

Moel Maelogau

*Survey Commissioned
by
Cynefin Consultants.*

*Desktop and Fieldwork
by
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Engineering Archaeological Services Ltd.*

*registered in England
Nº 2869678*

*Moel Maelogen Wind Farm
Desktop Study and Field Visit*

February 2003

EAS Client Report 2003/05

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Moel Maelogen - Introduction:

Introduction

NGR

Centred on SH 850610

It is intended to extend the existing wind farm on Moel Malogen with the construction of eleven extra turbines and linking tracks. Moel Maelogen is within the parish of Llanwrst, to the east of the town. The development area is within the land associated with the Maelogen Farm. The land consists of rolling hillsides relatively steeply cut by streams. Much of the land has been recovered from moorland in the twentieth century AD and is now under improved pasture with occasional areas of wet, boggy land with juncaeous vegetation.

Archaeological Background

No archaeological features or deposits are presently recorded on the Gwynedd Sites and Monuments Record from the proposed development area. An archaeological assessment carried out for Phase 1 of the wind farm (Cynefin 1999, 95 - 98) located only a few features, the majority of which were probably post mediaeval in date and were associated with the agricultural exploitation of the land.

Aims of Survey

To assess the archaeological impact of the proposed development by desk top study and a field visit.

SUMMARY OF RESULTS

Only eight new features were located, of which only three would appear to be directly affected by the proposed development. Probably the most important of these is a possible prehistoric barrow located on the proposed track between Turbine 8 and Turbine 12. The other features located would all appear to post mediaeval in date and be associated with the agricultural exploitation of the land.

Sources Consulted :

The following sources were consulted as part of this study:

- 1. Gwynedd Sites and Monuments Record.*
- 2. Caernarfonshire County Records Office in Caernarfon.*
- 3. National Library of Wales in Aberystwyth.*
- 4. National Monuments Record held by the Royal Commission on the Ancient and Historic Monuments of Wales, Aberystwyth.*
- 5. University College of Bangor Archives.*

Maps

- nd. Lands in the parish of Llanwrst belonging to the Berth Ddu Estate. (Bangor Archives 8530).*
- 1814 Map of Moel O Gan (Bangor Archives 8526).*
- 1839 Tithe Map for Llanwrst (National Library of Wales)*
- 1875 Ordnance Survey First Edition Map Denbigh XI.15, Scale 1:2500 (National Library of Wales)*
- 1875 Ordnance Survey First Edition Map Denbigh XI.16, Scale 1:2500 (National Library of Wales)*
- 1875 Ordnance Survey First Edition Map Denbigh XVI.3, Scale 1:2500 (National Library of Wales)*
- 1875 Ordnance Survey First Edition Map Denbigh XVI.4, Scale 1:2500 (National Library of Wales)*
- 1910 Ordnance Survey Second Edition Map Denbigh XI.15, Scale 1:2500 (National Library of Wales)*

Moel Maelogen - Sources:

- 1910 *Ordnance Survey Second Edition Map Denbigh XI.16, Scale 1:2500 (National Library of Wales)*
- 1910 *Ordnance Survey Second Edition Map Denbigh XVI.3, Scale 1:2500 (National Library of Wales)*
- 1910 *Ordnance Survey Second Edition Map Denbigh XVI.4, Scale 1:2500 (National Library of Wales)*

Primary Records

- 1627 *Draft Feoffment of messuage or tenement of Pen Mologen - alias Ffrith Pen Mologen. Between Robert Wynne of Bodeskallen and Thomas Williams of Lincolns Inn and Hugh Williams of Eskiviog, Anglesey. (Bangor Archives Mostyn 1814)*
- 1678 *Lease for six month of a messuage and tenant called Mollagen between Robert Wynne and Simon Thelwall of Llanbeder, Co. Denbigh (Bangor Archives Mostyn 1779)*
- 1688 *Mortgage of Malogen and Gwaen Malogen, Y Kay Bach, Y Ffrith Lanol, Y Ffrith Ddebunfa, Gwerglodd Mologen and Nant Ar Dŵr. Between Robert Wyn of Bodyschallen, Symon Thelwall of Llanbeder and John Mostyn of Vaynol. (Bangor Archives Mostyn 1782)*
- 1695/6 *Lease and release for Mylogen between John Mostyn of Castle and Mary Price of Gwersyllt. (Bangor Archives Mostyn 1784)*
- 1858 *Conveyance of a freehold estate called Moelogan and Moelogan bach situated in the Parish of Llanwrst in the County of Denbigh. Between Charles Bicknell and William Lilley Smith to John Samuel Dawes. (Bangor Archives, Carter Vincent 3120)*

References

Cynefin Consultants 1999 *Moel Maelogen Wind Power Project. Volume 2. Environmental Statement.*

CADW, Welsh Historic Monuments. 2001 *Landscapes of Historic Interest in Wales. Part 2 of the Register of Landscapes, Parks and Gardens of Special Historic Interest in Wales. Part 2.2: Landscapes of Special Historical Interest.* CADW, Cardiff.

Aerial Photographs

- 1972 *Ordnance Survey Flight 72 394, Frames 460 - 467, 526 - 533, 568 - 574, 627 - 635 (National Monuments Record 7274)*
- 1973 *Ordnance Survey Flight 73 174, Frames 205 - 208 (National Monuments Record 7366)*
- 1997 *NRSC Flight 1697, Frames 193 - 195, 231 - 233 (National Monuments Record 9741)*
- 1990 *ADAS Flight 452, Frames 196 - 198 (National Monuments Record 9001)*

Desk Top Study

The earliest documentary record located for Maelogen Farm is dated AD 1627 when the farm appears to be owned by Thomas Wynne of Bodeskallen (Bodysgallen). It is subject to a series of lease hold and mortgage agreements throughout the seventeenth century AD. These agreements are now held in the Archives of the University College of Bangor as part of the Mostyn Collection. By the end of the seventeenth century the property appears to have changed hands and now forms part of the estates owned by the Mostyn Family.

It is during the ownership of the Mostyns that the earliest cartographic evidence for the farm is to be found. An undated map (Figure 2) of the holdings belonging to the Berth Ddu Estate in the parish of Llanwrst is probably the earliest map.

Moel Maelogen - Desk Top Study:

When compared to a map of the holding in AD 1814 (Figure 3) some of the fields near to the farm are sub-divided and there is an extra building on the AD 1814 map suggesting that the undated map is pre- AD 1814.

Both Maeolgen and Maelogen bâch are shown on the undated map with their respective fields and a large area of moor land between them. The proposed site of the new turbines would be within this area of moorland.

The AD 1814 map (Figure 3) is only of the land in direct control of Maelogen Farm itself. At this time the farm was tenanted to Ann Owen. It also has the advantage of recording the field names in use at the time (Appendix 2). Many of the field names record the origins, or relatively poor nature, of the fields with references to moor, enclosed uplands or reeds.

The Llanwrst Tithe map of AD 1839 (Figure 4), although slightly schematic, once again shows the in fields associated with Maeolgen and Maelogen bâch and a large area of moorland between them. The tenant for Maelogen is recorded as David Hughes and the owner as Edward Mostyn Lloyd Mostyn. The large area of moorland was not part of the Maelogen holdings but was administered in house. The schedule to the Tithe Map is of importance as it also records the land use at the time. The relatively poor nature of much of the land at the time is shown as only one of the eight fields associated with Maelogen did not also contain a turbury pasture (peat cutting). This even applied to the three fields recorded as arable on the schedule. The large area of open moorland in direct control of the Mostyns is described as "Allotment" and its land use is shown as turbury pastures.

By AD 1858 the land had past into private ownership as is shown by the Conveyance Deeds between Charles Bicknell and William Lilley Smith and John Samuel Dawes. Both Maelogen and Maelogen bâch were sold for £2900.00. Whilst the field names were recorded within the deed, unfortunately the associated plan has not survived.

The First Edition Ordnance Survey Map of AD 1875 (Figure 5) shows that although much of the land between Maeolgen and Maelogen bâch had been taken into agricultural production the area directly affected by the proposed development was still moorland with boggy areas. This pattern continued to at least AD 1910 as there is little or no changes by the Second Edition Ordnance Survey Map of that date.

There has been a steady improvement of the moorland area since the First World War with the systematic drainage of much of the moorland area and whilst the proposed development is on the edge of the Denbigh Moors Landscape of Historic Interest (CADW 2001, 9 - 11) little of the original heather moorland survives within the development area. The Denbigh Moor Landscape was designated under Criteria 3 of the Register (CADW 2001, 11) which defines "Landscapes in which development or change as a result of human activity continues, and into which past evidence from more than one period has become cumulatively assimilated with the natural (landforms) and semi-natural (landcover) elements, with particular regard for those areas in which evolution over time is shown by a variety of archaeological or historic features...." (CADW 2001, xxvi).

An archaeological assessment was carried out as part of the Environmental Statement for Phase 1 of the Moel Maelogen Wind Farm (Cynefin 1999, 95 - 98. Only a limited number of features were located in this study the main impact was to a boundary bank (Plate 1) which was crossed by the track joining the turbines.

Field Visit Results:

Methods

Moel Maelogen was visited on 21st February 2003. A visual inspection was made of the proposed turbine sites and the route of proposed tracks joining the turbines. A record was made of the presence and conditions of all possible archaeological features located. The sites were

Moel Maelegen - Field Visit:

assigned PRN numbers from the Gwynedd Sites and Monuments Record.

RESULTS: (Figure 6)

All of the proposed sites for the new turbines are on improved pasture, indeed it was obvious on the field visit that there has been considerable, recent, investment in extensive drainage over much of the previous moorland area. A few areas of wet, boggy land with juncaeous vegetation survive and whilst none of these are affected by the proposed turbine site, some of the proposed tracks cross these areas.

Only eight new possible archaeological features were located, of these only three would appear to be directly affected by the development. These features are described in detail in Appendix 1.

A low, sub-rectangular mound (PRN 13993, Plate 2) was located near to the proposed site of Turbine 4. This mound was approximately 4 x 3 m in size and stood to a maximum height of 0.5 m. The shape, size and location of this feature would suggest it is not natural in origins, although its function and date are unknown.

The proposed track from the existing Turbine 3 to Turbine 5 crosses two features and is near to a third. A large area of probable peat cutting and associated wet ground (PRN 13994, Plate 3) is located adjacent to the track to the existing Borrow Pit 1. It is inevitable that any track crossing this area will effect the remains, however, they are poorly preserved and are of a type which are common in the area. The major concern would be for any organic remains preserved in the wet or peaty ground.

The proposed track then crosses a major bank boundary (PRN 13995, Plates 4 and 5). This feature can be traced for a considerable distance and forms what was a major land division. Although undated it is probably post-mediaeval in date. It sits on a low mound (PRN 13996, Plate 6) of uncertain date. This mound should not be directly affected by the construction of Turbine 5 or its track.

Away from immediate danger, but adjacent to a farm track a small quarry into slaty material was noted (PRN 13997, Plate 7. This feature should be under no threat from the proposed development

The track between proposed Turbines 8 and 12 would appear to cut a low circular mound constructed of boulders and earth (PRN 13998, Plate 8). The form of this feature may suggest that it is a prehistoric barrow (burial mound), possibly of Bronze Age date. The proposed track should be re-routed to avoid this feature.

Adjacent to an existing track between the proposed sites of Turbines 10 and 13 two stone built structures were recorded (PRN 13999, Plate 9 and PRN 140000). The function of these structures is uncertain, but they sit within the current track side ditch and probably represent access points to the adjacent field. The form of these features would suggest they are post mediaeval in date. Unless the trackway which they are adjacent to is to be considerably widened there should be minimal risk to these feature.

Moel Maelegen - Discussion and Recommendations:

Discussion

The proposed development would appear to be on land which was moorland until well into the Twentieth Century AD. Land use prior to this point would appear to have been restricted to hunting, upland grazing and some peat cutting. During the seventeenth and eighteenth centuries the land form part of the large estates run by the Wynnes of Bodeskallen (Bodysgallen) or the Mostyn Family with only the fields near to the farm house being tenanted. The large area of moorland, on which the present development is planned, would appear to have been administered, in house, presumably partly as a shooting moor.

By the mid nineteenth century the land had passed into private hands and the boundaries of the present farm largely defined.

The field visit located only eight new feature, of which only three are directly affected by the proposed development. Probably the most important of these is the possible prehistoric barrow (PRN 13998). These features are known from the area with the nearest known barrows being to the north west of Gorsedd Gycun (PRN 4669) and at Henbas (PRN 2464) (Gwynedd Sites and Monuments Record).

The other major feature affected was a boundary bank of probably post-mediaeval date. This feature was obviously a major boundary and can be traced for a considerable distance, its line is also extended on the opposite side of the Afon Derfyn where it is preserved as a field boundary.

The only other feature to be directly disturbed is an area of peat cutting. Judging from the Tithe Map Schedule peat cutting formed a large part of the economy in the nineteenth century AD. It is also important as peat, and other wet deposits, has the potential to preserve organic remains not usually recovered from drier deposits.

Recommendations

- 1. Wet area of surviving peat should be avoided if possible. If not, no drainage or earth moving operations should be carried out and any track should be built over the wet ground.*
- 2. The track between Turbines 8 and Turbine 12 be re-routed to avoid the possible barrow (PRN 13998)*
- 3. Any gap needed in the boundary bank (PRN 13995) should kept to a minimum.*

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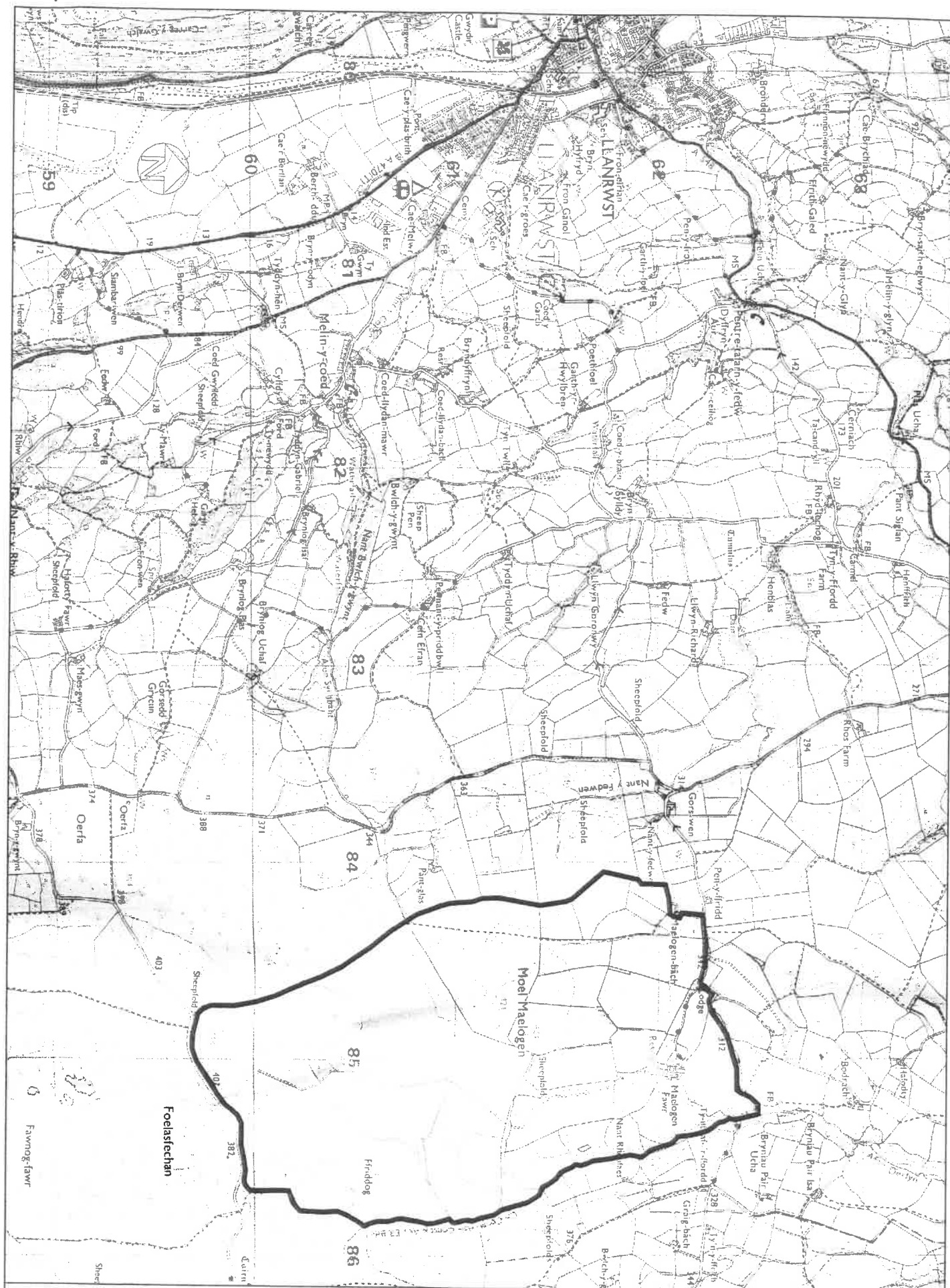


Figure 1: Moel Maelogen Wind Farm
Location of the Survey Area
Scale 1:25,000

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Plate 1: Bank recorded in previous survey

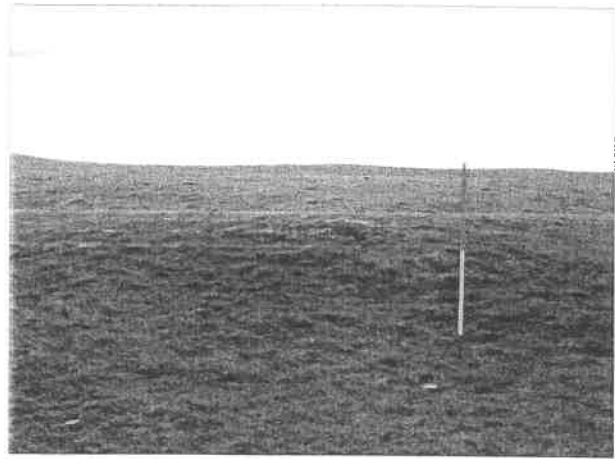


Plate 2: PRN 13993

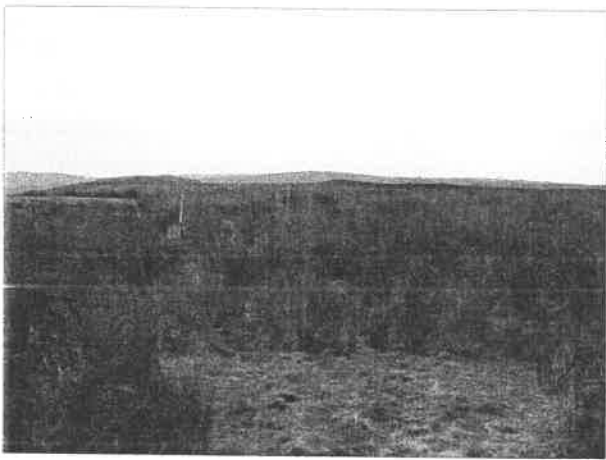


Plate 3: PRN 13994



Plate 4: PRN 13995

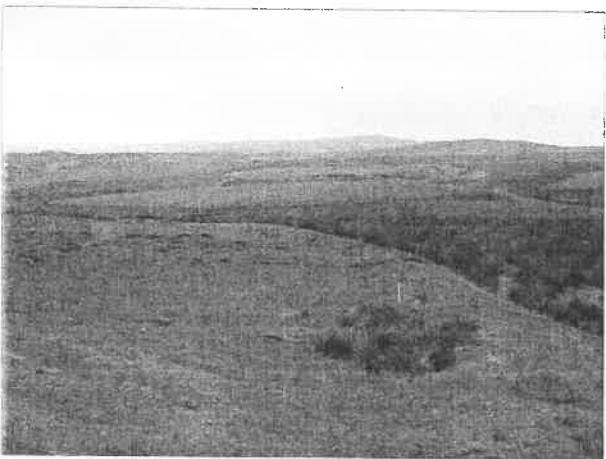


Plate 5: PRN 13995

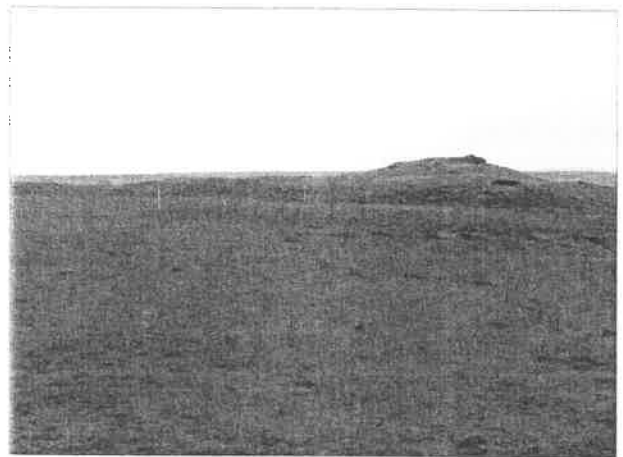


Plate 6: PRN 13996

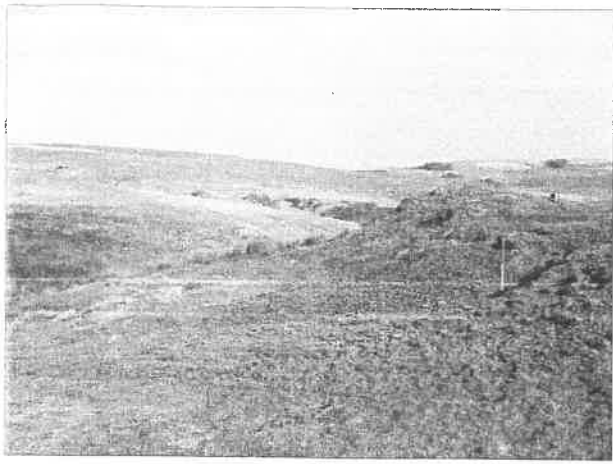


Plate 7: PRN 13997

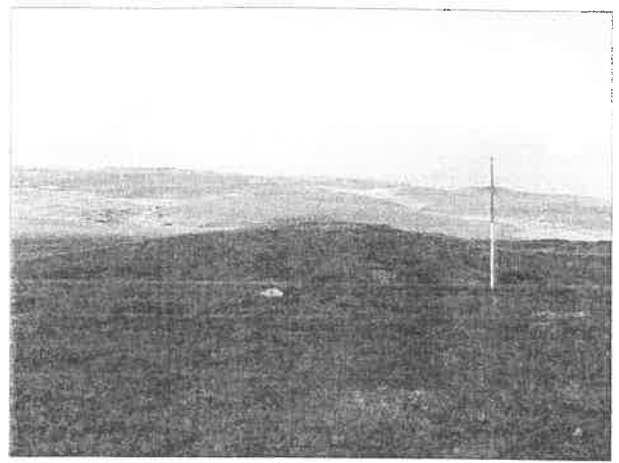


Plate 8: PRN 13998



Plate 9: PRN 13999



Plate 10: PRN 14000

Appendix 1: Description of Features

PRN	GRID	DESCRIPTION	DATE	CONDITION	VULNERABILITY	ILLUSTRATION
13,993	SH 84501 61369	Low, sub- rectangular mound approximately 4 x 3 m in size and up to 0.5 m high on the edge of the hill slope. The mound has a very steep slope on its north and west sides and tends to merge with the hill slope on its eastern and southern sides.	Unknown	Under improved pasture. Probably eroded.	Slight	Plate 2
13,994	SH 85296 61175	Area of probable peat cutting covering an area of at least 40 x 100 m. The area contains the occasional low banks and shelves suggesting the direction of the last set of cutting	Post-mediaeval	Under rough grass and juncaceous vegetation. The ground is still wet.	In direct course of track to Turbine 5	Plate 3
13,995	SH 85393 61161 SH 85380 61101 SH 85383 61081 SH 85396 61060	Low boulder and earth bank, between 0.25 and 0.5 m high and up to 4 m wide, with sloping sides and an irregular, but generally flat top. The bank runs approximately north south before turning towards the east. It can be traced over a considerable distance, running towards the Afon Derfyn. A similar bank would appear to take up a similar course on the other side of the river. The bank would appear to sit on top of PRN 13996.	Post-mediaeval	Under improved pasture. Cut by a sheep track which has been widened by use as a vehicle access point	In direct course of track to Turbine 5	Plates 4 and 5
13,996	SH 85379 61111	Low, sub-rectangular mound approximately 9 x 4 m in size and up to 0.2 m high aligned approximately north - south. This bank runs parallel with, and appears to be slight below PRN 13995.	Unknown	Under improved pasture.	Slight	Plate 6

PRN	GRID	DESCRIPTION	DATE	CONDITION	VULNERABILITY	ILLUSTRATION
13,997	SH 85427 60691	Sub-circular quarry into slatey material on the side of a stream bank. The quarry is approximately 7 x 5 m in size and between 0.5 and 1 m deep. The north-western side of the quarry is marked by a low bank, up to 0.5 m high and approximately 2 m wide. This bank presumably stopped material running down to the stream. The quantity of loose material would suggest that this quarry may have been used recently to provide material for a nearby track	Post-mediaeval	Partly cut by a farm access track. On the edge of improved pasture.	Slight	Plate 7
13,998	SH 85650 60619	Low, circular mound approximately 5 m in diameter and 0.5 m high. The mound was constructed of sub-rounded boulders up to 0.4 x 0.2 m in size with an earth matrix. It is possible that this may be a round barrow.	Possibly Prehistoric	Under improved pasture. The scatter of boulders around the mound would suggest some damage has already been carried out.	In direct course of track to Turbine 12	Plate 8
13,999	SH 85090 60271	Stone revetting across the line of a modern ditch. This block of masonry was 3.5 x 1.5 m in size and 0.7 m high. It was constructed of sub-rounded to sub-angular boulders up to 0.8 x 0.35 x 0.25 m in size and had been re-mortared with a pink mortar. The function of this structure is uncertain, however, it may have been the abutment for a bridge. If so the opposite abutment is only shown by a low mound.	Post-mediaeval	A modern plastic drainage pipe has been incorporated into this structure, possibly at the same time it was re-mortared	Slight	Plate 9

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PRN	GRID	DESCRIPTION	DATE	CONDITION	VULNERABILITY	ILLUSTRATION
14,000	SH 85087 60190	Mortared stone revetment across the line of a modern ditch. The revetment is 2.3 m long and 0.5 m high. It is constructed of sub-angular to sub-rounded boulders, up to 0.7 x 0.2 x 0.05 m in size, in a pink mortar. Possibly a hardening of the ditch to allow access.	Post-mediaeval	Moderate, slightly undercut by water in the ditch.	Slight.	Plate 10

Appendix 2: Field Names

AD 1814 Map (Figure 3)

Plot Number	Welsh Name	English Translation
2	Cae Cefn	Back field
3	Ffrith Newydd	New moorland enclosure
4	Waen rhos	Heathy moor
5	Ffrith Ucha	Upper moorland enclosure
6	Sofl-bella	Furthest stubble
7	Waen	Moor
8	Y Borfa	The meadow
9	Cae brwyn	Reed field
10	Waen	Moor
11	Ffrith gyd	Common

AD 1839 Tithe Map and Schedule for Malogan (Figure 4)

Plot Number	Welsh Name	English Translation	Land Use
931	Allotment	Allotment	Old pasture
933	Gwaiglodd	Hollow	Arable and turbury pasture
934	Wyn Rhos	Heathy moor	Pasture
935	Sofle Bellaf	Furthest stubble	Arable and turbury pasture
936	Y Ffridd	Enclosed moor	Turbury pasture
937	Cae lan y ly Cow House	Cow house field	Arable and turbury pasture
938	Cefn Grans Mawr	Big rough field	Arable and turbury pasture
939	Cefn Garw bach	Little rough field	Arable and turbury pasture
940	Ffrith Bath	Small moorland enclosure	Arable and turbury pasture
941	Allotment	Allotment	Turbury pasture

Translations provided by R. Francis

Moel Maelogen - Appendix 3:

DESIGN BRIEF FOR AN ARCHAEOLOGICAL ASSESSMENT

Gwynedd Archaeological Planning Service

Site: Moel Maelogen Wind Power Project (extension)

Client/Applicant: Cynefin Environmental Ltd.

Date: 5 February 2003

National Grid Reference: 285200, 360500

This design brief is only valid for six months after the above date. After this period Gwynedd Archaeological Planning Service should be contacted.

It is recommended that the contractor appointed to carry out the archaeological assessment visits the site of the proposed development and consults the Regional Sites and Monuments Record (SMR) for north-west Wales before completing their specification. Gwynedd Archaeological Planning Service cannot guarantee the inclusion of all relevant information in the design brief.

1.0 Site Description

- 1.1. For the purposes of this brief the proposed development site comprises an extension to the existing Moel Maelogen turbines. GAPS has not been supplied with an accurate map showing the exact boundary of the development area, therefore it is the responsibility of the archaeological contractor to establish this with the client.
- 1.2 Moel Maelogen is located on the eastern side of the Conwy Valley between Llanrwst and Gwytherin, within the unitary authority area of Conwy. The area consists of moorland which has largely been converted to agricultural grassland and very few archaeological sites are known from the area, although a number of round barrows are recorded to the west and to the south east.
- 1.3 An Environmental Impact Assessment was prepared for the initial application to develop this site as a windfarm. The archaeological component of the EIA covered a limited area but identified a number of features associated with, presumably, post medieval land-use, including peat cuttings and field boundaries.
- 1.4 Documentation:
Cynefin Environmental 1999 *Moel Maelogen Wind Power Project*
Environmental Impact Assessment.

2.0 The nature of the development and archaeological requirements

- 2.1 The proposed development comprises plans to extend the existing windfarm at Moel Maelogen.
- 2.2 This is a design brief for an archaeological assessment to be undertaken according to guidelines set out in Welsh national planning guidance (*Planning*

Moel Maelogen - Appendix 3:

Policy Guidance Wales 2002) and Welsh Office Circular 60/96 (*Planning and the Historic Environment: Archaeology*). The assessment will comprise a desk-based study and field visit.

- 2.3 The object of this programme of archaeological works is to make full and effective use of existing information in establishing the archaeological significance of the site to assess the impact of the development proposals on surviving monuments or remains.
- 2.4 Following desk-based assessments field evaluation work may also be required in order to further assess the presence or absence of remains, their extent, nature, quality and character before determining the appropriate mitigation strategy, whether it be preservation *in situ*, archaeological excavation or a combination of the two.

3.0 Desk-based assessment detail

- 3.1 This *brief* should be used by archaeological contractors as the basis for the preparation of a detailed archaeological *specification*. The specification must be submitted to the archaeological curator for approval before the work commences.
- 3.2 The assessment must consider the following:
 - a) The nature, extent and degree of survival of archaeological sites, structures, deposits and landscapes within the study area through the development of a deposit model. This deposit model should reflect accurately the state of current knowledge and provide a research framework for further work if necessary.
 - b) The history of the site.
 - c) The potential impact of any proposed development on the *setting* of known sites of archaeological importance.
 - d) A methodology for non-intrusive survey and intrusive evaluation to determine the location, extent, date, character, condition, significance and quality of any surviving archaeological remains liable to be threatened by the proposed development.

4.0 Archaeological deposit model

- 4.1 The archaeological deposit model will involve the following areas of research:
 - a) Collation and assessment of all relevant information held in the SMR, including listed building records.
 - b) Assessment of all available excavation report and archives including unpublished and unprocessed material effecting the site and its setting.
 - c) Assessment of all extant aerial photographic (AP) evidence and, where relevant, a re-plotting of archaeological and topographic information by a suitably qualified specialist at an appropriate scale. Many of the main archaeological aerial photographic records can be consulted at the Royal Commission on Ancient and Historical Monuments in Wales (RCAHMW), Aberystwyth. However, the Countryside Council for Wales (CCW), Bangor, also holds AP collections including 1940s Luftwaffe photographs, and these may be equally suited to the requirements of the desk-based study.

Moel Maelogen - Appendix 3:

- d) Assessment of records held at the RCAHMW and University College Bangor, if appropriate.
- e) Assessment of the environmental potential of the archaeological deposits through existing data or by inference.
- f) Assessment of the faunal potential of the archaeological deposits through existing data or by inference.
- g) Assessment of the artefactual potential of the archaeological deposits through existing data or by inference.
- h) Assessment of all available geotechnical information for the area including the results of test pits and boreholes.
- i) Assessment of the present topography and landuse of the area through maps and site visits.

5.0 Historical research

5.1 Historical research will involve the following:

- a) An analysis of relevant maps and plans. Cartographic evidence is held at the County Record Offices, including Tithe Maps, Enclosure Act Plans, Estate Maps and all editions of the Ordnance Survey. Place and field-name evidence from these sources should be considered.
- b) An analysis of the historical documents (e.g. county histories, local and national journals and antiquarian sources) held in museums, libraries or other archives, in particular local history and archives library.

6.0 The issue of setting

- 6.1 When considering the issue of setting for scheduled ancient monuments, listed buildings and other sites of national and/or regional significance, the SMR should be consulted to determine if the development falls within any designated landscape areas, such as World Heritage Sites and landscape character areas. Of particular importance are the *Register of Landscapes of Outstanding Historic Interest in Wales*, the *Register of Landscapes of Special Historic Interest in Wales*, published by Cadw: Welsh Historic Monuments in 1998 and 2001 respectively.

7.0 Evaluation methodology

7.1 The evaluation methodology must consider the use of the following techniques:

- a) Ground survey within the core area.
- b) The use of geophysical survey.
- c) A programme of trenching and/or test pits to investigate the deposit model in more detail.

- 7.2 The evaluation should aim to determine the location, extent, date, character, condition, significance and quality of any surviving archaeological remains liable to be threatened by the proposed development. An adequate representative sample of all areas where archaeological remains are potentially threatened should be studied.

Moel Maelogen - Appendix 3:

- 7.3 The evaluation should carefully consider any artefactual and environmental information and provide an assessment of the viability (for further study) of such information. It will be particularly important to provide an indication of the relative importance of such material for any subsequent decision making regarding mitigation strategies.
- 8.0 Results**
- 8.1 The results must be presented in a report and should be detailed and laid out in such a way that data and supporting text are readily cross-referenced. The SMR Officer should be contacted to ensure that any sites or monuments not previously recorded in the SMR are given a Primary Recognition Number (PRN) and that data structure is compatible with the SMR. The historical development of the site must be presented in phased maps and plans comprising clearly, the outline of the site.
- 8.2 The deposit model should be presented graphically in plan and, where appropriate, in profile and at a scale that is commensurate with subsequent use as a working document.
- 8.3 Within the report an attempt should be made to indicate areas of greater or lesser archaeological significance and the sites should be ranked in level of overall archaeological importance (locally, regionally and nationally).
- 8.4 All relevant aerial photographs, re-plots and historic maps must be included and be fully referenced.
- 8.5 The report should specifically include the following:
- a) a copy of the design brief
 - b) a location plan
 - c) all located sites plotted on an appropriately scaled plan of the development
 - d) a gazetteer of all located sites, including full dimensional and descriptive detail
- 9.0 General requirements**
- 9.1 The archaeological assessment must be undertaken by an appropriately qualified individual or organisation, fully experienced in work of this character. Details, including the name, qualifications and experience of the project director and all other key project personnel (including specialist staff) should be communicated to the development control archaeologist and all written work attributed to an author (s).
- 9.2 Contractors and subcontractors are expected to conform to standard professional guidelines, including the following:-
- English Heritage's 1991 Management of Archaeological Projects (MAP2).
 - The Institute of Field Archaeologists 1985 (revised 1997) Code of Conduct.
 - The Institute of Field Archaeologists 1990 (revised 1997) Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology.

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- The Institute of Field Archaeologists 1994 (revised 1999) Standard and Guidance for Archaeological Watching Briefs.
 - The Institute of Field Archaeologists 1994 (revised 1999) Standard and Guidance for Archaeological Field Evaluation.
 - The Institute of Field Archaeologists 1995 (revised 1999) Standard and Guidance for Archaeological Excavation.
 - The Institute of Field Archaeologists 1996 (revised 1999) Standard and Guidance for the Archaeological Investigation and Recording of Standing Buildings or Structures.
 - The Institute of Field Archaeologists 1999 Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials.
 - Museum and Galleries Commission 1994 Standards in the Museum Care of Archaeological Collections.
 - United Kingdom Institute for Conservation 1990 Guidelines for the Preparation of Excavation Archives for long-term storage.
- 9.3 Many people in North Wales speak Welsh as their first language, and many of the archive and documentary references are in Welsh. Contractors should therefore give due consideration to their ability to understand and converse in Welsh.
- 9.4 Where relevant, specialist studies of environmental, economic and historical data must include a *statement of potential*. All specialist reports used in the preparation of this study must be reproduced **in full** in the desk-based study.
- 9.5 A full archive including plans, photographs, written material and any other material resulting from the project should be prepared. All plans, photographs and descriptions should be labelled, cross-referenced and lodged in an appropriate place (to be agreed with the archaeological curator) within six months of the completion of the project.
- 9.6 Two copies of the bound report must be sent to the address below, one copy marked for the attention of the Development Control Archaeologist, the other for attention of the SMR Officer, who will deposit the copy in the SMR.
- 9.7 The involvement of Gwynedd Archaeological Planning Service should be acknowledged in any report or publication generated by this project.
- 10.0 Glossary of terms**
- 10.1 *Archaeological Contractor*
A professionally qualified individual or an organisation containing professionally qualified archaeological staff, able to offer an appropriate and satisfactory treatment of the archaeological resource, retained by the developer to carry out archaeological work either prior to the submission of a planning application or as a requirement of the planning process.
- 10.2 *Archaeological Curator*
A person, or organisation, responsible for the conservation and management of archaeological evidence by virtue of official or statutory duties. In north-west Wales the archaeological advisor to the Local Planning Authorities is the development control archaeologist, who works to the Welsh Archaeological Trust's Curators' Code of Practice.

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- 10.3 *Archive*
An ordered collection of all documents and artefacts from an archaeological project, which at the conclusion of the work should be deposited at a public repository, such as the local museum.
- 10.4 *Assessment*
A desk-based archaeological assessment (also known as a *desk-top assessment*) is a detailed consideration of the known or potential archaeological resource within a specified area or site (land-based, intertidal or underwater), consisting of a collation of existing written and graphic information in order to identify the likely character, extent, quality and worth of the known or potential archaeological resource in a local, regional or national context as appropriate.
- 10.5 *Brief*
The Association of County Archaeological Officers (1993) defines a *brief* as an outline framework of the planning and archaeological situation which has to be addressed, together with an indication of the scope of works that will be required.
- 10.6 *Evaluation*
A limited programme of non-intrusive and/or intrusive fieldwork which determines the presence or absence of archaeological features, structures, deposits, artefacts or ecofacts within a specified area or site; and, if present, defines their character and extent, and relative quality. It enables an assessment of their worth in a local, regional, national or international context, as appropriate. The programme of work will result in the preparation of a report and archive.
- 10.7 *Sites and Monuments Record (SMR)*
A documentary record of known sites in a given area. In north-west Wales the SMR is curated by the curatorial division of the Gwynedd Archaeological Trust.
- 10.8 *Specification*
The Association of County Archaeological Officers (1993) defines a *specification* as a schedule of works outlined in sufficient detail to be quantifiable, implemented and monitored.
- 11.0 Further information**
- 11.1 This document outlines best practice expected of an archaeological assessment but cannot fully anticipate the conditions that will be encountered as work progresses. If requirements of the brief cannot be met they should only be excluded or altered after gaining written approval of the Gwynedd Archaeological Planning Service.
- 11.2 Further details or clarification of any aspects of the brief may be obtained from the Development Control Archaeologist at the address below.

Kate Geary
Development Control Archaeologist

Gwynedd Archaeological Planning Service

Moel Maelogen - Appendix 4:

Appendix 4

Specification for Moel Maelogen Wind Power Project (Extension) - Archaeological Assessment:

1 Background

- 1.1 It is intended to extend the existing wind farm on Moel Maelogen, Conwy from three turbines to fourteen turbine and to construct a series of tracks to link the turbines.
- 1.2 The proposed development consists of moorland which has been converted to agricultural grassland.
- 1.3 Few archaeological sites are known from the area, although a number of round barrows are recorded to the west and south east. An Environmental Impact Assessment prepared for phase one of the wind farm only located post-medieval land-use features, however, this was of limited scope.
- 1.4 A brief for this project has been prepared by the Archaeological Curator of the Gwynedd Archaeological Planning Service, in accordance with which this specification has been prepared.

2 Objectives

The principal objectives of the proposed archaeological survey are as follows:

- 2.1 To use the existing records to establish the archaeological significance of the site.
- 2.2 To assess the impact of the development proposals on surviving monuments or remains.

3 Methodology

3.1 Desktop study:

The following sources will be consulted

- 3.1.1 The National Library of Wales, Aberystwyth will be consulted for appropriate map and documentary records.
- 3.1.2 The County Record Office, Caernarfon will be consulted for relevant records.
- 3.1.3 The Sites and Monuments Record will be consulted for relevant records
- 3.1.4 Aerial photographs belonging to the collections the RCAHM(W), and other bodies as relevant.
- 3.1.5 Any other relevant sources as available i.e. any records held the University of Wales at Bangor.
- 3.1.6 Copies of plans and scanned copies of pictorial or photographic evidence will be included.
- 3.1.7 All sources will be fully listed and shall include accession numbers.

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3.2 Field Visit:

- 3.2.1 A field visit will be made after the collection of the records to assess the general nature of the site.

4 *Report and Archive*

- 4.1 On completion of the desktop study and the field survey a report shall be produced which will contain:
 - 4.1.1 The results of the desk top study.
 - 4.1.2 The results of the field visit.
 - 4.1.3 A copy of the design brief
 - 4.1.4 A location plan.
 - 4.1.5 All located sites plotted on an appropriately scaled plan of the development
 - 4.1.6 A gazetteer of all located sites
 - 4.1.7 Recommendation for further study if necessary.
- 4.2 A full archive including plans, photographs, written material and any other relevant findings will be lodged in an appropriate place and in appropriate order within six months of the completion of the project.

5 *Liaison*

- 5.1 Measures will be adopted, as appropriate, to facilitate the monitoring of the project at all stages by the Archaeological Curator and arrangements will be agreed in advance.
- 5.2 The Archaeological Curator will be informed before commencement of the project, confirming an agreed timetable.
- 5.3 EAS Ltd. aims to conform to the conditions set out in "General Conditions for Archaeological Contractors in Gwynedd".

6 *Staff*

- 6.1 The project will be directed by Dr. Ian Brooks M.I.F.A.
- 6.2 Project staff will include Dr. Ian Brooks, Kathy Laws.
- 6.3 It is proposed that one member of staff should carry out the desk top phase of the evaluation and also complete the final report and archive.

7 *General*

7.1 IFA Code of Conduct

- 7.1.1 All staff will abide by, and all procedures be carried out in accordance with the Institute of Field Archaeologists' Code of Conduct.
- 7.1.2 EAS Ltd. will abide by the Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology.

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7.2 Health and Safety

7.2.1 EAS Ltd. adopt and adhere to safe working practices at all times.

7.3 Insurance

7.3.1 EAS Ltd. carries all necessary Public and Employee Liability Insurances.

7.3.2 EAS Ltd. carries Professional Indemnity Insurance

7.4 Copyright

7.4.1 EAS Ltd. shall retain full copyright of any commissioned reports, tender documents or other project documentation, under the Copyrights, Designs and Patents Act 1988 with all rights reserved: excepting that it hereby provides an exclusive license to the client for the use of such documents by the client in all matters directly relating to the project as described in the Project Specification.

7.4.2 EAS Ltd. is prepared to assign copyright at the request of the client.

8 *Timetable*

8.1 Timetabling would break down as follows:

8.1.1 Desktop - visit to National Library and Royal Commission in Aberystwyth - 1 man day

8.1.1.1 If telephone enquires determine that there are no relevant records this item will not be charged.

8.1.2 Desktop - visit to County Records Office in Caernarfon - 1 man day

8.1.3 Desktop - consulting any other appropriate sources - 1 man day

8.1.4 Field survey - visit to check site - 2 man days (2 people for 1 day).

8.1.5 Report and archive- 2 man days



Figure 2: Moel Maelogen Wind Farm
Tracing of Extract from an Undated Map of Lands
in the Parish of Llanwrst belonging
to the Berth Ddu Estate

Not to Scale



Moel-o-gan, Ann Owen Tenant

- 1 House, Homestead, Garden
- 2 Cae Cefin
- 3 Ffrith Newydd
- 4 Waen rhos
- 5 Ffrith Ucha
- 6 Sofl-bella
- 7 Waen
- 8 Y Borfa
- 9 Cae brwyn
- 10 Waen
- 11 Ffrith gyd

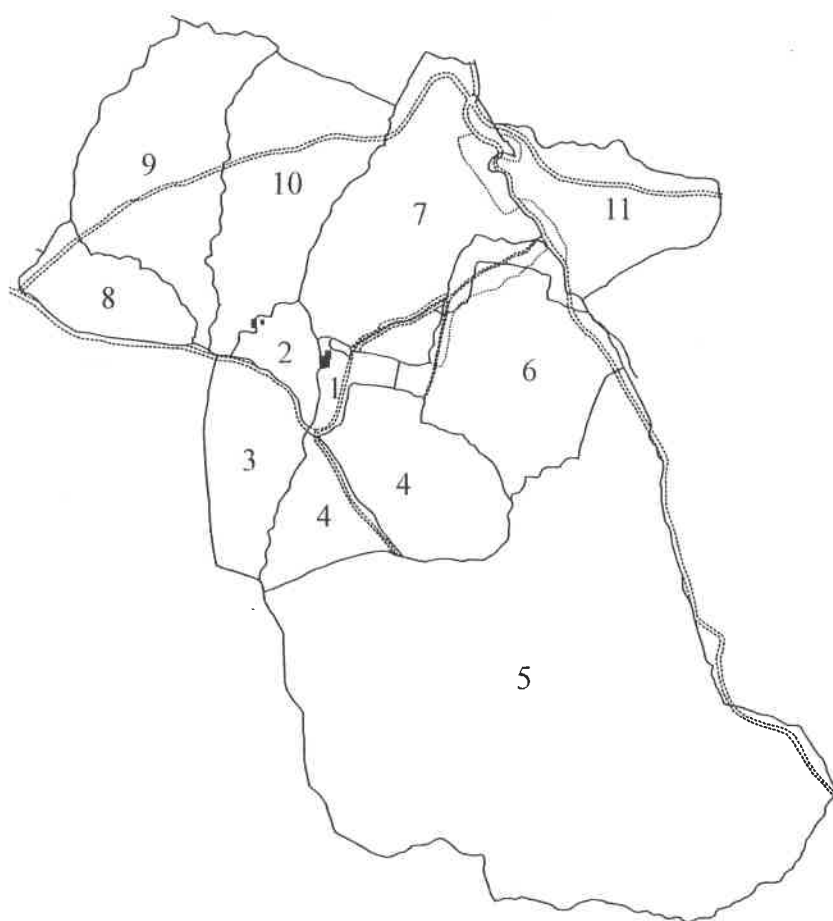


Figure 3: Moel Maelogen Wind Farm
Tracing of AD 1814 Map of Moel O Gan

Not to Scale

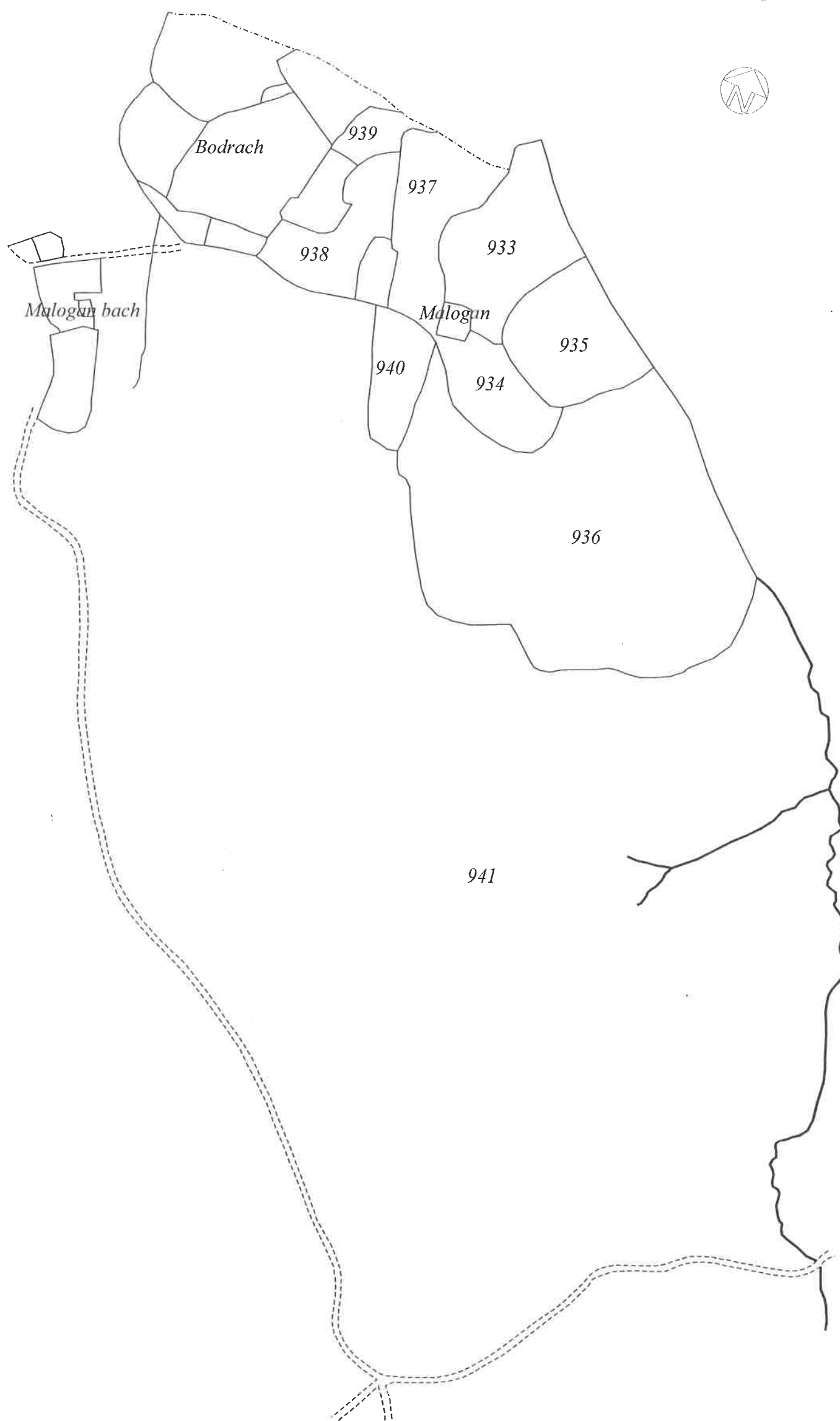


Figure 4: Moel Maelogen Wind Farm
Tracing of Extract of AD 1839
Tithe Map of Llanwrst

No to Scale

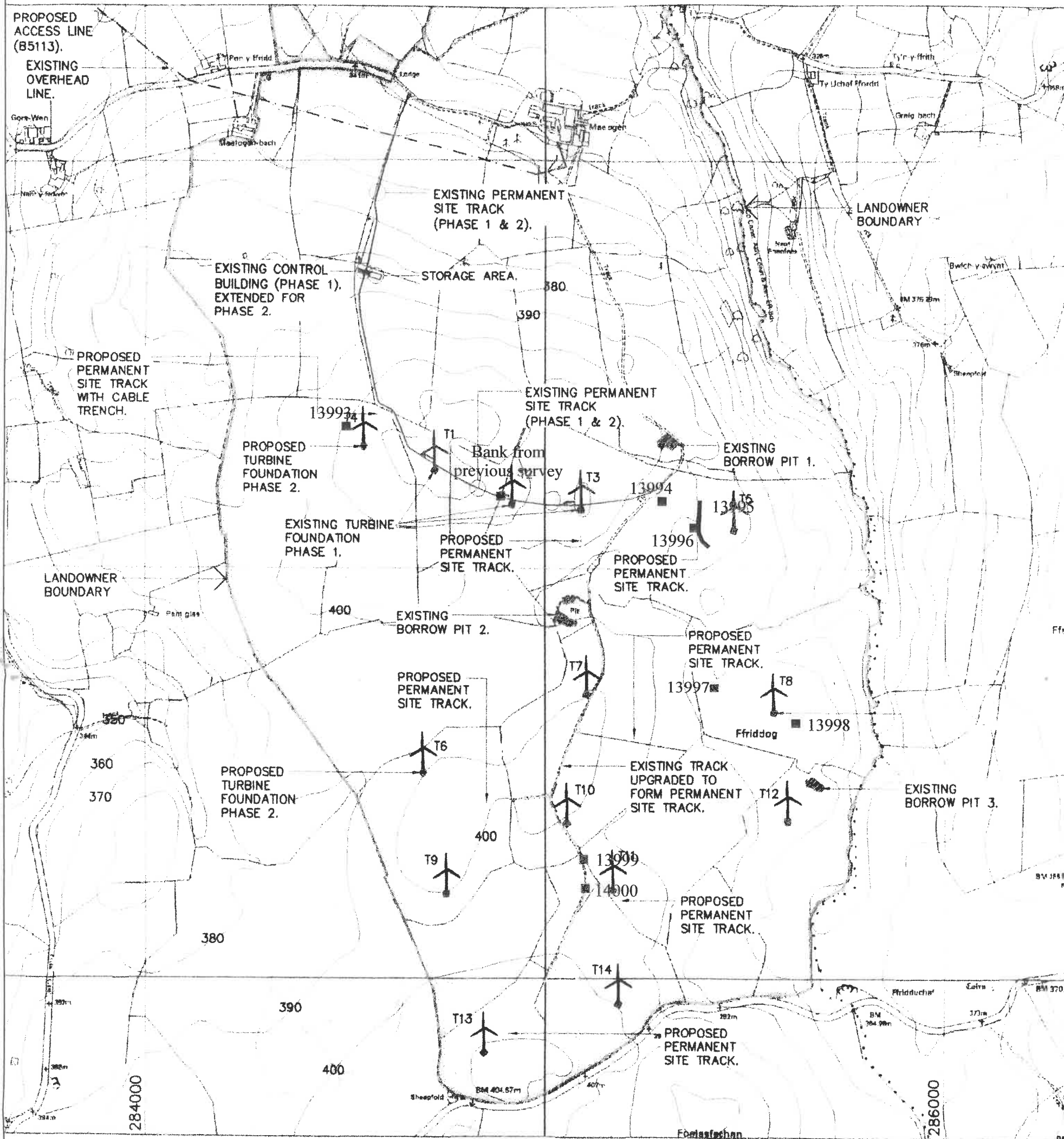


Figure 6: Moel Maelegen Wind Farm
Features Located in Field Visit
Scale 1:10,000

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