

THE CLWYD-POWYS ARCHAEOLOGICAL TRUST

*The Proposed Wernddu Windfarm,
nr Gwyddelwern, Denbighshire*

ARCHAEOLOGICAL ASSESSMENT

CPAT Report No 572

***The Proposed Wernddu Windfarm,
nr Gwyddelwern, Denbighshire***

ARCHAEOLOGICAL ASSESSMENT

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Report for Dulas Ltd

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1 INTRODUCTION

- 1.1 The contracting section of the Clwyd-Powys Archaeological Trust (henceforward CPAT Contracts) was commissioned by Dulas Ltd of Machynlleth in August 2003 to produce an archaeological assessment of a proposed windfarm, centred broadly at SJ 054476, that would occupy an upland ridge to the north of the Dee Valley in south-western Denbighshire. There is a requirement under the *Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations* of 1999 to carry out Environmental Impact Assessments for most new windfarms in Wales, over a certain size, leading to the submission of an Environmental Statement to the local planning authority in support of the planning application for that proposal. The study that follows is intended to form the archaeological component of the Environmental Statement for the proposed windfarm at Wernddu.
- 1.2 The assessment has been guided by the Terms of Reference for an Archaeological Assessment prepared by Dulas Ltd and by advice given by the Denbighshire County Archaeologist, Mrs F Gale, on behalf of Denbighshire County Council. The programme of work was laid out in a specification submitted to Dulas Ltd on 15 August 2003 and accepted by them. It included both a desk-top study and an assessment of the archaeology in the field, and covered the five turbine sites and a larger area of the ridge around those turbines, henceforward termed here the proposal area. No detailed examination was undertaken, either in the archives or in the field, of the historic environment beyond the proposal area. The infrastructure details of the windfarm were not available at the time of the fieldwork: it was assumed that much of the infrastructure would fall within the proposal area.
- 1.3 The desk-based element of the work was completed in late August and the fieldwork in early September. A draft of this report was prepared later in the same month.

2 GEOGRAPHICAL LOCATION AND ASSOCIATED ASPECTS

- 2.1 The site of the proposed windfarm is an elongated but undulating ridge generally known as Mynydd Rhyd-ddu which forms the highest portion of a larger upland block hemmed in by Afon Alwen to the south-west, Afon Clwyd to the north-west and Afon Camdwr to the south-east. The village of Gwyddelwern lies in the valley to the south-east, while Bettws Gwerfil Goch is to the south-west, a little back from Afon Alwen. The ridge, aligned north-east to south-west, has steep faces at its northern end sides, but these gradually soften as the ridge runs southwards. The highest point on the ridge, and within the land block as a whole is 389m OD, and almost the entire proposal area lies above 320m OD. The locations planned for the five turbines are along the eastern perimeter of the proposal area or slightly in from it, the two more northerly ones close to the quarries that edge the valley, and three further south.
- 2.2 All of the ridge has been enclosed since the 19th century (see below) and portions of the proposal area, particularly to the south and east have seen considerable agricultural improvement and now appear as well-grassed upland from which many of the irregularities have been levelled out. Undulations and terraces of natural origin are, however, still visible intermittently. On the western side of the proposal area some of the ground has witnessed rather less improvement, leaving gorse and bracken in places.

- 2.3 The underlying rocks of the area are generally slaty mudstones and siltstones, belonging to the Wenlock Series of Silurian age (BGS Geological Map of Wales). The soils derived from this underlying geology are generally, the slowly permeable fine loamy or silty soils of the Cegin Soil Association (Soil Survey of England and Wales map and legend; Rudeforth *et al* 1984, 183).

3 METHODOLOGY

- 3.1 The aims of the assessment were:

- a) to identify and record the archaeology of the area to be affected by the proposal, and also to identify, where obvious, broader areas of archaeological sensitivity;
- b) to evaluate the importance of what had been identified (both as a cultural landscape and as the individual elements which make up that landscape);
- c) to determine the potential impact of the turbine locations and, if possible, other elements of the windfarm infrastructure on any archaeological sites or areas of sensitivity;
- d) to consider the essential setting of any archaeology that was located, depending on its significance.

- 3.2 The assessment comprised an initial desk-top study consisting of the consultation of maps, computer records, written records and reference works, contained within a number of archives and repositories: the regional Sites and Monuments Records (SMR) held by the Clwyd-Powys Archaeological Trust; the County Archives Service for Denbighshire in Ruthin and for Merionethshire in Dolgellau; the National Library of Wales in Aberystwyth; the National Monuments Record, a department of the Royal Commission on Ancient and Historical Monuments in Wales (RCAHMW), also in Aberystwyth. The RCAHMW also provided access to vertical aerial photography held by themselves and by the Central Register of Air Photography for Wales, a section of the Welsh Assembly in Cardiff. Lists supplied by Cadw: Welsh Historic Monuments were consulted for information relating to scheduled ancient monuments.

- 3.3 The second element of the assessment was a field survey. This allowed both a review of those sites and features already known to exist, and also a record to be prepared of any new sites encountered during the survey. Special emphasis was placed on those locations where turbines were proposed. At the time of the field survey infrastructure details of the new trackways were not available, so it was not possible to assess on the ground their impact on the historic landscape and any associated features outside the proposal area. It was not possible, either, to examine known sites of archaeological and historic landscape interest beyond the boundaries of the proposal area, and the records of these given in Appendix 1, part 2 are derived in part from the information held in the regional SMR and the NMR and on early cartography.

- 3.4 A visual search was also made for areas which might contain surface deposits that could have a palaeoenvironmental potential. It is evident that peaty soils do exist across the ridge, and there are also some more boggy areas defined by rushes and coarse grass that may have palaeoenvironmental potential, though by and large these have been avoided in the planning of the windfarm.

- 3.5 The survey was carried out on foot and consisted of an examination of the area in a systematic manner. Wherever possible, regular transects were walked, and the field pattern was such that the ground could be covered in this way in as an efficient a manner as possible. The few sites of archaeological and historic landscape interest which were discovered during the survey were located with reasonable accuracy by establishing the relative positions of the sites to mapped boundaries and where necessary by the use of hand-held Global Positioning System (GPS) equipment.
- 3.6 All of the sites recorded during the desk-top and field survey exercises were entered into a Foxpro database and, where appropriate, mapped in relation to the proposal area using the Mapinfo software package. Archaeological sites are distinguished by a single dot which gives no guide to the overall size of the site that it denotes, while significant linear features, if present, are indicated by lines.
- 3.7 Only those archaeological sites which are within, or relatively near to, the proposal area have been shown on the accompanying plan. An extract of the information within the database is included in this report as Appendix 1: Part 1 of this appendix refers to sites within the proposal area and immediately adjacent to the approach road, and thus potentially susceptible to damage during any up-grading of it, and Part 2 to sites around the proposal including some that may fall beyond the plan but may be useful in providing some level of context to other known sites.
- 3.8 A simple numbering system, based on existing Primary Record Numbers (PRNs) as used in the regional Sites and Monuments Record, has been adopted. Features, newly identified during the desk-top and fieldwork phases of this study, have been attributed new PRNs, courtesy of the curatorial section of the Clwyd-Powys Archaeological Trust.

4 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

- 4.1 This section provides a summary of the archaeology and history of the ridge and its immediate environs, so that the findings of the assessment can be put into a wider context. Primary Record Numbers (PRNs) are given for sites where further information relating to them may be held in the regional SMR, maintained by the Curatorial Section of CPAT.
- 4.2 *Prehistoric*
- 4.2.1 Very little can be said about prehistoric settlement, burial and ritual on and immediately around the ridge in the millennia before the Roman invasion. It is logical to assume that both Neolithic and Bronze Age groups may have visited the ridge, and possibly even settled there, and the fact that no occupation or other activity debris such as worked flints have been found is a reflection more of the fact that the opportunities and conditions for finding such material are poor than that they are wholly absent. Similarly, no prehistoric house sites or burial mounds (barrows) have been identified, and while such features are bound to have a higher visibility than artefact scatters there can be no guarantee that such sites will have survived as upstanding features. The absence, then, of visible traces of settlement and burial sites should not be taken as evidence that prehistoric communities avoided the ridge.

4.2.2 The situation is different in the first millennium BC. The stone-banked enclosure on the top of Mynydd Rhyd-ddu (PRN 100789) is considered to be Iron Age, although only by comparison with other, better dated hill-top sites. Its presence probably indicates a settled community, farming the adjacent land, although it might have been primarily a place of refuge. Other, larger defended enclosures, probably of broadly contemporary date are to be seen nearby. Caer Drewyn lies some 3.5km to the south-east above the Dee Valley, while Dinas Melin y Wig (PRN 100778) occupies a hillock around which Afon Clwyd loops is little more than one kilometre to the north and a rather lower altitude.

4.3 *Roman*

4.3.1 Virtually nothing of Roman date is known in the immediate area. It has long been assumed that there is a Roman fort waiting to be discovered in the Dee Valley in the vicinity of Corwen and Rug, some three to four kilometres south of the ridge, but pinpointing it has proved very difficult. Similarly Roman roads have been thought to converge near Corwen but so far only a few positive traces have been recognised at Rug and more recently perhaps at Four Crosses south of Afon Alwen. Nevertheless Roman or more accurately Romano-British farmsteads and other settlements must have existed in the region, though whether they stretched up onto the Mynydd Rhyd-ddu is debatable.

4.4 *Medieval*

4.4.1 In the valleys below the ridge and perhaps even on the lower slopes, settlement probably developed during the early medieval period (up to c.AD 1100), the farms dispersed across the landscape, although their precise locations are unknown to us. The church at Gwyddelwern itself presumably emerged at this time, its dedication and circular churchyard pointing to this early period, but Bettws Gerfil Goch could be a little later for there is uncertainty as to whether the historically attested foundation of the 12th century was in fact the rebuild of an earlier chapel (Silvester 1995).

4.4.2 Settlement in the Middle Ages (up to c. AD 1500) will have followed the same processes, but if the farms and their associated fields stretched as far as the ridge as they did a little further south on the western lip of the Berwyns (Silvester 2000), they have left no visible trace. Instead it seems probable that the ridge and its slopes were open hill land (or the 'waste' as it was termed), stock from farms at lower altitudes being grazed on the natural vegetation. That this was done on a seasonal basis is suggested by the presence of a string of *hafod* names –Hafotty-bach, Hafotty-gerig and Hafotty-fawr – on the western slopes below the ridge, indicative of small steadings occupied only during the summer months.

4.5 *Post-medieval*

4.5.1 After 1500 settlement continued to expand as the population increased, necessitating the intake of land which have previously been open hill land. Some of the *hafodydd* were ultimately converted into permanent farms, occupied all the year around, and land around these was then enclosed. Similar results came from encroachment on the waste, as landless people colonised the higher land, creating small holdings for themselves. Bryn-ffynnon might have originated in this way, but its absence from the Tithe map of 1839 suggests that instead it was deliberately planted after enclosure.

- 4.5.2 Much of the ridge, however, remained as open hill (or 'mountain' as the Tithe map termed it) until the enclosure act for Gwyddelwern was passed in 1825 (Chapman 1992, 109), and indeed the open hill encompassed even the lower slopes down almost to Wern-ddu farm, as an estate map of c.1769 depicts. Then the ridge was divided up into large, generally rectilinear enclosures. These can still be seen today, although there have been some modifications to the patterns that were originally established at the beginning of the 19th century.
- 4.5.3 Since enclosure the ridge has undergone periodic agricultural improvement. The larger fields that were created in the 19th century have in places been sub-divided by wire and post fences. Field surfaces have been smoothed out, and the dumps of stone on the field surfaces testify to this clearance, and the size of some of the boulders in the piles indicate the massive scale of clearance. We consider that much of this stone clearance is relatively recent, but there are one or two smaller and partially grass-covered clearance cairns which may date back to an earlier phase of clearance.

5 THE HISTORIC LANDSCAPE

- 5.1 The historic landscape of the Mynydd Rhyd-ddu ridge above Gwyddelwern is essentially one that has been created and has developed during the last two hundred years. The regular appearance of the enclosures and fields attest the changes that have occurred as a result of agrarian practice, first the stone walls, and more recently the wire and post fences together with the large-scale stone clearance, the damper and more boggy areas left untouched except for occasional patterns of grips, and the occasional field reverting to a more natural vegetative state where the regular cycle of improvement has been abandoned. The agricultural changes have probably been fundamental enough to remove any, more flimsy traces of anything earlier from the landscape, with the exception of the stone-banked enclosure on the summit of the ridge.
- 5.2 Earlier landscapes – those of the open hill land that was utilised but largely unsettled from Roman times onwards, and of the even earlier prehistoric period when the level of activity can only be guessed at from comparisons, with other, better preserved, prehistoric landscapes - are only fragmentarily represented today.

6 ARCHAEOLOGICAL SITES AND THEIR SIGNIFICANCE

- 6.1 The archaeology of the proposal area is classified according to its perceived significance (Table 1 below and Appendix 1). The categories, with the exception of Category E, are based on those given in the Department of Environment, Transport and Regions' *Design Manual for Roads and Bridges* Volume 11 Section 3 Part 2 (1993).
- 6.1.1 *Category A* sites are those believed by CPAT Contracts to be of primary significance, either potentially of national importance or already designated by CADW: Welsh Historic Monuments as being of scheduled ancient monument status. One site in this category has been identified in the proposal area and another in its immediate vicinity. In addition a third site, the triangulation point is classified within this category by dint of being within the scheduled area of the prehistoric enclosure mentioned above.

- 6.1.2 *Category B* sites are sites of regional importance. These sites are not of sufficient importance to justify scheduling, but are nevertheless important in aiding the understanding and interpretation of the archaeology of the region. One site in this category has been identified in the proposal area or its immediate vicinity.
- 6.1.3 *Category C* sites are sites of local importance. These sites are of lesser importance, but are nevertheless useful in aiding the understanding and interpretation of the archaeology of the local area. Three sites in this category have been identified in the proposal area.
- 6.1.4 *Category D* sites are either sites of minor importance or those which are so badly damaged that too little now remains to justify their inclusion in a higher grade. Three sites in this category have been identified in the proposal area.
- 6.1.5 *Category E* sites are sites which have been identified, but whose importance cannot be assessed from fieldwork and desk-top study alone. An archaeological evaluation would be required to categorise such a site more accurately if the proposal was likely to affect it in any way. One site in this category have been identified in the proposal area.
- 6.2 A total of nine sites have been identified within the proposal area and immediately adjacent to the designated access road. Details of these sites are provided in the table, below.

Table 1: Archaeological sites within the proposal area and their categories

PRN	Name	Type	Period	NGR	Category
64241	Bryn-ffynnon	Farmhouse	Post Medieval	SJ05534846	C
64244	Bryn-ffynnon cropmark	Cropmark	Unknown	SJ05574848	E
64248	Mynydd Rhyd-ddu quarry	Quarry	Post Medieval	SJ05284727	D
64249	Mynydd Rhyd-ddu trig point	Triangulation point	19th century	SJ05454774	A
64250	Bryn-ffynnon quarries	Quarry	Post Medieval	SJ05594871	D
64251	Bryn-ffynnon well	Well	Post Medieval	SJ05514834	C
64252	Bryn-ffynnon clearance cairns	Clearance cairn	Post Medieval	SJ05524875	D
100789	Mynydd Rhyd-ddu Enclosure	Defended enclosure	Iron Age	SJ05474775	A
	Traditional enclosure boundaries	Boundary	Post Medieval		C

7 EFFECTS OF THE PROPOSAL

- 7.1 The potential impacts of the proposed windfarm on the known archaeological resource are given in Table 2 (Section 7.5, below). It must be stressed here that there may be further archaeological sites and features in the proposal area which cannot be identified, because there are no surface traces and no records relating to them. Such sites cannot be categorised at this stage and may only become visible during topsoil stripping and other ground disturbance.

- 7.2.1 Impacts on the archaeological resource may include disturbance during the construction phase of the windfarm, and visual intrusion into the setting of a nationally and regionally important monument or groups of monuments when the windfarm is in operation.
- 7.2.2 A zone of 50m beyond the perimeter of each identified site has been taken, in this study, as the baseline for any potential physical disturbance during the construction phase of the proposal.
- 7.2.3 It is likely that all archaeological sites, regardless of their importance and classification, will be subject to some level of visual intrusion on their setting. Visual intrusion is, however, normally only considered to be potentially significant for sites considered to belong to Category A (national), or exceptionally Category B (regional) where the presence of the proposal may affect the appreciation of their setting. One site in this category - the Mynydd Rhyd-ddu enclosure - is present within the proposal area, and Dinas Melin y Wig lies just beyond it to the north-west.
- 7.3 Factors used to evaluate potential impacts and their significance include the duration, nature, reversibility, scale and extent of any identified change to the archaeological resource. The probability of the occurrence of any impact or effect and the efficacy of any proposed mitigation has also been considered.
- 7.4 The significance of the identified effects is also given in Table 2. The criteria used in determining the significance of any effect is given below.
- i) *Major significance*: Fundamental change to an archaeological site.
 - ii) *Moderate significance*: Material but non-fundamental change to a location or archaeological site.
 - iii) *Minor significance*: Detectable but non-material change to a location or archaeological site.
 - iv) *Uncertain significance*: Unquantifiable or unqualifiable change to a location or archaeological site.
- 7.5 The duration of any effect is categorised under the following headings:
- i) *Short-term*: Will only occur during the construction phase of the proposal.
 - ii) *Medium-term*: Will occur during the design life of the proposal.
 - iii) *Long-term*: Will extend beyond the design life of the proposal.
 - iv) *Permanent*: Irreversible effect.

Table 2: Effects of the Proposal on the known Archaeological Resource and their Significance

Site No	Type	Category	Effect/Impact	Significance (prior to any mitigation)	Duration of effect
64241	Bryn-ffynnon	C	Negligible (physical) Minor (visual)	Minor Minor	Medium term
64244	Bryn-ffynnon cropmark	E	Negligible (physical) Negligible (visual)	Minor Minor	Medium term
64248	Mynydd Rhyd-ddu quarry	D	Major (physical) Major (visual)	Minor Minor	Permanent
64249	Mynydd Rhyd-ddu trig point	A	Negligible (physical) Moderate (visual)	Minor Minor	Medium term
64250	Bryn-ffynnon quarries	D	Negligible (physical) Minor (visual)	Minor Minor	Medium term
64251	Bryn-ffynnon well	C	Minor (physical) Minor (visual)	Minor Minor	Medium term
64252	Bryn-ffynnon clearance cairns	D	Negligible (physical) Minor (visual)	Minor Minor	Medium term
100789	Mynydd Rhyd-ddu Enclosure	A	Negligible (physical) Moderate (visual)	Minor Major	Medium term
	Traditional enclosure boundaries (stone walls)	C	? Moderate (physical) Major (visual)	Moderate Moderate	Long term

8 RECOMMENDATIONS

- 8.1 These recommendations are offered solely for the general guidance of the developer and the archaeological curator in the knowledge that under existing guidelines it is the latter who ultimately may determine further action and mitigation to ensure the preservation of the archaeological resource, either through preservation in situ or preservation by record.
- 8.2 The Mynydd Rhyd-ddu Enclosure (PRN 100789) is scheduled as a nationally important monument and, while there is no direct physical threat to it from the proposed turbines and the windfarm infrastructure, there will be some visual intrusion by the turbines and every effort should be made to diminish this intrusion. There are also other scheduled monuments in the area around Wernddu (see para 4.2.2, above), where, to a greater or lesser extent, some visual impact will occur. It may be useful if the developer discusses these issues with Cadw who have the statutory responsibility for scheduled ancient monuments in Wales.
- 8.3 It is believed that access to the ridge for construction traffic will be through the quarry from the A494(T), and this should avoid damage to any of the specific archaeological sites recorded here. The extension of the road and infrastructure network into the proposal area may have some limited impact. Potentially most at risk are Mynydd Rhyd-ddu quarry (PRN 64248) and Bryn-ffynnon well (PRN 64251). In the case of the former, it appears that the

rock outcrop utilised by the quarry has been earmarked as a source of material for the new works associated with the windfarm. The archaeological significance of this feature is not, in our view, high and it should be sufficient to record this feature by photography and sketch (*i.e.* preservation by record). The latter site should be avoided and if necessary marked with barrier fencing before the commencement of site works. Any subsequent additions or modifications to the plans for the infrastructure network must be assessed against the known archaeology and elements of the historic landscape.

- 8.4 Various traditional field and enclosure boundaries, particularly stone walls, may be damaged by windfarm-related activity. Such damage must be kept to a minimum and it may be necessary to record those boundary sections that are to be disturbed or destroyed, according to their individual merits.
- 8.5 During the construction phases of the windfarm an archaeological watching brief should be maintained on site, in case sub-surface deposits, features or artefacts are disturbed.

9 CONCLUSIONS

- 9.1 The proposal area and its immediate surroundings reveal a limited range of archaeological features, most of which fall within the post-medieval period, but with one notable prehistoric exception, namely the Mynydd Rhyd-ddu Enclosure. Generally those features of post-medieval date are of interest in elucidating the pattern of 19th-century land enclosure and earlier seasonal farming practices which occurred in and around the proposal area. None, however, is considered to be of more than local importance.
- 9.2 It is suggested here that the direct physical impact of the proposed windfarm on the archaeological resource should be of limited significance, but the visual impact, particularly on the scheduled enclosure, is greater.

10 ACKNOWLEDGEMENTS

- 10.1 The writer would particularly like to thank the staff of: the Regional Sites and Monuments Record, CPAT, the National Monument Record in Aberystwyth; the National Library of Wales in Aberystwyth, and the Denbighshire, Flintshire and Meirionethshire Record Offices at Ruthin, Hawarden and Dolgellau respectively. Thanks also go to Mrs F Gale, the county archaeologist for Denbighshire.

11 SOURCES

11.1 References

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Silvester, R J, 2000, Medieval upland cultivation on the Berwyns in north Wales, *Landscape History* 22, 47-60

11.2 Cartographic sources (printed)

1875 First edition Ordnance Survey 1:2,500 map (Merioneth 07.04; 07.08)

1953 Provisional edition Ordnance Survey 1:10,560 map (Merioneth 07 NE)

1983 Soils of England and Wales (Sheet 2 - Wales) Soil Survey of England and Wales map and legend.

1994 *The Rocks of Wales* (Solid), Nottingham: British Geological Survey map.

11.3 Cartographic sources (manuscript)

c.1769 Estate map volume for Gwyddelwern, Meifod etc (National Library of Wales/Dugdale Deposit Volume)

18th century Estate map of Nant'r y Erw Haidd and Tyddyn-ucha, Gwyddelwern (Denbighshire Record Office DD/GR/108)

late 18th century Estate map of Maes Garnedd Estate, Gwyddelwern (Flintshire Record Office D/JL/751)

1819/38 Ordnance Surveyors' Drawing No 313

1825 Enclosure Award for Gwyddelwern (Merionethshire Record Office)

1839 Tithe survey: Gwyddelwern, Merionethshire

11.4 Aerial photographic sources (verticals)

RAF: 106G/UK/1454/4082-83 & 4233-34, dated 02-05-1946

Appendix 1 (Part 1): Archaeological sites within the proposal area

PRN: 64241 Bryn-ffynnon **NGR:** SJ05534846
Site type: Farmhouse **Category:** C

Rectangular stone-built cottage with brick, gable-end chimneys. Also outbuildings. Built sometime after 1839 and still in use in the 1940s. Now abandoned but with renovation a possibility.

PRN: 64244 Bryn-ffynnon cropmark **NGR:** SJ05574848
Site type: Cropmark **Category:** E

A sub-circular cropmark, with a lighter centre with a dark ditch-like stain around its east side, some 35m in overall diameter; seen on a 1946 aerial photo. Its origin and function uncertain and it could be wholly natural.

PRN: 64248 Mynydd Rhyd-ddu quarry **NGR:** SJ05284727
Site type: Quarry **Category:** D

A linear quarry carved from a rock face, about 80m long, and with a height of up to 10m and about 2m in depth. Probably used to supply stone for local stone-walled boundaries.

PRN: 64249 Mynydd Rhyd-ddu trig point **NGR:** SJ05454774
Site type: Triangulation point **Category:** A

Ordnance Survey triangular pillar, intact and in good condition. Within scheduled area of defended enclosure De252.

PRN: 64250 Bryn-ffynnon quarries **NGR:** SJ05594871
Site type: Quarry **Category:** D

A number of linear quarries grouped in an area about 50m across where some rock outcrops are visible. Most are around 4m long and 2m deep.

PRN: 64251 Bryn-ffynnon well **NGR:** SJ05514834
Site type: Well **Category:** C

Well or spring head, possibly the one that gives its name to the nearby cottage. A near rectangular basin edged by mortared stonework. Maximum size of c.2m by 1.4m.

PRN: 64252 Bryn-ffynnon clearance cairns **NGR:** SJ05524875
Site type: Clearance cairn **Category:** D

Group of at least four, grass-covered mounds, little more than 1m in diameter and 0.3m high. Probable stone cleared from the shelf on which they are set, and probably no earlier than the enclosure itself, although an earlier date cannot be ruled out completely.

PRN: 100789

Mynydd Rhyd-ddu Enclosure

NGR: SJ05474775

Site type: Defended enclosure

Category: A

An oval enclosure measuring approximately 60 x 40m internally and defined by a single earth and stone bank with traces of an external ditch for part of the circuit. There is perhaps an entrance on the eastern side of the enclosure, defined by the use of large stone boulders. The interior of the enclosure contains much surface stone but appears to have evidence of at least two hut circles measuring about 8m in diameter, with low banks of up to 0.2m high. Scheduled in 1999 as SAM De252.

Appendix 1 (Part 2): Archaeological Sites adjacent to the proposal area

PRN: 37345 Dinas medieval farmstead **NGR:** SJ05024927
Site type: Platform hut **Category:** A

The earthwork remains, perhaps, of a medieval long hut set on a platform, though this is far from certain. The overall dimensions of the platform are about 17m by 10m. There is another adjacent example, recorded as PRN 100781. Both fall within the scheduled area of SAM Me014.

PRN: 64240 Craig Lelo quarries **NGR:** SJ05954916
Site type: Quarry **Category:** C

Large quarries perhaps initiated towards the end of the 19th century, but extended considerably westwards after the Second World War.

PRN: 64242 Bryn-ffynnon feature **NGR:** SJ05474836
Site type: Unknown **Category:** E

Anomaly on 1946 aerial photo which may only be a vegetation mark, although the form appears rather regular. Origin and nature uncertain.

PRN: 64243 Pennant **NGR:** SJ06063834
Site type: Farmhouse **Category:** C

Named as a dwelling on the modern Ordnance Survey map, although not on the late 19th century Ordnance Survey maps. Its function that could not be determined. Aerial photos of 1946 reveal a building surrounded by trees.

PRN: 64245 Hafotty-gerrig **NGR:** SJ05264827
Site type: Cottage **Category:** C

Small farmstead, set in a curvilinear enclosure with another adjacent, and known in the 19th century as Hafotty-gerrig. Apparently abandoned by the time of the 1946 aerial photography.

PRN: 64246 Hafotty Fawr **NGR:** SJ04894789
Site type: Farmhouse **Category:** E

Farmhouse, still occupied. No information available.

PRN: 64247 Hafotty-fach **NGR:** SJ05384832
Site type: Farmhouse **Category:** E

A small farmstead, known in the 19th century as Hafotty-bach. It has long been abandoned and what remains is not known.

PRN: 100778

Dinas Melin y wig hillfort and enc

NGR: SJ049491

Site type: Hillfort

Category: A

A multivallate hillfort of 5.2ha occupying a spur above the valley of Afon Clwyd, and protected by precipitous slopes to the south and west. It has a simple inturned entrance on the north-east and now mutilated by a cart track. Presumed to be Iron Age in date. Scheduled as SAM Me014.