moridunum*) was a regional centre during the Roman period, with roads linking forts at Loughor and Neath. The route of the *Via Julia Maritima* road, linking Carmarthen and Loughour via Kidwelly is projected to pass through the site (Stantec 2023). Although the exact course of the road is uncertain, it is thought to run directly from Carmarthen to Kidwelly, directly through Llandyfaelog. The route of the road is fossilised in the minor road 'Heol y Lan' in Idole, 1.5km to the north-east of the site. Earthworks shown on LiDAR surveys at Fforest Uchaf, 1.2km to the north-east of the site have been interpreted as a 500m long stretch of the agger. Aerial photography undertaken during the drought of 2018 identified a parchmark with an associated roadside ditch at Bwlch y Gwynt, approximately 150m north-east of the site (Driver

et. al 2020; Driver 2021). There is therefore some possibility for Roman roadside settlement activity within the site.

2.5. The site is likely to have been in agricultural use throughout the medieval and post-medieval periods. St Maelog's Church in Llandyfaelog has 12th-century origins; the church was in the gift of the Lords of the Manor of Kidwelly and the site likely formed part of the agricultural hinterland of the settlement surrounding the church.

2.6. The site is covered by the Plan of the Parish of Llandyfaelog in the County of Carmarthen tithe map of 1844, and a linear cropmark (ref: 40851) within the site is thought to relate to a field boundary depicted on the tithe map; however, the dating of this boundary is unknown (Stantec 2023). Some of the field names within the accompanying apportionment include 'Park' references, which could indicate that the land formerly belonged to part of a parkland landscape or estate.

3. AIMS AND OBJECTIVES

3.1. The general objectives of the archaeological monitoring and recording were:

- to monitor the GI works, and to identify, investigate and record any significant buried archaeological deposits/features thus revealed;
- at the conclusion of the project, to produce a report setting out the archaeological monitoring and recording results and the archaeological conclusions that can be drawn from the recorded data;
- at the conclusion of the project, to compile a stable, ordered, accessible project archive (see Section 5).

3.2. The specific objective of the watching brief was to investigate and record any remains associated with the possible Roman road that may pass through the site that may have been exposed by the proposed geotechnical works.

4. METHODOLOGY

4.1. The watching brief comprised the observation by a competent archaeologist of all intrusive groundworks associated with the geotechnical works. These works comprised the machine excavation of eighteen geotechnical test pits (Fig. 2). The test pits measured up to 3m in length by 0.6m in width, and were excavated to depths of between 0.6m and 2.7m below present ground level (bpgl).

4.2. Records were maintained in accordance with *CA Technical Manual 1: Fieldwork Recording Manual*.

4.3. Deposits were assessed for their palaeoenvironmental potential, but no deposits were identified that required sampling.

4.4. CA will make arrangements with the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW) for the deposition of the project archive. A digital archive will also be prepared and deposited with the Archaeology Data Service (ADS). The archives (museum and digital) will be prepared and deposited in accordance with *Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives* (CIfA 2014; updated October 2020).

4.5. A summary of information from this project, as set out in Appendix B, will be entered onto the OASIS online database of archaeological projects in Britain and/or for submission to the Heneb Historic Environment Record (HER).

5. RESULTS

5.1. This section provides an overview of the archaeological monitoring and recording results. Detailed summaries of the recorded contexts are given in Appendix A.

5.2. A broadly analogous stratigraphic sequence was recorded throughout the site. The natural geological substrate, comprising red-brown clay with mudstone/siltstone, was encountered at an average depth of 0.4m bpgl within all of the excavated test pits. This was overlain by a silty clay subsoil, averaging 0.2m in thickness, which was in turn sealed by topsoil.

5.3. No features or deposits of archaeological interest were observed and no artefactual material pre-dating the modern period was observed or recovered.

6. DISCUSSION

6.1. Despite the archaeological potential of the application area (see *Archaeological Background*, above), the programme of archaeological monitoring and recording identified no archaeological remains within the area of observed groundworks.

6.2. The absence of archaeological deposits may indicate that archaeological remains associated with a possible Roman road either do not extend as far as or were not exposed by the geotechnical groundworks. However, as the test pits excavated

during the current works were limited in size and distribution, it cannot be stated with certainty that archaeological deposits do not exist within the site.

7. CA PROJECT TEAM

7.1. Fieldwork was undertaken by Noel Boothroyd and Will Lewis. This report was written by Noel Boothroyd. The report illustrations were prepared by Charlie Patman. The project archive has been compiled and prepared for deposition by Hazel O'Neill. The project was managed for CA by Alex Thomson.

8. REFERENCES

BGS (British Geological Survey) 2024 *BGS Geology Viewer* https://www.bgs.ac.uk/map-viewers/bgs-geology-viewer/ Accessed 19 January 2024

CA (Cotswold Archaeology) 2024 *Air Insulated Substation, Llandyfaelog, Carmarthenshire: Written Scheme of Investigation for Archaeological Monitoring and Recording*

Crane, P. 2000 *Pontyates to Bancyfelin Gas Pipeline Route Archaeological Assessment. Cambria Archaeology*

Driver, T. 2021 'Aerial archaeology in Wales during the 2018 drought: major discoveries', in *Archaeology in Wales* **59**, 96-114.

Driver, T., Burnham, B C, and Davies, J. L. 2020 'Roman Wales: Aerial Discoveries and New Observations from the Drought of 2018', in *Britannia* **51**, 1-29.

Stantec 2023 *Llandyfaelog – Level 1 Survey*

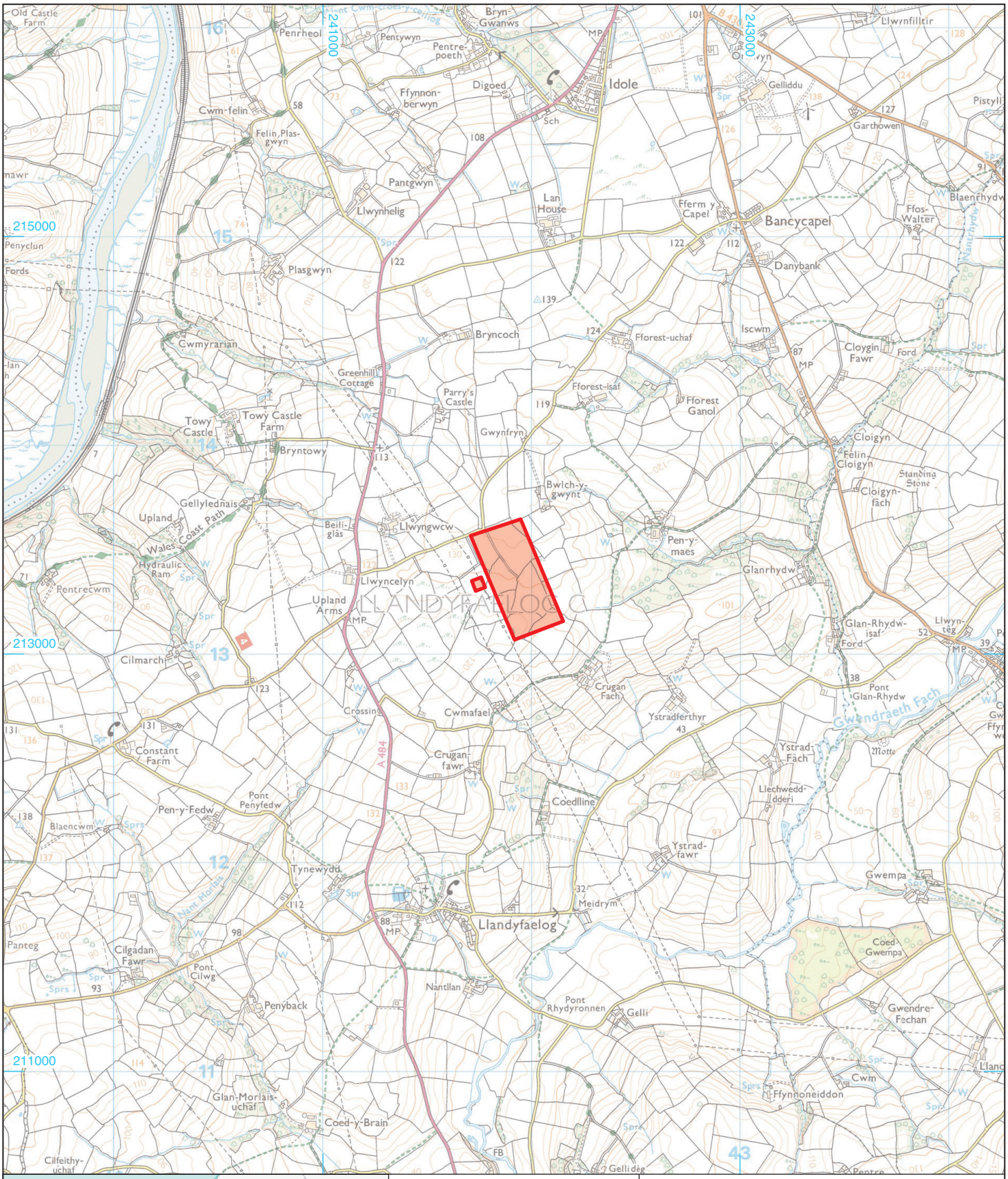
APPENDIX A: CONTEXT DESCRIPTIONS

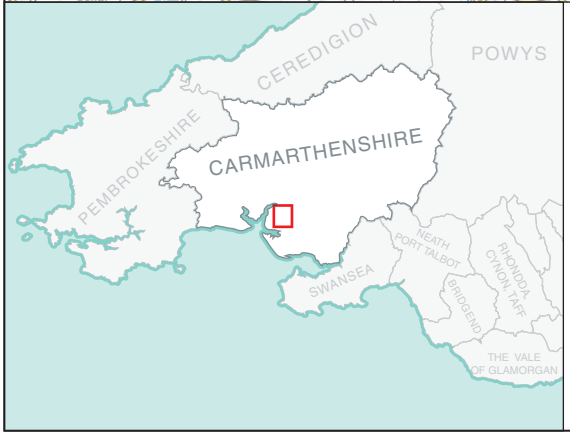
Test pit	Context No.	Type	Fill of	Interpretation	Description	Length (m)	Width (m)	Depth/ thickness (m)
1	100	Layer		Topsoil	Dk red-brown clayey silt	2.2	0.6	0.15
1	101	Layer		Subsoil	Mid red-brown silty clay	2.2	0.6	0.2
1	102	Layer		Natural	Red-brown clay and stone	2.2	0.6	0.3
2	200	Layer		Topsoil	Dk red-brown clayey silt	2	0.6	0.15
2	201	Layer		Subsoil	Mid red-brown silty clay	2	0.6	0.2
2	202	Layer		Natural	Red-brown clay and stone	2	0.6	
3	300	Layer		Topsoil	Dk red-brown clayey silt	3	0.6	0.2
3	301	Layer		Subsoil	Yellow-grey clay	3	0.6	0.2
3	302	Layer		Natural	Red-brown clay and stone	3	0.6	0.8
4	400	Layer		Topsoil	Dk red-brown clayey silt	2	0.6	0.25
4	401	Layer		Subsoil	Yellow-grey clay	2	0.6	0.35
4	402	Layer		Natural	Red-brown clay and stone	2	0.6	
5	500	Layer		Topsoil	Dk red-brown clayey silt	2	0.6	0.15
5	501	Layer		Subsoil	Mid red-brown silty clay	2	0.6	0.2
5	502	Layer		Natural	Red-brown clay and stone	2	0.6	>1.65
6	600	Layer		Topsoil	Dk red-brown clayey silt	3.2	0.6	0.15
6	601	Layer		Subsoil	Mid yellow-brown silty clay	3.2	0.6	0.2
6	602	Layer		Natural	Mid red-brown clay and stone	3.2	0.6	1
7	700	Layer		Topsoil	Dk red-brown clayey silt	2	0.6	0.2
7	701	Layer		Subsoill	Yellow-grey clay	2	0.6	0.4
7	702	Layer		Natural	Red-brown clay and stone	2	0.6	
8	800	Layer		Topsoil	Dk red-brown clayey silt	2	0.6	0.15
8	801	Layer		Subsoil	Mid red-brown silty clay	2	0.6	0.2
8	802	Layer		Natural	Red-brown clay and stone	2	0.6	>1.15
9	900	Layer		Topsoil	Dk red-brown clayey silt	1.3	1.1	0.2
9	901	Layer		Subsoil	Yellow-brown silty clay	1.3	1.1	0.1
9	902	Layer		Natural	Mid red-brown clay and stone	1.3	1.1	>0.3
10	1000	Layer		Topsoil	Dk red-brown clayey silt	3.2	0.6	0.15
10	1001	Layer		Subsoil	Mid yellow-brown and light grey clay	3.2	0.6	0.15
10	1002	Layer		Natural	Red-brown clay and stone stonier with depth	3.2	0.6	0.8
11	1100	Layer		Topsoil	Dk red-brown clayey silt	3.2	0.6	0.2
11	1101	Layer		Subsoil	Yellow-brown silty clay	3.2	0.6	0.3
11	1102	Layer		Natural	Mid red-brown clay and stone	3.2	0.6	0.6
12	1200	Layer		Topsoil	Dk red-brown clayey silt	2.5	0.6	0.15
12	1201	Layer		Subsoil	Mid yellow-brown silty clay	2.5	0.6	0.2
12	1202	Layer		Natural	Mid red-brown clay and stone	2.5	0.6	0.55
13	1300	Layer		Topsoil	Dk red-brown clayey silt	2.8	0.7	0.15
13	1301	Layer		Natural	Red-brown clay and grey mudstone/siltstone	2.8	0.7	0.45
14	1400	Layer		Topsoil	Dk red-brown clayey silt	3	0.6	0.2
14	1401	Layer		Subsoil	Mid red-brown silty clay	3	0.6	0.4
14	1402	Layer		Natural	Mid red-brown clay and grey mudstone/siltstone	3	0.6	1.1
15	1500	Layer		Topsoil	Dk red-brown clayey silt	1.4	0.6	0.25

Test pit	Context No.	Type	Fill of	Interpretation	Description	Length (m)	Width (m)	Depth/ thickness (m)
15	1501	Layer		Subsoil	Mid yellow-brown silty clay	1.4	0.6	0.25
15	1502	Layer		Natural	Mid red-brown clay and stone	1.4	0.6	>1
16	1600	Layer		Topsoil	Dk red-brown clayey silt	1.3	0.6	0.2
16	1601	Layer		Subsoil	Mid red-brown silty clay	1.3	0.6	0.3
16	1602	Layer		Natural	Mid red-brown clay and stone	1.3	0.6	>0.1
17	1700	Layer		Topsoil	Dk red-brown clayey silt	1.2	1	0.2
17	1701	Layer		Subsoil	Yellow-brown silty clay	1.2	1	0.1
17	1702	Layer		Natural	Mid red-brown clay and stone	1.2	1	>0.1
18	1800	Layer		Topsoil	Dk red-brown clayey silt	1.5	1	0.2
18	1801	Layer		Subsoil	Mid yellow-brown silty clay	1.5	1	0.1
18	1802	Layer		Natural	Mid red-brown clay and stone	1.5	1	>0.2

APPENDIX B: OASIS/HENEB HER REPORT FORM

PROJECT DETAILS		
Project name	Air Insulated Substation, Llandyfaelog, Carmarthenshire	
Short description (English)	In March and April 2024, Cotswold Archaeology carried out a programme of archaeological monitoring and recording during groundworks associated with geotechnical works at a proposed Air Insulated Substation, Llandyfaelog, Camarthenshire. No features or deposits of archaeological interest were observed during the groundworks and no artefactual material pre-dating the modern period was observed or recovered.	
Short description (Welsh)	*Ym mis Mawrth a mis Ebrill 2024, cynhaliodd Cotswold Archaeology raglen o fonitro a chofnodi archeolegol yn ystod gwaith daear yn gysylltiedig â gwaith geodechnegol ar is-orsaf arfaethedig wedi'i hinswleiddio ag aer, Llandyfaelog, Sir Gaerfyrddin.* *Ni welwyd unrhyw nodweddion na darnau o ddiddordeb archaeolegol yn ystod gwaith paratoi'r pridd, ac ni ddaethpwyd o hyd i unrhyw arteffactau.*	
Project dates	18 March to 5 April 2024	
Project type	Archaeological Monitoring and Recording	
Previous work	Level 1 Survey (Stantec 2023)	
Future work	Unknown	
PROJECT LOCATION		
Site location	Llandyfaelog, Carmarthenshire	
Study area (m^2/ha)	9.5ha	
Site co-ordinates	241874 213379	
PROJECT CREATORS		
Name of organisation	Cotswold Archaeology	
Project design (WSI) originator	Cotswold Archaeology	
Project Manager	Alex Thomson	
Project Supervisor	Noel Boothroyd	
MONUMENT TYPE	None	
SIGNIFICANT FINDS	None	
PROJECT ARCHIVES	**Intended final location of archive**	**Content**
Physical	N/A	N/A
Paper	Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW)	Trench sheets, photographic register
Digital	RCAHMW/ADS	Digital photos
BIBLIOGRAPHY		
Cotswold Archaeology 2024 *Air Insulated Substation, Llandyfaelog, Carmarthenshire: Archaeological Monitoring and Recording,* CA typescript report CR1636_1		





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PROJECT TITLE

Llandyfaelog Substation, Carmarthenshire

FIGURE TITLE

Site location plan

DRAWN BY	**CRP**	*PROJECT NO.*	**CR1636**	*FIGURE NO.*
CHECKED BY	**DJB**	*DATE*	**03/05/2024**	**1**
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241600
241800
242000
242100
213600
213400
213200

TP1
TP3
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TP5
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TP6
TP18
TP4
TP17
TP7
TP8
TP10
TP9
TP11
TP15
TP12
TP14
TP13

N

Site boundary
Test pit

0 1:2000 100m

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PROJECT TITLE
Llandyfaelog Substation, Carmarthenshire

FIGURE TITLE
The site, showing location of monitored groundworks

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CHECKED BY	DJB	DATE	03/05/2024	2
APPROVED BY	AT	SCALE@A3	1:2000	

The site, looking south

Test pit 11, looking north (scale 1m)

Test pit 13, looking north (scale 1m)

Test pit 17, looking north-east (scale 1m)

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PROJECT TITLE

Llandyfaelog Substation, Carmarthenshire

FIGURE TITLE

Photographs

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