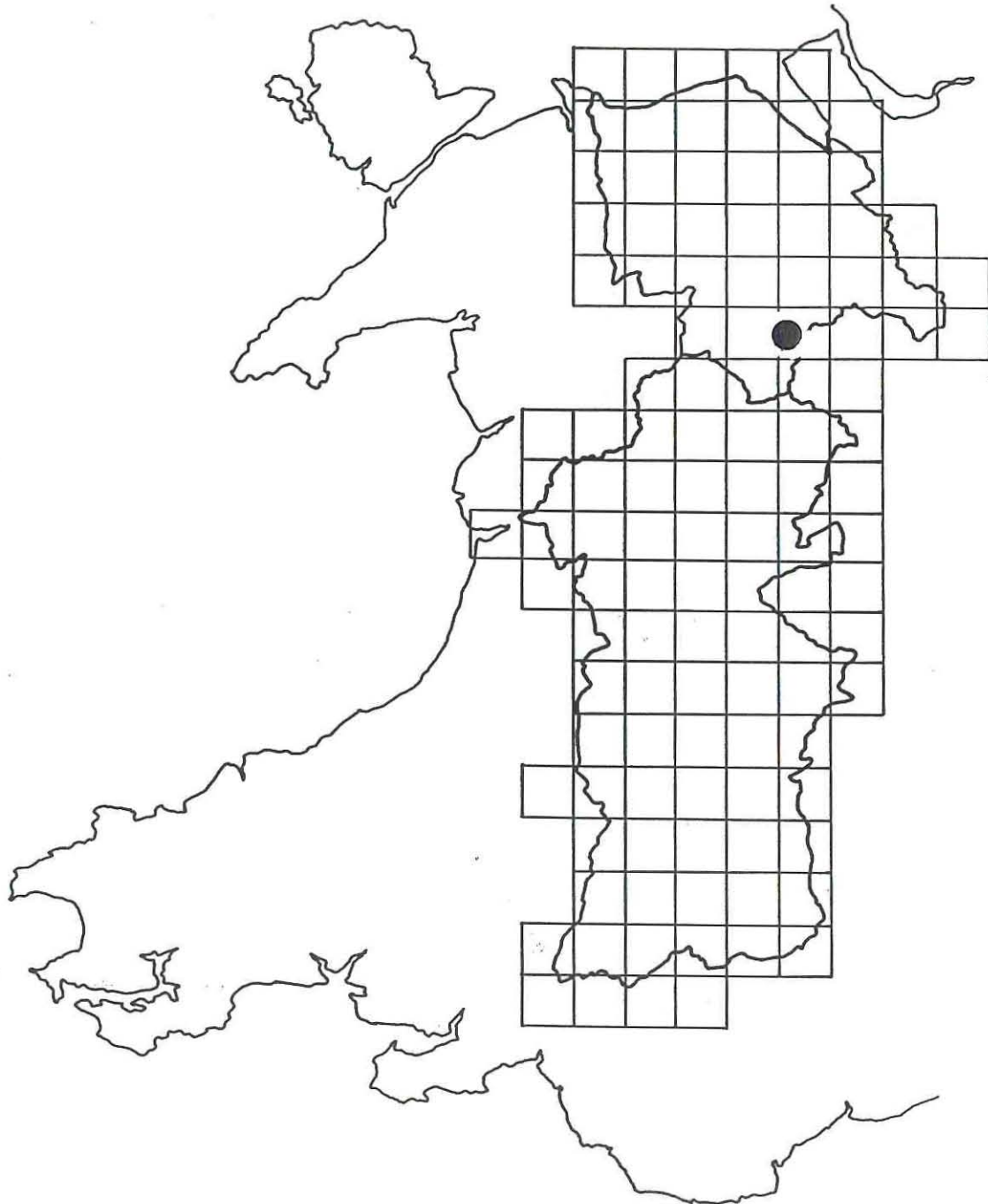


THE CLWYD-POWYS ARCHAEOLOGICAL TRUST

*Pen y Gwely Windfarm,
near Glyn Ceiriog, Clwyd*

ARCHAEOLOGICAL EVALUATION



CPAT Report No 94

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near Glyn Ceiriog, Clwyd*

ARCHAEOLOGICAL EVALUATION

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(revised May 1994)

Report prepared for Dulas Engineering Ltd

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1 Introduction

1.1 The Clwyd-Powys Archaeological Trust (CPAT) was commissioned by Dulas Engineering Ltd in February 1994 to provide an archaeological evaluation of the proposed windfarm development at Pen y Gwely, to the north-west of Oswestry (see Fig 1). It is now a standard procedure to conduct an Environmental Impact Assessment for any proposed wind farm in an upland area of Wales, leading to the preparation of an Environmental Statement for submission to the local planning authority. The survey reported on here was undertaken to assess the archaeological resource of the area, in accordance with a standard brief prepared at the request of Dulas Engineering by the Curatorial section of CPAT.

1.2 Both the documentary and fieldwork elements of the evaluation were conducted at the beginning of March 1994 and the first draft of the report prepared immediately afterwards. This, the second draft, became necessary when the plans were adjusted to include an additional area. The additional fieldwork and subsequent amendments to the first draft were undertaken at the beginning of May 1994.

2 Location, Topography and Land-use

2.1 The proposal covers a total area of approximately 0.9 sq.km located to both the north and south of Spring Hill Farm (SJ 2100 3460) which is 3.5km to the south of the village of Glyn Ceiriog within the county of Clwyd. For ease of reference the different sections of the proposal are referred to as Areas A, B and C, with A being the southernmost area and C the northernmost (see Fig 2).

2.2 All sections of the proposal occupy parts of an upland plateau which is located to the south of the Ceiriog Valley. In the parts under consideration this plateau varies in altitude from approximately 400m OD up to a maximum of nearly 450m OD, demonstrating the fairly level nature of the ground. Steep slopes to the north and west lead down from the area of the proposal into the Ceiriog Valley.

2.3 Land-use within the application area is almost entirely limited to improved upland grazing within recognised field boundaries. One small area of boggy unimproved ground remains in the southern part of Area A, but otherwise the land is grassy with some rushes present in the wetter areas.

3 Methodology

3.1 The desk-top study of the area was undertaken by the examination of data obtained from the Clwyd Sites and Monuments Record, documentary sources, cartographic sources and available aerial photography.

3.2 The proposed turbine locations were marked out prior to the commencement of fieldwork which, combined with the site plans provided, facilitated detailed examination of the turbine positions and their associated site roads.

3.3 Within the proposal area the ground was walked at approximate 30m transects. However, the open grassy nature of some parts of the proposal allowed greater transect widths, occasionally up to 50m, to be adopted without prejudicing the validity of the survey.

4 Desk-top Assessment

4.1 The Clwyd Sites and Monuments Record (SMR) shows a total of four sites within the application area and these are:-

4.1.1 CAR 01022, the site of a Bronze Age round barrow in Area C. This site was marked on the 1949 Ordnance Survey map of the area, but no evidence of the site has since been found by fieldworkers.

4.1.2 CAR 01025, the probable site of a Bronze Age round barrow in Area C. The site was excavated in 1850 and finds recovered included an urn thought to be an enlarged food vessel and a plano-convex flint knife. It is also noted in the SMR that the location information for this site is unreliable.

4.1.3 CAR 01042, a probable Bronze Age ring cairn in Area B, described as being two concentric rings of stone and earth. It is thought that the inner ring is the more significant part of the site, the outer ring being caused by tree planting.

4.1.4 CAR 01917, an oval shaped feature in area A, seen on an oblique aerial photograph. The feature is noted in the SMR as being suggestive of a prehistoric enclosure or hillfort.

4.2 The earliest source consulted was the old edition 1 inch:1 mile map for the area published in 1837. Two "tumuli" are shown to the north of "Gwastad Mawr" in an area called "Bryn-bugailen" to the west of a small stream valley. The small scale of the map, and the fact that it predates the enclosure of the area, makes accurate positioning of these features (now known as barrows) impossible. However, their significance and possible location become more apparent in the light of later sources.

4.3 The next sources consulted were the Tithe maps for the three old parishes of the proposal area, dating from 1841 to 1843. These are Llangollen, Hafodgynfawr (1841); Llansilin, Rhiwlas Uwchfoel (1841) and Llansilin, Rhiwlas Isfoel (1843). All of the maps show the proposal area as common land used for sheepwalks, although some encroachments into the common to the north-west of Area C are shown on the Llangollen Tithe map. These encroachments may also be shown on the 1837 1 inch:1 mile Ordnance Survey map.

4.4.1 The earliest discovered documentary reference to the area is the excavation report for CAR 01025 (Wynne Ffoulkes 1851). The report describes the monument as having a single layer of "white spar" (quartz ?) on its surface, overlying a loamy soil two feet in depth which covered the main structure. This was composed of a seven foot high mound of stones on a foundation of "bluish clay overlain by ashes". The whole is said to have been 60 feet in diameter. The excavation was carried out in July 1850, but, as noted above (4.1.2) the location information is inexact, stating that the monument (called Bryn Bugailen Fawr) is to the north of the nearby road within the holding known as Bryn Bugailen. The author notes later that the name of the monument is "that assigned to it by the Ordnance map", undoubtedly a reference to the 1 inch:1 mile map of 1837.

4.4.2 The author also notes that there is a further barrow, almost completely destroyed, "272 yards to the west" of CAR 01025 called Bryn Bugailen Fach, this would have been the other barrow marked on the 1837 1 inch:1 mile map, which the map shows as being slightly south of west. It appears that an excavation of the monument was considered in the next season, but this was apparently never carried out.

4.4.3 Further information on the area as a whole is included in the introduction to the excavation report, which states "Some years ago Gwastad

Mawr, and all the adjacent mountain district was enclosed and new roads were made in different directions across the mountain", thereby defining the period of time in which the land occupied by the application area was enclosed as no enclosed land was shown here in 1841. Several enclosure awards for the locality survive for the period 1844-1851. One or more may be specific to the areas considered here but as they post-date the Tithe survey they have not been consulted.

4.5 The next available sources are the first edition Ordnance Survey 1:2500 maps for the area surveyed in 1875 (Denbighshire 39.15, 42.2 and 42.3). The field boundaries shown on these maps are the result of the enclosure of the common and, apart from one case of amalgamation in Area B and a new boundary in Area A, conform closely with the present day boundaries. CAR 01042 is shown on Denbighshire 39.15, but due to its probable prehistoric date its appearance on the map is not particularly significant in a chronological context. Area C on the same map shows the location of a small quarry examined during fieldwork, but little information of further relevance can be seen.

4.6 The second edition Ordnance Survey 1:2500 maps published in 1899 show no further relevant information.

4.7.1 The site of CAR 01025 was visited in 1918, 1922 and 1925 by the Rev. Ellis Davies (Davies 1929, 126-129), who notes that the site of the monument "seems to be about 320 yards south-west of the buiding at Bryn Bugeilyn". The author also made enquiries as to the whereabouts of the two recorded finds, and reported that the food vessel was apparently lost and the plano-convex knife had been presented to the National Museum of Wales as part of the Peniarth Collection.

4.7.2 CAR 01042 was visited in 1923 (Davies 1929, 132) when it was apparently occupied by an inordinate number of trees (at least 30 hawthorn bushes in the outer bank and at least 30 "Scotch firs" in the interior). The circular banks are described as being 50 and 90 paces in circumference respectively, 3 feet wide and 1.5 feet high. A shallow ditch was seen outside the outer bank.

4.8 CAR 01917 can be seen on the next source consulted, aerial photography taken by the RAF in 1946. The appearance of the feature on the photographs does not suggest an archaeological site. CAR 01042 is also visible.

4.9 The final source consulted was an oblique aerial photograph of CAR 01917 taken in 1993, presumably that referred to in the Clwyd Sites and Monuments Record for the site. This aerial photograph was no more indicative of an archaeological site than those noted above and the feature is more likely to be of geomorphological rather than man-made origin.

5 Results of the Fieldwork

5.1 Apart from the sites noted in the Clwyd Sites and Monuments Record, two further sites were recorded as part of the evaluation. These were PRN 105080, a small quarry already noted in the desk-top study, and PRN 105081, a possible standing stone.

5.2 The sites previously recorded were also visited in order to determine appropriate mitigation strategies, where their continued existence was threatened by the proposal.

5.3 Area A

5.3.1 CAR 01917 is located between turbines 9 and 10. On visiting the site its geomorphological nature became more apparent, the feature seen on the aerial photography being created by vegetation (ie rushes). The exact nature of the feature has not been confirmed but it may be a pingo or other ground-ice feature. In the absence of expert knowledge of geomorphological landforms it would be best to treat this as a natural feature of indeterminate origin which could be of some geomorphological interest.

5.3.2 It is outside the scope of this report to assess the geomorphological worth or otherwise of the above feature. We are informed, however, that such features are not particularly common in Wales, and would urge the clients consultants to assess the significance of this feature before proceeding with the final siting of the turbines.

5.3.3 The possible standing stone, PRN 105081, is an almost recumbent stone embedded in the ground at its north-eastern end. It has dimensions of 0.4m wide by 0.2m deep by a minimum of 1.3m long and is located within the revised section of Area A at SJ 2116 3407, approximately 50m to the south-east of turbine 7.

5.3.4 Due to pasture improvement undertaken in the field, it is difficult to determine whether PRN 105081 is a standing stone of potentially prehistoric date disturbed by the improvement, or a natural slab upturned by ploughing. In view of the uncertainty it may be preferable for the site to be marked out prior to the commencement of site works, to prevent further disturbance occurring.

5.4 Area B

5.4.1 CAR 01042 forms part of the eastern boundary of this area and as the revised plan shows only one turbine (12) in the field, more than 150m distant, it is very unlikely that any disturbance of the monument will occur.

5.5 Area C

5.5.1 CAR 01025 is no longer visible in the field to the north of the road past Caemor wood. The original location for the monument is perhaps most likely to lie on the grass covered stony ridge which runs in an east/west direction across the field in question. Three fairly substantial clearance cairns can be seen there and one of these may have been created by the excavation of the monument in 1850.

5.5.2 Depending on the position of CAR 01025, it may just be possible that the line from the road past turbine 13 to turbine 15 could reveal the location of the barrow called Bryn Bugailen Fach in the excavation report for CAR 01025. This monument was described as being "almost all carried away" in 1851, but traces of the disturbed material may remain underneath the topsoil.

5.5.3 In view of the uncertainty regarding exact locations, the preparation of a suitable mitigation strategy, directed at avoiding any possible remains of CAR 01025 and its nearby barrow, is not possible at this stage. However, a possible archaeological response to the proposal would encompass a watching brief during topsoil stripping operations in this area and subsequent recording of any traces of the monuments which may be discovered. In order to minimise the possibility of disturbing any deposits related to the two monuments it may be preferable for the two lines (14 to 16 and 13 to 15) in the field to avoid the immediate areas of the clearance cairns mentioned in 5.5.1.

5.5.4 No trace of CAR 01022 could be seen on the ground.

5.5.5 The small quarry PRN 105080 at SJ 2098 3577 with dimensions of 8m north/south by 6m east/west by 2m deep, was probably used as a source of stone for the adjacent wall, which the desk-top study suggests was created between 1841 and 1851. The site is located approximately 80m to the north of turbine 15 in the current proposal and is therefore unlikely to be disturbed.

6 Conclusions

6.1 The only feature of archaeological interest in Area A is PRN 105081. It is not known whether the site is a disturbed standing stone of possibly prehistoric date, or a naturally occurring stone which has been moved during pasture improvement. It may therefore be preferable for the monument to be marked out and avoided by the site works.

6.2 CAR 01917 is certainly of geomorphological origin and outside the scope of this report.

6.3 On the eastern boundary of area B, CAR 01042 is a monument of some importance. Its location should ensure avoidance by the site works, but it should be noted that any unavoidable disturbance to the monument would probably require full archaeological excavation, a time consuming and costly course of action.

6.4 It is more difficult to draw definite conclusions about the archaeological resource of Area C due to the lack of precise locations for the monuments which may be present. It seems likely that little of either of the round barrows, Bryn Bugailen Fawr (CAR 01025) or Bryn Bugailen Fach to its west, can have survived, but some remains may be revealed by topsoil stripping and a suitable mitigation strategy for recording or preservation should be worked out prior to the commencement of such activity. A way of minimising the possibility of any disturbance of deposits occurring would be for the immediate areas surrounding the three clearance cairns to be avoided by the site works.

6.5 No trace of CAR 01022 could be seen and it seems likely that the 1949 Ordnance Survey map had incorrectly located one of the other monuments in the area.

6.6 PRN 105080 should lie outside the area of potential disturbance. Due to its probable links with the enclosure of the former common it would be preferable for it to be avoided by the proposal.

7 Acknowledgements

7.1 The writer would like to thank Professor Alan Straw of the University of Exeter for his geomorphological advice and the landowners for their permission to walk the areas affected by the proposed development.

7.2 Clwyd Archaeology Service, a part of Clwyd County Council, provided information from their Sites and Monuments Record.

8 References

8.1) Sources

- 1837 Ordnance Survey 1 inch:1 mile map (see Margary below)
- 1841 Tithe Survey: Llangollen (Hafodgynfawr) Parish: National Library of Wales
- 1841 Tithe Survey: Llansilin (Rhiwlas Uwchfoel) Parish: National Library of Wales
- 1843 Tithe Survey: Llansilin (Rhiwlas Isfoel) Parish: National Library of Wales
- 1875 Ordnance Survey 1st edition 1:2500 map: Denbighshire 39.15
- 1875 Ordnance Survey 1st edition 1:2500 map: Denbighshire 42.2
- 1875 Ordnance Survey 1st edition 1:2500 map: Denbighshire 42.3
- 1899 Ordnance Survey 2nd edition 1:2500 map: Denbighshire 39.15
- 1899 Ordnance Survey 2nd edition 1:2500 map: Denbighshire 42.2
- 1899 Ordnance Survey 2nd edition 1:2500 map: Denbighshire 42.3
- 1946 RAF Aerial Photography: 106G/UK/1468/4322-4323
- 1993 CPAT Aerial Photography: 93/CS/1562

8.2) References

- Davies, E. 1929. The Prehistoric and Roman Remains of Denbighshire. Cardiff.
- Margary, H. 1992. The Old Series Ordnance Survey Maps of England and Wales. Vol 6 (Wales). Lympe, Kent.
- Wynne Ffoulkes, W. 1851. 'Tumuli, Denbighshire', Archaeologia Cambrensis 219-225.

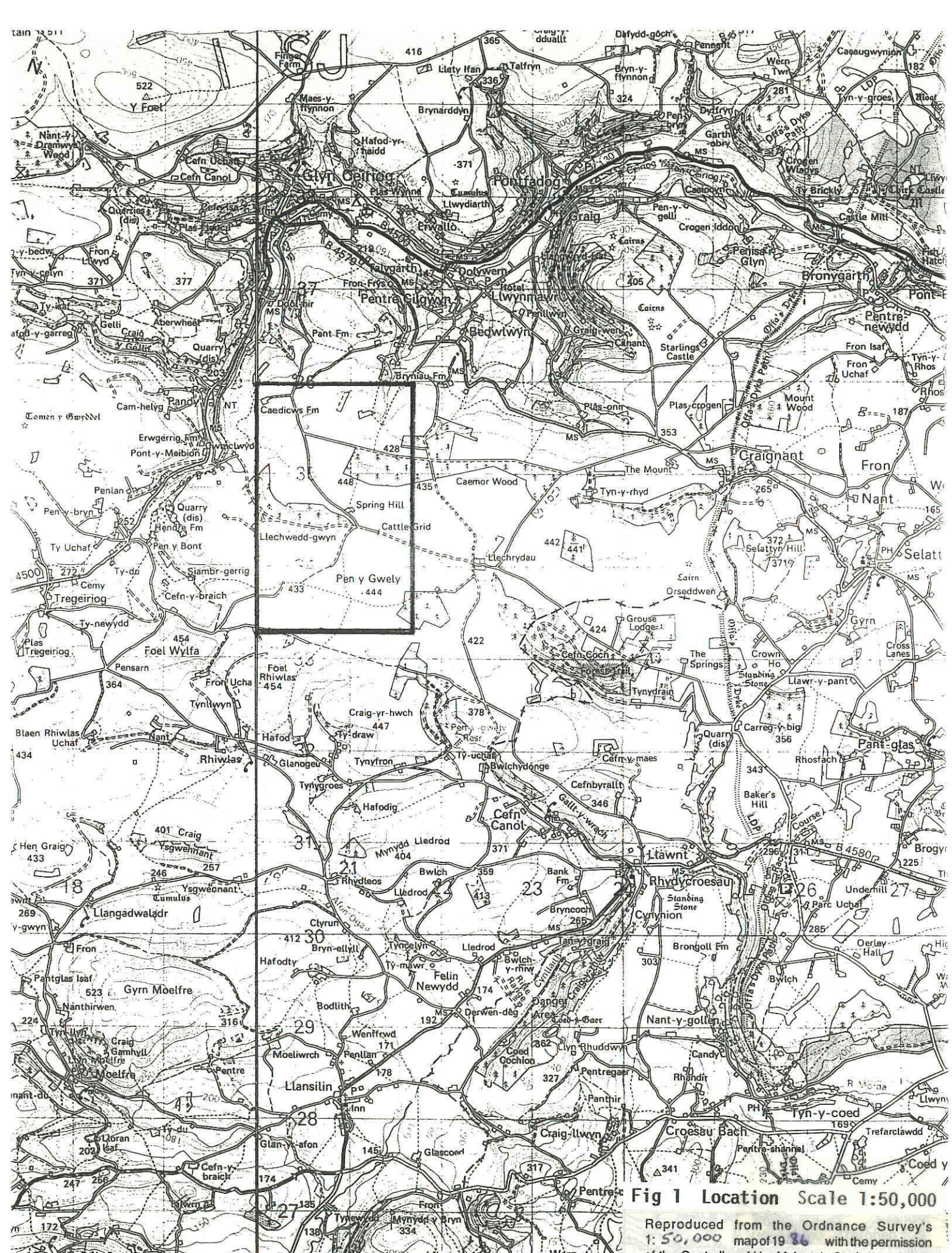


Fig 1 Location Scale 1:50,000

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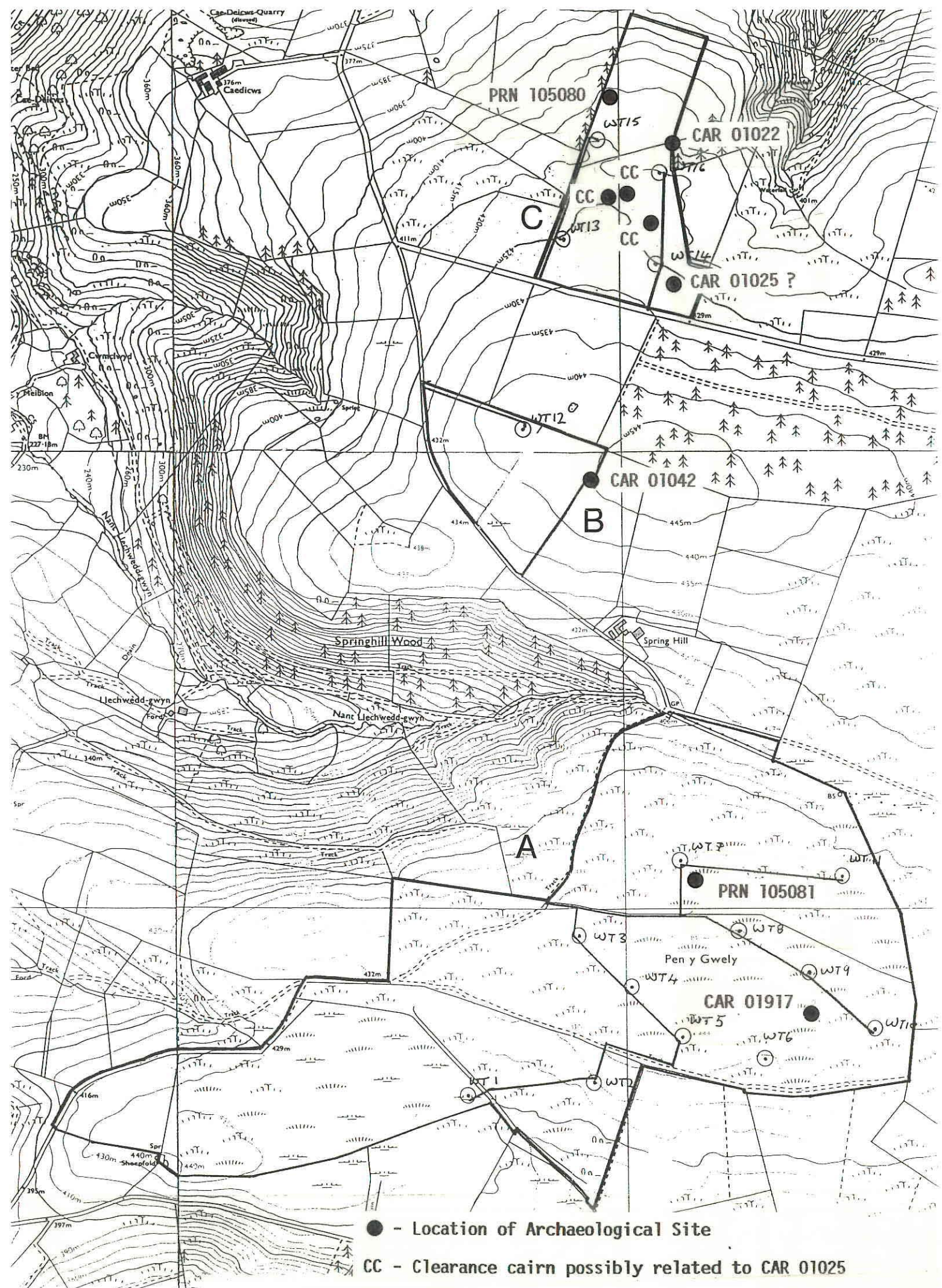


Fig 2 Windfarm Layout and Archaeological Sites Scale 1:10,000