

THE CLWYD-POWYS ARCHAEOLOGICAL TRUST

**Proposed Windfarm at Cruglas,
nr Capel Cynon, Ceredigion**

ARCHAEOLOGICAL ASSESSMENT

CPAT Report No 506

Proposed Windfarm at Cruglas, nr Capel Cynon, Ceredigion

ARCHAEOLOGICAL ASSESSMENT

R. J. Silvester
January 2003

Report for Mrs N Leaney

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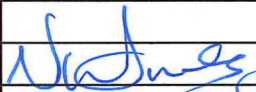
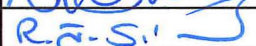
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APPENDIX 1 (Part 1): Gazetteer of archaeological sites within the windfarm area

APPENDIX 1 (Part 2): Gazetteer of archaeological sites in the vicinity of the windfarm area

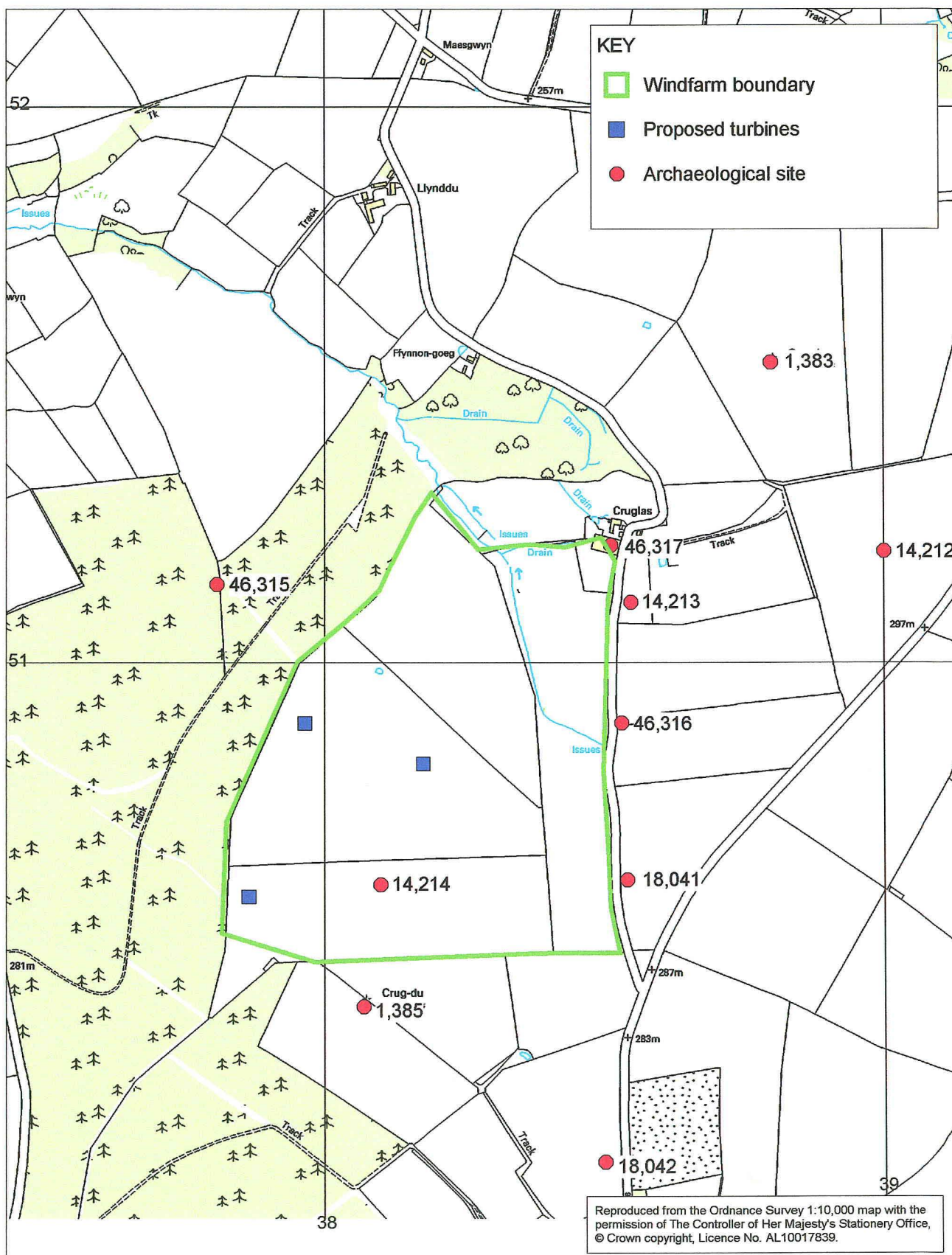


Fig. 9.1 Cruglas Windfarm proposal area. Scale 1:10,000

9.1 INTRODUCTION

9.1.1 In June 2002 the Contracts Section of the Clwyd-Powys Archaeological Trust was invited by Dulas Ltd (of Dyfi Eco Park, Machynlleth), on behalf of Mrs N Leaney of Cruglas, Synod Inn, Llandysul in Ceredigion, to undertake within the Windworks programme an archaeological assessment of the site of a proposed windfarm on land adjacent to Cruglas to the north of Capel Cynon.

9.1.2 The purpose of this archaeological assessment was to establish the nature of the archaeological resource within the boundary of the proposed windfarm, and also to assess the impact of the proposal both on archaeological sites in its vicinity and on the historic landscape. A further purpose was to recommend mitigation measures where the proposed development was likely to have an impact, whether direct or indirect, on the archaeological resource.

9.2 GEOGRAPHICAL BACKGROUND

9.2.1 The proposed windfarm, comprising a group of three turbines, falls within a defined area (henceforward termed the proposal area) of 0.44km². It is centred at SN 38105070, 9km to the south of Newquay, in south-west Ceredigion.

9.2.2 The proposal area, set in undulating hills between Afon Teifi and the coast, occupies a portion of one of the ridges, although it embraces only a little of the summit of the ridge, extending instead over its northern flank toward the valley below. The altitude range is from around 250m to 290m above sea level, but in the vicinity the land rarely rises above 300m. A tributary of Afon Bedw rises in the valley on the north side of the ridge.

9.2.3 The side of the ridge is divided up into pasture fields by wire and post fences, creating a pattern of rectilinear if somewhat irregular enclosures, while conifer plantations, some now felled, arc around the proposal area on the north-west and west.

9.2.4 The soils on the upper part of the ridge appear to fall within the Manod Association of well-drained, but sometimes shallow, fine loamy or silty soils over mudstone and sandstone or at lower levels within the Wilcocks 1 Association of seasonally waterlogged loamy drift deposits with a peaty surface horizon (Soil Survey of England and Wales map and legend; Rudeforth *et al*, 1984, 183; 250).

9.3 METHODOLOGY

9.3.1 The proposal area, and thus the area of the assessment, was initially identified by National Wind Power in conjunction with Mrs N Leaney as a block of land defined entirely by existing land boundaries. Its extent is depicted on the accompanying plan (Map 9.1).

- 9.3.2 The methodology adopted for the assessment consisted of an initial desk-top study of readily available, primary and secondary sources. The main basis for the study was the data held in the regional Sites and Monuments Record (SMR) which is maintained by Cambria Archaeology (otherwise known as the Dyfed Archaeological Trust) in Llandeilo, Carmarthenshire, and equivalent material held in the National Monument Record (NMR), a department of the Royal Commission on Ancient and Historical Monuments in Wales (RCAHMW) in Aberystwyth. Information from the former was derived from a postal enquiry, while the latter was searched by the writer, the RCAHMW also providing 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. The National Library of Wales (NLW), also in Aberystwyth, was searched for relevant material, both documentary and cartographic, but particularly the latter. The material sources that proved to be relevant to the study are detailed in Section 9.10, below, as are the printed works that were consulted.
- 9.3.3 The search for information was restricted to those repositories listed above, as these were considered to be the primary sources of information likely to be relevant to the study, and the available resources did not permit a comprehensive examination of documentation in other, smaller archives which may contain potentially useful material.
- 9.3.4 A 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 walkover survey. However, the field examination of known sites of archaeological and historic landscape interest beyond the boundaries of the proposal area was not comprehensive, 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.
- 9.3.5 A visual search was made, too, for areas which might contain deposits of palaeoenvironmental potential. The thin, humic soils and extensive improvement of the land within the proposal area militate against the survival of extensive deposits that might have such a potential, but there is a stronger possibility of deeper deposits of humic material and peat around the source of the stream that feeds into Afon Bedw.
- 9.3.6 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 very few sites of archaeological and historic landscape interest which were discovered during the survey were located with reasonable accuracy by the use of hand-held Global Positioning System (GPS) equipment and by establishing the relative positions of the sites to mapped boundaries.
- 9.3.7 All of the sites recorded by the desk-top and field survey assessments were entered into a Foxpro database and, where appropriate, mapped in relation to the proposal area using the Mapinfo software package. It should be noted that if there are any important archaeological sites identified within the proposal area these are defined by zones of archaeological sensitivity on Map 9.1. This treatment has,

however, not been extended to comparable sites outside the proposal area as it has to be assumed that there is no likelihood of any disturbance to these sites under the current proposals. Other archaeological sites are distinguished by a single dot which gives no guide as to the overall size of the site that it denotes, while linear features, if present, are indicated by lines.

9.3.8 Only those archaeological sites which are within, or near to, the proposal area have been mapped on Map 9.1. 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 Part 2 to sites around the proposal including some that fall beyond the limits of Map 9.1. A simple numbering system, based on existing Primary Record Numbers (PRNs) allocated by Cambria Archaeology, has been adopted. Newly identified features have been given new PRNs, courtesy of Cambria Archaeology.

9.3.9 The importance attributed to each site which has been identified in the proposal area and its locality is given in Appendix 1. Sites have been graded in importance from A to E, adopting the following criteria which are based on those used in the Department of Transport's 1994 *Design Manual for Roads and Bridges* (Volume 11, Section 3, Part 2).

Category A - Sites which are statutorily designated as being of national importance under the *Ancient Monuments and Archaeological Areas Act* of 1979, or those considered by us during the current work to merit such a designation.

Category B - Sites of regional importance; these are not of sufficient importance to merit a statutory designation but are nevertheless of particular relevance to the understanding of the archaeological resource of the region.

Category C - Sites of local importance; these are considered to be of lesser merit but are nevertheless useful in understanding the archaeological resource of the local area.

Category D - Damaged or minor sites which are of interest but which, due to their condition or nature, are unlikely to provide much significant information on the archaeological resource of the area.

Category E - Sites which could not properly be evaluated from the information revealed by this assessment. Some form of further assessment may be required to ensure that these sites can be properly assessed; otherwise, specific mitigation which takes into account the uncertainty of the results of the evaluation should be considered.

9.4 RESULTS OF THE ASSESSMENT: THE ARCHAEOLOGY

9.4.1 The archaeological assessment identified very little archaeology within the proposal area, though rather more in the immediate vicinity. One site had previously been recorded imprecisely in the regional Sites and Monuments Record or in the National Monuments Record.

- 9.4.2 No traces of prehistoric activity are readily apparent within the proposal area, but the identification, nearby, of burnt mound material – often indicative of prehistoric cooking places – implies that such activity may have occurred close to the stream that rises within the proposal area, though as with PRN 14213 this is likely to be exposed only during cultivation or other ground disturbance. Taken with the round barrows that were erected on the surrounding ridge tops – PRNs 14212 and 1385, the latter only a very short distance away from the proposal area – this indicates that there was a level of prehistoric activity in this general area, particularly in the Bronze Age, which currently must be assumed but cannot be quantified. Certainly the absence of visible traces of prehistoric activity, whether funerary or settlement, within the proposal area should not be taken as an indicator that prehistoric communities avoided the ground sloping down from the ridge.
- 9.4.3 Whether any of the other anomalous features such as the large dark circular cropmarks (PRN 14212) or, more significantly, in the context of this report, the smaller cropmark (PRN 14214), can be attributed to the prehistoric period is impossible to determine.
- 9.4.4 Evidence of activity later in the prehistoric period and throughout the first millennium AD is absent. Indeed, even in the medieval centuries there is little obvious evidence of activity and it is not until the 18th century or perhaps a little earlier that visible traces of human presence can be detected.
- 9.4.5 At the time that the Ordnance Surveyors came to the area in the early 19th century Cruglas (then termed Crygglas) was an agricultural island surrounding a farmstead in the middle of open heathland. It was without doubt an encroachment on a common or waste, a very frequent phenomenon in the post-medieval centuries. The farmholding was served by a lane, the one still in use today that runs from north to south past the farmhouse. Another trackway skirted the holding and ran across the open heathland in a north-east direction, the modern A486 almost on the same line. Even at the beginning of the 20th century much of the ridge slope to the south of Cruglas was still down to rough grazing and although a portion of this had now been enclosed (but probably not improved) the area on and immediately around the ridge top may still have been open heath.
- 9.4.6 During the 20th century the Cruglas holding has been divided into the rectilinear tracts of improved pasture which are visible today.

9.5 RESULTS OF THE ASSESSMENT: THE HISTORIC LANDSCAPE

- 9.5.1 The landscape of the Cruglas proposal area and its immediate environs is very largely a creation of the last century. In an area where natural, if muted, humps and depressions are commonplace, ploughing as a prelude to improved pasture and afforestation have smoothed out the natural topography, and replaced it with rectilinear zones of pasture and conifers separated by wire and post fences. Stone heaps close to field edges testifies to the clearance of material uncovered during these ploughing episodes. Features of earlier landscapes – Glasbwl cottage, the quarries and the prehistoric barrows – have been swept away or have deteriorated

to mere shadows of their original forms. Only Cruglas itself and some of the field shapes around it, particularly those on the opposite side of the lane to the proposal area, remind the observer of the open heath landscape with its encroachments of the 18th century.

9.6 PREDICTED IMPACTS

- 9.6.1 Only one or two putative archaeological sites are believed to lie within the proposal area. Other monuments and elements of the historic landscape are, of course, set in the vicinity of the proposed windfarm. The predicted impacts range from visual intrusion on the settings of monuments to the possibility of physical impacts by elements of the site infrastructure, including the turbines themselves. In the absence of full details of the infrastructure associated with the proposed windfarm (e.g. road lines, service trenches etc), the impact on all of the archaeology cannot be fully established.
- 9.6.2 Each site and any potential impacts will be dealt with in site number order, below. A limited consideration of the impact of the proposal on the historic landscape setting has also been attempted.
- 9.6.3 **PRN 14213.** *Crug-las burnt mound. Category E.* Little is known of the actual point of discovery of the burnt mound and, although the imprecise grid reference provided places it on the opposite side of the lane from the proposal area, the description 'near a stream' might indicate that the mound was to the west of the lane. Even so in such circumstances no impact from the turbines can be envisaged, except in as much as further similar finds might be identified during on-site works.
- 9.6.4 **PRN 14214.** *Crug-las cropmark. Category E.* The nature of this cropmark has not been established, and there can be no certainty that it reflects a man-made feature.
- 9.6.5 The impact of the proposal on this landscape must also take account of the view both from and to monuments in the immediate environs of the proposal area. Particular emphasis must be placed on any monuments that are statutorily protected through scheduling and those which are considered to be of similar significance even though (for whatever reason) they are not statutorily protected. There are, however, no known scheduled monuments in the immediate vicinity of the proposal area, although the Blaenglowen round barrow (SAM CD088) is situated about 1.5km to the east. The barrows adjacent to the proposal area – the Crug-du and Crug las barrows – are not currently scheduled, but the visual impact on these will be considerably greater than on their scheduled counterpart. That neither is currently protected is perhaps a reflection of their relatively poor condition rather than their importance or unimportance as burial places. Both should certainly be seen as of regional significance at the very least.

9.7 PROPOSED MITIGATION MEASURES

- 9.7.1 A very limited range of mitigation measures is proposed to reduce or negate the impacts which have been predicted in the previous section. These range from a proposal for a watching brief to the careful control of any ground works and are dealt with in site number order, below, in the same way as the previous section. There are also impacts which are not specific to a single site and suitable methods of mitigation for these are considered briefly in paragraph 9.7.6, after the mitigation responses for site specific impacts.
- 9.7.2 It is assumed that all turbine construction works will be limited to those areas defined in the proposal. Any subsequent alterations to the turbine positions and the determination of the infrastructure that links them will necessitate a reconsideration of the impacts and mitigations proposed here.
- 9.7.3 **PRN 14213.** *Crug-las burnt mound.* In the absence of any specific data on the location of the burnt mound, no detailed mitigation measures can be proposed. However, a general watching brief during construction works (see para. 9.7.6 below) is recommended in case the works uncover more such stones.
- 9.7.4 **PRN 14214.** *Crug-las cropmark.* In view of the uncertainties regarding the nature of this cropmark and its precise location, no detailed mitigation measures can be proposed. Efforts should be made to ensure that none of the works has a direct impact on the general area of the cropmark.
- 9.7.5 Although there is no direct physical impact on any known barrows, the visual impact on several, particularly the Crug-du and Crug las barrows, will be significant. No obvious mitigation strategy can be recommended for lessening this impact.
- 9.7.6 There is a possibility that sites which have only sub-surface traces, and have not therefore been revealed by this assessment, are present within the area of the proposal. If any such site is present, there is a potential that elements of the site might be disturbed during the initial ground works which precede construction. In order to provide some mitigation for this potential impact, a watching brief should be carried out during ground works, with the aim of properly recording any archaeological features which are revealed. The archaeologist carrying out the watching brief must be allowed a reasonable time to carry out the necessary archaeological recording.

9.8 CONCLUSIONS

- 9.8.1 As a result of the archaeological assessment we may draw the following conclusions:
- there are no visible archaeological sites within the proposal area and no statutorily designated sites in the immediate vicinity;

- there is, however, a limited amount of archaeology within the proposal area, but it is considered to be of no more than local or minor importance. Limited mitigation measures only are required;
- there are several scheduled monuments at a distance from the area and these are likely to be affected indirectly because of the visibility of the proposed turbines. The effects might be reduced by radical re-siting of the turbines but are unlikely to be removed;
- the proposal lies in a landscape area of moderate historical interest, where there is a mix of prehistoric and 18th to 19th-century features;
- not all the details of the infrastructure associated with the windfarm were available at the time that this study was undertaken, and it is therefore impossible to assess their impact on the known archaeology; and
- the most appropriate archaeological response to the proposal is, in the view of the writer, the careful design of the windfarm layout which prevents physical disturbance to any of the monuments, some shift in turbine locations, and a watching brief during construction works.

9.9 ACKNOWLEDGEMENTS

9.9.1 The writer would like to thank the staff of the following repositories for their help and assistance:

The Regional Sites and Monuments Record held by Cambria Archaeology (the Dyfed Archaeological Trust at Llandeilo, and particularly Mr R Jones for his assistance;

The National Monument Record administered by the Royal Commission on Ancient and Historical Monuments in Aberystwyth;

The National Library of Wales in Aberystwyth.

9.10 REFERENCES

Published sources

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Cartographic sources

1811/32 Ordnance Surveyors' Drawing No 186

1841/1843 Tithe survey: Llandysiliogogo, Cardigan

1889 First edition Ordnance Survey 1:2,500 map (Cardigan 32.5 & 32.9)

1891 First edition Ordnance Survey 1:10,560 (Cardigan 32 NW & SW)

1906 Second edition Ordnance Survey 1:10,560 (Cardigan 32 NW & SW)

1983 Soil Survey of England and Wales map and legend (Sheet 2 - Wales, at 1:250,000 scale)

1994 British Geological Survey map of Wales (Solid edition, at 1:250,000 scale)

Aerial photographic sources

OS Vertical APs: 72/237/069, dated 16-07-1972

Appendix 1 (Part 1): Archaeological sites within the proposed windfarm area

PRN: 14214

Crug-las cropmark

NGR: SN381506

Site type: Unknown

Category : E

A circular cropmark , 5m diameter. The cropmark was witnessed in a crop of rape - a bare patch where no rape was growing. The farmer Mr. Cowans informed the archaeologist who saw this anomaly a few years ago that it was the second year in succession that the cropmark has appeared. Its origin and function are unclear.

Appendix 1 (Part 2): Archaeological sites in the vicinity of the proposed windfarm area

PRN: 1383 Crug-las barrow **NGR:** SN38805154
Site type: Round barrow **Category :** B

A cairn, now in a poor state of preservation. No structure to it can be seen and the land around it is improved pasture. It is however still an obvious landscape feature. Mr. Cowan of Cruglas Farm buried his father in the cairn some years ago.

PRN: 1385 Crug-du barrow **NGR:** SN38075038
Site type: Round barrow **Category :** B

A large barrow, visible on aerial photographs, but now heavily denuded and barely visible from a distance. First identified in 1904. Past records suggest a circle of stones, 19m in diameter, with stones up to 1m high and overall 2m wide, with three cists within the ring. These produced Beaker pottery and calcined bone.

PRN: 1391 Blaenglowan Fawr barrow **NGR:** SN39905142
Site type: Round barrow **Category :** A

A probable round barrow, c.25m diameter and c.1.5m high. A hedge bank on its south-east edge is built of material from the margin of mound which is thus flattened on that side (NMR; JH 1995 based on Cadw 1987).

PRN: 14212 Crug-las soilmarks **NGR:** SN390512
Site type: Unknown **Category :** E

Mr. Cowans, former owner of Cruglas, stated that when ploughing two large dark circular soil marks appear in the field.

PRN: 14213 Crug-las burnt mound **NGR:** SN38605108
Site type: Burnt mound **Category :** E

Mr. Cowans, former owner of Cruglas Farm, informed K Murphy of DAT that when ploughing the fields near the stream many areas of shattered burnt stone appeared. In 1989 during a site visit by KM burnt and shattered stone was seen in pasture at SN38605108.

PRN: 18041 Crug-du gravel pit II **NGR:** SN385506
Site type: Gravel pit **Category :** D

A gravel pit was recorded at this spot in the Ceredigion SMR, but has now been infilled and no convincing traces remain.

PRN: 18042 Crug-du gravel pit I **NGR:** SN385501
Site type: Gravel pit **Category :** D

A gravel pit is recorded at this spot in the Ceredigion SMR. It is not known whether it is still extant.

PRN: 46315 Ty rhos structure **NGR:** SN37815114
Site type: Structure **Category :** D

Cottage or other building shown on the 1889 Ordnance Survey map, but probably disused at that time. Now in forestry to the west of the proposal area.

PRN: 46316 Glasbwl **NGR:** SN38535089
Site type: House **Category :** D

A cottage, probably abandoned before the Ordnance Survey map was compiled in 1888. Now a rather damp 'low' in the corner of the field, with only the disconformity in the field boundary suggesting its former presence.

PRN: 46317 Crugas **NGR:** SN38505120
Site type: House **Category :** D

Farmhouse, seemingly of no great age.

PRN: 46318 Pwll-y-gravel **NGR:** SN38555000
Site type: Building **Category :** C

Three-unit single-storeyed 'B' type sub-medieval house which had recently been modernised in 1981 (NMR)

PRN: 46319 Blaenglowan Fawr menhir **NGR:** SN39855125
Site type: Standing stone **Category :** B

Standing stone formerly in the centre of a field and about 200m south of a barrow (PRN 1391). It was removed in c.1910 and incorporated into a stile as its bottom step. Its recumbent length is 3' 6", a girth of 9' and a maximum side of 2' 6" (NMR from OS card)