

PLASPARCIAU WIND TURBINE, LLANWINIO, CARMARTHENSHIRE: ARCHAEOLOGICAL WATCHING BRIEF 2015 (NGR SN 25011 28289)



View from north end of development area with crane pad in the foreground.



Prepared by DAT Archaeological Services
For: AGR Renewables



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RHIF Y PROSIECT / EVENT RECORD NO. 108544

RHIF YR ADRODDIAD / REPORT NO. 2015/41

Mehefin 2015

June 2015



PLASPARCAU WIND TURBINE, CWMBACH, CARMARTHENSHIRE: ARCHAEOLOGICAL WATCHING BRIEF 2015

Gan / By

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**PLASPARCAU WIND TURBINE, CWMBACH, CARMARTHENSHIRE:
ARCHAEOLOGICAL WATCHING BRIEF 2015**

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**ALTERATIONS TO LAVENDER COTTAGE,LYDSTEP, PEMBROKESHIRE:
ARCHAEOLOGICAL WATCHING BRIEF**

SUMMARY

A planning application (Planning Application Number W/28058) was submitted to Carmarthenshire County Council for the erection of a single wind turbine with a maximum blade tip height of up to 62m and associated infrastructure including crane pad and access road at Plasparcau, Cwmbach, Carmarthenshire (located at SN 25011 28289).

Due to the number of archaeological sites in close proximity to the proposed development area, including two scheduled ancient monuments (SAMs), the archaeological advisors to Carmarthenshire County Council planning authority recommended that a condition be placed on planning permission requiring the presence of an archaeologist to monitor the ground works.

DAT Archaeological Services were commissioned by AGR Renewables to undertake the archaeological watching brief during ground works associated with the installation of the wind turbine at Plasparcau, Cwmbach, Carmarthenshire.

The development area lies in an area with a considerable number of known archaeological sites, many of which date from the Bronze Age and Iron Age. A review of known archaeological information held on the Dyfed Historic Environment record within 1km of the wind turbine development area produced seven sites (Table 2). These included two Bronze Age round barrows at Castell Mawr (PRNs 3928 and 3929); the Iron Age promontory forts at Castell Mawr (PRN 5072; SAM CM131) and Pencastell (PRN 3941; SAM CM295); the medieval motte of Castell Bach (PRN 5074; SAM CM129); and the site of two post-medieval cottages recorded on earlier mapping (PRNs 22824 & 22851). Approximately 2km to the NW of the development area is situated a line of Bronze Age pond barrows (PRNs 3923, 3924, 8049, 8050 and 8051).

A Written Scheme of Investigation outlining the watching brief aims and objectives was prepared by DAT Archaeological Services and was approved by the archaeological advisor to the planning authority.

Four visits to monitor the ground works were made on between April 27th and April 30th 2015.

No features, finds or deposits of archaeological significance were revealed during the watching brief. Thus the ground works have had a minimal impact on the buried archaeological resource. Nevertheless, this does not preclude the possibility that significant archaeological remains exist in the vicinity of the development.

1. INTRODUCTION

1.1 Project Commission

1.1.1 DAT Archaeological Services were commissioned by AGR Renewables to undertake an archaeological watching brief during groundworks associated with the erection of a wind turbine on land held by Plasparcau, Cwmbach, Carmarthenshire, (centred on SN 25011 28289). (Figure 1).

1.1.2 The requirement for the archaeological works was placed as a condition on planning permission for this development (Planning Application Number. W/28058) recommended by the archaeological advisors to Carmarthenshire County Council (CCC).

1.1.3 The archaeological condition states:

The developer shall ensure that a professionally qualified archaeologist is present during the undertaking of any ground works in the development area, so that an archaeological watching brief can be carried out. The archaeological watching brief will be undertaken to the standards laid down by the Institute of Archaeologists. The Planning Authority will be informed in writing at least two weeks prior to commencement of the development of the name of the said archaeologist.

1.1.4 The archaeological condition was placed on the development as the proposed works could potentially expose, damage or destroy archaeological remains.

1.2 Scope of Project

1.2.1 A Written Scheme of Investigation (WSI) for a watching brief was prepared by DAT Archaeological Services prior to the commencement of works. The WSI was commissioned by AGR Renewables. The WSI outlined methodologies for:

- monitoring ground works in order to identify the presence/absence of any archaeological deposits
- establishing the character, extent and date range for any archaeological deposits to be affected by the proposed ground works
- appropriately investigating and recording any archaeological deposits to be affected by the ground works
- producing an archive and report of any results by which the watching brief should be undertaken.

1.3 Report Outline

1.3.1 This report 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 Record¹ (HER) are identified by their Primary Record Number (PRN) and located by their National Grid Reference (NGR). Sites recorded by the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW) Cofelin database are identified by their National Primary Record Number (NPRN); Dyfed Archaeological Trust Heritage Management – DAT-HM; Scheduled Ancient Monument – SAM; Written Scheme of Investigation – WSI.

1.5 Illustrations

- 1.5.1 Printed map extracts are not necessarily produced to their original scale.

1.6 Timeline

- 1.6.1 The following timeline (Table 1) 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 ² –	1536 – 1750	
Industrial Period –	1750 – 1899	
Modern –	20 th century onwards	

Table 1: Archaeological and Historical Timeline for Wales

¹ Held and managed by Dyfed Archaeological Trust, The Shire Hall, Carmarthen Street, Llandeilo SA19 6AF.

² 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 based on the Ordnance Survey map.

Reproduced from the Ordnance Survey 1:25,000 scale Explorer Map with the permission of The Controller of Her Majesty's Stationery Office,
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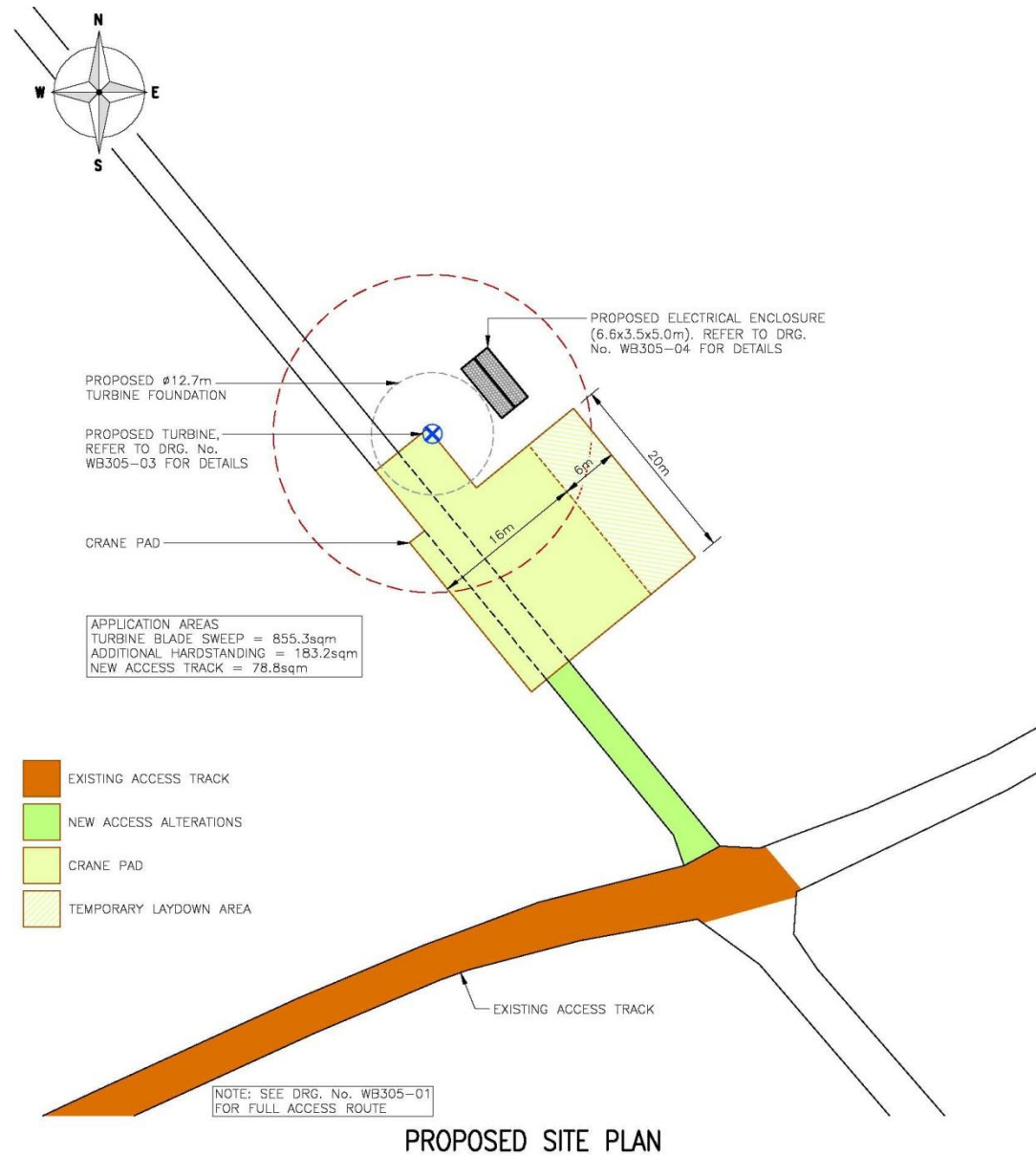


Figure 2: Plasparcau Farm Wind Turbine with proposed access tracks, crane pad and turbine base (plan supplied by client).

PRN No.	Name	Description	National Grid Ref	Period
3928	CASTELL MAWR ROUND BARROW	No archaeological traces of a monument exist in the area indicated by the grid reference, nor in the immediate surrounding area. Site destroyed. NB 2001. Two probable barrows (with PRN 3929), each with a circumference of about 120ft, 4ft in height and 6ft. apart lie on the right bank of a small stream called Sien, within 100 yards of the earthwork known as Castell Mawr, Llanwinio. They appear to be undisturbed. Ordnance Survey site visit 1965	SN245275	Bronze Age
3929	CASTELL MAWR ROUND BARROW	No archaeological traces of a monument exist in the area indicated by the grid reference, nor in the immediate surrounding area. Site destroyed. NB 2001. Two probable barrows (with PRN 3928), each with a circumference of about 120ft, 4ft in height and 6ft. apart lie on the right bank of a small stream called Sien, within 100 yards of the earthwork known as Castell Mawr, Llanwinio. They appear to be undisturbed. Ordnance Survey site visit 1965	SN245275	Bronze Age
3941	PENCASTELL PROMONTORY FORT	Pencastell is a multivallate inland promontory fort with widely spaced ramparts, lying at 170m above sea level, in deciduous woodland. The site is very well defended to the east, north and west by very steep slopes that fall away to streams 40m below. SAM CM295	SN25712895	Prehistoric? Iron Age?
5072	CASTELL MAWR	Castell Mawr occupies a blunt promontory situated 170m above sea level. It is naturally well protected to the south, east and north by slopes that drop steeply to streams c. 30m below. SAM CM131	SN24622730	Iron Age
5074	CASTELL BACH MOTTE	Castell Bach motte is situated in the SW corner of a pasture field and is fenced off from the surrounding area. Very overgrown with trees and bracken. A ditch, c.1.6m deep, surrounds the mound except at the northern side. SAM CM129	SN24772757	Medieval
22824	NANT BYCHAN COTTAGE	Cottage shown on the 1907 6" OS map. Present condition not known. RPS 2001.	SN25042886	Post-Medieval
22851	RHOS PANT COTTAGE	Cottage shown on the 1907 6" OS map. Present condition not known. RPS 2001.	SN24252855	Post-Medieval

Table 2: Known archaeological and historical sites recorded on the regional HER and RCAHMW Coflein database within 1km of the development area (Figure 3).

2. THE SITE

2.1 Location

- 2.1.1 The general topography of the area surrounding the proposed development is characterized by a rolling plateau ranging between 200m and 230m above sea level with steep wooded valleys on either side. The development site borders the southern edge of what was once Llanwinio Common; a tract of land approximately 2kms long that has subsequently been divided into fields. An unclassified road, which has the potential of being an ancient trackway, runs along the top of the plateau. The proposed development site lies in a large field, 160m to the east of the road. The village of Blaenwaun lies 1.7km to the southwest of the site and the hamlet of Llanwinio 2km southeast (Figure 1).
- 2.1.2 The field within which the proposed development is located is assigned to pasture and measures approximately 300m by 400m and slopes gently downhill from southeast to northwest. It is bordered on its west side by an unclassified road and to the north by a rough farm track which leads to several holdings. Running down the centre of the field is an informal track which the development utilized to enable access to the site (Photo 1).
- 2.1.3 The development area measures approximately 40m by 20m on gently sloping ground just above the 200m contour.
- 2.1.4 The underlying geology consists of Nantmel mudstones; sedimentary bedrock of the Ordovician Period.

2.2 Archaeological and Historical Background

- 2.2.1 A number of known archaeological sites, many of which date from the Bronze Age and Iron Age lie in close vicinity to the proposed development. A review of known archaeological information held on the Dyfed Historic Environment record 7 sites within 1km of the development site (Table 1). These include 2 Bronze Age round barrows (burial mounds) at Castell Mawr (PRNs 3928 & 3929); 2 Iron Age promontory Forts at Pencastell (PRN 3941) and Castell Mawr (PRN 5072); the medieval motte of Castell Bach (PRN 5074); and the sites of 2 post-medieval cottages recorded on earlier mapping (PRNs 22824 & 22851).
- The Iron Age promontory forts at Pencastell and Castell Mawr are scheduled ancient monuments (SAM CM 295) and (SAM CM 131) respectively; as is Castell Bach medieval motte (SAM CM 129).
- 2.2.2 Table 2 and Figure 3 give details of the known archaeological and historical sites recorded on the regional HER and RCAHMW Coflein database that lie within 1kmm of the development area.

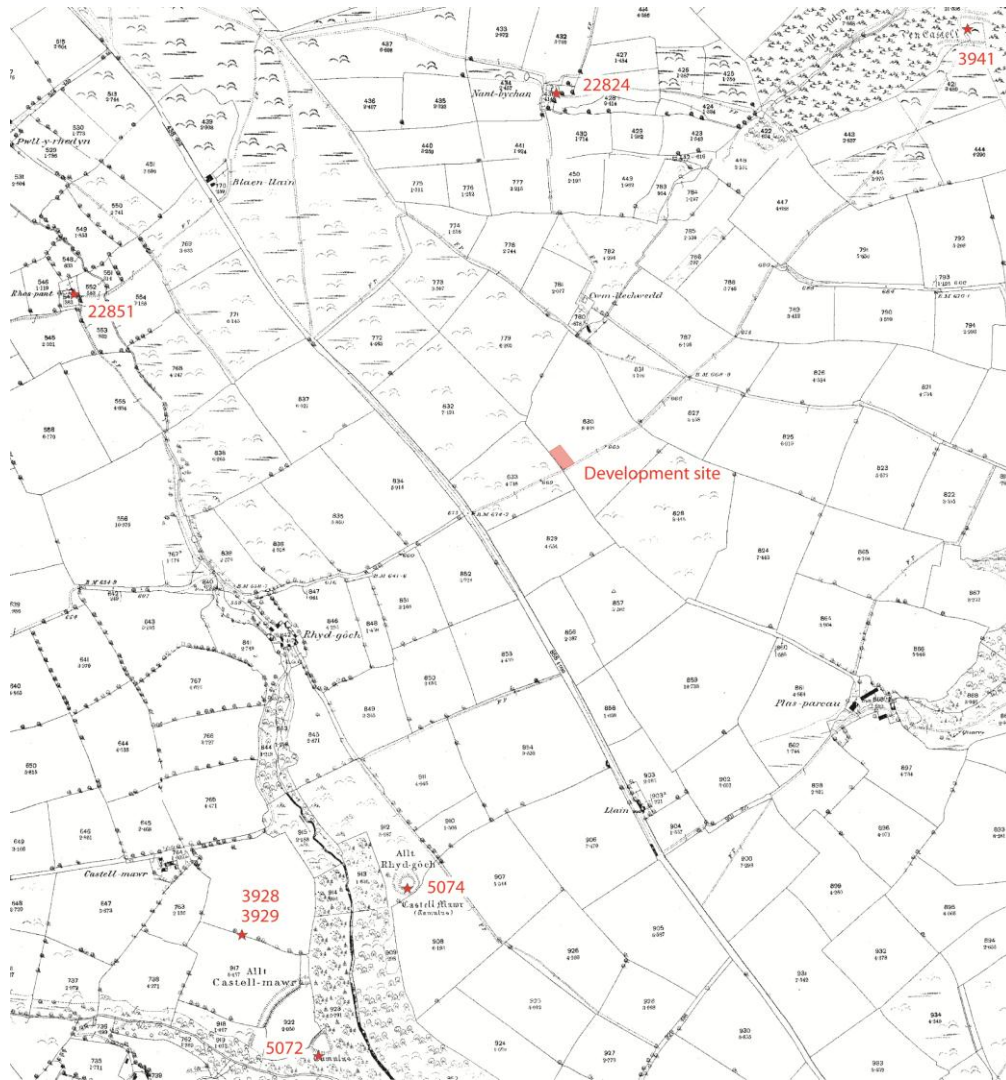


Figure 3: Extract of the first edition Ordnance Survey map of c. 1880 showing development area and archaeological sites within a 1km radius.

3. WATCHING BRIEF METHODOLOGY

3.1 Fieldwork Methodology

- 3.1.1 The definition of an archaeological watching brief, taken from the Institute for Archaeologists Standards and Guidance: for Archaeological Watching Briefs (IfA S&G: AWB) 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.
- 3.1.2 The purpose of a watching brief, as laid down in the IFA S&G AWB is:
- 3.1.3 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;
- 3.1.4 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.
- 3.1.5 A 'watching brief' undertaken at the commencement of groundworks at the site which have the potential to expose, damage or destroy underlying archaeological remains. This will require the presence of at least one archaeologist during ground reduction works.
- 3.1.6 Any archaeological features or deposits revealed during the groundworks will be examined and recorded to an appropriate level. Recording of all archaeological features or deposits will conform to best current professional practice and be carried out in accordance with the Recording Manual used by Dyfed Archaeological Trust Field Services. Significant archaeological features or deposits will be drawn at a suitable scale (no less than 1:20) and photographed in an appropriate format.
- 3.1.7 All archaeologically significant finds will be retained and, where possible, related to the contexts from which they derived. Finds will be temporarily stored by Dyfed Archaeological Trust Field Services in stable conditions. All finds, except those deemed to be Treasure Trove, will remain the property of the landowner.
- 3.1.8 In the event that unforeseen archaeological discoveries are made during the development, or that archaeological remains of high significance are exposed, Dyfed Archaeological Trust 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, Dyfed Archaeological Trust Field 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.

In the very unlikely event that 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.

3.2 Post-Fieldwork Reporting and Archiving

- 3.2.1 All data recovered during the fieldwork will be collated into a site archive structured in accordance with specifications in *Archaeological Archives: a guide to best practice in creation, compilation, transfer and curation* (Brown 2007), and the procedures recommended by the National Monuments Record, Aberystwyth.
- 3.2.2 The results of the fieldwork have been assessed in local, regional and wider contexts.

4. RESULTS AND DISCUSSION

- 4.1 The watching brief consisted of reducing ground levels to a stable horizon using a 13 ton tracked machine with a grading bucket (Photo 2). This involved the removal of topsoil across the whole development area down to natural ground which consisted of a mixture of small sub-angular stone in an orangey/grey silty-clay matrix. The depth of topsoil varied from 0.38m at the southern end of the site to 0.22m at the northern end.
- 4.2 The informal track (Photo 1) that ran down the west side of the development was considered compact and stable enough to withstand heavy machinery and was therefore not compromised during the groundworks.
- 4.3 After the topsoil was removed in horizontal spits a sub-circular area of dark brown silty clay filling a possible depression was noted protruding from the eastern baulk of the development area, approximately 13m from the southern end of the site (Photos 2 and 3). The anomaly had a slightly curvilinear edge and measured approximately 8m by 6.5m. A sondage approximately 0.5m wide, running the whole length of the anomaly alongside the baulk was cut to determine its character and depth (Photo 4). This revealed in section a shallow depression consisting of 0.24m depth of topsoil, below which stood a 0.08m thick layer of dark brown, silty-clay, which in turn was above a thin layer (0.05m thick) of dark organic material. This organic material rested upon a layer of yellow-orange silty clay approximately 0.05m thick.
- 4.4 In order to ascertain whether this depression might be a pond barrow - five of which are situated approximately 1.8km to the northwest of the site (PRNs 3923, 3924, 8049, 8050 and 8051) - and contain a possible central burial, a sondage was carefully excavated by machine across the middle of the feature down to the top of the natural ground. No burial or any other archaeological feature was revealed in the sondage (Photo 5). It is more than likely that the feature is a dewpond or shallow water hole. The yellow-orange silty clay recorded within the shallow depression could possibly be a form of puddle clay deliberately laid to seal a pond or material churned up by livestock in the recent past above which a layer of organic material has accumulated. It is noted that on the First edition Ordnance Survey c. 1880 there is a tree located a few metres away from this anomaly which could have been used as a scratching post and offered some shelter to visiting livestock.

5. CONCLUSIONS

- 5.1 Within the area of ground works a feature was identified; this being a possible dewpond situated in the southern half of the development. This feature is relatively recent and not considered of archaeological importance. The archaeological watching brief therefore has demonstrated that the ground works associated with the erection of the wind turbine at Plasparcau, Llanwinio, has not adversely impacted upon any archaeologically significant deposits or features.
- 5.2 Although no significant archaeological features or remains were observed during the watching brief it is still possible that significant archaeological remains could be present in the surrounding area.

6. PHOTOGRAPHS



Photo 1: View northwest prior to groundworks. The development area is to the right of the informal track in the field.



Photo 2: View northwest during groundworks. Anomaly can be seen to the left of grading bucket.



Photo 3: View southeast showing sub-circular anomaly in natural ground. 2x1m scales.



Photo 4: View northeast showing southwest facing section of anomaly. Note dark line of organic matter. 2x1m scale.



Photo 5: View northwest showing sondage excavated by machine across middle of anomaly. 1m scale.

7. SOURCES

Published

Brown, D, 2007 *Archaeological Archives: a guide to best practice in creation, compilation, transfer and curation*, Institute of Field Archaeologists.

Database

Dyfed Archaeological Trust Historic Environment Record, housed with Dyfed Archaeological Trust in The Shire Hall, Llandeilo, Carmarthenshire, SA19 6AF

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

Cartographic

Ordnance Survey 1880 *1:2500 1st edition Carmarthenshire*

Ordnance Survey *1:2500 Explorer map*

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RHIF YR ADRODDIAD / REPORT NUMBER 2015/41**

**Mehefin 2015
June 2015**

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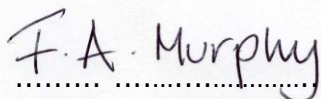
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Mae'r adroddiad hwn wedi ei gael yn gywir a derbyn sêl bendith
This report has been checked and approved by

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Llofnod / Signature Dyddiad / Date 29/6/2015

Yn unol â'n nôd i roddi gwasanaeth o ansawdd uchel, croesawn unrhyw sylwadau sydd
gennych ar gynnwys neu strwythur yr adroddiad hwn

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have on the content or presentation of this report

