WETLAND MARGINS SURVEY: CORS FOCHNO

Prepared by Dyfed Archaeological Trust
For Cadw

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SUMMARY

This study has been undertaken as part of a Cadw funded project examining the archaeological potential of Ceredigion's wetlands. Its purpose is to identify and understand the archaeological resource including the archaeological potential of the extensive estuarine raised bog of Cors Fochno in northern Ceredigion. The huge archaeological potential of such sites were highlighted by the discovery of a Bronze Age wooden object, Iron Age/Roman industrial site and medieval trackway between 2002-05 on the southern margins of Cors Fochno, all of which had associated organic elements well-preserved by the wetlands.

Through both documentary research and a programme of fieldwork an understanding has been developed of the known archaeological resource. This has been effectively mapped and catalogued through the use of Mapinfo GIS and the creation and integration of records with the Regional Historic Environment Record.

The fieldwork comprised a programme of archaeological trial trenching, auger surveys, geophysical surveys, topographical surveys and a walk-over survey of targeted areas, namely Bryn Sant, Ynys Capel and Tan yr Allt. At Bryn Sant an absence of archaeological features was determined but a greater understanding of the development and condition of the peat build-up in this area was established. At Ynys Capel a greater understanding of a cropmark enclosure and surrounding associated features was established through a geophysical, topographical and auger survey suggesting an Iron Age or Roman date to the enclosure. Possible industrial activity was also established that may represent the limits to the Iron Age/Roman industrial activity identified in previous archaeological excavations to the east. At Tan yr Allt a gravel trackway was uncovered and recorded, interpreted as remains of the later post-medieval peat cutting activity around the wetland fringes.

The project has also established links with some of the main stakeholders, namely CCW who own and manage a large part of the bog, and encouraged involvement and active participation from local landowners and members of the local community, all of whom can actively influence and manage much of the historic environment resource.

An understanding of the known and potential surviving archaeological resource associated with the wetlands has been described and future threats to that resource have been outlined. The results of the study are presented in such a way as to enable their effective use by strategic decision makers and forward planners to ensure that this finite and non-renewable resource is appropriately considered, and due consideration given to opportunities that it may present.

INTRODUCTION

Project background and commission

The Ceredigion Wetland Margin Survey was developed following recent archaeological discoveries highlighting the huge archaeological potential of this type of environment, in particular the extensive Cors Fochno in northern Ceredigion. Wetland sites are of significance due to the excellent preservation of organic materials in waterlogged deposits and the valuable palaeoenvironmental information they provide.

Large areas of Cors Fochno are owned and managed by the Countryside Council for Wales (CCW) who have been bringing together information from a variety of sources to inform their active management of the wetlands, but no further input regarding the archaeology had been proposed. This project therefore intended to develop an understanding of the archaeological resource, identifying areas of archaeological potential and threats to the archaeological resource and subsequently to help inform future management.

The project was designed to work in partnership with the owners and managers of the wetlands (in this case CCW and Llangynfelyn Community Council as well as other smaller landholders) to consider the archaeological potential of the bog. Areas of archaeological potential were mapped through an assessment and analysis of available archaeological data, aerial photographs, historic maps and other available historic documentation. These were then used to target site survey such as auger surveys, geophysical survey and evaluation excavation. With this information vulnerable sites have been identified and protected as part of any forward management plans for the site.

The project also engaged with the local communities encouraging their active participation in the collection of documentary data and site surveys. It is hoped that long-term involvement in the management of the bog can also be encouraged. The results of the investigations feedback into onsite interpretation of the historic environment intended to inform visitors and connect the local community with their past.

The Dyfed Archaeological Trust were commissioned by Cadw to carry out this project in 2008-09.

Abbreviations used in this report

Any references to sites mentioned in the text and recorded on the regional Historic Environment Record (HER) are identified by their Primary Record Number (PRN) and located by their National Grid Reference (NGR). References to cartographic and documentary evidence and published sources are given in brackets throughout the text, with full details listed in the sources section at the rear of the report. Organisations have been abbreviated, the Dyfed Archaeological Trust (DAT), the Countryside Council for Wales (CCW), the Royal Commission of Ancient and Historic Monuments in Wales (RCAHMW). The National Monument Record for Wales (NMR) held by the RCAHMW is also referenced in places.

The scope and aims of the work

The project's overall objective is to provide sufficient understanding of the wetlands and their margins' archaeological resource to provide a framework for its sustainable management.

In order to achieve this, the project aims to do the following:

- Record and map the historic evolution of the bogs.

- Record and map as far as possible the surviving above and below ground archaeological remains and potential.
- Recommend guidance for managers to ensure the protection of the above and below ground archaeological resource
- Provide baseline data useable for the interpretation and presentation of the historic development and historic environment of Cors Fochno.

In addition the work undertaken has also enhanced the archaeological data the Dyfed Archaeological Trust currently hold within its Historic Environment Record (HER), helped gain an understanding of the effects of peat in varying stages of decay on the archaeological resource and how that also effects archaeological investigation. The project also encouraged partnerships and community involvement, raised the profile of archaeology in the area and brought together research from a variety of different sources.

METHODOLOGY

The project was laid out in three phases, the initial desk-based assessment, the field survey and the final reporting. A brief outline of the methodology is provided below.

Phase 1 – Desk-Based Assessment

Organising and co-ordinating a stakeholder group, including managers, landowners and other relevant parties.
A presentation of the results of the Llangynfelyn excavations of 2003-05 to the local community.
Initial meetings/workshop sessions collecting information.

Documentary research
Air photo assessment and analysis
Assessment of the known resource
HER enhancement – validating, updating and creating new records
GIS mapping
Site visits and meetings with CCW

Phase 2 – Field Survey

Archaeological fieldwork of targeted areas over a total of three weeks, with opportunities for community involvement
Walk over survey
Geophysical survey
Auger survey
Topographic survey
Trial trenching/archaeological monitoring of agreed peat stripping areas.

Phase 3 – Reporting and Feedback to partners and broader community
Draft reporting
Management advice
Stakeholders meeting to share results and obtain feedback
Final report

REPORT OUTLINE
The production of this report has developed as a unique project but has utilized best practice elsewhere and in part has drawn from similar surveys undertaken by the Dyfed Archaeological Trust. The study has included the following work:-.

Phase 1; Desk-Based Assessment

Documentary research and analysis of aerial photographs
A study of historic and modern cartographic sources and a variety of documentary sources was undertaken to gain as accurate an understanding of the history and development of the wetlands and associated human activity as possible. Relatively little has been written about the specific history of the uses of the bog itself, although a great deal of research has been undertaken by a variety of institutions into the environmental development of the bog. There is a wealth of cartographic sources, from detailed late 18th century estate maps, through to important enclosure maps of the earlier 19th century, tithe maps of the mid 19th century and accurate Ordnance Survey maps from the late 19th century onwards. There is also a wealth of aerial photographs of the area, many of which are currently held by CCW, dating from the mid 20th century onwards.

Assessment of the known resource
A brief review of documentary sources, pictographic evidence and cartographic sources was undertaken. This also included a review of previous archaeological work recorded within the study area. Due to the wealth of information available it was not possible to examine all the relevant sources, but where possible an attempt has been made to identify the main holders of further information, see p10 and Sources.

HER enhancement
The project comprises a review of existing information about the archaeological resource. Information recorded on the Historic Environment Record was assessed and combined into a single project database. The HER enhancement then involved validating, updating, and where required creating new HER records, related specifically to activity on, or on the margins of, the Cors Fochno wetland. Where spatial data is available digital mapping of sites has been undertaken. This work has also involved integrating records held by other organisations, such as the RCAHMW, Cadw and CCW. See Fig. 17 and Appendix 2.

Digital Mapping
Extensive work has been undertaken to produce the layers of digital mapping. As part of the HER enhancement this has included;-

- Point data showing the HER sites (See Fig. 17 and Appendix 2).
- Point and polygon data showing designated sites within the study area, specifically Listed Buildings and Scheduled Ancient Monuments. (It is noted that any such digital data will not be taken as definitive and will be labelled accordingly). Areas of special environmental interest have also been provided by CCW, which also carry designations, such as SSSI, SAC etc (See Fig. 18).
- Polygons showing the areas of previous archaeological investigations within the study area, suggesting where further information on specific area may be found (See Fig. 19).

As part of the work done in studying the history and development of the Bog digital maps have been created primarily from historic and modern map sources illustrating:-

- Drainage (See Fig. 21)
- Peat cuttings (See Fig. 22)
- Historic extent of the wetlands (See Fig. 16)

The results of the fieldwork have also been presented in part in digital map format, including;

- Topographic surveys of the targeted areas
- Locations of geophysical surveys, auger surveys and trial trenches (See pages 19-51).

As part of the aim to identify areas of archaeological potential and threats to the archaeological resource digital maps have been produced illustrating:-

- Areas of archaeological potential within the study area, both within the bog itself and on drained farmland and land that lies along the wetland margins (See Fig. 20 and Table 1).

Phase 2; Field Survey

Trial Trenches

Trial trenches were excavated in two of the targeted areas (Bryn Sant and Tan yr Allt). These trenches were generally excavated by hand, of varying dimensions by never more than 2m by 2m and 1m deep. In all trenches the turf and ploughsoil were removed by hand down to the top of the natural subsoil or peats. Where archaeological features or deposits were revealed they were cleaned by hand, photographed, and then either wholly excavated or test excavated to establish as far as possible their true character. During excavation all revealed deposits and features were described on context record forms and allocated their own individual context number. After excavation, all features were photographed again and then planned using a Trimble TST. Where relevant, sections were drawn to a scale of 1:10. Standard techniques were used to excavate and record the trench profiles and any archaeological features present. The relative locations of the trenches have been tied in to the Ordnance Survey grid and absolute levels were calculated from the Ordnance Survey datum.

In the Bryn Sant area a mini-digger was used to strip the top layer of peat off a large area as part of active peatland management undertaken by CCW. This work was undertaken with some archaeological monitoring, but the machine was also used to excavate two larger and deeper trenches into the lower undisturbed peats around the Bryn Sant outcrop to allow for further archaeological recording.

Geophysical Surveys

Geophysical surveys using a Bartington Grad601-2 dual Fluxgate Gradiometer were undertaken on three of the targeted areas, with varying success. The machine picks up minute variations in the earths magnetic field to detect buried features such as ditches and areas of burning or metal etc. The surveys were laid out in grids and tied into the topographic surveys and ordnance survey grids.

Auger Surveys

An auger survey was carried out in order to map the subsurface ground deposits and identify areas of palaeoenvironmental potential. The survey was carried out on three of the targeted areas.

Traverses were established using ranging poles and tapes. Augers were undertaken at between 2.5m to 10m intervals depending on the site, using a 30mm open chamber or gouge hand-auger. The open chamber auger provided a continuous profile through deposits which could be cleaned, observed, measured, and recorded on proforma record sheets. The results of augers demonstrated and characterised distinct changes in the underlying deposits. The location of each auger position was recorded using the Trimble TST.

Topographic Surveys
The ground surface within the targeted areas was the subject of a detailed contour survey. Coded 'strings' of data were recorded to locate significant breaks of slope within the survey area using a Trimble TST. This data was then supplemented with an array of data points across the survey area. The resulting contour map was generated using Geosite 5.1 software.

Community involvement
Volunteers were involved in all stages of the fieldwork, undertaking trial-trench excavations and auger surveys and assisting in the topographical and geophysical surveys. A display and open day was held on the last day of fieldwork for members of the public to find out about the work undertaken and visit one of the site. A public presentation is also planned following the completion of this report.

Phase 3; Reporting and feedback

Identification of archaeological potential
Through a study of known archaeological sites and an understanding of the development and use of the Bog it is possible to highlight areas that have the potential to contain further archaeological remains that as yet have not been identified. A layer of digital mapping has been produced to illustrate the different areas of archaeological potential. The digital mapping is broken down into broad groups and areas of high, medium and low archaeological potential. Explanations of the archaeological potential are included within this report, see Archaeological Potential and descriptions of the individual areas of potential as illustrated by the digital mapping in Table 1 and Fig. 20.

Contacts and consultations
Initial contact was made with representatives of a variety of interest groups and stakeholders in the Dyfi Estuary area including Countryside Council for Wales (CCW), University of Wales Lampeter and various other interested groups and individuals. A talk was held with various members in July 2008 to help shape the aims and outcomes of this project. Contact has been continuing as time has allowed throughout the project, exchanging ideas, information, resources and contacts. It is hoped contact between the various parties will remain ongoing as a result of this project.

A guide to using the results of the study
General threats to the archaeological resource have been identified. The legislation and processes that protect and affect the archaeological resource have also been identified and explained, and the roles of various stakeholders operating within the study area are highlighted. Explanations are provided as to how this report could be of use, and could be used by the variety of different stakeholders and parties that may be interested in and affected by the archaeological resource within the wetlands area.

Production of the Report
This report is intended to be a concise document and includes summaries of the following:-

Archiving
Once the assessment has been completed, the paper and digital record generated will be archived in the following way.
- Paper records (written notes, photocopies, traced maps etc) will be organised.
- Any records that duplicate information stored in the HER or any other databases will be discarded.
- The remaining paper record and photographs will be stored in the HER/NMR.

Project Outcomes

In addition to the GIS layers and this supporting report with guidance on their use, one of the main outcomes of the project is to develop and maintain working partnerships and links with key stakeholders, and to encourage the future use of the results of the study. It is hoped that this will also result in the continuing enhancement of the HER. Another outcome of the project will be the widespread sharing and dissemination of information to all key stakeholders, including, with the aim of informing the planning process and contributing to the protection of the historic environment. The project has also seen strong community engagement, with various local community groups and societies wishing to be involved in contributing their time and knowledge to the project on a rolling basis. Further meetings/talks with stakeholders will be organised to demonstrate the results of the study and how the GIS layers can be used.

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THE STUDY AREA

Cors Fochno is an extensive estuarine raised bog containing the largest expanse of primary surface lowland bog (*c*.200ha) in the UK, surrounded by a further *c*.400ha of degraded bog subject to past peat cutting and drainage.

The site is part of Dyfi SSSI (Site of Special Scientific Interest) and National Nature Reserve, and in recognition of its international importance is also an SAC (Special Area of Conservation), Ramsar site and the core area of the only UNESCO Biosphere Reserve in Wales. The raised bog ecosystem/habitat is the principal reason for its designation, but the site is also a geological SSSI based on the nationally important quaternary stratigraphic record. The sites development in summary is that the floodplain was covered in forest *c*.5000BP but by 4,500BP it started to develop into fen and then fairly quickly into bog resulting in 5000 years of uninterrupted peat bog development.

The major part of the bog is owned by CCW, but there are three areas of common land, two owned by Llangynfelyn Community Council, also within the SAC/SSSI. Further areas of 'archaic' bog are privately owned and currently drained and managed for pastoral agriculture.

The chance discoveries of a Bronze Age wooden object, a Medieval trackway and an Iron Age/Roman lead smelting site on the bog edge south of Llangynfelyn has highlighted the extremely high archaeological potential of Cors Fochno and in particular the southern bog margins. Wetlands did, and still do, provide valuable resources for human populations and contain a continuous record of human activity throughout the ages. The peat bog contains the potential for the excellent preservation of organic materials and valuable palaeoenvironmental information.

Photo 1; View of Cors Fochno from the southwest

THE KNOWN ARCHAEOLOGICAL RESOURCE

Historical Documentary Evidence

The examination of the documentary evidence relating to Cors Fochno has not been exhaustive and it is possible further records remain in local and national repositories that could shed light on the history and development of the bog. A detailed examination of the medieval landholdings and estates in and around Cors Fochno has not yet been undertaken. Early references to the bog appear rare and it is not until the 18th and 19th century that passing references to the bog begin to appear in itineries and county histories such as Wyndham's 'A Gentleman's Tour through Monmouthshire and Wales' in 1774 and Meyrick's 'The History and Antiquities of the County of Cardigan' in 1810. Carlisle and Lewis' Topographical Dictionaries of Wales throughout the 19th century provide general descriptions of the parish and the main economic activities within. The directories and census returns of the 19th and early 20th century also provide details of population levels and activity in and around Cors Fochno.

The first detailed cartographic sources of the area begin to appear in the late 18th century with Lewis's map of 1790. We are also fortunate that detailed maps were drawn up in the early to mid 19th century during the enclosure of the bog providing a detailed snapshot of the area. The mid 19th century tithe maps and the late 19th century/early 20th century Ordnance Survey maps give good indications as to the development and use of the bog.

Histories of the bog itself are uncommon, with the main work being an article appearing in Ceredigion in 1977 by Professor Moore-Colyer entitled 'The Enclosure and Drainage of Cors Fochno (Borth Bog), 1813—47'. Further brief mentions on aspects of the bog's history are given in various journals such as Archaeologia Cambrensis, Borth Review and Lloffion Llancynfelin.

Designated Sites

As well as the ecological and environmental designations covering the wetland area there are also numerous specific archaeological designations. The study area contains 44 Grade II listed buildings (3 of which at Grade II*), although these represent only a part of the range of historic standing structures that can be found within the study area. The listed buildings consist mainly of domestic structures, but also include agricultural and industrial structures, and smaller structures such as gateways, retaining walls and milestones. Not all have specific links to the use of the wetlands and therefore only the relevant sites are included in the study, although all listed buildings are displayed in the associated GIS mapping (see Fig. 18).

Four Scheduled Ancient Monuments (SAMs) are also included within the study area. These sites are situated on the wetland margins, and include a medieval motte lying at the northern edge of the wetlands, an industrial blast furnace in Furnace and two Bronze Age burial mounds on the hillslopes overlooking the wetlands (see Fig. 18).

Archaeological Sites

There are *c*.200 known archaeological sites recorded on the regional Historic Environment Record (HER) that can be related to activity on the bog or related to the use of the bog. In addition *c*.50 new sites have been created during this project, although several more new sites not currently recorded within the HER have been recorded on other existing databases, such as the NMR or Cadw's listed building data, only those specifically relating to the use of the bog have been included in the *c*.50 new sites. These sites demonstrate a broad date range, from Mesolithic stone tools to defence structures of the 2nd World War (see Fig. 17).

The regional HER is held and maintained by Dyfed Archaeological Trust and includes the most comprehensive source of information on archaeological sites

and objects from within Carmarthenshire, Ceredigion and Pembrokeshire. It covers all periods of human development from traces of the earliest prehistoric activity to Second World War defensive structures and includes information from Cadw on Scheduled Ancient Monuments and Listed Buildings. As well as designated sites of recognised national importance it also includes details of regionally and locally important remains. As well as information on individual sites the HER contains information on past landscapes and information from previous archaeological work undertaken.

The Record is a complex system of information based upon a computer database and digital mapping. For each entry on the record DAT hold key information such as the type of site, its name, its location and the period it dates from. Most records have bibliographic references and a description.

Archaeological Interventions

Archaeological investigations within the study area are in the main related to desk-top assessments and walk-over surveys of farmland in connection with the Tir Gofal agri-environmental scheme. In addition to this there has been photographic building recording of Tre Ddol chapel and Dolen Eglwys barn and a geophysical survey of the Roman fort and its environs at Erglodd. Between 2003 and 2005 several seasons of excavation were undertaken on the southern edge of the bog following the chance discovery of a Bronze Age wooden object preserved by peat on a farmers land. This lead to the further discovery of a large Iron Age/Roman lead-smelting site and a medieval wooden trackway crossing the bog, and subsequently to this project (See Fig. 17).

Environmental Surveys and Research

There have been a variety of surveys undertaken throughout the wetlands of Cors Fochno and the Dyfi Estuary, mainly concerned with environmental studies, but some can also be of archaeological use. Following is a brief summary of these studies:

Professor Alan Davies and Dr. Jaco Bass of the School of Ocean Sciences, Centre for Catchment and Coastal Research, University of Wales Bangor, in collaboration with CCW, are currently undertaking modelling work on physical processes in the Dyfi estuary, with one of the principal aims examining the effects and responses to sea-level changes. This work has examined physical, chemical and biological data, as well as microbiological, fish and benthos sampling. Dr Bass has also undertaken studies examining the evolution of the estuarine morphology on both short and long time scales.

There are plans for a joint **CCW-Aberystwyth University** project looking at the cyclic and progressive changes in morphology features of the upper estuary, which would use historical maps and historical weather data as well as topographic elevation surveys.

Dr. Katie Szkomik, lecturer in physical geography at Keele University commenced research in 2008 into the environmental history of the Dyfi estuary marsh deposits. Changes in diatom assemblages within the interbedded peat and silt deposits are being used to reconstruct Holocene sea level and coastal changes. Cores have been taken between Ynys Mochno and Ynyslas which are currently being analysed for grain size distribution, organic content, carbonate content, bulk density, microfossil analysis (diatoms, foraminifera, pollen) as well as radiocarbon dated. Further cores may also be taken from the estuarine salt marshes for radiocarbon and lead-210 dating and microfossil analysis.

Professor Andrew Baird, of Queen Mary London University is heading a major hydrological and management study of Cors Fochno, in a joint CCW-

Environment Agency (Wales) contract. The study has so far investigated the raised mire hydrology and developed hydrological models enabling the reliable determination of drainage impacts. Climate change data in conjunction with LIDAR topographic data has also been used to model potential flood scenarios over the next 40 years. A second phase of work has drawn together all available map-based data sources into a GIS database, as well as carrying out detailed soils analysis across the reclaimed mire margins to enable a reconstruction of pre-disturbance habitat characteristics. The final phase of work is investigating a range of possible management measures, which might be employed to protect the core conservation interest and enable restoration of lost or degraded elements of the of the estuarine mire ecosystem, taking account of the current infrastructure of the area and potential climate-induced change.

Paul Morris, also of Queen Mary, London University commenced a doctorate study in 2005 entitled 'Modelling peatlands as complex adaptive systems'. Field data from Cors Fochno is being used to develop computer models of peatland growth and development.

An international team of wetland scientists from **Sheffield University, East Kilbride Scottish Universities and McMaster University in Canada, led by Professor Andrew Baird**, are collaborating in studies of biogenic gas production (ie gases such as methane produced by bacteriological activity) within peat, with Cors Fochno chosen as a major sampling site. Their work has looked at how the gases influences water movement within the peat (found to be a very significant process) and examined the mechanisms of build-up and release of methane in to the atmosphere.

Related research is being carried out by **Dr. Nick Ketteridge and Professor Andrew Binley of Lancaster University**, using a geophysical approach to identify gas bubbles within peat. CT scanner and Electrical resistance tomography (ERT; a similar approach to a CT scanner but using electrical current instead of x-rays) are being employed to 'view' gas bubbles and water flow (tracers) within cores of peat. In addition, ground-penetrating radar (GPR) is being used to identify gas bubbles in situ.

Dr Nick Ketteridge has also completed a Ph.D. at Sheffield University on heat flow in peatlands. Temperature is important because it affects peat decomposition rates. The intact central dome of Cors Fochno provided a key location for fieldwork, which involved the use of thermal probes an automated weather recording in 2003.

Angela Harris of Sheffield University used Cors Fochno as her main study site for a Ph.D on the application of airborne remote sensing techniques in mire hydrology. This identified a promising technique for determining the surface hydrological conditions of entire peatlands using the varying spectral reflectance properties of bog moss (sphagnum) carpets. The study thus provides useful information towards monitoring the hydrological status of northern peatlands, which itself plays a key role in the global carbon cycle.

Paul Rae of Bristol University is currently engaged in a doctoral study of the relationship between quantitative palaeohydrological reconstructions using testate amoebae and the relative influence of contemporary precipitation and temperature values, aimed at reconstructing either temperature or precipitation. The palaeohydrological reconstructions using testate amoebae extracted from peat cores will be augmented by peat humification data.

Jenny Schulz of Southampton University carried out a doctorate study, co-funded by CCW, investigating vegetation changes at Cors Fochno (and Cors

Caron) during the last 1000 yrs. This was based on high-resolution macrofossil analysis of the near-surface peats.

Dr. Paul Hughes plans to further his research interest at Cors Fochno in 2008, by examining a total depth peat core to work up a full pollen diagram. In addition he plans to do some geochemical work on the core using a mass spectrometer to obtain a suite of metals including Ti, Fe Mn and isotopes of Lead.

Dr Annie Worsley of Edge Hill University has taken a series of cores from the margins of Cors Fochno examining the recent pollen record. Preliminary work was undertaken to try and establish whether there were many differences between the rate of pollen deposition and peat accumulation in the differing marginal environments, which it is hoped may help with understanding the marginal status both as the bog dries out at the edges and also the relative impacts of the differing management strategies of the past in those locations. Some radiocarbon dates have also been obtained.

SITE HISTORY

Development of the bog

The last Ice Age left behind a wide estuary mouth fed by the Dyfi, Leri, Clettwr, Ddu, Einion and Melindwr rivers. This wide estuary was surrounded by steep slopes and dotted with rock outcrops, with a shingle spit to the southwest. The underlying estuarine clays indicate salt marsh conditions developed over much of the area, and were in existence for a long period of time as sea-levels gradually rose. As the marsh levels built up the fresh water from the numerous rivers replaced much of the brackish water and a gradual eastward movement of the shingle spit along with a development of sand dunes to the north prevented tidal flooding from the west allowing fen vegetation to build-up by around 6000 BP. By around 5000 BP oak and pine forests were developing across the area as marsh levels rose above the highest flood levels. Water levels also dropped in areas as the Leri broke through the shingle spit to establish a more direct route to the sea. However, water levels continued to rise within the area, possibly associated with general sea-level rises which gradually killed off the pine forests by around 4000 BP returning the area to alder carr and oak fen. The rising sea also gradually pushed the shingle spit further eastwards, as is evidenced by the remains of tree stumps visible on Borth beach at low tides. Peat levels began to build up in these increasingly wet conditions and continued to build up uninterrupted for around 5000 years (up to a depth of 7m in places), until the drainage and agricultural works of the 18th and 19th century.

Prehistoric activity

Hominid activity in Wales is known from around 225,000 years BP, but human settlement appears to have begun in the middle Palaeolithic (50,000 – 26,000 BP), prior to the last Ice Age. It is not until after the last Ice Age in the Mesolithic period (10,000 to 4400 BC) that we find evidence of nomadic human groups moving through this area, when the landscape would have been markedly different from today. Scattered finds of antler and flint tools from Borth beach indicate these groups passed through, but evidence of their physical settlements remains to be discovered, possibly now lying beneath thick deposits of peat. Riverside locations such as this are attractive places for human activity, and these locations would have offered access to land, river and sea resources during much of the Palaeolithic and Mesolithic periods. Temporary settlement sites may have been set up to exploit these resources, similar perhaps to what was discovered at Tybrind Vig, Denmark, a late Mesolithic/early Neolithic camp, where stone, bone and wooden objects were recovered indicating a complex of fishing equipment and boat remains, along with evidence of inland hunting and gathering (Coles 1984, p69-71).

By the Neolithic period (4400 to 2300 BC) sea levels had reached something approximating its current levels and the peat bog had begun to form. The occasional stray find of worked flint tools from the area indicates some level of human activity in the area during this period. This is generally considered to be a period when human groups were beginning to establish more permanent settlements but evidence in this area has yet to come to light.

The appearance of burnt mounds and burials mounds in the general area may suggest settlement levels were increasing during the Bronze Age (2300 – 700 BC), or at least the physical evidence of their presence survives better. Again the discovery of stone tools is evidence of activity around the area during this period, but burial mounds and standing stones, such as those at Bedd Taliesin and Ynys Tudur overlooking the peat bog, show a developing ritual and funerary landscape during this period. It is also during this period that we begin to get the first indications of activity on the wetland margins. Burnt mounds have been recorded on the edge of the bog near Furnace and on Borth beach. Such mounds are likely to be the remains of attempts to heat water using heated stones, perhaps in wooden troughs, for washing, bathing or cooking purposes. Field drainage work

on farmland on the southern margins of the bog in 2002 turned up the remains of a wooden box structure about 3m long, made of bog-oak and buried in a peaty deposit. This object was subsequently radiocarbon dated to 1210-1280 BC, the middle Bronze Age, and although its true function has not been definitively established it appears to be connected to water management and drainage on the edge of the peat bog during this period.

Somewhat unusually there is not a great deal of evidence of activity within the area during the Iron Age (700 BC – 43 AD). Evidence of human activity and settlement during this period tends to be dominated by defensive sites, and some hillforts and defended enclosures are recorded in the wider area, such as Caer Llety Llwyd to the south of Talybont. A cropmarked enclosure visible on the southern bog edge by Ynys Capel farm displays some of the characteristics of a defended enclosure of this period, but the dating of this feature is by no means conclusive. It may be that evidence of more intensive Iron Age activity is yet to come to light, indeed recent radiocarbon dating of industrial activity on the southern edge of the bog (outlined below) indicates it may have its origins in the later Iron Age rather than Roman period. Evidence from extensive wetland research in the Netherlands indicates that animal grazing in the wetland area intensified during the Iron Age, accompanied by the establishment of more settlements on the wetland fringes (Kooijmans, in Cox et al 1995, p12-13).

Roman activity

By the end of the 1st century AD the Romans had established themselves throughout Wales and remains of transport, military and industrial sites can be found within this area. A Roman road is believed to run up through Talybont to the south to Pennal on the northern side of the Dyfi. Although alternative routes are suggested known activity on the wetland margins would suggest a Roman road ran along the lower hillslopes around the edge of Cors Fochno, following much the same route as the current A487. It has long been suspected that metal mining activity in the area has its origins during the Roman period, hence the name 'Pwll Roman' given to 19th century mining at Taliesin, a name still preserved in the area now known as 'The Romans'. Excavations in 2003-5 on the southern margins of the bog revealed the remains of extensive lead-smelting activity during the Roman period, possibly having originated during the later Iron Age. Numerous hearths were uncovered and waste from the lead smelting covered a large area, so much so the true extent of this activity has not yet been established. The location of this site on the very edge of the peat bog must be significant, although the main charcoal fuel used may have come from surrounding woodlands. Lead would have come from the mines in the surrounding hills, as well as close by in Taliesin and Llangynfelyn. The importance attached to this site is also suggested by the presence of small fortlet overlooking the site at Erglodd, presumably both lying on the line of the Roman road as well as overlooking and protecting the lead-smelting activity. A larger fort and settlement lay only 7½ miles further north at Pennal. At some point during the Roman period both these sites were abandoned, and large areas of the lead smelting activity were gradually covered by the encroaching peat bog. Further Roman remains may yet await discovery under the peat. The cropmarked enclosure in nearby Ynys Capel farm fields may also date to this period. Work in the Gwent Levels has shown that some wetland areas were being actively drained, reclaimed and farmed during the Roman period (Rippon, in Cox et al 1995, p70-1), although there is currently no evidence of this at Cors Fochno.

Medieval

The excavations on the area of Roman lead-smelting activity revealed that some time after the site had been abandoned, with peat forming over the site, a wooden trackway had been laid down over the remains, crossing the peat bog and heading towards the 'island' of Llangynfelyn. The trackway had been surfaced with lead-ash from the remains of the previous industrial site, but radiocarbon

dating of the wood dated it to the 10th or early 11th century. The peat had preserved much of this feature, making it an unusual archaeological find but its true function remains elusive. It certainly provided a shortcut across the bog but whether it was used primarily for the movement of cattle, or to give access to mining or religious sites on Llangynfelyn is not clear. St Cynfelyn's church is likely to have its origins in this early medieval period (410 AD – 1066 AD), as suggested by its sub-circular enclosure and dedication to a Welsh saint. Even if not an early medieval church it appears to have been in existence by the 14th century.

Small-scale mining activity is also likely in the numerous metal-mines scattered around the hills and Rees, in his map of Wales in the 14th century, also marks several settlements throughout this area, including Llaneglwys, Goythenes, Erglaut and Portuherad. Evidence of medieval settlement on some of the smaller islands within the bog are suggested by the discovery of a hoard of medieval coins on Ynys Mochno during road construction. This increasing settlement in the area during this period is likely to have had some impact on the peat bog, with some areas turned over for agricultural use, presumably primarily grazing, as well as peat cutting. Large parts of the peat bog are likely to have been designated as common land, with common rights of pasture and turbary (the right to cut peat) for the local population.

Post medieval agricultural and industrial activity

This relatively low impact use of the extensive peat bog is likely to have continued in much the same fashion until the later 18th century. Lewis's early but detailed map of 1790 indicates that new ditches were being dug along the western edge of the bog. The main route of the Leri was diverted down a new cutting to emerge further north close to the mouth of the Dyfi, and drains were cut between this and the shingle and sand spit to the west. This appears to have been the initial attempts to create new areas suitable for agriculture and peat cutting. By the early 19th century a general pressure on existing agricultural land, driven by increasing populations, increasing agricultural demand and improving agricultural techniques, lead to large swathe of former wasteland and common land being divided up and given over to more intensive agricultural use. This was soon applied to the large area of peat bog that was Cors Fochno and from the early years of the 19th century plans were drawn up to drain the majority of the bog to allow its use as agricultural land. From around 1815 and throughout the 1820s an extensive new system of drains were cut across the bog, many of which still drain water from the bog today. A new road was constructed across the northern reaches of the bog (the current B4353) and new farmsteads were established across the area taking advantage of this new farmland. Large parts of the former bog were now more easily accessible for peat cutting and evidence of the peat cutting is still visible from 19th century maps and aerial photographs. Local stories testify to the use of a steam-powered peat cutter in the early years of the 20th century, jointly owned and operated by several of the farmers along the southern margins of the bog. It is during this period that mining activity appears to reached its zenith, with extensive mines operating on Llancynfelyn and in Taliesin. The railway was built along the northern edge of the bog, establishing greater sea-defences along its route that are still in use today. The railway opened up the small village of Borth to the developing tourist industry, and the village expanded along the shingle spit to accommodate visitors to Ceredigion's coastline.

Today

The last major phase of drainage work on the bog was undertaken between 1939 and 1970. The most intensive period of use appears to have been during the 2nd world war with large areas coming under the plough as the country was forced to become more self-sufficient. Also during this period defences were built along the northern edge of the bog, including pill boxes and a rocket station at Ynyslas.

Since the 1970s attempts have been made to return large parts of Cors Fochno to its original peat bog state although around two thirds of the original bog is still in use as farmland. Much of the industrial activity around the bog margins, such as the metal mines, had closed down by the early 20th century. Upstanding remains of Neuadd yr Ynys mine on Llangynfelyn are still clearly visible. Tourism also declined slightly, only to return in the later 20th century with large caravan parks being established on islands and drained areas of the bog, all helping to bring increased visitors to the coastline and bog.

HISTORY, USE & IMPORTANCE OF PEAT

Over the thousands of years of its existence the peatlands of Cors Fochno are likely to have been put to a variety of different uses. The peat provides nourishment for the establishment of a variety of natural food sources that are likely to have been exploited by human groups from the Neolithic period onwards. Peatlands are an important source of wild berries, such as Cloudberry, Crowberry, Cranberry and Bilberry, which are still harvested widely in northern Europe. As farming practices were also being established during the Neolithic the peat would have provided good grazing land, a practice that still continues today.

The use of peat as a source of fuel has been recorded in Britain and Ireland since the early medieval period but it is likely it was used in this way long before then. Historically this tends to be the most common use for peat. In Ireland the use of peat for fuel was widespread until the 1930s when it began to decline, picking up again when coal became scarce during the 2nd world war. In general the lower layers of the peat yielded material more suitable for use as a fuel, with the upper layers producing peat moss that can be put to a number of other different uses. Traditionally peat would by cut by hand using special turf-spades. This would have been the common method for much of the peat in Cors Fochno, although in the years following the 1st world war a steam powered turf-cutter was apparently used by a co-operative of local farmers.

Peat fuel has mainly been used for domestic heating and cooking, but has also been put to industrial use. In Ireland peat has been used to power a linen factory and even power stations, although those powered by hand-cut peat ultimately proved uneconomical. Interestingly, through until the mid 19th century the charcoal from peat burning was used in many of the Irish rural blacksmiths who believed it helped create a more robust product. In Kilcock, County Kildare peat charcoal was produced commercially and was claimed to be superior to wood charcoal when used in the manufacture of iron ore and gun powder, eventually replaced when the establishment of railways made coal more easily available.

As well as providing pasture peat has also been added to animal feed, in the form of fine peat dust, as it was believed this would slow down the digestion time allowing more nutrients to pass from the food to the livestock. This peat dust was also used as a form of packing material by some countries. Peat moss has also been used as animal bedding. This is particularly true of peat with high sphagnum moss content as this increases its ability to absorb liquids and also works to absorb odours. During the early 20th century large volumes were used by the British army as stable litter for the cavalry. As well as an ability to dampen odours peat has also been used to filter impurities out of water and other liquids. In more recent years peat has been used in the chemical and pharmaceutical industries to filter gases, odours and liquids, and absorb impurities in liquids or gases, and also in the treatment of septic tanks.

Peat has been used in building. Examples are known from 17th and 18th century Ireland of poor families building houses from peat blocks. Such structures are unlikely to survive well in the archaeological record, other than their stone foundations. When mixed with material such as tar, peat has also been as an insulating material.

In some health resorts of continental Europe peat baths are believed to have therapeutic properties to treat a variety of ailments. The true benefit of these peat baths is still apparently under study and it is unclear if this treatment was ever employed in Britain.

Perhaps the most common use of peat today is in the horticultural industry. This is generally used as a fertiliser or soil for container plants and the cutting of peat for this purpose is the greatest pressure on areas of peatland in Britain today.

The nature of peat is well known for preserving organic and inorganic remains such as wood, materials and skin that do not otherwise get preserved on archaeological sites offering a unique insight in the history of any particular era. But the peat is also good at preserving other palaeoenvironmental remains such

as pollen and volcanic ash which is of good in building up patterns of past environments of use to archaeologists and environmentalists alike.

The plant remains in peat can be dating using carbon dating techniques. Pollen can often identify the parent plant and survives for many thousands of years, especially in peat. The occurrence and quantity of pollen therefore gives a good representation of the local environment at different stages. Dust can also settle in peat bogs that can be subsequently examined. Dust can be from huge global events such as volcanic eruptions, and the minerals within the dust can often be linked back to specific volcanoes. Some volcanic eruptions have lead to cooler, wetter periods, affecting the local vegetation that shows up in the peat record.

The most common archaeological material to be preserved in peat tends to be wood, from stakes to trackways and logboats. Trackways can vary from simple brushwood overlying the wetter peats to provide shortcuts across the bog, or droveways for livestock, to more complicated engineering projects such as wooden trackways, as has been discovered at Cors Fochno.

Log boats, or indeed more sophisticated wooden boats, have been discovered in peat bogs in Ireland, the earliest dating back to the Neolithic. It is clear from early map sources and environmental work that the northern part of Cors Fochno was tidal and open to the Dyfi, as well as being cut by meandering streams for most of its history until the northern embankment was built in the 19th century. Developing peat may therefore have preserved earlier wooden boats left along this shoreline over its history.

Perhaps the most famous objects preserved by peat are bog bodies, such as Lindow man. Peat will preserve skin, hair, internal organs and clothing allowing archaeologists a unique opportunity to study past diets, diseases, practices, clothing, fashions, stitching techniques etc. These bodies can vary greatly from accidental deaths, to deliberate burials to victims of murder, but all can reveal unusual past practices.

Occasional finds of wooden tools, utensils and containers are also recovered from peat bogs. Such artefacts are likely to have been widely used in the past but do not generally survive in an archaeological context. One of the largest number of wooden containers to be recovered from peat bogs are carved tubs or kegs used for 'bog butter'. Not really butter, the substance appears to generally be some form of animal fat, possibly to be used in the creation of butter or used for cooking or wool spinning. Radiocarbon dating from examples in Scotland show this practice has been going since at the 2nd or 3rd centuries AD, and examples are known from Scotland to Ireland. The true reason for burying this 'butter' in peat bogs is unclear but it is thought it may be to preserve surplus amounts produced during the summer months, or perhaps to improve the flavour or even for ritual reasons, although this is generally discounted as a reason.

RESULTS OF THE EVALUATION

Several areas in and around Cors Fochno were identified as sites worthy of further evaluation in the field. In the event a programme of works was only deemed possible at three of these sites, namely Bryn Sant, Tan yr Allt and Ynys Capel, although all sites were examined. The programme of works consisted of a mixture of geophysical, auger and topographical surveys combined with small-scale test excavations and walk-over surveys. All sites involved the use of local volunteers alongside DAT staff. The fieldwork was undertaken over the course of three weeks comprising one week in August 2008, and two further weeks in September.

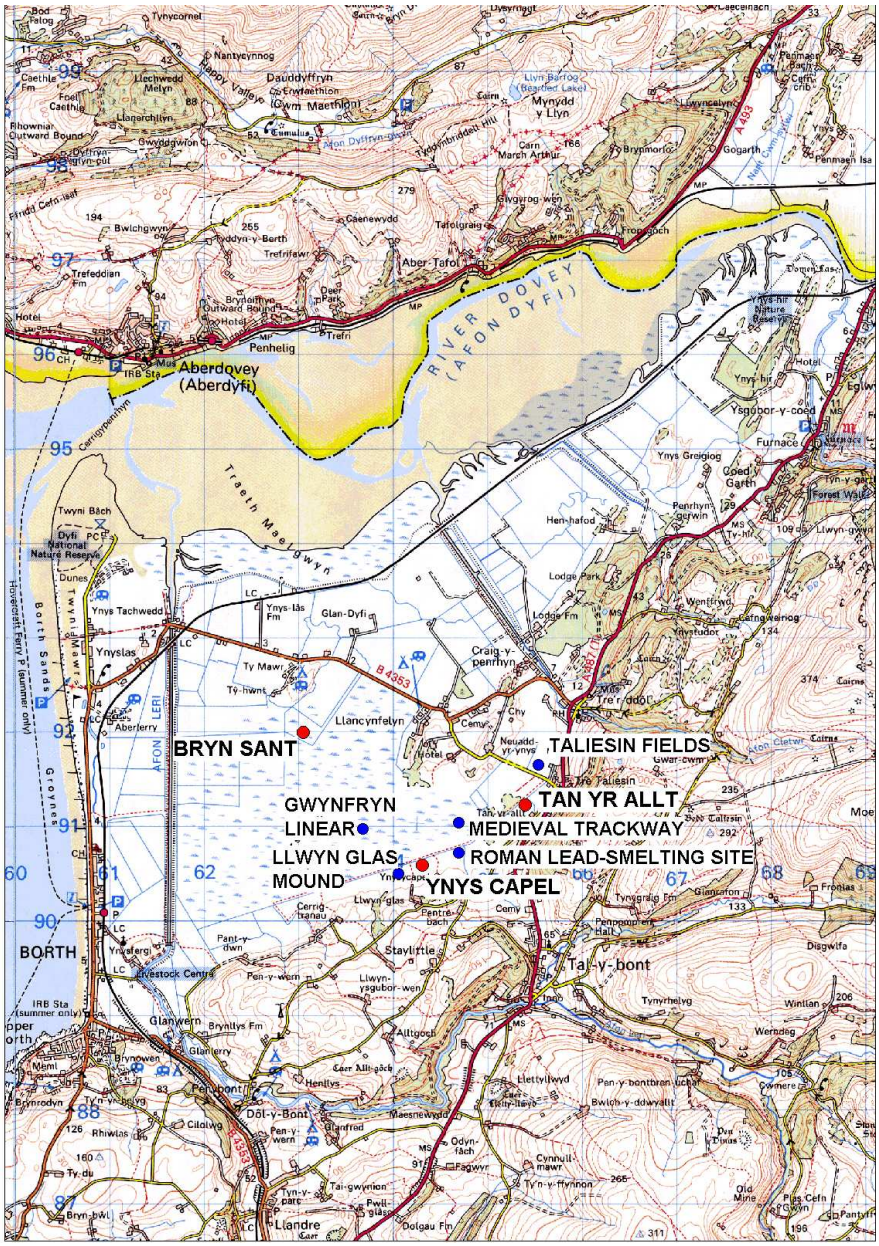

Fig 1. Location map of targeted areas, based on the Ordnance Survey.

Bryn Sant

Site

A small natural outcrop surrounded by peat bog a short distance to the east of Ynys Mochno (NGR SN 6311 9202). The visible outcrop above the bog surface measures roughly 140m by 80m and is currently under bracken with some scrub. Prior to the fieldwork taking place the bracken had been cut in places. The site is currently accessed via a trackway from the main B4353 to the north, the trackway runs alongside 19th century drainage ditches. Drainage ditches surround the outcrop, enclosing an area roughly 200m by 130m, with further drains running from the lower slopes of the outcrop on its south-western edge.

Reason for further investigation

There were no known archaeological sites connected with this outcrop but its name 'Bryn Sant', possibly translated as 'saint's hill', is suggestive of a religious connection, the reason for which is currently unknown. Other islands above the peat throughout Cors Fochno are known to have seen activity prior to the draining and farming of the bog in the 19th century, such as Llangynfelyn and nearby Ynys Mochno. Prior to the creation of the modern B4353 in the early to mid 19th century it appears likely there must have been a routeway across the bog connecting these isolated islands. As a relatively dry point near the interface between the peat bog and intertidal marshes it is possible such a routeway may have passed over or near Bryn Sant. This site has also been identified by CCW as an area suitable for peat stripping as part of their active management of the bog. This offered the opportunity to examine the condition of the peat and underlying surfaces over a larger area with the aid of a machine, effectively providing a detailed archaeological watching brief of the peat stripping operations.

Methodology

The work encompasses five main techniques. Initially an **auger survey** was carried out across the outcrop to map the subsurface deposits and identify areas of peat build-up and survival. Four lines were laid out across the outcrop using tapes and pegs, with augers taken at 2.5m intervals along the lines, using a 30mm open chamber or gouge hand-auger. The main line ran for 130m NE-SW across the long profile of the outcrop, although the final 15m at the NE end was in an area of disturbed ground so from 115m the line was stepped up by 10m to allow a further 25m to be augered through undisturbed ground deposits (making the total profile 140m long). Two shorter lines were laid out NW-SE across the shorter profile of the outcrop, although due to heavy vegetation one of these lines was staggered slightly. Where geophysics and adjacent augers suggested distinct changes in the underlying deposits intermediate augers were taken in an area measuring 3m² (see Fig.2).

A **metal detector survey** was undertaken across the higher ground of the outcrop, in areas cleared of vegetation in an attempt to identify specific points to investigate further through trial trenching. These areas corresponded closely to the areas investigated with the auger survey. All readings were marked with tags but only the stronger readings, or clusters of readings, were further investigated.

A series of **trial trenches** were also opened up across the outcrop to investigate metal detector readings and geophysical results as well as examining in more detail a greater depth of peat. A total of 10 test pits of varying sizes were excavated across the site. Two (T1 & T2) were machine excavated during the course of the peat stripping undertaken by CCW. These larger trenches measured 14m by 1.3m, dug through the lower peats on the NW and SW sides of the outcrop to get a better look at a continuous profile where the peat was thicker. Three test pits (T3, T9 & T10) were also hand excavated in the lower peats in order to examine a better section of peat and obtain samples, these pits measured 1m by 1m, 1m by 2m and 1m by 3m, located on the SW and SE sides.

Four test pits (T5, T6, T7 & T8) were excavated on the higher ground of the outcrop, two measured 2m by 1m, one 3m by 1m and a further small pit measuring 0.5m by 0.5m. These were sited to examine readings picked up by the metal detector. A final pit (T4), measuring 2m by 2m was excavated across the anomaly picked up in the initial geophysical survey (see Fig.2).
Where archaeological features or deposits were revealed they were cleaned by hand, photographed, and then either wholly excavated or test excavated to establish as far as possible their true character. During excavation all revealed deposits and features were described on context record forms and allocated their own individual context number. After excavation, all features were photographed again and then planned using a Trimble TST. Where relevant, sections were drawn to a scale of 1:10. Standard techniques were used to excavate and record the trench profiles and any archaeological features present. The relative location of the trenches have been tied in to the Ordnance Survey grid and absolute levels were calculated from the Ordnance Survey datum. Samples were obtained from the two hand-excavated trial trenches in the lower peats, these have not yet been processed.
A **geophysical survey** was undertaken in the area of peat on the NW edge of the outcrop and along the central spine of the outcrop, where vegetation allowed. The survey was carried out using a Bartington Grad601-2 dual Fluxgate Gradiometer. This uses a pair of Grad-01-100 sensors, these are high stability fluxgate gradient sensors with a 1m separation between the sensing elements, giving a strong response to deeper anomalies. The instrument detects variations in the earth's magnetic field enabling it to detect buried features such as ditches and areas of burning or metal etc. The surveys were laid out in grids and tied into the topographic surveys and ordnance survey grids (see Fig. 3).
The ground surface across and around the outcrop was subject to a detailed **topographic survey**. Coded 'strings' of data were recorded using a Trimble TST to locate significant breaks of slope within the survey area. This data was then supplemented with an array of data points across the survey area. The resulting contour map was generated using GEOsite 5.1 software (see Fig.2).

Results

Auger Survey

The long profile that ran for 130m revealed a fairly consistent profile of mineral soils and clays mirroring the current ground levels with peat deposits in various stages of preservation on the lower slopes.
The base deposit was a fairly consistent layer of light grey clays occurring at between 0.2m to 0.57m below the current ground surface and mirroring the gradual low hill slopes over a distance of *c*.100m. To the northeast these clays then began to fall away with a gradual slope to 1.6m below ground surface, and with a similar gradual slope to 1.03m below ground surface to the southwest.
Overlying these clays on its upper slopes was a consistent deposit of mid orange-brown silty-clays, averaging between 0.2m and 0.3m thick. The upper *c*.60m of Bryn Sant was covered in a consistent deposit of mid grey-brown silty-clay topsoil between 0.1m and 0.3m thick.
Dry and crumbly desiccated peats between 0.11m and 0.36m thick were recorded on the lower slopes to the northeast and southwest, the interface between these and the more mineral topsoil was difficult to establish with precision. To the northeast these desiccated peats began to be recognised at a height of *c*.11.718m O.D. and extended for 12.5m to a height of 11.193m O.D. After this point the desiccated peats increased in thickness and wetness due to a greater depth of peat below. The upper drier peats average *c*.0.5m thick, overlying undisturbed structured peats from 0.3m thick and increasing as the underlying clays drop away. At the base of these undisturbed peats evidence of thin bands of peat and clays were recorded.

To the southwest the desiccated peats began to be recognised at a height of *c.*12.042m O.D. extending for 32.5m to a height of 10.658m O.D. before beginning to get wetter and better preserved. The desiccated peats averaged between 0.14m and 0.36m but did increase to 0.49m in depth roughly halfway along its length. As the underlying clays begin to drop away from more than 0.5m below the current ground surface numerous structured peat bands were recorded increasing up to 1.03m in depth at the southwestern extent of augering. These different bands of peat development were not as clearly delineated to the northeast.
A profile of the auger results can be seen in Fig. 23 and the auger results themselves are included in Appendix 3.

The shorter profile from northwest to southeast across Bryn Sant corresponds closely to the longer profile. The underlying deposit of light grey clay slopes gently, mirroring the dome of the current ground surface, between 0.3m and 0.6m below current ground levels for a distance of 52.5m. To the southeast the clays then begin to drop away sharply to a depth of 1.82m below current surface in just 5m. The clays drop away more gradually to the northwest to a depth of 1.3m below the current ground surface in *c.*7.5m. Overlying the upper slopes of the clay is a deposit of orange-brown sandy clay extending for a distance of 35m, topped by a mid-grey silty-clay topsoil 0.1m to 0.3m thick for 25m.
To the southeast the topsoil merges with an upper deposit of dry desiccated peats at a height of 12.149m O.D. increasing from 0.14m thick to 0.5m thick after 17.5m. Beyond this point the peats become wetter and better preserved. For the first 2.5m these desiccated peats overlay mineral soils, and for the next 7.5m it overlays mixed clays and more structured peats. As the underlying clays drop away sharply well-preserved structured peats are recorded for a depth of 1.04m with underlying lenses of peats and clays up to 0.78m thick.
To the northwest the topsoil merges with an upper deposit of dry desiccated peats at a height of 11.797m O.D., extending for 12.5m. For a distance of 7.5m these desiccated peats directly overlie mineral soils before undisturbed structured peat deposits are first recorded. As the lower clays slope away more gradually the layers of undisturbed peats begin to increase and four separate layers with a total thickness of 1.3m are recorded at the northwestern limit of the augering.
A profile of the auger results can be seen in Fig. 23.

Trial Trenches (See Fig. 2)
The sections revealed in the machine and hand-excavated trenches in the lower peats revealed in greater detail the succession of peat deposits surrounding the outcrop.
T1 - Machine excavated to a depth of 0.6m on the northwestern side of Bryn Sant down to a level where the underlying clays became visible. The section revealed nine distinct layers of peat. The upper layer (0.14m thick) consisted of a loose dark brown desiccated peat with grass roots throughout. Next was a thin layer (0.03m thick) of light brown structured peat with heather roots visible. Below this was another thin layer (0.04m thick) of dark brown structured peats. Next was a layer (0.15m thick) of mid reddish-brown mixed structured peat with heather roots visible. Below this was a very similar layer (0.06m thick) but containing fragments of natural unworked wood. The wood was not identified. Below this was a thin layer (0.03m thick) of dark grey-brown peaty-clay. Below that was a similar layer (0.03m thick) of mid grey-brown peaty-clay with inclusions of light grey clay. Next was another layer (0.05m thick) of the dark grey-brown peaty-clay. The final identified layer (unrecorded thickness) consisted of firm light-grey clay with occasional sub-angular stone inclusions with a gradual slope down to the west (see photo 2).

T2 - Machine excavated over a distance of *c*.13m to a maximum depth of 0.9m on the southwest side of Bryn Sant. A section was recorded roughly halfway along its length where layers of peat and underlying clay were visible above the rapidly accumulating water. At this point the section was 0.7m deep and 7 distinct layers were recorded. The upper layer consisted of a dark brown-black desiccated peat (0.16m thick) with bracken roots visible throughout. Below this was a layer (0.22m thick) of amorphous dark-brown peat with possible heather and cotton grass visible. Bracken roots also spread in the upper parts of this deposit. Next was a layer (0.1m thick) of structured dark reddish-brown peat with fragments of wood visible. Below this was a thin layer (0.02m thick) of mixed dark grey-brown peaty-clay. Below this was a layer (0.06m thick) of finely structured mid brown slightly clayey-peat. Below this was another layer (0.02m) of dark grey brown peaty-clay. Underlying this was a layer (unrecorded thickness) of firm light grey clay with common medium sub-angular stone, this deposit sloped gradually down to the south (see photo 3).

T3 – Hand-excavated to a depth of 0.9m on the southeast side of Bryn Sant, revealing a complex section through 10 layers overlying the light grey clay. The upper layer (0.16m thick) consisted of a mixed desiccated dark brown peat with bracken roots and leaves visible. Below this was a layer (0.1m thick) of amorphous dark brown-black peat with roots (presumably bracken) visible, as well as remnants of sphagnum moss and possible heather and cotton grass. Underneath this was a layer (0.08m) of structured mid reddish brown peat, that appeared streaky throughout and also appeared to contain fragments of charcoal. Next was a layer (0.03m) of structured dark brown-black peat with a very thin band of compact dark brown-grey clay within it. Below this was a layer (0.03m) of light grey gravely-clay that peters out to the east, and was not visible in the opposite section. Below this was a layer (0.07m thick) of structured mid red-brown peat with occasional light grey clay inclusion. Below this was a layer (0.06m thick) of mixed structured dark reddish-brown peat with fragments of wood visible. Next was a thin layer (0.03m thick) of very similar mid reddish-brown peat without the wood inclusions, the interface between these deposits was difficult to establish with certainty. Below this was a layer (0.08m thick) of dark grey gravely-clay with small to medium angular stone inclusions. Below this was a layer (0.1m thick) of dark grey-brown peaty-clay with occasional wood fragments visible and rare small sub-angular stone inclusions. Underlying this was a layer of light grey clay with common sub-rounded stone inclusions, sloping at an increasing rate to the east (see photo 4).

T4 - A trial pit hand-excavated in the area of the geophysical anomaly. This revealed a slight spread of small charcoal fragments but no associated archaeological features.

T5, T6, T7 & T8 - Of the four trial trenches investigating metal detector readings a small collection of iron nails and miscellaneous fragments were recovered, which appeared to relate to 20th century agricultural activity. Plough marks were also revealed in two of the trenches cutting into the subsoils, presumably indicative of 20th century ploughing (see photo 5).

Geophysical Survey (See Fig. 3)
The survey identified the occasional spike in readings which may have been indicative of buried objects but no distinct buried features could be discerned from the results. One of the most promising spikes was investigated both by auger and trial excavation. A slight spread of small charcoal fragments was recorded among the subsoils but nothing that could be described as a definite archaeological feature. It was hoped that if a trackway existed connecting the outcrop to the nearest dry land of Ynys Mochno then it would be visible on this

western side of Bryn Sant, but no feature was picked up on the geophysical survey, or during the peat stripping.

Topographical Survey (See Fig. 2)
The topographical survey established a detailed contour map of the outcrop and current level of peat accumulation. The location of auger points and trial trenches were also tied into the survey and subsequently into the Ordnance Survey grid.

Conclusions
The archaeological investigations demonstrated a lack of archaeological evidence in and around the outcrop relating to potential trackways, a religious association, or to pre-agricultural activity. The level of drainage around this outcrop would suggest the peat shrinkage in this area has been quite dramatic and therefore possible trackway features would be expected to be visible to the archaeological investigations. The absence of a trackway may suggest that the outcrop was reachable without the aid of a track although augering demonstrated a significant depth of peat surrounding the site. The outcrop may therefore have been isolated from human activity over much of its history and there is no indication to explain the origins of the name Bryn Sant.
19th century drainage ditches and trackways allowed access to the site and the outcrop appears to have come into agricultural use. It is likely to have been mainly pastoral but at some point the outcrop was ploughed and crops planted, the likeliest period for this is probably during WW2 when agricultural land for crops was at a premium.
The investigations into the peat revealed an interesting development of upper peat deposits in this area. Wet peats still existed at a depth of just 0.2m to 0.3m in places which had the potential for preserving archaeological remains. Several distinguishable bands of peat were identified and recorded with differing organic content on all sides of Bryn Sant, although peat deposits to the north appeared more disturbed. The lower peat layers all demonstrated mixtures of peats and clays directly overlying the light grey clay that appeared to form a consistent base to Bryn Sant.

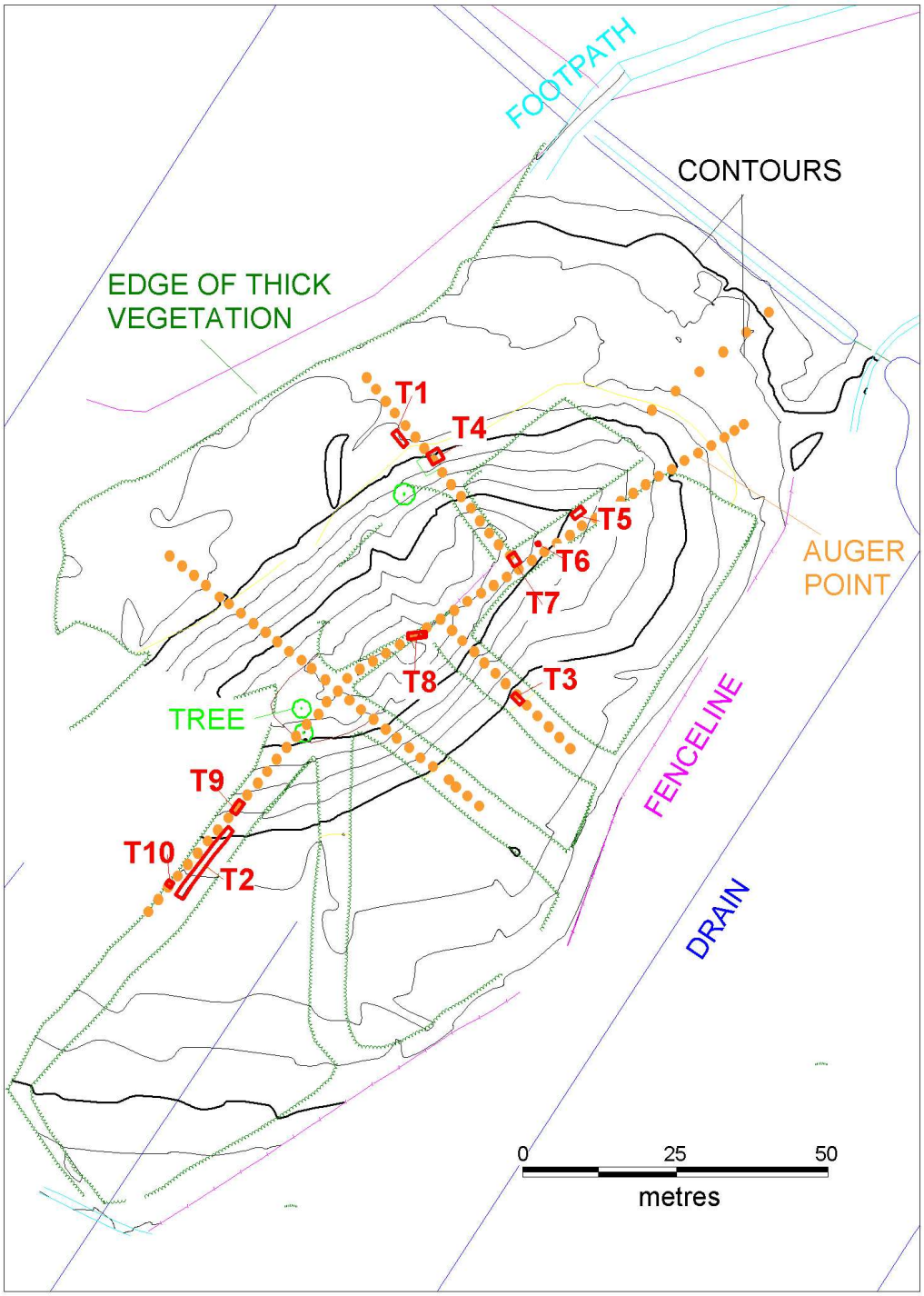

Fig 2. Topographic survey of Bryn Sant, showing topographical features, contour lines (at 0.25m intervals) and locations of auger points and trial trenches.

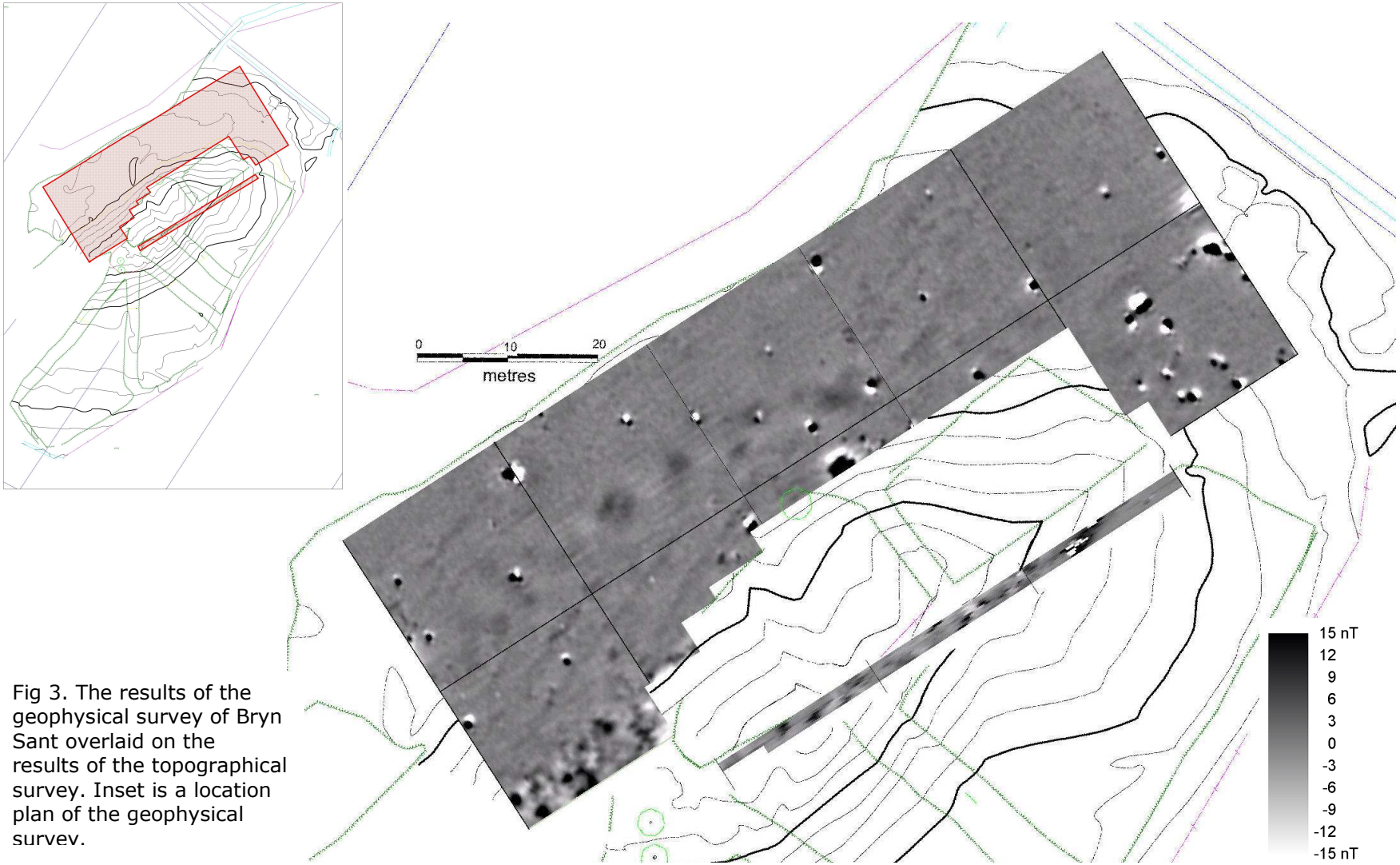

Fig 3. The results of the geophysical survey of Bryn Sant overlaid on the results of the topographical survey. Inset is a location plan of the geophysical survey.

Photo 2. Southwest facing section of Bryn Sant T1. 1x2m & 1x0.5m scale.

Photo 3. SE facing section of Bryn Sant T2. 1x2m & 1x0.5m scale.

Photo 4. Southwest facing section of Bryn Sant T3. 1x2m, 1x1m & 1x0.5m scale.

Photo 5. Southwest facing shot of plough marks visible in Bryn Sant T7. 2x1m scale.

YNYS CAPEL CROPMARKS

Site

An area of farmland on the southern margins of the bog, immediately north of Ynys Capel farmstead, covering an area of approximately 3.3 hectares (NGR SN 6439 9057). The fields are undulating but slope gradually into the peat bog, and lie only a short distance from the area of Iron Age/Roman lead-smelting and the medieval trackway identified in the 2003-05 excavations. The fields are currently under short improved pasture, grazed by cattle, bounded to the east and west by hedgerows and to the north by fencelines. A drain runs down the western hedgeline with the main Pwll Du ditch forming the northern boundary to the investigated site.

Reason for further investigation

Aerial photographs of the area have revealed a sub-square enclosure lying within these fields, with possible outlying features to the north (see photo 6). From the plan visible on the aerial photographs the cropmark has the appearance of an Iron Age defended enclosure common elsewhere in west Wales, however the site also lies close to the known area of Roman lead-smelting activity as well as being adjacent to the farmstead and its association with an un-located chapel site as indicated in its name. It is hoped further investigation of this site on the ground may help to reveal more clues to its function and the potential for surviving archaeological remains.

Methodology

Time was relatively limited on this site as the fields were required for cattle pasturage due to the poor weather. As a result planned work was limited to an auger survey, geophysical survey and topographical survey.

A **geophysical survey** was undertaken over three days in the two fields containing the cropmark. As with the rest of this project this survey was carried out using a Bartington Grad601-2 dual Fluxgate Gradiometer. The survey was laid out in grids and tied into the topographic survey and ordnance survey grids.

A **topographical survey** was undertaken using a Trimble TST to effectively record the various earthworks and breaks of slope that were visible within the two fields. These could then be related to the geophysical survey, and all tied into the Ordnance Survey grid. The resulting contour map was generated using GEOsite 5.1 software.

Initially it was planned to undertake a comprehensive **auger survey** from the peat deposits visible in the lower field across the site of the cropmark. However, in response to concerns by the farmer that the poor weather would adversely affect his cattle if they were not allowed back into the field earlier than planned the auger survey was curtailed somewhat. As a result three lines were laid out, each spaced 10m apart, running in a NNW-SSE direction in the upper field across the site of the cropmark. Augers were taken at 5m intervals for a distance of between 40m to 90m. Augers were taken using both a 30mm open core/gouge auger and a dutch peat/soil auger.

Results

Geophysical Survey (See Fig. 5)

The geophysical survey produced some interesting results from across the field. The cropmark itself showed up surprisingly faint but is still discernible. A single ditch encloses an area roughly 40m-45m square. Accompanying banks are not clearly discernible. A subcircular feature, possibly a low mound, appears to be depicted in the south-eastern corner of the enclosure, measuring *c.*10m across. A possible linear feature enters the enclosure mid way along its southern end and heads towards its north-east corner, this may be the result of later disturbance. No other internal features are discernible. A linear feature, possibly a ditch, is

clearly visible *c*.18m to the south-west of the enclosure with a turn that appears to mirror the corner of the enclosure. A variety of readings in this general area indicates further activity but these appear difficult to interpret.
In a band running along the eastern and south-eastern edge of the upper field a variety of strong signals may suggest a series of burning activities along this edge. It is tempting to suggest these signals may be related to the Iron Age/Roman industrial activity identified during the excavations to the east in 2003-05.
In the lower field the line of a now buried watercourse is clearly visible.
Numerous smaller signals are scattered throughout the two fields, these may relate to agricultural activity over the years.

Topographical Survey (see Fig. 4)
The topographical survey established a detailed contour map of the two fields encompassing the cropmark. Two low earth banks were recorded during the survey that appear to correspond closely to the aerial photographs and geophysical survey of the cropmark. The detailed contour map also indicates that the enclosure is sited on the very edge of the higher ground, and was probably at least partly constructed over peat deposits. The location of the auger points in relation to the enclosure and Ordnance Survey grid was also established.

Auger Survey (see Fig. 4)
Line 1 ran for 40m with auger samples taken at 5m intervals. This line lay outside the area of the enclosure to the west and showed upper levels of desiccated peats overlying deposits of peaty clays, and pockets of undisturbed peat, with underlying clays gradually rising as the land increases in height to the south.
For the first 10m topsoil up to 0.3m thick overlying a deposit of relatively dry desiccated peat varying in thickness and reaching a maximum depth of 0.5m below the current ground surface. This in turn appears to overlie thick deposits of mixed peaty-clays. From 15m to 25m the desiccated peats directly overlie more silty-clay deposits up to 0.17m in thickness that cover an area of wetter structured peat. This structured peat lies at 0.54m below the current ground surface and is up to 0.24m thick, overlying firmer light grey clays, similar in nature to the underlying clays recorded at Bryn Sant.
From 25m onwards however no more peat deposits are recorded, with thick deposits of silty-clays overlying the light grey clays as the ground both begins to rise and gets closer to the drainage ditch that borders the western edge of the field.

Line 2 runs for 85m, with auger samples taken at 5m intervals. This line clips the edge of the enclosure, running through what is interpreted as the outer ditch, continuing southwards on to the higher ground beyond.
The first 20m of the line lies on relatively low lying ground outside the visible limits of the enclosure. A relatively thin layer of topsoil up to 0.13m thick overlies a consistent deposit of desiccated peat that gradually gives way to more structured wetter peats at depth. The interface in the peats was difficult to record, the entire deposit being 0.64m thick at its most northerly extent with the base of the deposit 0.74m below the current ground surface. Underlying these peats was a mixed deposit of gradually rising peaty-clays. From 15m onwards the underlying deposit of light grey clays become visible at a depth of 0.5m below the current ground surface.
From 25m until 40m the auger samples begin to cross what appears to be an outer ditch around the enclosure. This appears to be mirrored in the auger samples. At 30m the underlying light grey clays appear at 0.41m below current ground surface. By 35m these clays drop to a depth of 0.58m below the current ground surface before rising again to just 0.11m at 40m suggesting a possible ditch and/or inner bank in the clay. At its greatest depth (at 35m) a thin deposit

0.05m thick of peaty-clays overlies the clay, covered by a thicker build-up of now desiccated peats up to 0.53m thick.
As the auger samples move out of the ditch the underlying clays continue to undulate slightly. From 40m to 50m the clays drop to 0.49m below the current ground surface before rising slightly to 0.44m at 60m. These clays are initially overlaid by desiccated peat up to 0.23m thick, gradually giving way to mixed peaty-clay deposits. At 65m the underlying clays appear to drop away, not recorded in the sample which reached a maximum depth of 0.61m, with a deposit of structured peat 0.14m thick at a depth of 0.35m, sandwiched between upper desiccated peats and underlying peaty-clays. From this point on however the peats begin to disappear and the topsoil directly overlies light grey clays.

Line 3 runs for 60m with auger samples taken at 5m intervals. This line runs from what appears to be the outer ditch of the enclosure, through its southwestern corner and on to the rising ground to the south.
The first sample, lying both on lower ground and within the supposed ditch, contained a 0.30m thick deposit of desiccated peats under 0.15m of topsoil, with the lower 0.09m becoming wetter and more structured. Underlying this, at a depth of 0.45m, was a 0.17m thick structured peat lying directly on the light grey clays.
At 5m the underlying clays rise dramatically to just 0.16m below the current ground surface, overlain by a thin deposit of desiccated peats. These clays stay at a similar level until 20m when they start to drop again, reaching a depth of 0.5m below current ground levels at 25m before rising again to 0.15m at 35m. This drop appears to correspond with an inner ditch recorded during the topographical survey, but not shown on the geophysical survey. At its lowest point (25m) the clays are overlain by a 0.15m thick deposit of mixed peaty clays topped with desiccated peat.
No peats are recorded to the south of this point with fairly consistent deposits of sandy-silt underlying the 0.10m thick topsoil, with no indication in these samples of specific outer ditch deposits related to the enclosure. The final auger sample at 60m contained blackened, possibly burnt, material in sandy silts and clays from 0.23m below the current ground surface to 0.73m. This does no correspond to any features identified either on the geophysical or topographical surveys, or on the aerial photographs. The auger results are presented in detail in Appendix 3.

Conclusions

The archaeological investigations identified several features of archaeological interest within this area. The cropmarked enclosure was visible on the geophysical survey results, but showed up surprisingly faintly. Both eastern and western ditches are visible on the aerial photo and geophysics, with the western side appearing to include an extra inner ditch. The northern ditch appears only on the aerial photo, this may be due to the presence of a metal fenceline masking the geophysics results but also suggests the greater build-up of peat in this area reduces the effectiveness of this type of geophysical survey. A broken southern ditch may indicate an entrance to the enclosure and the geophysical results shows a possible double-ditched feature entering the enclosure at this point, which also appears to align with an elongated platform of higher ground identified during the topographic survey. Internally a possible circular feature in the corner of the enclosure may be interpreted as a round house as typical of the Iron Age, but this is very tentative and it would appear to better represent a low mound, corresponding to an L-shaped area of higher ground picked out by the topographic survey. Unfortunately this provides few definite clues to date this feature. There was a lack of definite stone structures within the enclosure as might be suspected from a medieval or early medieval chapel site. The general shape of the enclosure is still reminiscent of Iron Age defended enclosures but the

likelihood of Roman origins to the enclosure remains a possibility, both by its regular ditches and proximity to areas of known Roman activity.
Features representing possible industrial activity was identified along the eastern boundary of this area. It is tempting to see this as the limits of Iron Age/Roman industrial activity in the area that was identified during the 2003-05 excavations to the east. Other external features, such as the L-shaped ditch to the southeast, remain difficult to interpret.

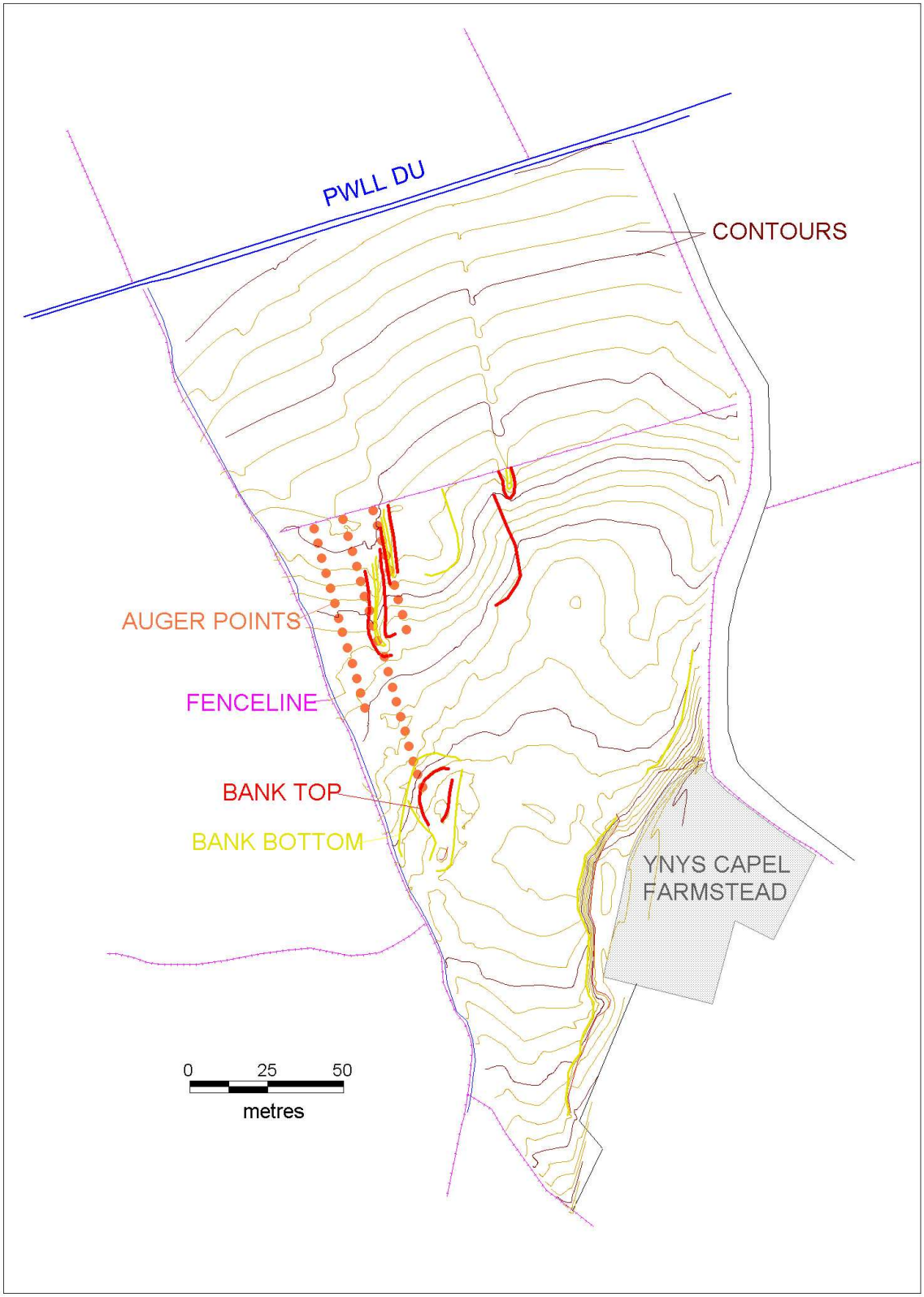

Fig. 4. Topographic survey of Ynys Capel, showing topographical features, contour lines (at 0.25m intervals) and locations of auger points.

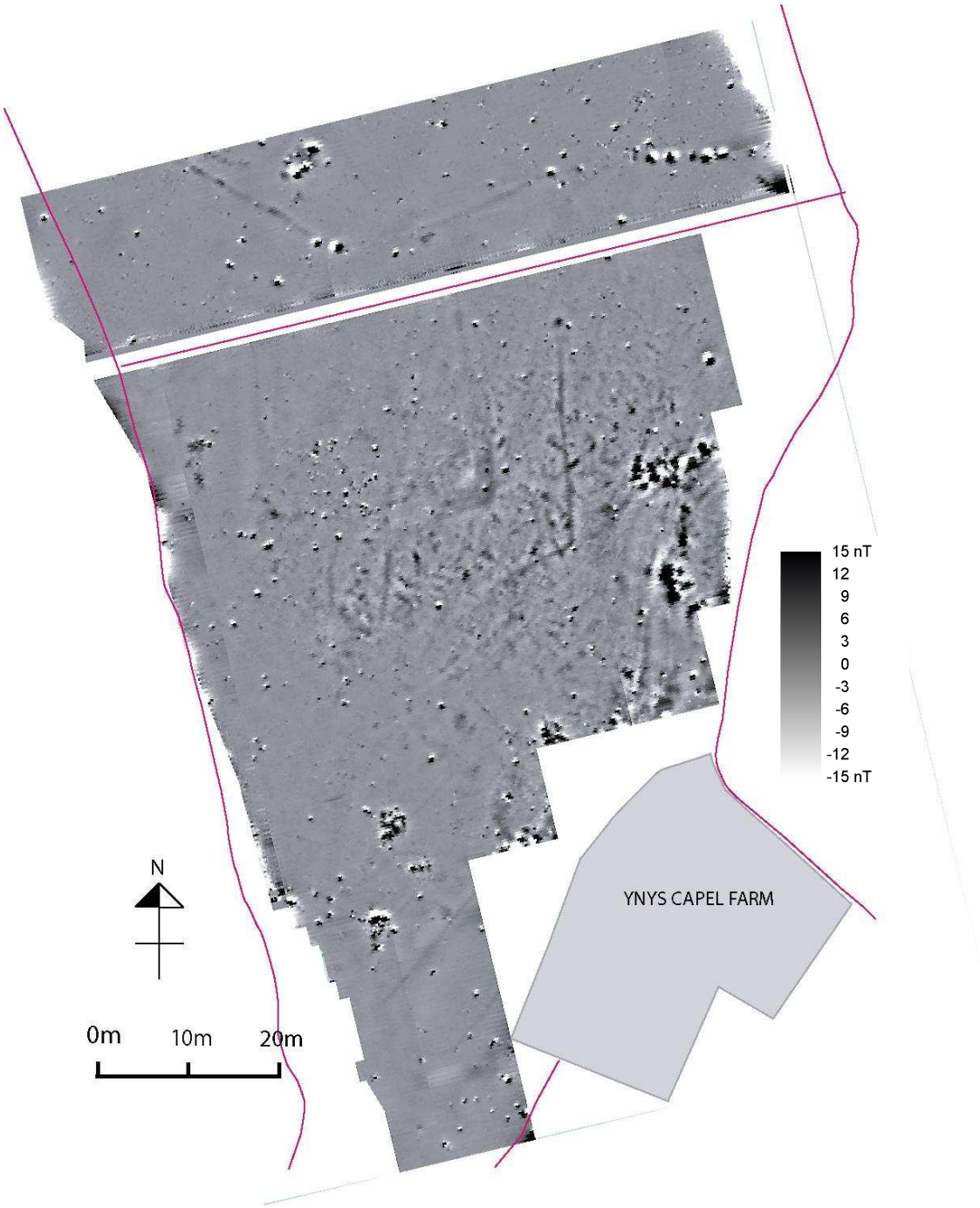

Fig.5. The uninterpreted results of the geophysical survey of Ynys Capel.

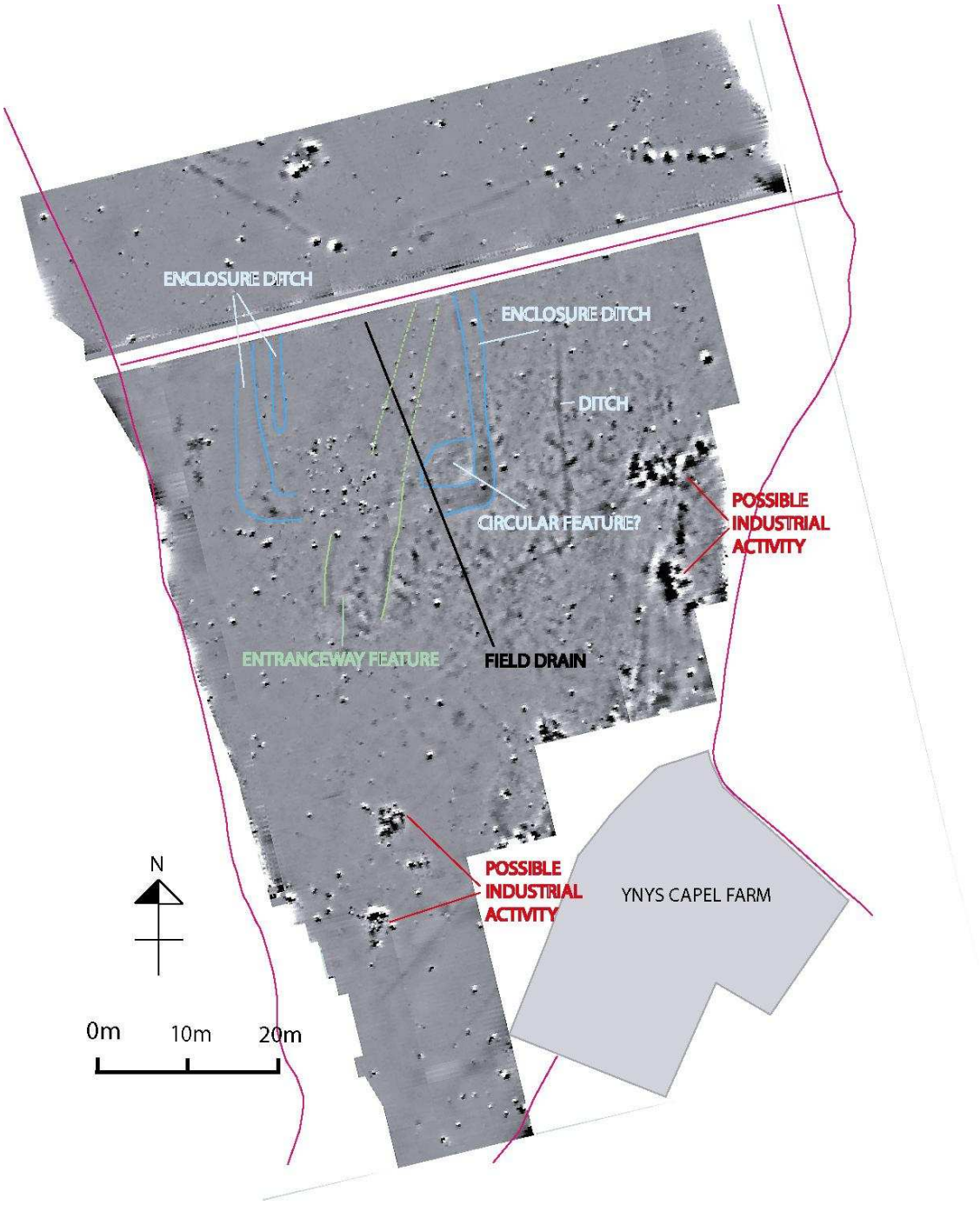

Fig 6. The interpreted geophysical survey results.

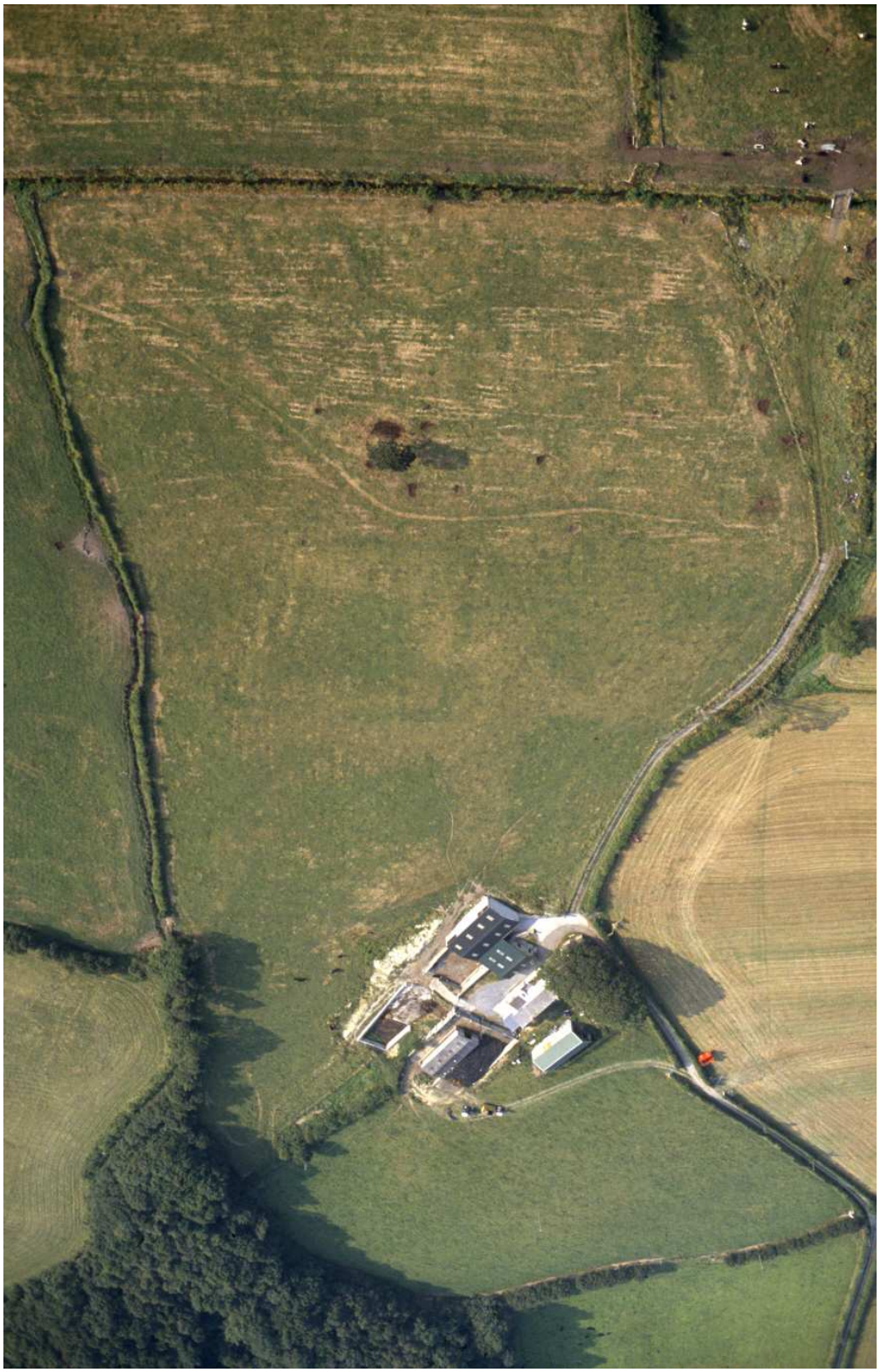

Photo 6. Aerial photograph of the cropmarked enclosure at Ynys Capel, visible in the centre of the field. The photo has been rotated to more easily compare with the geophysical and topographical results. Photograph courtesy of the RCAHMW.

Tan-yr-allt Trackway

Site

An area of farmland bordering the southeast side of Cors Fochno close to Tre Taliesin. The land lies to the west of Tan-yr-allt, consisting of several fields of running alongside the Pwll Du, one of the main 19th century drainage ditches bordering Cors Fochno. There were two specific areas investigated, the first (Area A) were two fields on the western side of Pwll Du, adjacent to the current road between Tre Taliesin and Llangynfelyn (NGR SN 6550 9146). A public footpath runs along the edge of these fields and a horse shelter stands in the corner but otherwise the fields appear little used. The fields are bordered by drains and fences and consist of short pasture and rough ground overlying peat. The second area (Area B) was on the east side of Pwll Du, on the lower slopes of improved pasture below Tan yr allt (NGR SN 6535 9116). These fields are currently grazed by cattle and bounded by hedge and fencelines.

Reason for further investigation

During the 2003-05 excavations of the nearby Iron Age/Roman lead-smelting site and medieval trackway a local landowner pointed out a linear feature crossing his fields to the north bearing some resemblance to a trackway. This linear feature was also visible on aerial photographs running in a SW – NE direction parallel to the current A487 as it enters Tre Taliesin, before it appeared to kink slightly, running in a more northerly direction crossing, or being cut by, the main Pwll Du ditch.

This feature represented the most visible potential for discovering another trackway that may be preserved by the peat. This possible trackway was made more intriguing by the fact it ran over the peat but did not connect any of the areas of dry land, instead running parallel to more solid ground. It also appeared to line up with the area of Iron Age/Roman lead-smelting activity to the south and there was also the suggestion that it may have been cut by, and therefore earlier than, the 19th century drainage ditches in the area.

Methodology

With the cooperation and interest of the landowner it was possible to employ several different methods of investigation for these areas.

A **geophysical survey** was undertaken in Area A across the field that bordered the minor road between Tre Taliesin and Llangynfelyn. As usual the survey was carried out using a Bartington Grad601-2 dual Fluxgate Gradiometer. The surveys were laid out in grids and tied into the topographic surveys and ordnance survey grids. It was hoped this area would also test the effectiveness of geophysical surveys over thicker peat deposits. It was initially intended to undertake a geophysical survey of the entire area around the linear feature as it ran through Area A, but in the event such a comprehensive survey proved unnecessary.

The results of surveying Area A also suggested a planned comprehensive survey of Area B was reduced to a very rapid survey without the need to tie in to a grid merely to establish the presence or absence of potential archaeology in that area.

An **auger survey** was carried out across both the northerly and southerly limits of the linear feature as it passed through Area A to map the subsurface deposits and identify archaeological features and peat condition. A single line was laid out at both ends, with augers taken at 5m intervals along the lines, using a 30mm open chamber or gouge hand-auger. The northerly line ran for 35m parallel to the line of the road. The southerly line ran for 45m parallel to the line of the adjacent field boundary and ditch.

No auger survey was carried out in Area B.

A series of **trial trenches** were also opened up at the southern end of the linear feature within Area A to supplement the auger data. A total of six trial trenches, each measuring 1m by 1m, were opened by hand to a maximum depth of 1m.

The trenches were spaced *c*.5m apart to run across the line of the linear feature. These allowed a more detailed examination and determination of the linear feature and the peats surrounding it.
A series of trial trenches were also opened up by hand in Area B to investigate this end of the linear feature, and establish at first if it was a continuation or a separate feature, and also to investigate the composition, function and possible date of the feature. The first trench (TA1) was opened up midway along the feature, measuring 4.4m by 1m, at most 0.5m deep. The second trench (TA2) was opened further to the NE at a break in the visible earthwork representing the linear feature. This trench was L-shaped, measuring 4.5m by 1m with a 3m by 1m extension, maximum depth 0.5m. A third trench (TA3) was opened up nearby to investigate another possible linear feature identified during the walkover survey. This trench measured 3m by 1m, with a maximum depth of 0.5m. In all trenches the underlying features were cleaned by hand, photographed and recorded, before being partially excavated. After excavation, all features were photographed again and then planned using a Trimble TST. Where relevant, sections were drawn to a scale of 1:10.
A **walk-over survey** was undertaken in Area B. As trial trenches had established both the validity of the linear feature and its solid make-up probes were used in an attempt to trace the continuation and extent of these linear features within the limits of the landowners property.
The ground surface of the two fields within which the visible earthwork ran (Area B) was subject to a detailed **topographic survey**. Coded 'strings' of data were recorded using a Trimble TST to locate significant breaks of slope within the survey area. This data was then supplemented with an array of data points across the survey area. The resulting contour map was generated using GEOsite 5.1 software.

Results

Geophysical Survey

Within Area A the geophysical survey picked up very strong readings from the linear feature, from what was originally assumed to be ditches accompanying the trackway. These strong readings clearly indicated that that these 'ditches' were in fact modern service pipes. Upon further investigation this was shown to be gas pipes, which accounted for all visible traces of the linear feature on the western side of the Pwll Du.
As the linear feature in Area A appeared from the aerial photographs to be a continuation of the linear feature in Area B only a rapid unregistered geophysical survey was conducted in Area B to established the presence or absence of modern services. This however gave markedly different readings suggesting the two features were in fact separate.

Auger Survey

As it became apparent that the linear feature visible in Area A related to modern services the purpose of the auger survey was shifted to examine the depth and condition of the peat deposits in this area. This revealed relatively undisturbed peats in very good condition. Although there must have been some dramatic shrinkage in this area due to the proximity of the main Pwll Du ditch only the upper 0.17m appeared to have been desiccated, suggesting these fields have not been ploughed. This may be explained by the unexpected depth of peat in this area. A maximum depth of 5.5m was reached using a combination of trial trenches and augers but the base of the peat was still not reached. When combined with the likely volume of shrinkage in this area it would seem possible that depths of *c*.7m or more of peat would have existed prior to 19th century drainage works. As this depth is similar to what may be expected in the centre of the bog it would seem likely that a deep channel runs between Tre Taliesin and Llangynfelyn, possibly the remnants of a deep palaeochannel. The peat itself

demonstrated several differences in makeup, indicating climatic change with birch wood present in some layers, sphagnum moss in others. These layers have yet to be dated however.

Trial Trenches

Area A - The results of the trial trenches in Area A corresponded closely to the results obtained from the auger survey. The upper 0.5m of the peat deposits indicated little desiccation suggesting a lack of plough activity in this area.

Area B TA1 – This trench was positioned to cross the line of the visible earthwork representing the remains of a supposed trackway. A thin (0.08m) of topsoil was removed, directly underlying the topsoil the surface of the linear feature was revealed. This consisted of a packed stony deposit with a mostly level, but slightly rounded top *c*.1.9m wide. At its base the stony deposit was at most 2.5m wide, seemingly unedged, running in a NE-SW direction. Further excavation revealed it to be 0.30m thick lying directly on compacted peat. Rapid accumulation of water prevented the examination of the outer edges of the linear feature. The stones consisted of small to medium sub-angular stone, characteristic of quarry waste. No finds were recovered (see Fig.9 and photos 8 & 9).

Area B TA2 – This trench was positioned in the adjoining field to the northeast on a continuation of the same visible earthwork, but in a location where it appeared to fade out. As with TA1 underneath a thin layer of topsoil the linear feature consisted of a single deposit of compacted and levelled gravel 3.10m wide, 0.27m thick, lying directly on top of compacted peat. As the linear continued to the north it began to dip down into the peat. Water accumulation prevented further detailed examination but the linear appeared to continue as no definite edge could be discerned. The linear continued as a visible earthwork at the northern side of the field. Large angular flat stones were visible scattered over the surface of the compacted gravel, suggesting it may formerly have had a rough paved surface. Running along the eastern side of the compacted gravel linear within TB2 was a stone lined drain. This was constructed of flat blocks of shaped stone forming a drain 0.53m wide and 0.25m deep that still appeared to be an active water channel. Water accumulation on the western side of the linear meant it was unclear if a similar drain ran along the western side. No finds were recovered from the trackway deposits although late post-medieval pottery and clay-pipe stems were recovered from the surrounding topsoil (see Fig.10 and photos 10 & 11).

Area B TA3 - During the walkover survey another possible trackway was noted lying *c*.17m to the east of the linear recorded in TA2. A small test pit measuring 3m by 1m was excavated to test those results. Directly underlying 0.16m of topsoil was another similarly constructed trackway. This consisted of a compacted gravel surface which had been levelled, running in a NE-SW direction. The trackway measured 2.25m wide, it was not excavated further so the depth of the compacted gravel and underlying deposits is unknown. No finds were recovered (see Fig. 11).

Walk-over Survey

A walkover survey of the northern field was undertaken, as well as the field to the north of that. Simple probes were used in an attempt to locate and trace the trackway and any similar structures in this area. A couple of breaks in the visible above-ground remains of the main linear were noted in the northern field, but through probing it was established that the trackway continued at a greater depth in these areas. These gaps may have been caused by a sinking of the trackway into the underlying peats. The trackway was not immediately visible continuing into the field to the north, but through probing it was established that it did

continue for *c*.27m before turning sharply to the west and heading towards the Pwll Du ditch. Larger areas of solid underlying deposits were also noted in this area, possibly platforms (see Fig. 8).
Whilst probing in the northern field a second parallel line of trackway was noted *c*.17m to the east of the known linear. This feature was investigated by trial trenching to establish if it was a similar trackway. This trackway was not visible extending into the southern field and appeared to be only a short stretch of track, extending for some 32m before becoming indistinct.

Topographical Survey
The topographical survey established a detailed contour map of the two fields encompassing the trackway (Area B). The line of the main trackway and the adjacent shorter trackway were visible as low earth banks, which appeared to correspond closely to the aerial photographs. The detailed contour map also indicates that the trackway runs along the flatter lower ground and over what must have been peat deposits. The location of the trial trenches in relation to the trackways and Ordnance Survey grid was also established.

Conclusions
In Area A the geophysical survey and archaeological investigations clearly indicate that the feature visible on aerial photographs and on the ground as a earthwork did in fact relate to modern services. However, the depth of peat recorded by augering was unexpected and revealed some well-preserved peats despite the proximity of the main Pwll Du ditch. The depth of peat here does raise the suggestion that access from dry land to Llangynfelyn at this point may have proved difficult without some form of extensive drainage, therefore access would have presumably been through Tre'r-ddol further north where outcropping rocks provide more of a bridge to Llangynfelyn. This may also help explain why a trackway from the south would have been a preferable option during the medieval period. Underlying geology in this area may therefore drop away steeply at this point.
In Area B two new trackways were identified. These trackways were both of a similar simple construction, compacted gravels overlying the peat. Scattered finds and their location just under the topsoil would suggest a later post medieval date for these trackways. The local landowner confirmed that the feature predated living memory, i.e. at least earlier than the mid 20th century, but also that it was becoming a more visible feature over the years, presumably through continued peat shrinkage. Conversations with the local landowner at Ynys Capel revealed that in the early years of the 20th century a cooperative of local farmers purchased and operated a steam-powered peat cutter for a short time. It is tempting to view these trackways in this context, as a base on which to run heavy steam-powered machinery cutting the adjacent peats.

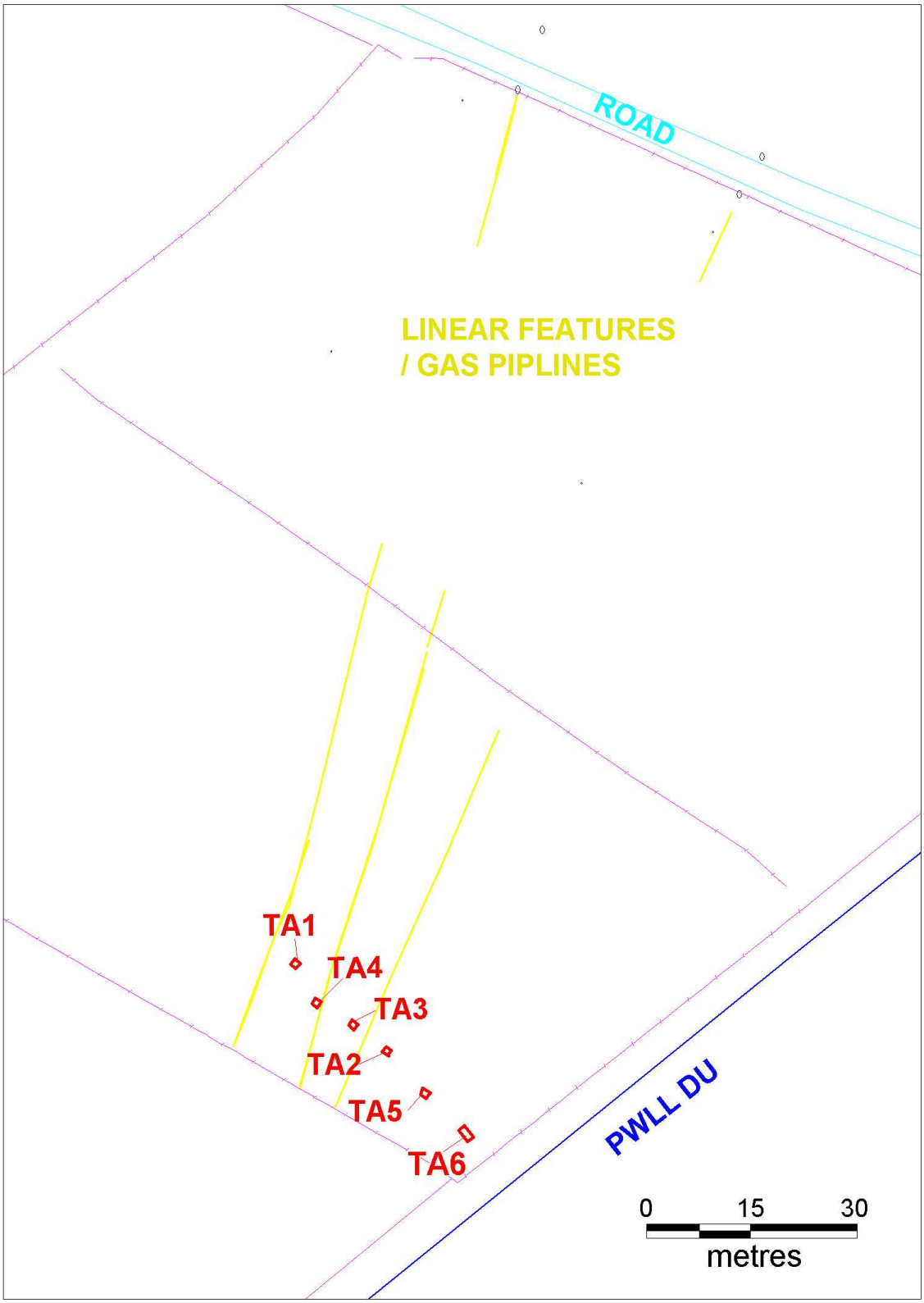

Fig 7. Topographical survey of Tan yr Allt Area A.

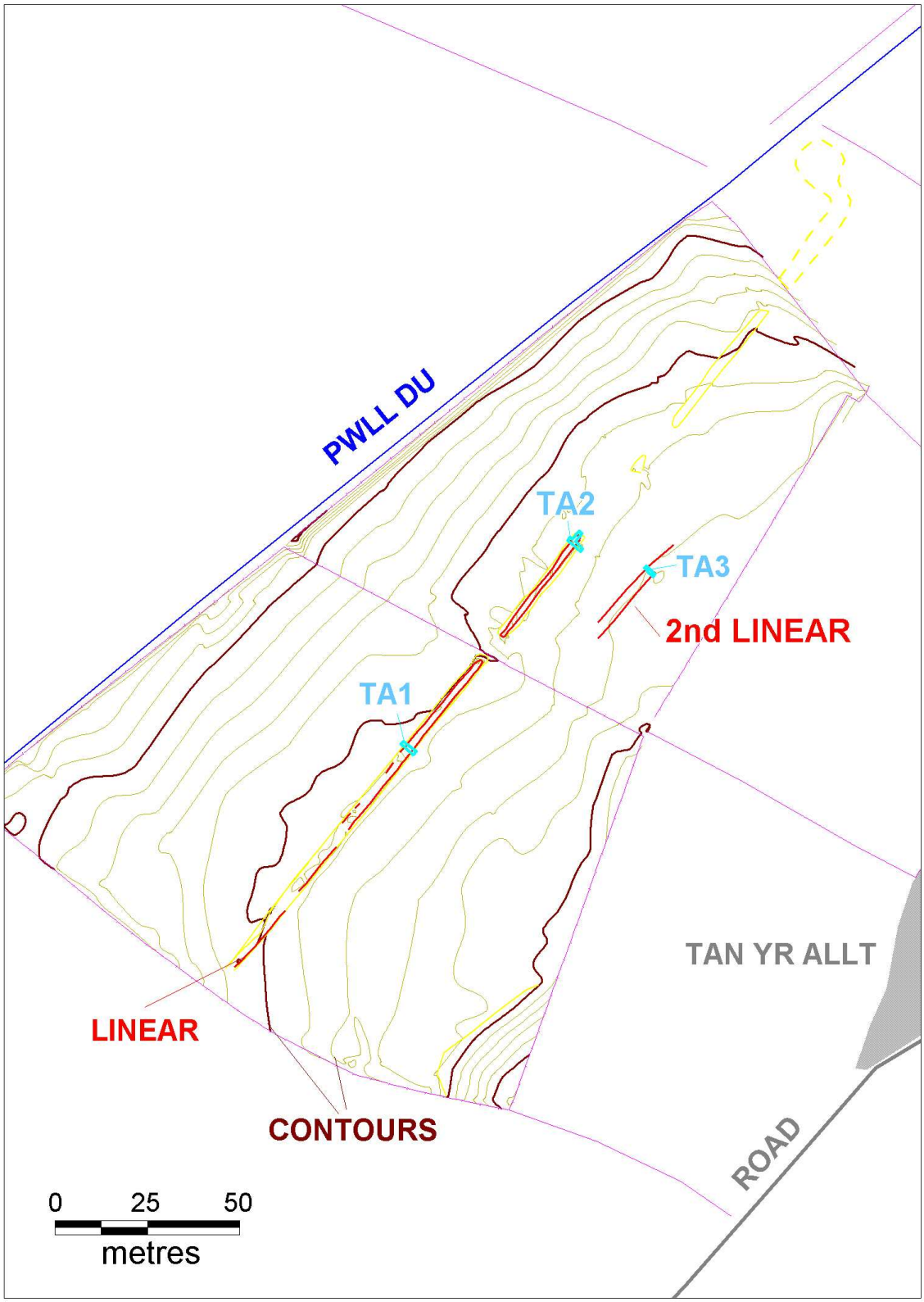

Fig 8. Topographical survey of Tan yr Allt Area B showing topographical features, contour lines (at 0.25m intervals) and locations of trial trenches. The continuation of the linear identified through the walk-over survey is represented as a broken yellow line to the north.

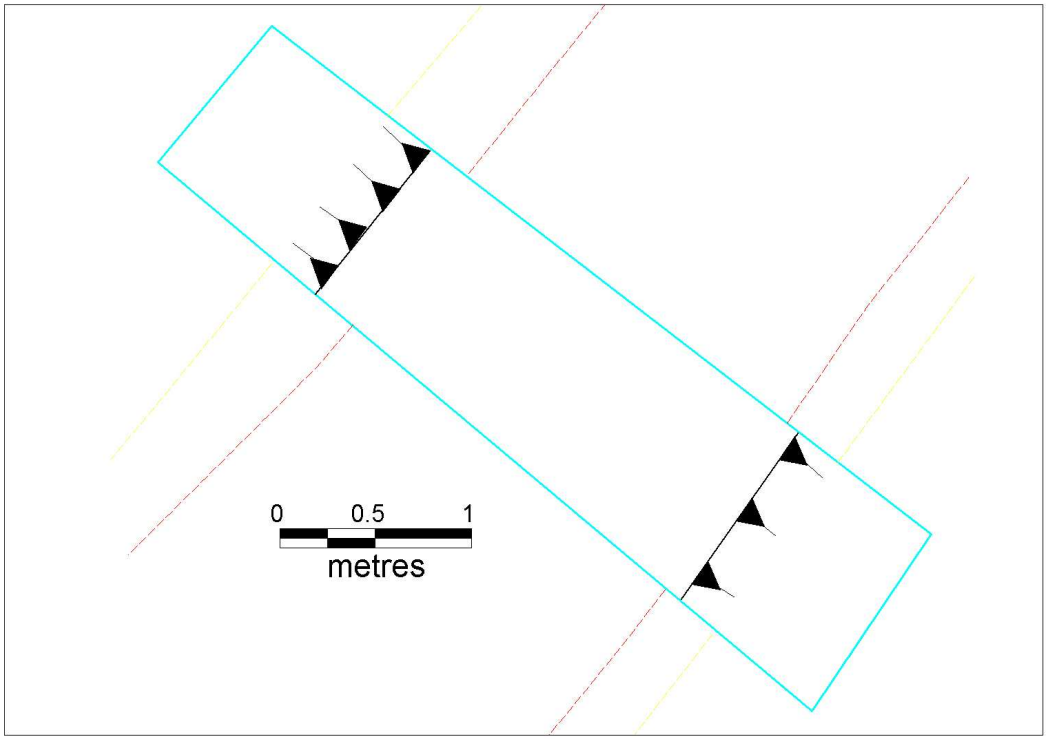

Fig 9. Plan of TA1 in Tan yr Allt Area B.

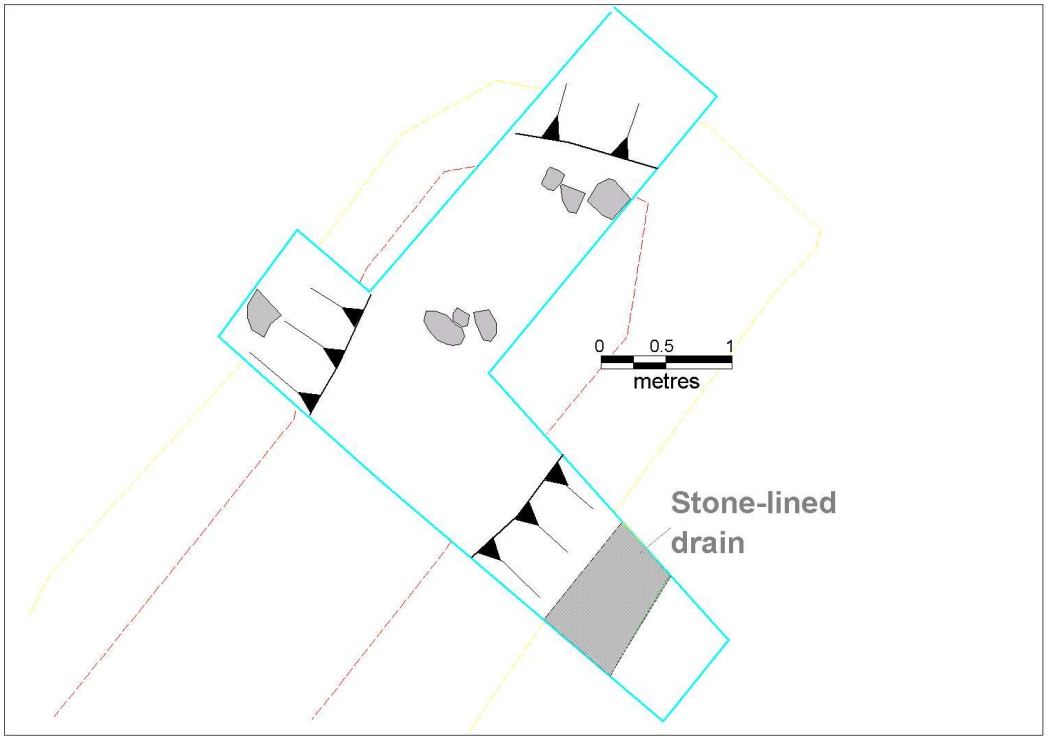

Fig 10. Plan of TA2 in Tan yr Allt Area B.

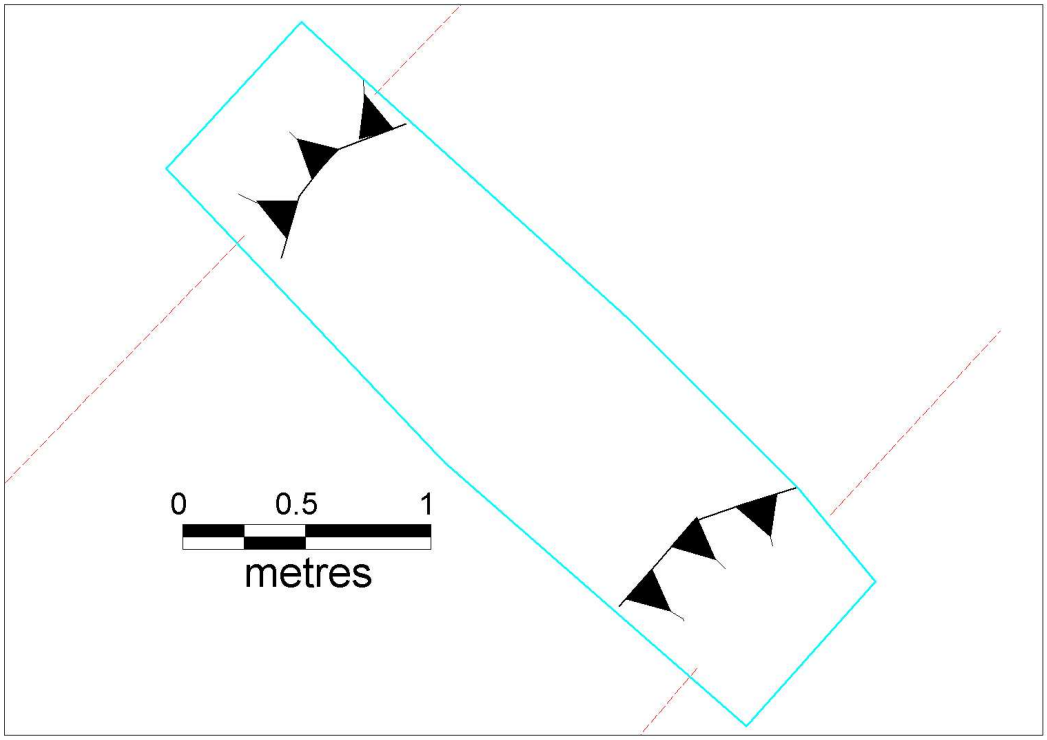

Fig 11. Plan of TA3 in Tan yr Allt Area B.

Photo 7. Aerial photo of Tan yr Allt Area B, showing the line of the trackway. Photo courtesy of CCW.

Photo 8. NE facing shot of the uncovered trackway in TA1 (Tan yr Allt Area B). 1x1m & 1x0.5m scale.

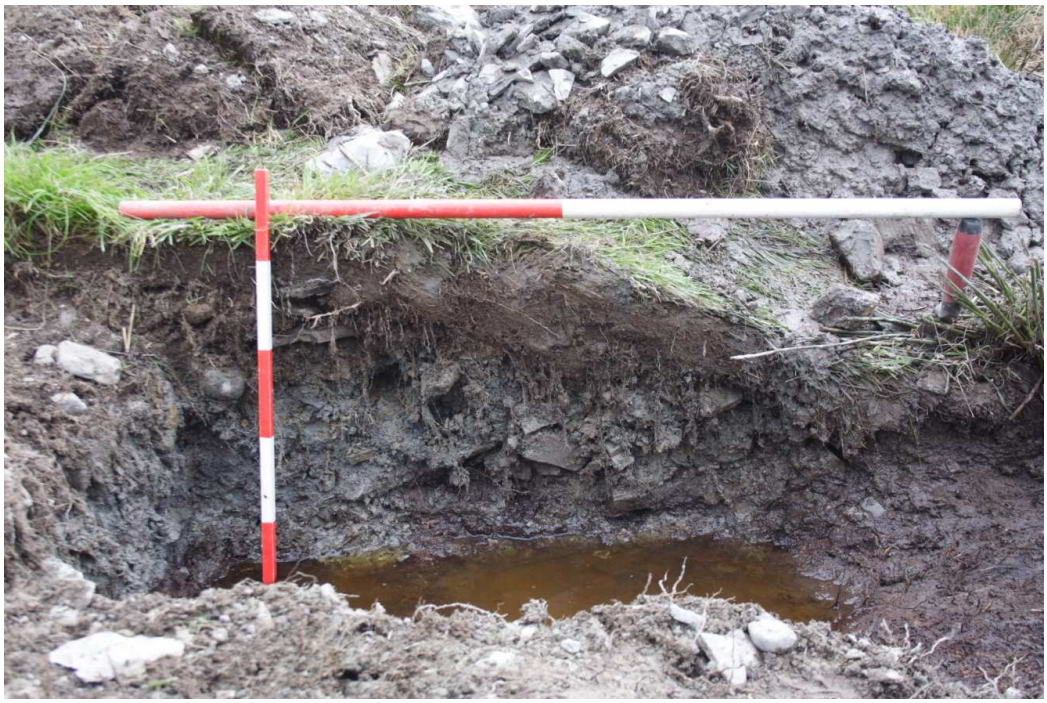

Photo 9. NE facing section of trackway in TA1 (Tan yr Allt Area B). 1x1m & 1x0.5m scale.

Photo 10. SE facing shot of the uncovered trackway in TA2 (Tan yr Allt Area B). 1x1m & 1x0.5m scale.

Photo 11. NW facing shot of the trackway and accompanying stone-lined drain in TA2 (Tan yr Allt Area B). 1x1m & 1x0.5m scale.

THE REMAINING SITES

Several further areas were initially highlighted as warranting further investigation on the ground. In the event fieldwork proved impractical at these locations but further information about these sites were gained and is presented below.

Ynys Capel Lead-Smelting Area & Trackway

Site

An area on the southern margins of Cors Fochno to the south of Lanngynfelyn (NGR SN 6486 9060). This is the area that was investigated during the 2003-05 excavations, and consists of four fields of improved pasture and crops, bounded by hedgerows and fence lines. Two fields lie on slightly higher ground sloping gently down towards the peat bog, with the remaining two fields lying on the bog proper. Half the area was under silage crop, with the remainder grazed by cattle.
The trackway runs across the peat bog to the north, an area of rough ground bounded to the north and south by thick vegetation.

Reason for further investigation

These fields surround the area of the 2003-05 excavations that uncovered the remains of a Iron Age/Roman lead-smelting site and a medieval trackway, as well as the earlier find of a Bronze Age wooden object. The line of the trackway has been traced but the full extent of the lead-smelting activity is still unknown - industrial remains were picked up in all the trenches. The function and context of the Bronze Age feature also remains unclear.

Results

The poor seasonal weather meant the fields we were hoping to investigate were still under silage crops, which ordinarily would have been harvested earlier in the summer. The poor weather also meant it was impractical for the farmer to move the cattle in the neighbouring fields due to a lack of dry fields in which to move them. However, during the earlier excavations of 2003-05 Lampeter University had undertaken some geophysical surveying in this area and subsequently the farmer had laid some more field drains cutting into the underlying soils.

Geophysical Survey

Undertaken by Gemma Bezant of Lampeter University. Initially the results were poor as interference from the high lead content of the soils masked the identification of specific features. However, the interference itself gives an indication of the extent of the lead-smelting activity. Underlying geological features were also identified during the survey.

Field Drains

The farmer recalled laying several field drains across the field in the north-western corner. Throughout all the drains he described a consistent dark ashy deposit below the topsoil which appears to correspond to a very similar deposit identified during the excavations and ascribed to waste material produced by the Roman lead-smelting activity. This would suggest the lead-smelting spread west from the identified kilns, at least up to the stream line. The occurrence of possible industrial activity in the fields to the north of Ynys Capel, as depicted on the geophysical survey, may suggest the lead-smelting also spread across the fields to the west.

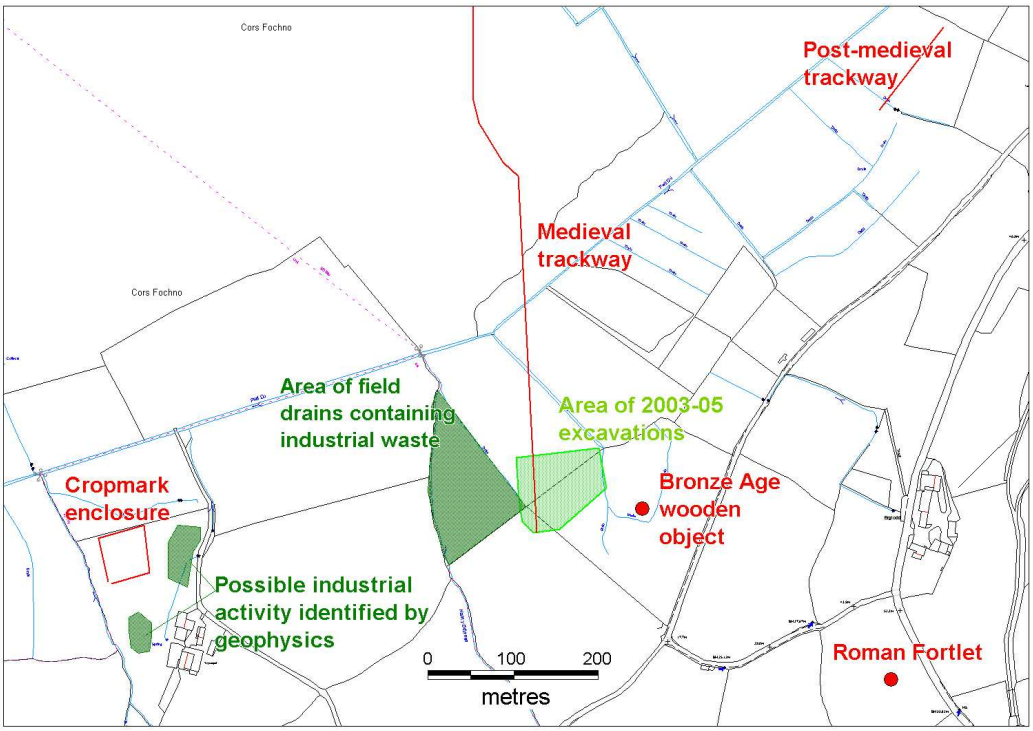

Fig 12. Map showing areas of possible Iron Age/Roman industrial activity on the southern edge of Cors Fochno, along with other major archaeological features.

Medieval Trackway

Site

The known line of a medieval trackway crossing the peat bog (NGR SN 6480 9105). The peat bog in this area, which is mainly owned by the Llangynfelyn council, is a marshy bog bounded by a ditch and areas of dense scrub. At its northern end the line as depicted on aerial photographs emerges onto dry land on the southern tip of Llangynfelyn island on farmland under improved pasture with stands of trees, currently grazed by cattle.

Reason for further investigation

Although the southern end of the trackway has been partially excavated during the 2003-05 excavations the northern end of the trackway was not investigated. There is the possibility of features associated with the trackway at this end that could aid in its interpretation, and aerial photographs from 1972 appear to show some crop marking on the bog edge similar to the parchmarks visible at the southern end indicating industrial activity. Also the trackway kinks midway along its length, the same aerial photographs indicate a possible sub-rectangular feature at this point which may be archaeological or a natural feature creating the kink (see photo 12).

Results

This area was examined during the course of the fieldwork but unfortunately proved unsuitable for many of the planned archaeological investigations. The active management of the wetland areas by CCW is allowing the bog to return to a more natural state after many years of agricultural drainage, but at this stage in the process dense scrub has developed along the wetland margins which effectively prevented access onto the line of the trackway, and meant a geophysical or topographical survey in this area was impractical. Permission was

granted by the landowner Mr Jenkins of Gelli farm to undertake a geophysical survey in the fields where the trackway emerged onto Llangynfelyn island. However these fields were occupied by young cattle which could not be moved due to the wet weather, and previous attempts during this project had proved it was not possible to undertake a geophysical survey in the presence of cattle. No obvious earthworks were noted at the northern terminus during the site visit.

Photo 12. Aerial photograph from 1972 showing the line of the medieval trackway, as well as the area of potential parching at its northern end. Photograph courtesy of CCW.

Llwyn Glas Mound

Site

An area of farmland bordering the southern edge of Cors Fochno, and adjacent to Ynys Capel farmland containing the cropmarks described above (NGR SN 6424 9050). This specific area consisted of two fields of improved pasture covering a low oval mound on the bog edge, measuring *c.*150m across and 2 to 3m high. The fields were being grazed by cattle.

Reason for further investigation

The mound itself appears natural and has not previously been linked to any specific archaeological feature but its proximity (*c.*150m) to Ynys Capel is suggestive. It not only provides an area of high dry ground on the bog edge but the chapel associated with Ynys Capel has not been positively identified, and although cropmarks lie in the field to the north of the current farmstead this mound is the nearest obvious 'Ynys'. Roman and medieval activity is also recorded *c.*500m to the east. Undulations also lie in the field to the north of the mound, it is unclear if these are natural or not.

Results

This site was also a victim of the wet summer. This was one of several fields on the wetland margins that were being used as cattle pasture, but due to the unusually wet summer this was one of the few dry areas suitable for the cattle

and it proved impractical to exclude the cattle from this area long enough to allow survey work to be undertaken.

Gwynfryn Linear

Site

A linear running for approximately 1.2km crossing the main bog area (NGR SN 6388 9107). It crosses both areas of natural bog and areas of former peat cuttings. At the southern end it is crossed by the Pwll Du ditch and bank which is covered in thick scrub, and at its northern end on the tip of Llangynfelyn island is enters a band of thick woodland.

Reason for further investigation

A trackway does cross the bog in this area on some 19th century maps and later 20th century aerial photographs appear to show a linear crossing the bog that may represent a trackway. Such a trackway could be similar in nature to the medieval trackway discovered to the east during the 2003-05 excavation but runs for a greater distance and possibly better preserved.

Results

Ultimately access to the bog at this area proved impractical due to uncertain safety and a lack of available time.

Photo 13. Aerial photographs from 1999 showing a pale linear feature crossing the centre of the bog. The shorter medieval trackway is just visible as a light linear feature on the very right of the picture. Photographs courtesy of CCW.

Taliesin Fields

Site

A field of improved pasture on the west side of Tre Taliesin bounded by the local road between Taliesin and Llangynfelyn (NGR SN 6555 9160). A variety of banks and ditches are visible throughout the field, which at the time of visiting held both cattle and sheep.

Reason for further investigation

The various banks and ditches have been noted by locals, some of which appear to correspond to 19th/early 20th century field boundaries and drainage but may also be associated with nearby 19th century mining activity. The route of what was initially assumed to be a trackway also runs through the area.

Results

Proposed geophysical and topographical surveys proved problematical both due to the size of the field (*c*.2.8 ha) and the number of stock. Previous attempts to carry out surveys in fields of livestock had proven to be impractical. Attempts to move the stock also failed as the owner of the field was not a local resident and proved difficult to track down within the course of the project.

Photo 14. NW facing shot across Taliesin fields showing some of the visible earthworks.

ARCHAEOLOGICAL POTENTIAL

In addition to the known archaeological and historic landscape evidence previously set out this study has considered evidence for further buried or otherwise un-noted evidence that still remains to be identified, revealed, recorded, protected and promoted. Although it can be impossible to be certain of what this comprises, and where it lies, there is much that can be done to gauge the potential of any area for the survival of important archaeological or otherwise unsuspected historic environment remains. Using the information and data which has been collected as part of the research, digital recording and fieldwork for this study it has been possible to build up a picture of the potential for archaeological remains within the study area.

As archaeological sites are under continual threat from a variety of different factors it is important to highlight areas of differing archaeological potential that may not be initially apparent in order to inform best management practice to help protect this diminishing resource.

The excavations in 2003-05 were of enormous importance in both illustrating the archaeological potential of this area and highlighting the continual threat that these sites are under. Although the trackway was visible as a linear feature from aerial photographs the identification of its date, significance and state of preservation were not established until the excavations took place. The excavation also revealed the extensive remains of Iron Age/Roman lead smelting remains spread across the margins of the wetlands illustrating just how widespread the hidden archaeological remains can be which are associated with known features. Although the trackway had survived for around 1000 years the excavation also highlighted the fact that the timber of the trackway was deteriorating at a fairly rapid rate. This was due to the dewatering of the site through agricultural land improvements, both from the 19th century drainage and also continually from more recent land improvement. Where the trackway reaches dry land the organic elements remain under threat, however, with the return of large parts of the bog in this area to a more natural waterlogged state it is hoped large sections of the trackway will remain preserved for future generations.

One of the principal aims of this study is therefore is to ensure that such areas of archaeological potential that lie within the area of Cors Fochno or on its wetland margins are recognised and defined.

Environmental Potential

In addition to the direct evidence of human occupation at Cors Fochno the bog also incorporates evidence about the changing environment of the area as it developed over millennia. The history of the area's vegetation is preserved within the waterlogged deposits of the bog in the form of macro and micro plant remains including pollen grains. This evidence is not necessarily associated directly with distinct archaeological sites but can provide evidence of the impact of humans on the immediate environment. This environmental context is extremely important in understanding and interpreting more direct archaeological evidence.

The palaeoenvironmental importance of the deposits at Cors Fochno is recognised in its numerous designations and the important environmental studies which have been undertaken here, which are of not just regional but also national relevance. A great deal of this study has been undertaken in and around the central dome of Cors Fochno, taking advantage of the full depth of the peat development, and clearly illustrating the potential and importance of this part of the bog.

Changes in the extent of the wetland area

The peat has been building up across Cors Fochno for around 5000 years, up to 7m deep in places, this both masks the underlying topography but also acts to preserve earlier ground surfaces from weathering and erosion that might be expected on more exposed sites. Prior to the establishment of salt marsh conditions during the Mesolithic period Cors Fochno would have been drier ground, cut by the many smaller rivers and streams feeding the deeper channel of the Dyfi and flowing out to sea, which would have been some distance further west than it is today. The routes of many of these smaller rivers can be roughly traced from existing topographical features and known alluvial deposits (see Fig.16). Riverside locations were attractive places for human activity, offering access to land, river and sea. Temporary settlement sites may have been set up to exploit these resources, however, without a greater understanding of the underlying topography it is difficult to gauge an accurate picture of the potential for such activity zones to exists beneath the peat.

By the end of the Mesolithic period rising sea-levels lead to the development of salt marshes across much of this area. Ground levels would still have been significantly lower, and numerous islands of drier ground would have existed, and those still visible would have been larger. It would be these areas of dry land that would have been the focus of any activity during this period, although again any activity is likely to have been temporary, but sites of a similar date have been preserved in wetland deposits along the Severn Estuary, including tools and even footprints (Bell, in Cox et al 1995, pp49-61).

The peat began to form and expand during the Neolithic and early Bronze Age periods coinciding with expanding and more settled populations. Peat levels would have still been significantly lower than today, offering larger areas of dry land for human activity with evidence of activity on the wetland fringe area now lying under later peat accumulations. As further dating work is undertaken across Cors Fochno in the course of various studies it may be possible to gain a more accurate understanding of areas of possible human activity for these early periods that may now lie preserved beneath the peat.

By the mid Bronze Age the finding and dating of a wooden box structure (PRN 45565, see p 14) suggests some form of possible wetland management, although it is likely this was sited a short distance from the edge of the main peat bog which was likely to have been less extensive than the current bog limits. It is believed that as much as 75-90% of prehistoric structures and artefacts were made from organic materials (Coles 1984), which as already stated do not normally survive in the archaeological record but for which the wetlands of Cors Fochno offer great potential.

The excavations of the lead-smelting area on the southern edge of Cors Fochno give some indication of the limits of the bog by the late Iron Age and its subsequent development. Industrial activity was discovered throughout the area investigated (see Fig.12) which was sited on dry ground. Work at nearby Ynys Capel (see pp28-35) also suggests industrial activity in this area, and the enclosure (possibly Iron Age) is also likely to have been constructed on dry ground. This suggests the southern limits of Cors Fochno during the Iron Age may have been close to the current line of the Pwll Ddu. Shrinkage and drying brought about by agricultural drainage in this area indicates the current bog edge may now be approaching its former late Iron Age levels, which raises the possibility of new archaeological sites both coming to light but being damaged through water-loss.

The industrial activity became buried by the advancing peat and several hundred years later a wooden trackway was laid down over the site to cross the peat. The previous industry activity was no doubt still partially visible in places as its waste was used to line the track. The excavations and the visible extent of the trackway clearly shows peats levels had advanced much further beyond their current levels, possibly by up to 1-2m higher in places. As drainage and peat shrinkage is so extensive across the study area the wetland fringe, and archaeological remains within that area, may now largely lie on improved farmland. Until the 19th century enclosure and drainage works much of the northern part of Cors Fochno, in a line from Llangynfelyn through Ynys Mocnho to Ynys Las, would still have been salt marsh, regularly inundated by tidal flooding. Such areas were often used for seasonal grazing.

Lewis' map of 1790 gives a good indication of the extent of the peat bog and salt marsh prior to the main period of 19th century drainage. Some organised and extensive drainage works had already been undertaken along the western edge of Cors Fochno. Along the southern wetland margins farmsteads appear to have been established through the post-medieval, and possibly medieval periods. Each of which are likely to have instigated some form of smaller-scale agricultural drainage across their lands, halting, and possibly beginning to reverse the expansion of the peat bog. The extensive 19th century drainage and embankments clearly altered the landscape in this area. The northern limits of Cors Fochno were defined by embankments, preventing the tidal flooding and reclaiming the salt marshes, whilst peat levels reduced due to the extensive drainage.

Factors of preservation

There are a variety of factors at any given location that can influence the preservation of the archaeological resource, in wetlands sites such as Cors Fochno the main factors are a high water table, acidity, peat growth and sedimentation. The high water table creates the anaerobic conditions that prevent or minimize natural decay caused by insects, bacteria and other biological agents. It also tends to prevent damage from burrowing animals and natural erosion is also often rare. The quality of the preservation is often enhanced by the presence of tannic acid, which reinforces the cell-structure of organic materials in waterlogged deposits.

Different level of acidity can have differing effects of a variety of organic materials. This is perhaps best illustrated by the following diagram, taken from Van de Noort & Davies 1993 (originally reproduced from Darvill 1987).

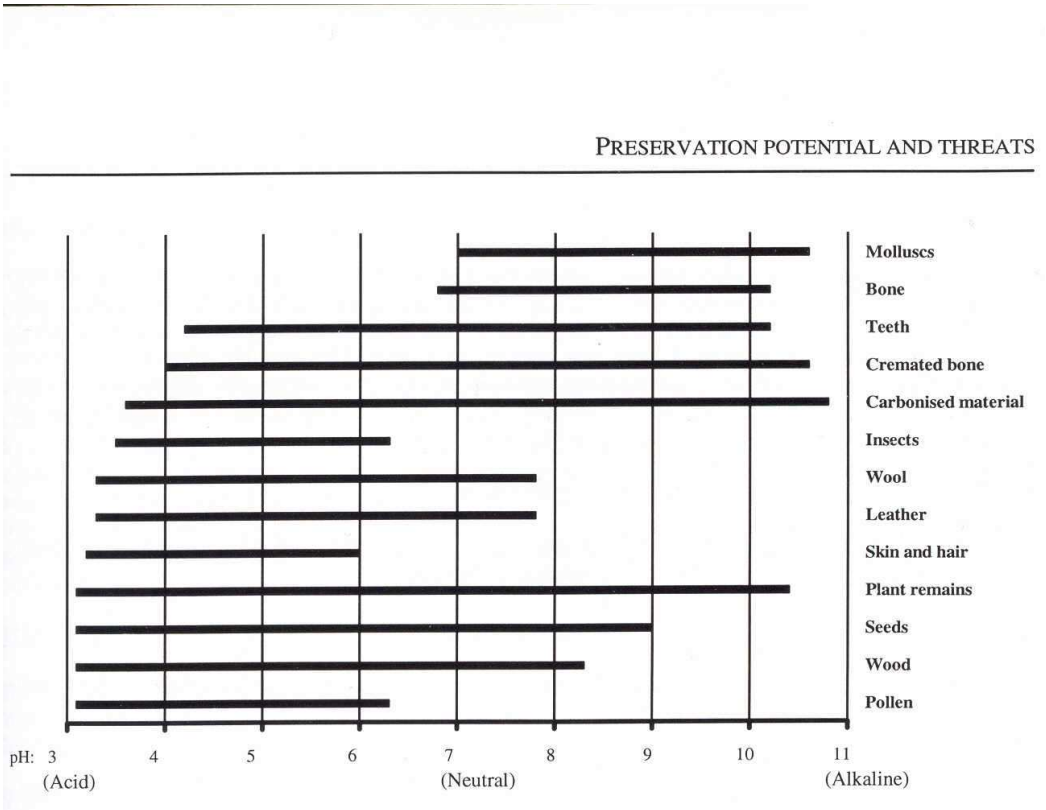

Fig 13. Acidity and archaeological survival (black lines) of organic materials in anaerobic environments (taken from Van de Noort & Davies 1993 (originally reproduced from Darvill 1987)).

The growth of peat helps to protect archaeological sites and features from weathering and erosion, and the layers of peat itself provides unique environmental evidence over time.

In such a coastal wetland site as Cors Fochno however peat will not be the only deposit to aid in the preservation of archaeological sites and features. Sedimentation build-up caused by the many rivers that feed this area and the sea are often also waterlogged and protect sites from post-depositional weathering and erosion in much the same way as peat, as well as having an enhanced stratigraphy. The distribution of these alluvial and estuarine deposits can be seen on Fig 16.

Past Landuse

In areas of peat bog and high water tables the past landuse is likely to have been predominantly pastoral. Ploughing will therefore have had only a limited impact over much of this area. On the wetland margins where the land can be relatively easily drained, good quality soils provide ideal ground for arable cultivation and it is these wetland margins that have been the location of the most intensive human activity during the history of the bog. Despite the detrimental impact of drainage and ploughing on these remains the wetland edges still include the highest levels of surviving archaeological evidence. However the remains continue to be eroded and destroyed by on-going agricultural activities.

The discovery of the Bronze Age wooden object as a result of drainage works also indicates that pockets of peat and waterlogged deposits do still survive within the drained and cultivated areas of the bog margin.

From the 18th century onwards extensive drainage works were undertaken across Cors Fochno to bring larger areas into agricultural use. These drains caused extensive damage to the peat, in terms of drying out and shrinkage, which is likely to have had a great impact on archaeological survival, as demonstrated by the varying states of preservation in the medieval wooden trackway. A variety of historic map sources have been used to chart the distribution of drains and their lifespan across the bog, giving an indication of which areas are likely to have been worse affected (Fig 21). Aerial photography, LIDAR and site investigations also show that some areas of former peat bog have also come under the plough at some point (Fig 14).

Peat-cutting is perhaps the one threat to the peat bog that is likely to also predate the period of drainage. This damages archaeological sites not only in the removal of the peat but also in the digging of the accompanying drainage systems. It is likely however that such cuttings were undertaken by hand and on a relatively gradual scale throughout most of the bog's history. Again aerial photography, LIDAR and historic mapping indicate rather large areas being used for peat-cutting, but perhaps in small sections over long periods of time (see Fig 22). According to local information there was an attempt in the early 20th century to use more mechanized methods of peat cutting along its southern margins. It is possible this is also visible on aerial photographs, LIDAR and through site investigations.

Fig 14. An extract from the Environment Agency LiDAR data clearly showing the linear marks demonstrating areas of former wetlands that have been ploughed, here on land to the north of Ynys Mochno.

Levels of Potential

The bog and its margins have been divided into a series of areas of known and potential archaeological interest, which have then been mapped in GIS. A variety of different factors have been employed to establish different areas of archaeological potential. This looks at where archaeological sites and features are likely or known to exist and where such sites and features are likely to be best preserved.

Archaeological potential has been divided into three basic categories, High, Medium and Low. 'Low' is where archaeological features, sites and deposits related to wetland use are unlikely to exist or survive, either because the area has been heavily developed, there are no known or suspected sites, or only minor sites have been recorded in that area with new sites unlikely. 'Medium' is where archaeological sites, features and deposits related to wetland use may survive but there may be little information about them, or they may be relatively minor sites. 'High' is where good archaeology is known, or strongly suspected.

The areas have been arranged according to this system of archaeological potential, but the different levels of palaeoenvironmental potential is also included within the table. These two sets of potential may not necessarily tarry, as some areas of thick peat or important estuarine deposits may occur in areas of unlikely archaeological activity. However, such areas would contain some of the greatest time-depths of undisturbed waterlogged deposits offering unique palaeoenvironmental evidence. So similarly the palaeoenvironmental potential is also divided into the three categories of High, Medium and Low. 'Low' is where palaeoenvironmental evidence is unlikely to exist or survive, either because the area has been heavily drained or otherwise disturbed, or waterlogged deposits are unlikely to have formed. 'Medium' is where palaeoenvironmental evidence may survive but there may be little information about them, or they may have seen some degree of drainage and disturbance. 'High' is where good palaeoenvironmental evidence is known, or strongly suspected.

Areas of high archaeological potential include regions such as the wetland fringe along the southern edge of Cors Fochno. Archaeological work has proven this area to be a site of relatively intensive activity over a broad date range. This includes prehistoric finds, Iron Age/Roman industrial activity, organic medieval remains and post medieval farmsteads, all illustrating that the interface of wetland and dry land areas are sites of important human activity, giving good access to both resources. Where such resources are so easily accessible this is likely to attract human activity and therefore be of both great archaeological potential and areas under increasing threat. The numerous islands of dry land within the bog offer similar access to resources (also including mineral resources in some areas) and can also be regarded as areas of high potential. These wetland fringe areas are not fixed however, it has moved as peat had accumulated and shrunk, resulting in areas of high potential that may now lie beneath the peat.

Riverside locations are common places to find archaeological activity due to the easy reach of water and its associated important resources. For thousands of years the landscape of Cors Fochno would have been markedly different and all these resources would have been readily available to some degree, but gaining an accurate understanding of the underlying topography and therefore being able to gauge accurately where the archaeology is difficult. For this general reason large areas of Cors Fochno will fall into the areas of medium archaeological potential. Therefore it must be kept in mind that significant archaeology is still a possibility in these areas, even if they are not considered generally of high potential because our knowledge of the known archaeology in this area is still developing.

Areas of low potential perhaps have more variety dictating their potential. Some areas lie under what is known to be thick deposits of peat and therefore it is considered that the base deposits may always have been too wet for human activity. However, there is still the potential for Mesolithic and even Palaeolithic remains to lie here, and to be preserved by the peats and estuarine deposits above. The gravel spit to the north of Borth however may have seen more recent archaeological activity but archaeological preservation is likely to be poor. Other areas include the steeper hill slopes where simple topography dictates that human activity is unlikely, with the clear exception of mining activities. Where mining activities are known on the hillsides these areas are given higher potential.

The following table (table 1) sets out these different areas of archaeological potential to be used in conjunction with the map provided to the rear (see Fig. 20) which is also available as a digital map in the accompanying CD.

No.	Area Name	Area Type	Archaeo-logical Potential	Palaeo-environmental Potential	Description *Area description, potential descriptions and main threats.*
1	Ynys Capel	Farmed Bog/ Farmland	High	High	• An area (48.8ha) of farmland on the southern edge of Cors Fochno around Llangynfelyn, used mainly as pasture. • Archaeological investigations have shown that important archaeological sites across a variety of periods both exist and are well preserved. These sites include a Bronze Age wooden object, a possible Iron Age enclosure, Iron Age/Roman industrial activity, an Early Medieval wooden trackway and a post-medieval peat-cutting track. • Despite past and ongoing drainage across many parts of this area archaeological investigations have also shown a survival of important waterlogged peats that has helped preserve many of the important archaeological sites and provided useful associated environmental data. • On going agricultural drainage continues to pose the greatest threat, drying out waterlogged deposits damaging their preservative qualities.
2	Pwll Du	Bog Fringe	High	High	• An area (75.2ha) of peat bog on the fringes of wetland and farmland on the southern edge of Cors Fochno. Running along the main Pwll Du ditch it has been well drained and farmed since at least the early 19th century but is also likely to be an area of earlier encroachments onto the bog. Much of the area is still privately owned farmland used mainly for pasture, but parts are also managed by CCW. • No archaeological sites are specifically recorded in this area but as it borders an area of likely significant activity the archaeological potential is high. • Although intensively drained and farmed for many years some waterlogged peat deposits are still likely to survive in places. • Continued agricultural activity in terms of drainage and the introduction of chemicals are the main threats to the archaeological and palaeoenvironemental resource.

3	Upper Marsh	Farmed Bog	High	High	• A large mixed area (134.3ha) of former wetland on the upper marsh. Soil maps indicate this area consisted mainly of peats but the depth and quality of these peats seems to have varied throughout. During the 19th century much of this area was enclosed, drained and farmed. Today much of the northern part consists of regular enclosures of pasture, with older more irregular pasture fields on rising ground to the south and large patches of rough ground in between. • Much of the recorded archaeology in this area is confined to the rising ground along its southern edge, including post-medieval farmsteads and industrial remains as well as a collection of prehistoric burnt mounds. The area also includes four listed buildings. • Despite 19th century drainage and peat cutting activity waterlogged peat deposits are still likely either at greater depths or in undisturbed patches.
4	Southern Fringe	Farmland	High	Medium	• An area (127.9ha) of farmland occupying the lower slopes and bog edge along the southern edge of Cors Fochno. Mainly pasture with some arable and stands of trees with farmsteads dispersed across these lower slopes. • Known archaeological sites include post medieval farmsteads and dwellings with suggestions of further earlier sites. The concentration of the farmsteads in this area demonstrates it is likely to have been a focus over human activity for long period of time. Includes 1 listed building. • This area has probably been intensively farmed and drained which is likely to have severely affected the potential for waterlogged deposits surviving but peat deposits are likely to have encroached into this area and may still survive in wet pockets. • Continued agricultural drainage and ploughing is the main threat to the archaeological resource.
5	Southern Llangynfelyn	Bog Fringe	High	Medium	• A relatively small area (27.8ha) of intensively drained peat bog on the southern fringes of Llangynfelyn. Mostly in use as pasture bordered by scrub with one area extending into the CCW-managed peat bog, although this particular area has been intensively drained in the past. • The archaeological potential of such an island fringe area has been highlighted by the discovery of the nearby medieval trackway. Although no known archaeology has yet been recorded in this area it does also lie close to some early farmstead settlements. • It is likely this area has been drained and farmed over long periods of time but waterlogged peat deposits may survive in areas and at greater depths.

6	Llangynfelyn	Island	High	Medium	• A prominent island (84.7ha) of high ground surrounded on all but the northern edge by Cors Fochno. The area is now mainly agricultural and under pasture with areas of arable, and includes dispersed farmsteads, dwellings, a church and cemetery. • Numerous archaeological sites are recorded, mainly post-medieval settlement, agriculture and industry, including important mining remains but the area also includes a medieval church with possible early medieval origins and possible Roman origins to the mining activity as well. Includes 4 listed buildings. • As an area of higher ground waterlogged deposits are less likely, although some of the fringe areas have the potential for pockets of wet peats etc that could hold important archaeologically associated environmental evidence. • Agricultural ploughing and settlement development pose the main threats to the archaeological resource. Although many of the important upstanding structures are listed the surrounding archaeology is often not so protected.
7	Ynys Mochno	Island	High	Medium	• A small (28.6ha) but prominent island in the middle of the bog, crossed by the B4353, the main road across the bog. Mostly under pasture with some arable cultivation and a caravan park occupies much of the higher ground. Dispersed farmsteads also lie in the area. • Farmsteads are shown on this island prior to the main period of drainage works indicating early activity here and early access routes to and from the island. These farmsteads form the bulk of the known archaeology but a medieval coin hoard was also discovered on the island, and the name Ty Hwnt may also suggest links with medieval hunting activity. • As higher ground waterlogged deposits may be limited but probably exist on the fringes that could be of significance in understanding the early activity on this island. • Development and agriculture are the main threats.
8	Ynys Fach	Island	High?	Medium?	• A small prominent island of higher ground (24.2ha) towards the northeastern end of Cors Fochno. Formerly surrounded by bog but much of this is now farmland. The island itself is a mixture of pasture and woodland. • Known archaeological sites include a post-medieval cottage and farm, with possible origins as a longhouse. No further archaeology is recorded but the island location and early farmstead suggest more might be expected. • As higher ground there is less potential for waterlogged deposits on the island although these may survive on the fringes. • There appears to be little immediate threat to the archaeological resource here other than localised agricultural activity and tree action.

9	Ynys Hir	Island	High	Medium	• A relatively large (60ha) low island on the edge of former bog, now surrounded by farmland and trees. Partly under pasture on the lower eastern slopes with much of the area part of a RSPB reserve and covered in trees. • Such prominent islands on the edge of the bog often appear to have been the focus of early activity although recorded archaeology is all post-medieval, relating to Ynys Hir mansion and grounds. Mining activity is also recorded. • As with most islands the higher ground means the potential for waterlogged deposits is limited but they may survive on the fringes of the island. • Agricultural activity is the main threat on the lower slopes to the east. The RSPB reserve offers protection from development and agriculture, although trees may be damaging underlying archaeology in places.
10	Tre'r Ddol & Tre Taliesin	Settlement	High	Medium?	• Two small adjacent villages situated on the lower slopes on the edge of the bog, both lying on the main A487. • Both settlements are mainly post-medieval in development but are likely to have earlier origins utilising the nearby resources of the bog. The A487 is also believed to roughly follow the line of a Roman road and is therefore likely to be a route of long standing. The bulk of the known archaeology relates to post-medieval settlement (including 11 listed buildings) but also includes some post-medieval mining with possible earlier origins. • Generally higher ground and settlement activity may have damaged underlying deposits but there is still the potential for waterlogged deposits surviving in pockets that would provide important environmental evidence relating to past settlement. • Continuing development of these settlements is the main threat to the archaeological resource.
11	Furnace	Settlement	High	Medium?	• The two small villages of Furnace and Eglwys Fach (20.8ha) again lying on the lower slopes on the bog edge further up the A487. • The archaeological and environmental potential of this area is very similar to that of Tre'r Ddol and Tre Taliesin although this area includes 15 listed building records and the important 18th century blast furnace site which is also a SAM. • The listed and SAMs provide protection to some of the recognised important archaeology but continual development poses a threat to the others.

12	Dol-Clettwr	Farmed Bog	High	Medium	• A small area (32.5ha) of enclosed farmland lying between Llangynfelyn and Tre'r Ddol. Soil maps indicate a change from the peats to the south to gleys in this area. Mainly pasture fields with some arable. The land is rising in slight undulations and the road between Llangynfelyn and Tre'r Ddol crosses the northern end. • Although no archaeological sites are recorded within this area it does border areas of settlement and activity, including the likely early connecting route between Llangynfelyn and the main area of dry land. • Agricultural drainage, rising ground and the presence of gleys may mean less potential for the survival of important waterlogged deposits but archaeological work to the south revealed an unexpected depth of waterlogged peat suggesting it may also extend into this area.
13	Lodge Park	Parkland	High	Medium	• An area (99.1ha) of designated parkland with areas of former parkland occupying undulating high ground on the fringes of the former bog. The area still includes parkland elements and areas of woodland and pasture with evidence of ploughing on some of the lower slopes near Tre'r Ddol. • Much of this area represents the remains of a medieval deer park which then became parkland surrounding Lodge Park in the post-medieval period. A possible Roman road also runs along the edge and other known sites include mining remains and farmsteads. • As mostly higher ground there will be a limited potential for waterlogged deposits except around the fringes and low lying areas, but given the importance of the archaeology these deposits may contain significant information. • As designated parkland large parts of this area will have some protection against development and agricultural activity but not all the area is covered by this designation.
14	Ynys Fergi	Island	High?	Low?	• A prominent island (22ha) on the southern fringes of Cors Fochno behind Borth. Now occupied by St Matthews Church and surrounding pasture land, campsite, Animalarium and water treatments works. • As a prominent island this is potentially the site of further unrecorded archaeology. Known archaeology includes the post-medieval church and farmstead. LIDAR imaging shows unusual features to the south but these may be associated with the water treatment works. • There may be some waterlogged deposits on the low-lying ground to the south but the potential is generally quite low. • The development of the various sites, such as the Animalarium, farmstead and water treatment works poses the main threat.

15	Ynys Las & Pont Aberleri	Island	High	Low?	• A small island (23.6ha) on the edge of Cors Fochno, now connected via the B4353. In the early 19th century the Leri was canalised and cut through this rocky outcrop and the railway also passed through. The area is now pasture with farmsteads, dwellings, a garden nursery and former industrial areas. • As a prominent island this area may have been settled for long periods, given its position close to the former ferry crossing of the Dyfi. When the Leri was cut through and the railway arrived small industry and landing places were set up. Important WWII remains also exist. • Possible pockets of waterlogged deposits may exist on the fringes of this area but generally this is higher ground that has been developed or under pasture with little potential for palaeoenvironmental remains. • Expanding development poses the main threat to the archaeological resource.
16	Borth	Settlement	High?	Low	• An area surrounding the village of Borth (49ha) including buildings, gardens, sea defences and caravan park to the south. The village itself was established on a gravel ridge fronted by the sea and backed by the bog. • Known archaeological sites relate almost entirely to the post medieval settlement, which appears to have started as a small fishing port and developed into a tourist village. Many standing buildings are of archaeological interest but continued development is likely to have compromised much of the below-ground archaeology. Includes 5 listed buildings. • There are potential waterlogged deposits along the eastern side of this area as it borders the peat bog but settlement development and underlying gravels mean surviving palaeoenvironmental deposits in this area are likely to be minimal. • Continual settlement development is the main threat to the archaeological resource, although many of the more prominent historic buildings are listed.

17	Pantglas Mawr & Coed Erglodd	High Ground	High	Low	• A large area (118.6ha) on the upper slopes to the east overlooking Cors Fochno. Mainly pasture and rough ground with areas of tree cover and the occasional dispersed settlement. Although superficially similar to neighbouring areas of high ground the archaeological potential of this area marks it out. The northern boundary is however somewhat arbitrary. • The line of the A487 is believed to follow a Roman road and the remains of a Roman fortlet lie within this area. Standing stones suggest prehistoric activity but the bulk of the known archaeology relates to extensive post-medieval mining with possible very early origins. Includes one listed building. • As high ground there is little potential for palaeoenvironmental remains, except perhaps in underground mining features. • The hill slopes generally preclude development or arable agriculture although agriculture probably still forms the main threat.
18	Rhos Felen	Farmed Bog	High-Medium?	High	• An area of peat bog (64.5ha) around the northern end of Llangynfelyn now drained and farmed. Superficially similar to the adjacent area to the north but the underlying soils appear to be different. Predominantly used for pasture. • There are no recorded archaeological sites but it borders important medieval and post-medieval archaeology on Llangynfelyn and located close to a possible early route across the bog. These factors may be significant when considering Prehistoric ritual depositional practices. • Although agricultural drainage is likely to have damaged some waterlogged deposits investigations have shown waterlogged peat can survive very well below this which could be of significant palaeoenvironmental importance. • Continued agricultural drainage and activity poses the main threat.
19	Einion	River Corridor	Medium?	High	• An area (54.8ha) of pasture and rough ground along the lower reaches and floodplain of the Afon Einion before it empties into the Dyfi. • There is little recorded archaeology within this area other than flood defences with the clear exception of Tomen Las, a tree covered motte on the banks of the Dyfi protected as a Scheduled Ancient Monument. This and the fact the area borders settlements provide the possibility of further archaeology. • Despite agricultural drainage in this area there is still the possibility of important waterlogged riverine deposits surviving, perhaps more so on the west side of the river. • Agricultural activity and drainage provides the main threat mainly on the eastern side of the river. Trees around the motte may be damaging underlying archaeological remains.

20	Ddu	Farmed Bog	Medium?	High	• An area (86.5ha) of pasture fields on the former bog. Soil maps indicate that much of the underlying deposits consist of alluvial and gleys, with some areas of overlying peat. This would appear to indicate the former line of the Afon Ddu, prior to its canalisation in the early 19th century. Although mostly pastoral there is some evidence of ploughing. The boundary of this area follows underlying soil deposits rather than current field boundaries. • Riverside locations were often attractive to human activity, although here the river may have been slow moving and the surrounding ground very wet. 19th century peat cutting has been recorded but otherwise known archaeology relates only to 19th century flood defence banks and ditches. • Although this area has been drained and turned into farmland it is likely some waterlogged peats along with the gleys and alluvial deposits still remain.
21	Northern Marsh	Farmed Bog	Medium	High	• A large area (286ha) of former bog now drained and turned into farmland on the northern edge of Cors Fochno. Although areas of peat are noted soils maps indicate much of the underlying soils consist of alluvial deposits and gleys probably representing the former intertidal salt marshes forming the northern boundary of the peat bog prior to the 19th century drainage. The lines of tidal creeks can still be seen, and the area is now occupied by dispersed farmsteads. • Known archaeological sites include 19th century farmsteads and dwellings and WWII defences along its northern fringes. Prior to the 19th century this area is likely to have contained the earlier crossings along the fringes of the bog to get to places like Ynys Mochno. • Despite extensive drainage and continued farming there are still likely to be underlying waterlogged deposits surviving. • Continued drainage provides the main threat to the archaeological and environmental resource.
22	Glandyfi	Farmed Bog	Medium	High	• A small area (38.3ha) at the northeastern tip of the former wetlands. The area appears to be a mixture of well-drained low-lying land now used for pasture, and areas of less well-drained land forming patches of rough ground. The railway line both crosses this area and formed part of its main embankment to the Dyfi. • There are no recorded archaeological sites within this area although it does lie close to the farmstead of Ynys Edwin which must have had some connecting route to the higher ground surrounding this area. • The areas of pasture appear well-drained and the potential for waterlogged deposits here may be more limited but the remaining areas still appear to have significant waterlogged alluvium and peat.

23	Rhos Wen & Lower Marsh	Farmed Bog	Medium	High	• An area of peat bog (121 ha) lying near the northern limits of the peat that has been drained and farmed in the past, but is now gradually being returned to a more natural state. Also cut by the canalised Leri. LIDAR imaging and archaeological investigations demonstrate past ploughing. Part privately owned and part CCW. • There is little known archaeology in this area although part of the area does border the islands of Ynys Las and Ynys Mochno and may therefore contain related archaeology. • 19th and 20th century drainage and agricultural activity has caused desiccation of some of the upper peat layers but good survival of waterlogged peat below this has been demonstrated. • Continued agricultural drainage and ploughing on the private land is the main threat to archaeological and environmental deposits.
24	Cors Fochno & Llwyn y Garreg	Peat Bog	Medium	High	• An area (143.5ha) of peat bog that was drained and farmed during the 19th century but has now been reverting to a more natural state. Some evidence of peat-cutting has been noted in this area. • As an area of peat bog this area was perhaps more accessible from Ynys Mochno and Bryn Sant but it is unlikely to have seen intensive activity. • Although surrounded by well-established ditches and drains the resulting enclosures were still quite large and there is still probably a depth of undisturbed waterlogged peat in this area. • Many of the drains are probably still active and continue to damage peat deposits but the area is being restored to a more natural state.
25	Cors Fochno & Feggin y Borth	Peat Bog	Medium	High	• An area of peat bog (160.4ha) now returning to its natural state after 19th century drainage. Various sources indicate this was one of the main areas of peat cutting during the 19th century, and possibly earlier. • The discovery of the medieval trackway nearby highlights the potential of such areas, and a linear features appears to be shown on some aerial photographs but the distances involved probably precludes trackways of a similar nature. This was clearly an area of intensive peat cutting activity but otherwise archaeological potential is limited. • There is likely to be a significant depth of waterlogged peat deposits in this area, despite drainage and peat cuttings activities. • Old drains may still cause a problems for some peat deposits but the area is now managed by CCW and is returning to a wetter state.

26	Afon Dyfi & Borth Sands	Intertidal Zone	Medium?	High	• A large area (1090 ha) that covers the intertidal zone along the Dyfi estuary that forms the northern limit to the study area and along Borth Sands that form the western limits. Although essentially the alluvial of the Dyfi and the sand of Borth beach are different deposits they are included in the same area. • Remnants of a submerged forest have been noted on Borth sands, and finds of auroch bone, antlers and worked flints demonstrate the archaeological potential of such areas. Unrecorded wrecks sites are also another possibility. • Waterlogged deposits will exist and the remnants of the submerged forest indicate strong potential for palaeoenvironemental remains. • Tidal erosion poses the greatest threat to both archaeological and environmental remains in this area.
27	Leri	River Corridor	Medium	Medium	• An area of enclosed fields (70.5ha) around the lower reaches of the Afon Leri. Soil maps indicate this is mainly alluvium, currently used as pasture and arable land, with some rough ground and areas used by a caravan park. • There are no known archaeological sites within this area although it does border the village of Borth. Riverside locations may also be significant areas for archaeological activity although this area is likely to have been relatively wet until post-medieval drainage. • Despite drainage and the possible absence of peat the area may still contain important waterlogged riverine deposits of environmental significance. • Continued agricultural activity and encroachment for the caravan park are the main threats to any environmental and potential archaeological remains.
28	Pen y Bont	Settlement	Medium?	Medium	• A small settlement (7.7ha) at the limits of the study area sited on a river crossing. • There are no recorded archaeological sites within this area but the settlement and river crossing itself are both likely to have relatively early origins and therefore associated archaeology. • Peat deposits may be rare at this location but the relatively low-lying riverside ground may contain some palaeoenvironmental remains of interest. • Continued development is the main threat to the archaeological resource here.

29	Llangynfelyn Common	Common Land	Medium	Medium	• An area of common land (49.7ha) within the peat bog adjoining the B4353 between Llangynfelyn and Ynys Mochno. This appears to have been common land since the 19th century enclosure and drainage of large parts of the bog and has been intensively cut for peat. • Other than the peat cuttings and the fact this area borders a 19th century road which may follow line of an earlier crossing there are no recorded archaeological sites. • The are known waterlogged peat deposits in this area hence the reason for the extensive peat-cuttings, which are likely to have caused the deterioration of the upper levels of peat.
30	Ynys Tachwedd	Peat Bog/ Farmland	Medium	Medium	• An area of former peat bog (83ha) drained and turned into farmland. Mainly of pasture fields with a caravan park established on its northern limits. Superficially similar to surrounding areas but historic map sources demonstrate a large number of drainage ditches across indicating relatively intense agricultural activity. The area is named Ynys Gwaethfoed on 18th century maps, changing to Ynys Tachwedd by the 19th century. • No archaeological sites are recorded within this area although it does lie close to area of known activity on neighbouring Ynys Las and sand dunes. • Waterlogged peat survival is possible although the area appears to have been intensively agriculturally drained. • Continued agricultural drainage and encroaching developments are the main threats.
31	Feggin Aberleri	Peat Bog	Medium	Medium	• Similar to area 30 this is peat bog that was drained used for farmland and peat cutting but is now mostly returning to a more natural wetter state (155.4ha). However, this area was one of the earliest areas of Cors Fochno to be drained, and large-scale ditches had already been established by the late 18th century. Also cut by the main canalised Leri channel. • Archaeological activity in this area is likely to be limited and relating only to 18th and 19th century drainage and peat-cuttings activities. • Peat and waterlogged deposits are likely but a great deal of damage to these deposits has probably been caused by the deep long-running drains and peat-cuttings. • These drains continue to pose a threat to the remaining palaeoenvironmental potential.

32	Lower Marsh	Farmed Bog	Medium	Medium	• An area of former peat bog (65ha) on the western side of the canalised Leri that has been drained and converted into farmland. The Leri forms the eastern boundary with the village of Borth forming the western boundary. Already shown as enclosed by drains on a map of 1790, predating the main period of enclosure and drainage. The fields now appear to be used mainly as pasture. • There are no recorded archaeological sites within this area although it does border the settlement of Borth and island of Ynys Fergi and may therefore contain associated remains. • This area has been farmed and drained from a relatively early period, as well as bordering the main drainage ditch of the Leri, but the survival of waterlogged peats is still possible at greater depths.
33	Twyni Mawr	Sand Dunes	Medium	Medium	• A well-established dune system (109.5ha) at the northern end of the gravel spit that encloses Cors Fochno to the west. The dune system is mostly rough ground and exposed sand with some areas used by the nearby golf course, access tracks to the beach also cross the area. • Recorded archaeological sites in this area are rare but a road crossed the dunes to a ferry crossing at its northern tip that may have been in operation since the medieval period. WWII defensive features are also recorded. • This area has not been developed or drained therefore waterlogged deposits may be preserved below the sand. • Erosion through visitors to the area is perhaps the most active threat.
34	Ynys Las & Moel Ynys	Settlement	Medium	Low	• An area (20.6ha) of post-medieval and modern settlement on the edge of peat bog, sand dunes and higher ground of Ynys Las. • The settlement does incorporate some earlier post-medieval farmsteads and the main routeways through this area, both crossing the bog via Ynys Las and to the former ferry crossing at the northern end of the sand dunes. • Waterlogged deposits in this area are likely to have been well drained and disturbed by the establishment of settlement here.
35	Covert Coch	Woodland	Medium/Low?	Low	• A relatively small area (24ha) lying in between areas of higher ground towards the northern end of the bog. This area has been intensively drained since the 19th century and appears to have been used for forestry plantations, now consisting of woodland cover and rough ground. • There are no recorded archaeological sites within this area although it does border the site of an early farmstead and as an area between islands there is some potential for archaeological remains here. • This is an area of possible peat and waterlogged deposits but it has been intensively drained over the past *c.*100 years and planted with trees which is likely to have significantly damaged such deposits.

36	Cors Fochno	Peat Bog	Low	High	• An area (77.3ha) that covers the central dome of the peat bog where the bog is likely to be at its deepest, and furthest away from dry land. Although drains were dug across this area during the 19th century it seems this area would still have been relatively remote and not intensively used with no evidence of peat cutting visible. Now managed by CCW it is returning to a more natural waterlogged condition. • Due to its isolation and likely continual waterlogged state it is unlikely to have seen much activity and therefore the archaeological potential of this area is limited. • For the same reason however this area is likely to have some of the best palaeoenvironmental potential.
37	Taliesin Fields	Farmed Bog	Low	High	• A small area (36.7ha) of former peat bog lying in between Tre Taliesin and Llangynfelyn. During the 19th century this area was drained and turned into farmland and a minor road was laid between Tre Taliesin and Llangynfelyn. The area now consist of pasture land with a block of woodland. • Archaeological investigations have shown that activity was limited in this area until 19th century drainage. • These investigations also demonstrated a very deep (5.5m+) deposit of undisturbed waterlogged peats in this area indicating a high level of palaeoenvironmental potential.
38	Traeth Maelgwyn	Marsh	Low	High	• This is an area of marshland (37.7ha) that has developed between the intertidal area of the Dyfi estuary and the embankments that enclose Cors Fochno. • There is no known archaeology within this area. • The area does however have relatively undisturbed riverine and estuarine deposits here with possible peaty areas.
39	Morfa Cyd	Farmed Bog	Low?	Medium-High?	• An area (127ha) of former peat bog lying between the Afon Clettwr and Afon Ddu that was enclosed, drained and turned into farmland during the 19th century. The area now consists mainly of pasture with some evidence of past peat cuttings and ploughing. • There is little recorded archaeology or archaeological potential in this area other than along its south-eastern edge where it borders the higher ground of Lodge Park and Hafod. • This is an area of former peatland and despite agricultural drainage and peat-cutting activity, which has no doubt damaged much of the upper layers of peat, there is still some potential for further undisturbed waterlogged deposits throughout this area.

40	Rhos Twrch	Farmed Bog	Low	Medium	• A small area (25.7ha) on the edge of the canalised Clettwr of drained and farmed peat bog. The area now consists of pasture but LIDAR imaging and mapping evidence indicates extensive peat cutting in this area. • There are no known archaeological sites other than the peat-cutting areas. • Peat and waterlogged deposits are likely but damage is likely to have occurred to these deposits through extensive drainage and peat cutting activities
41	Borth & Ynyslas Golf Club	Gravel Spit	Low	Low	• An area of sandy soil (32ha) overlying the gravel spit that forms the western edge of Cors Fochno. The area has been developed as the Borth & Ynyslas Golf Club with the B4353 passing through the area and the railway forming the eastern boundary separating it from the peat bog beyond. • There are only two archaeological records in this area, one relating to a place name suggest the former presence of a warren and the other being a post medieval farmstead that was destroyed when the railway was built. • Pockets of waterlogged material may survive but the underlying soils are probably better drained gravels and the golf development may also have damaged underlying deposits.
42	Dolydd	Farmland/Woodland	Low	Low	• A small area (14ha) sandwiched between settlement and parkland, and now occupied partly by woodland and partly by pasture farmland. This is a relatively low-lying area of former peat bog but is likely to have been well drained and farmed for some time. LIDAR imaging also show evidence of ploughing. • A cropmark in this area is the only recorded archaeological site but this may relate to an agricultural or natural feature. • The area has been drained and farmed over long periods and planted with trees, so the survival of waterlogged deposits would be rare.
43	Ysgubor y Coed & Coed Penrhyn-gerwin	High Ground	Low?	Low	• A large area (133.8ha) of high ground and steeper slopes forming much of the eastern boundary to the study area. This is occupied by large areas of woodland with patches of rough ground, interspersed with fields of pasture. Settlement is limited but consists of dispersed dwellings, mainly close to the A487 that crosses through parts of this higher ground. • The line of the A487 is believed to follow that of a Roman road but known archaeological sites in this area are limited, most of the industrial activity found elsewhere in this higher ground is confined to neighbouring areas. Some post-medieval dwellings are recorded and a listed house and milestone also lie within the area. • As high ground there is little potential for palaeoenvironmental remains. • The hill slopes generally preclude development or arable agriculture although agriculture probably still forms the main threat.

44	Glanleri	High Ground	Low	Low	• An area of hillslopes (45.5ha) forming the southern edge of the Leri valley as it enters Cors Fochno. The area is divided into irregular fields of pasture with areas of woodland, the main road and railway run along the lower slopes which also includes a couple of farmsteads and a dwelling. • The known archaeological sites relate to post-medieval farmsteads and a possible mill site but the sloping land probably limits the archaeological potential of this area. • As higher ground waterlogged deposits are also unlikely.
45	Talybont Hills	High Ground	Low	Low	• This area (156.8ha) includes the high ground generally over 30m O.D. bordering and overlooking the southern side of Cors Fochno. The area consists of a patchwork of medium-sized irregular fields, mainly of pasture with some arable land and stands of trees. The general settlement pattern is one of dispersed farmsteads. • There is little recorded archaeology in this area, especially in connection to the wetlands. Most of the activity appears to have been concentrated on the lower slopes in the adjoining area to the north. • Waterlogged deposits are less likely on these higher slopes.

Table 1. Areas of Archaeological Potential.

CONSERVATION AND MANAGEMENT OF THE IDENTIFIED HISTORIC ENVIRONMENT RESOURCE

This study, also comprising information and data held within the GIS MapInfo tables accompanying this report, has been designed as a tool to assist those that use and actively influence the wetlands and its margins (such as conservationists, farmers, other land managers, the local community, planners, strategic decision makers and developers) in understanding the archaeological resource associated with Cors Fochno and the issues and implications associated with any proposed land-use changes.

Despite the increasing volume of evidence from wetland research in the last 30 years, and great advances in environmental assessment during the same period, archaeological considerations and complexities are not regularly considered during restoration or development work concerning wetlands. Wetland restoration often does not require formal planning consent or Environmental Impact Assessments, therefore archaeology may not have had a place in the conservationist agendas and there are no formal obligations to mitigate against potential destruction by funding archaeological work (Cox et al 1995, p120). Wetlands can also be seriously affected by changes in land management and land-use which lie outside the planning process.

The historic environment is an asset and an economic resource, which can provide opportunities for present and future generations. It contributes to our sense of place and cultural identity. It enhances our quality of life and adds to regional and local distinctiveness. It is one of our most important social assets, linking people with places and forging community identity and cohesion.

However, the historic environment is a fragile resource. Once elements have been destroyed or altered they can seldom be recovered, and the character and quality of the whole is eroded easily by thoughtless actions. We have a duty to protect those historic assets that are valued and manage change in the wider historic environment sensitively and sustainably to retain what is significant and pass it on to future generations. The Welsh Historic Environment – Towards a Strategic Statement DRAFT, Produced by the Historic Environment Group, an advisory forum of the Welsh Assembly Government, states:-

> "The historic environment makes a significant contribution to the strategic agenda of the Welsh Assembly Government, as expressed in *One Wales* and *People, Places, Futures: The Wales Spatial Plan*. *One Wales* recognizes the geographical, social, linguistic and cultural diversity of Wales, which is embedded within the historic environment. Pride in history forms the bedrock of a strong and confident nation. Exploration of our environment promotes a healthy future; for example, in encouraging Walking to Health. *One Wales* makes reference to the need to draw upon our unique culture and history in the promotion of Wales and recognizes the role that this can play in creating a prosperous society. Pride in place and recognition of historic character foster living communities. Learning for life through the stimulus of the historic environment benefits from an understanding of our place in the world, 'looking to the past in order to deliver a better future for the people of Wales'. Heritage and cultural fabric are resources for regeneration, encouraging citizenship and the creation of a fair and just society. A sustainable environment can grow from managing and protecting historic assets. *One Wales* recognizes the need to 'celebrate and conserve Wales's outstanding heritage', to promote a sense of ownership and identity and to highlight those elements that give Wales a distinctive place in the world. In short, the historic environment lies at the core of our rich and

> diverse culture. The historic environment helps to deliver each of the guiding themes of the *Spatial Plan*. This recognizes our environment as a crucial asset, highlighting the benefits of Wales's high-quality landscapes and its 'wealth of archaeological sites and historic monuments' and asserting that valuing our environment must include safeguarding and enhancing the natural and the built heritage. It states that 'we need to maintain and support the distinctive character of the Welsh historic environment', as celebrating and respecting distinctiveness is 'central to promoting Wales to the world'. Building sustainable communities relies on attractive places to live and work; and the same attractiveness promotes a sustainable economy."

The unique and irreplaceable archaeological evidence that preserved organic deposits provide is dependent to a large extent on the waterlogged soils. Once these deposits dry out then that unique archaeological evidence is lost. Wetlands throughout the UK have suffered over the years with much of the associated palaeoenvironmental and archaeological evidence lost.

Alterations to the level of water in these wetland sites can have varying degrees of impact on the survival of organic remains. For example, if wood becomes exposed above the water table then it may suffer from bacterial attack but not necessarily dry out. Leather, textile and insect remains on the other hand are far more susceptible to even a brief change in the anaerobic environment (Van de Noort & Davies 1993, pp 106-118).

On wetland sites such as Cors Fochno there is therefore general recognition that archaeological conservation has clear common interests with nature and environmental conservation. The preservation of wetland sites for biological or palaeogeomorphological reasons will also benefit the preservation of organic archaeological remains and historic landscapes, and preserving areas of historic significance can deliver significant rewards for the flora and fauna (Van de Noort & Davies 1993).

Using the results of the study

This guidance largely relates to the buried archaeological resource, though consideration also needs to be given to listed and unlisted buildings, settlements and rural morphology and topography as well as the historic landscape features. All of these archaeological remains are a finite and non-renewable resource. They are vulnerable to land-use change and modern development and can, within a short space of time, be entirely destroyed by modern machinery and building methods.

Users

It is hoped that a wide range of individuals and organisations will both have access to and an interest in using the results of this study. These include;
Countryside Council for Wales
The Regional Archaeological Curator – Planning Archaeologist
Specialist interest groups and individuals
Local interest groups and individuals
Cadw
Environment Agency
Community Councils
Environmental Groups
Farmers
Local landowners

Specific Threats to the Archaeological Resource

Drying
Dewatering and drying continue to impact the bog due to the major drainage ditches, such as the Pwll Ddu along the southern edge of the bog, and also through more minor field drains. Associated shrinkage subsidence of the bog margins has a knock on effect, increasing runoff rates from the central dome and causing degradation of the bog vegetation (including tree colonisation) to spread. Shrinkage will also bring deeper deposits closer to potential surface disturbance such as ploughing, and cracks will also appear exposing further deposits and features to decay.

Salt water inundation
Prior to drainage reclamation works in the early 1800s the bog had a natural transition to estuarine tidal marsh on its northern side. Without the flood defences which now exist along the estuary and the Leri channel on the west side of the bog, the reclaimed archaic bog and the old peat cuttings would be regularly inundated. Sea level rise and climate change increase the likelihood of the floodbanks failing and becoming unsustainable. Should this occur, (as recent modelling work predicts it will if current trends continue), extensive sedimentation and localised erosion are likely, at least around the entire lower lying margins of the bog. Similar periods of sedimentation are known between layers of peat development on the northern side of the bog.

Works to enable re-wetting
Such works can include both the stripping of peat down to wetter levels as well as the blocking of ditches and drainage channels and the creation of bunds to retain water. Peat-stripping has obvious detrimental impacts if archaeological deposits are contained within that level of peat, possibly damaging or exposing archaeological remains. Some inorganic materials may deteriorate further if rewetted, especially iron, this may affect archaeological sites that are known to have dried out but are going to be affected by wetland restoration programmes. Raising water-levels can also reduce access to archaeological sites, making them less visible to the general public but also harder to carry out further archaeological investigations.

Development
Both settlement and industrial development pose a threat. Around Cors Fochno several villages border the wetland area increasing pressure on marginal sites as well as introducing potential pollutants. Ground-breaking activities and further drainage involved in development has a direct detrimental impact on underlying and surrounding archaeological features and deposits, especially given such developments are often within areas of most archaeological potential. Other factors also need to be taken into considerations associated with developments, such as conifer planting to screen developments, which can lead to changes in the water levels (Rippon, in Cox et al 1995, p72).

Intensive Farming
To make wetland areas more suitable both for arable and improved pasture the land is first drained which causes damage through drying. Turning wetland into arable also introduces the threat of ploughing damaging archaeological and environmental remains in the plough margins. The introduction of fertilisers and pesticides can also alter the chemical makeup of waterlogged deposits. As soils become more alkaline organic remains dependent on acidic anaerobic conditions, including insect cases, pollen, leather, wool, skin and hair and sometimes wood will degrade and disappear. More traditional pastoral farming practices, involving

less artificial land improvement, can have a beneficial effect however, by controlling damaging vegetation growth.

Peat Cutting

Peat cuttings are clearly visible around Cors Fochno, and are likely to have been both long-standing and extensive (see Fig. 22). This is potentially damaging to the archaeological resource, both in directly damaging archaeological remains during the cutting, but also in affecting the palaeoenvironmental potential through associated drainage. Despite extensive areas being cut Cors Fochno does not at least appear to have suffered from more recent mechanised peat cutting, except for some relatively short-lived steam-powered peat cutting machinery in the early 20th century, and even hand-cutting peat appears to have stopped in the late 1960s. The extensive use of peat in the horticultural industry still poses a threat for many peatlands unless protected.

Such areas of peat cutting do however pose contradictory problems for archaeological preservation, as the peat-cutting evidence itself can be regarded as an important historic industrial landscape worthy of conservation, and such areas can be damaged by the blocking of drainage and raising water levels over areas of peat cutting.

Tourism

Extensive caravan parks have been established throughout Cors Fochno to both meet the demand of and encourage further visitors to this area of Ceredigion. Such parks are more easily established in these areas then more permanent settlement and although have less detrimental impact they do still bring an increased threat of further drainage and pollution. Well-used footpaths and trackways can also cause damaging erosion to archaeological sites.

Neglect

The colonisation of tree and gorse onto areas of bog can alter the water supply as they extract more moisture from the soils, drying out areas of peat. Without the active management of groups such as CCW surrounding agricultural activity and old drainage systems will continue to drain water from the bog allowing the peat to dry.

Climate change

Periods of drought can lead to falls in the water level and reduce the ability to recharge water levels through rainfall. Rising global sea levels increases the threat of salt-water inundation and coastal erosion. Works associated with this threat, such as embankments or a managed coastal retreat could affect buried deposits or open up new areas to coastal erosion.

The effect of acid rain is unclear, although a survey of its possible effect on freshwater SSSIs (Rimes 1992) found that much of Wales would be heavily affected. Resultant changes in acidity may lead to vegetation changes, soil and water chemistry changes, all of which could threaten the stability of the preservative effects of the wetlands.

Pollution

Pollution of the water supply can lead to changes in the vegetation which could have knock on effects for water levels, as well as the ability of wetland deposits to preserve inorganic remains. Such pollution could have several sources in the Cors Fochno area, from agricultural fertilisers, sewage treatment works and even archaeological sites such as disused metal mines and lead-smelting activities.

Recommendations for Potential Mitigation

Bunds, dams and sluices

CCW are currently engaged in the active management of large areas of Cors Fochno to address problems associated with drying, neglect and climate change, the results of which will also have a beneficial impact on archaeological preservation in these areas. One of the main methods employed is to block old drainage ditches and retain water using peat bunds, to either prevent or slow water loss. Similar practice is common elsewhere as a method of slowing water loss and raising water levels, including the use of clay and polythene bunds and dams. Care should be taken when addressing water levels that neighbouring areas do not unintentionally become flooded or adversely affected, and water levels need to be regularly monitored. Similar problems in Holland and Ireland have shown that when polythene bunds are used the sheeting does not need to go down into the underlying subsoils, but can be driven into differing lower peat horizons (Coles 1995, p81-2). Care has to be taken in the design and positioning of such bunds to allow them to cope with the subsequent build-up of pressure as water-levels rise. As such bunds need to be created on the advice of appropriate water engineers to prevent them collapsing.

Pumping

In some cases, such as the Somerset Levels (Coles 1995, pp77-79), pumps have been installed to manually change water levels at specific times. In this case pumps were used to pump water along the length of a waterlogged Neolithic trackway during periods of dry weather when the water table dropped to below the level of the trackway. Here pumps were used for a specific purpose, but there are clear parallels with the medieval trackway on the southern edge of Cors Fochno. Clay bunds were used on the Somerset Levels to retain the pumped water.

Care also needs to be taken to ensure the water source is both sustainable and of the appropriate quality, legal requirements may also need to be considered. Advice from hydrologists should be sought, as the hydrology can vary considerably, both from one type of wetland to another, but also within a specific wetland system. However pumping may not be a sustainable long-term solution to problems of fluctuating water levels.

Monitoring

Water levels are susceptible to seasonal as well as long-term alterations. It is crucial to maintain an understanding of the changing water levels, especially around areas of known organic archaeological remains as even short periods of drying out can have a permanent detrimental impact.

Vegetation Control

Vegetation should be controlled as some scrub and trees, other than perhaps birch, are not natural components of a raised bog. Managing the vegetation can be labour intensive work unless it can be achieved through flooding the area. The general use of herbicides should be avoided as this may change the chemical makeup of the water and long-terms effects may be unknown, although spot treatment may be possible.

Consideration has been given to the use of fire, combined with appropriate water level management, as a tool for vegetation control on bogs. In examining the raised bogs of Thorne and Hatfield Moors in South Yorkshire investigations (Eversham, Buckland & Dinnin in Cox et al 1995, p79) have suggested that fire, at the right time of year when the water table was high enough to avoid prolonged and deep burning, could prove a cheap and effective way to control birch and scrub encroachment. This was considered preferable to use of herbicides, excessive flooding which could damage wildlife interests and an

uncontrolled fluctuating water table that could be destructive of both natural and archaeological interests.

Positive Agricultural Regimes

Work on the Gwent levels has highlighted the fact that the managed and farmed wetlands is a dynamic landscape, and protecting it does not necessarily mean turning it into a museum piece, but instead maintaining it as a working landscape but mitigating against certain destructive farming practices (Rippon in Cox et al 1995, p72). Here management agreements have been established with the farmers working within the SSSI to stop under soil drainage to maintain the traditional system of ditches and sluices, or reens and grips. Cattle, and other grazing animals, can also be useful for scrub control, as well as providing natural fertilisers, although cattle are apparently more prone to falling into ditches.

Archaeological Work

If known archaeological sites that have dried out are going to be effected by wetland restoration programmes then selective excavation may be beneficial due to the deterioration of inorganic deposits, especially iron, if re-wetted (Coles 1995, pp106-9). Similarly detailed topographical surveys could record relict landscapes such as areas of old peat cuttings prior to their submersion during wetland restoration programmes.

Outreach work

The interest and involvement of the local community, landowners and managers in the cultural heritage of wetlands may help to encourage understanding, appreciation and respect of the wetlands. This could be achieved through the promotion and dissemination of the results of wetland research.

An intrinsic element of wetland restoration programmes elsewhere containing important archaeological remains has been to get those archaeological remains on display. This has often involved either the removal of damaged and excavated archaeological features to be placed in locations where they can be better preserved and observed, or the reconstruction of excavated archaeological features in more publically accessible areas. A similar suggestion has been put forward for Cors Fochno, allowing remains of the medieval trackway to be displayed in a more stable environment at a proposed interpretation centre.

Statutory Protection

The designations protecting archaeological sites are outlined below, although as can be seen these are not always appropriate for ensuring the survival of the unique aspects of archaeological survival in wetland environments.

All archaeological sites, buildings and structures which are currently protected by legislation have been mapped within the GIS (Fig. 17 & Appendix 2) and include Scheduled Ancient Monuments (SAMs), Listed Buildings of Special Architectural and Historic Interest (LBs) and Registered Parks and Gardens of Wales (PGW). The designation consent procedures for works affecting SAMs are the responsibility of Cadw. While LBs are designated by Cadw the Local Planning Authorities administer the consent procedures for works affecting them.

Protection	**Current Legislation or Guidance**
Statutory protection	The Ancient Monuments and Archaeological Areas Act 1979, as amended by the National Heritage Act 1983
	The Town and Country Planning Act 1990
	The Planning and Compensation Act 1991

	Statutory Instrument 1199, the Town and Country Planning (Assessment of Environmental Effects) Regulations 1988
	The General Development Procedure Order 1995
Non Statutory Protection	Planning Policy Wales, March 2002
	Welsh Office Circular 60/96, *Planning and the Historic Environment: Archaeology*, December 1996
	Welsh Office Circular 61/96, *Planning and the Historic Environment: Historic Buildings and Conservation Areas*, December 1996
	Agri-environmental schemes, such as Tir Gofal, Tir Cynal & EAAFG

Changes proposed by the Draft Heritage Protection Bill

The current draft Heritage Bill (April 2008) proposed a single register for all heritage assets, bringing into line a variety of legislation regarding the historic environment.

Archaeology in Future Management Programmes

In dividing the study area into specific areas of archaeological potential this study has examined the various individual characteristics of each area, such as the level of knowledge about the archaeology, the state of preservation, threats to the resource, importance of the resource and so on. It is hoped that by bringing together this knowledge this can help to highlight areas of specific concern that are affected by both current and possible future management programmes, either in terms of wetland restoration or agricultural management and development. It is also hoped that this will then allow archaeological concerns to be more readily considered and addressed by positive management.

Management Information
Linked with the HER are series of GIS layers of information. Some include data taken directly from historical mapping while others contain the results of the interpretation of a variety of historical and archaeological sources. These are intended to provide a synthesis of available data. Of particular importance is the layer which explains archaeological potential (see Fig 20 & Table 1). This is intended to provide an indication of the archaeological issues within each defined area.
It will flag up at an early point in management processes whether there are historic environment assets which need to be considered and where appropriate properly integrated as part of proposals for change.

Management Decision Making
This understanding will need to be included as part of any statutory and non-statutory planning or management decision process. These should follow the best practice set out within the Terrestrial Planning Process. In Planning Policy Wales (2002) the Welsh Assembly Government set out their objectives for the conservation of the historic environment in Wales.

- preserve and enhance the historic environment, recognising its contribution to economic vitality and culture, civic pride and the quality of life, and its importance as a resource for future generations; and specifically to

- protect archaeological remains, which are a finite and non-renewable resource, part of the historical and cultural identity of Wales, and valuable both for their own sake and for their role in education, leisure and the economy, particularly tourism;

- ensure that the character of historic buildings is safeguarded from alterations, extensions or demolition that would compromise a building's special architectural and historic interest; and to

- ensure that conservation areas are protected and enhanced, while at the same time remaining alive and prosperous, avoiding unnecessarily detailed controls over businesses and householders.

Specific Historic Environment Consultation
This guidance does not replace the need for any strategic planning or decision making body to seek the professional heritage management advice of Dyfed Archaeological Trust – Heritage Management, the regional archaeological curator, along with other statutory consultees. Through the established mechanism of the statutory land-use planning process and other best practice, Dyfed Archaeological Trust – Heritage Management provides a comprehensive service available to all

the identified bodies and organisations as well as to prospective developers and other interested organisations and individuals.

The most important tool we possess to inform the conservation and preservation of the physical remains of our past is our accumulated knowledge of them. Records of these remains are held in the extensive databases of the regional Historic Environment Records. On behalf of the Unitary Authorities in South-west Wales, Dyfed Archaeological Trust – Heritage Management maintains *c*.40,000 records of archaeological and historical interest. For Ceredigion these records have been formally adopted by resolution of Ceredigion County Council for the purposes of the Town and Country Planning (General Permitted Development) Order 1995. This legislation provides the rationale and context for deploying this important source of information in the statutory land-use planning processes.

In terms of archaeological development control the HER, together with the information brought together in this study, will be the key advisory sources for the protection of the historical and archaeological inheritance of Cors Fochno.

Early consultation by developers in advance of drawing up detailed development proposals is best practice. Developers should discuss their preliminary plans with the relevant bodies, organisations and authorities and Dyfed Archaeological Trust – Heritage Management as the regional archaeological adviser. A first step will be to consult the HER, which will provide information about the locations where archaeological remains are known or thought likely to exist. Professional archaeological staff in Dyfed Archaeological Trust are trained and experienced in the interrogation of these records and accordingly can provide appropriate interpretation and advice.

Further Research

By studying the archaeological potential of Cors Fochno it is possible to highlight areas that would also benefit from further detailed archaeological research in order to identify, assess and define areas of specific archaeological concern.

One of the main areas of high archaeological potential is the southern fringe of Cors Fochno. It was in this area that known archaeological remains have been identified through excavation and fieldwork around Ynys Capel and its neighbouring fields. Further fieldwork, such as walk-over surveys and geophysical surveys could help to identify other known but un-investigated sites, such as the circular enclosure at Cerrig-tranau-uchaf (PRN 94946, NGR SN 6348 9007) and defended enclosure at Brynllys Farm (PRN 94910, NGR SN 6201 8863) and also help to identify new sites that have not been picked up from an examination of historic maps, aerial photographs and LiDAR data.

The southern end of the medieval trackway has been examined through archaeological investigation and geophysical survey but this has not revealed definitive evidence as to the function of the trackway, although much can be said from the palaeoenvironmental evidence retrieved. It was hoped during the course of this current project to examine the northern end of the trackway, but this did not prove possible. This northern area would still benefit greatly from further archaeological fieldwork perhaps at a more convenient time to the relative landowners. A geophysical survey, combined with a topographical survey, may reveal the extent of the trackway and any associated features. This could also be used to target areas for further trial trenching that would help to provide more answers regarding this important archaeological site.
The excavations in 2003-05 revealed that sections of the trackway were deteriorating as it dried out. Although wetland restoration work is no doubt on going in this area scrub and tree encroachment was visible at the edges, potentially reducing water levels in these areas. It would be preferable to monitor water levels in the area of the trackway to gain a better understanding of its likely state of preservation.

Much of the active research on the buried archaeology and wetland conditions at Cors Fochno has been focused on the current area of peat bog and its margins, however reclaimed wetlands extended along the low lying areas to the northeast as far as Glandyfi. Further archaeological research in this area would help to test the identified areas of archaeological potential. A walk-over survey of selected areas could help to assess the condition and extent of known archaeological sites, and possibly identify sites that could benefit from more detailed geophysical and topographical surveys. Selective auger surveys would also help to identify the areas of wetland deposits and assess the state of peat desiccation giving an increased understanding of the likely survival of archaeological and palaeoenvironmental remains.

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(a note on the date; The maps themselves don't appear to be dated, and although the NLW records an imprint of 1891, whereas CCW record a date of 1847, the surveyor, Mickleburgh, was working with the commissioner Richard Griffiths enclosing the bog in and around 1824)

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Aerial Photographs

The following list has been compiled by CCW, with additions by DAT highlighted in italics. All listed are vertical shots, unless stated otherwise
(A) = Aberystwyth West Area office
RCAHMW = Royal Commission for Ancient & Historic Monuments of Wales, Aberystwyth.
CP = Contact print

Date	**Area**	**Sortie/Frame nos. (no. prints)**	**Scale**	**Type**	**Contractor**	**Held by CCW ?**
2003	Cors Fochno			Col.	Sheffield Uni./ NERC	CCW(A)
11.7.99	Cors Fochno	4995-5022 (14 CP)	1:10000	Col.	CUCAP	CCW(A)
13.6.92	Cors Fochno Estuary & Ynyslas		1:10000	Col.	Geonex	CCW(A)
3.8.90	*Cors Fochno*	*90-CS-703 'Ynyscapel, Geulanymaes mawr, Dyfed'*	*?*	*Col. Slide*	*RCAHMW*	*RCAHMW*
7.4.90	Cors Fochno	218-222 229-236 238-246 249-258 (32 CP)	c1:7500	B/W	ADAS	CCW(A)
1.5.90	Cors Fochno	34-36, 39 (4 CP)	1:20000	Col.	ADAS	CCW(A)
1.5.90	Cors Fochno	121-123, 125 (4 CP)	1:26000	B/W	ADAS	CCW(A)
4.10.86	Estuary & Ynyslas	58.86, 180, 186; 67.86, 062,077,169, 172-175; 68.86, 044-045	1:12000	Col.	J.A.Storey & partners	CCW(A)
2.7.85	Cors Fochno	RC8HU 207-210 212-218 233-234 236-237	?1:10K	B/W	Cambridge	CCW(A)
19.7.82	Estuary & Ynyslas	RC8-KV 148-174	?	Col	Cambridge	
7.4.78	Cors Fochno	WILD687 102-105 (4 CP)	6" (1:25k)			RCAHMW
4.7.77	Estuary, Ynyslas, Cors Fochno	RC8CE 137-172	1:6000	B/W	Cambridge	
5.8.76	Cors Fochno	1006-9 1012-14	1:5000	Col.	Cambridge	CCW(A)
18.5.75	Cors Fochno	WILD 687 002	6" (1:25k)	B/W		RCAHMW
4.8.75	Ynyslas	RC8BA 136-143 K17AK 216-231	1:4225	B/W	Cambridge	
9.7.74	Ynyslas	K17AF 157-171	1:5000	B/W	Cambridge	
5.10.72	Cors Fochno Ynyslas,	72420 102-106 72419 316-325	1:7500	B/W	O.S.	CCW(A)

12.10.72	Estuary	354-362 76426 267-274 307-314 354-360 72426 264-274 307-315	1:7500	B/W	O.S.	CCW(A)
7.9.71	Estuary	72420 097-106 146-151	1:2000		Fairey Surveys	
22.6.71 13.6.71	Estuary	71295 324-340 71296 357-362 71291 278-290	1:7500	B/W	O.S.	
15.9.70	Ynyslas	RC8T 68-78	1:5700	B/W	Cambridge	
3.7.69	Cors Fochno	543/RAF/4779 0032	? 1: 50K	B/W	RAF	RCAHMW
22.10.62	Cors Fochno Ynyslas Estuary	F22/543/RAF/ 1916 0022-0028 0036-0046	36" 1:10000	B/W	RAF	RCAHMW
22.10.62	Cors Fochno	V543/RAF/1916 0018	c1:50k	B/W	RAF	CCW(A)
1.7.62	Ynyslas	A102480-A102484 A102488,A102496 A103556	?	B/W obliq.	Aerofilms & Aero Pictorial Ltd.	
6.6.62	Cors Fochno	V-AV 84-101	?1:3000	B/W	Cambridge	CCW(A)
1.9.61	Cors Fochno	F22/58/RAF/ 4663 - 0017	1:10000	B/W	RAF	RCAHMW
13.6.61	Cors Fochno	V-T 90-98	?1:3000	B/W	Cambridge	CCW(A)
1.5.46	*Cors Fochno*	*106G/UK/1450* *3154-9 & 3208-14*	*?*	*B/W*	*Meridian Airmaps Ltd*	*DAT*

Fig 15. Location map based on the Ordnance Survey. Study area is outlined in red.

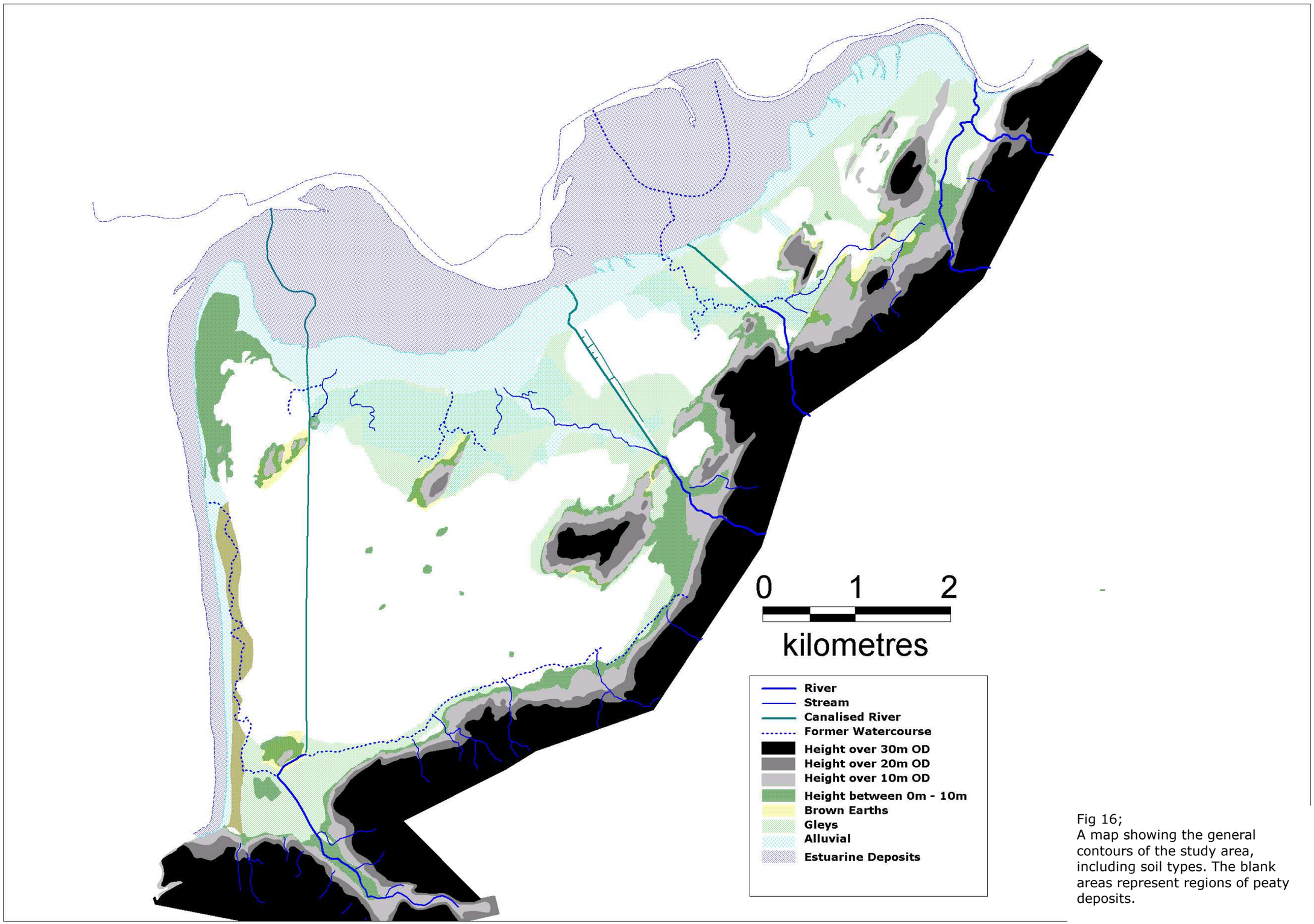


Fig 16;
A map showing the general contours of the study area, including soil types. The blank areas represent regions of peaty deposits.

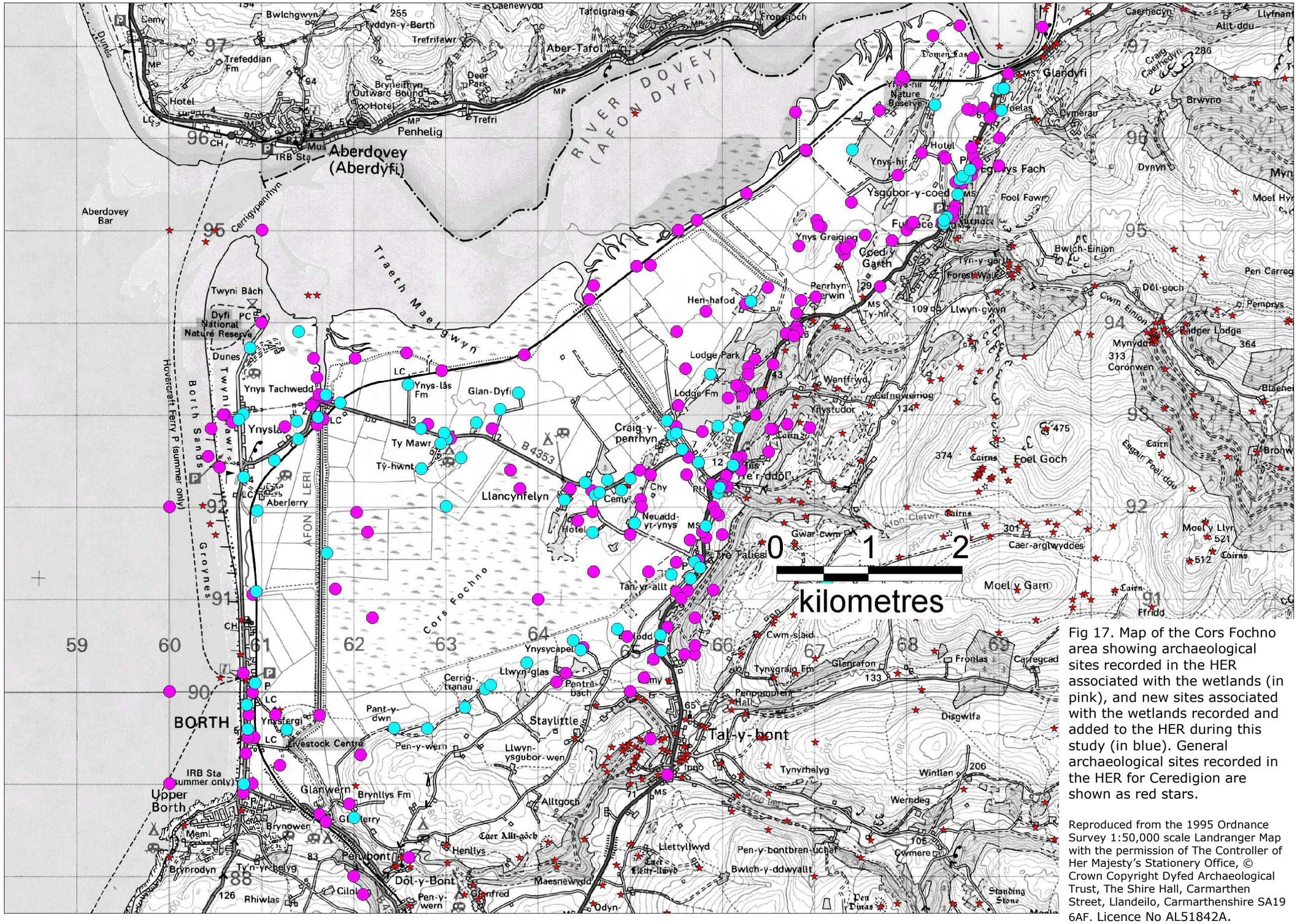


Fig 17. Map of the Cors Fochno area showing archaeological sites recorded in the HER associated with the wetlands (in pink), and new sites associated with the wetlands recorded and added to the HER during this study (in blue). General archaeological sites recorded in the HER for Ceredigion are shown as red stars.

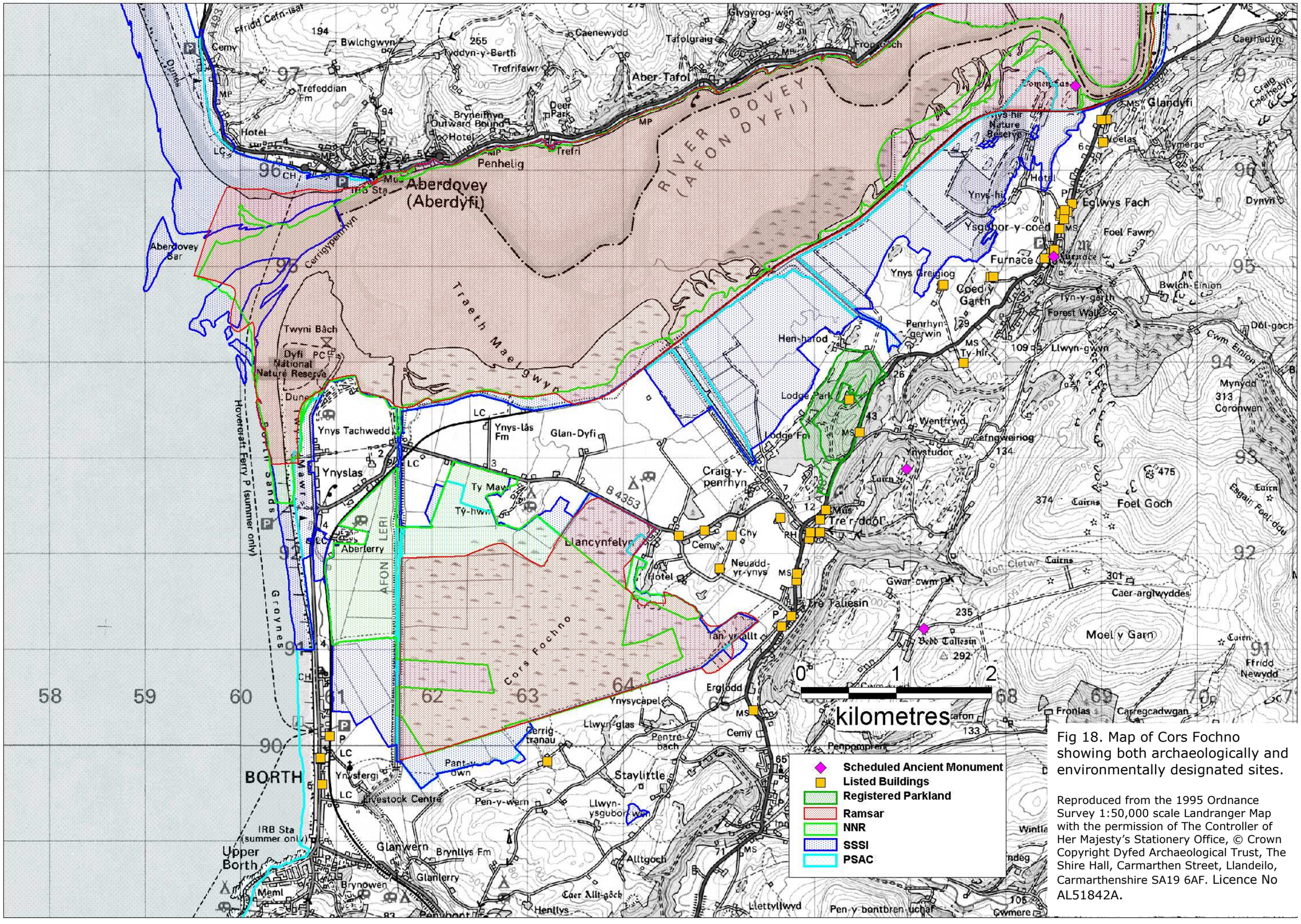


Fig 18. Map of Cors Fochno showing both archaeologically and environmentally designated sites.

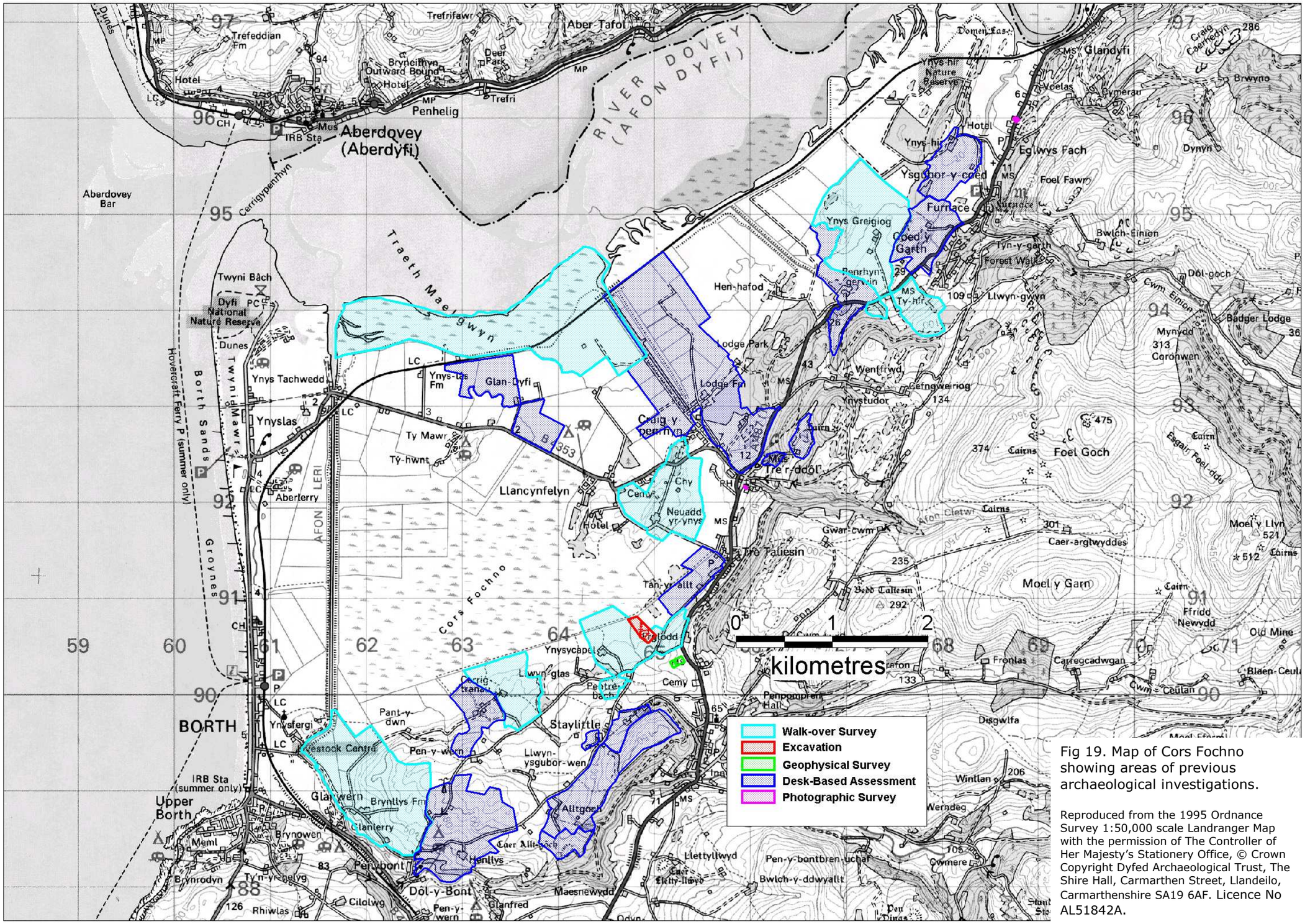


Fig 19. Map of Cors Fochno showing areas of previous archaeological investigations.

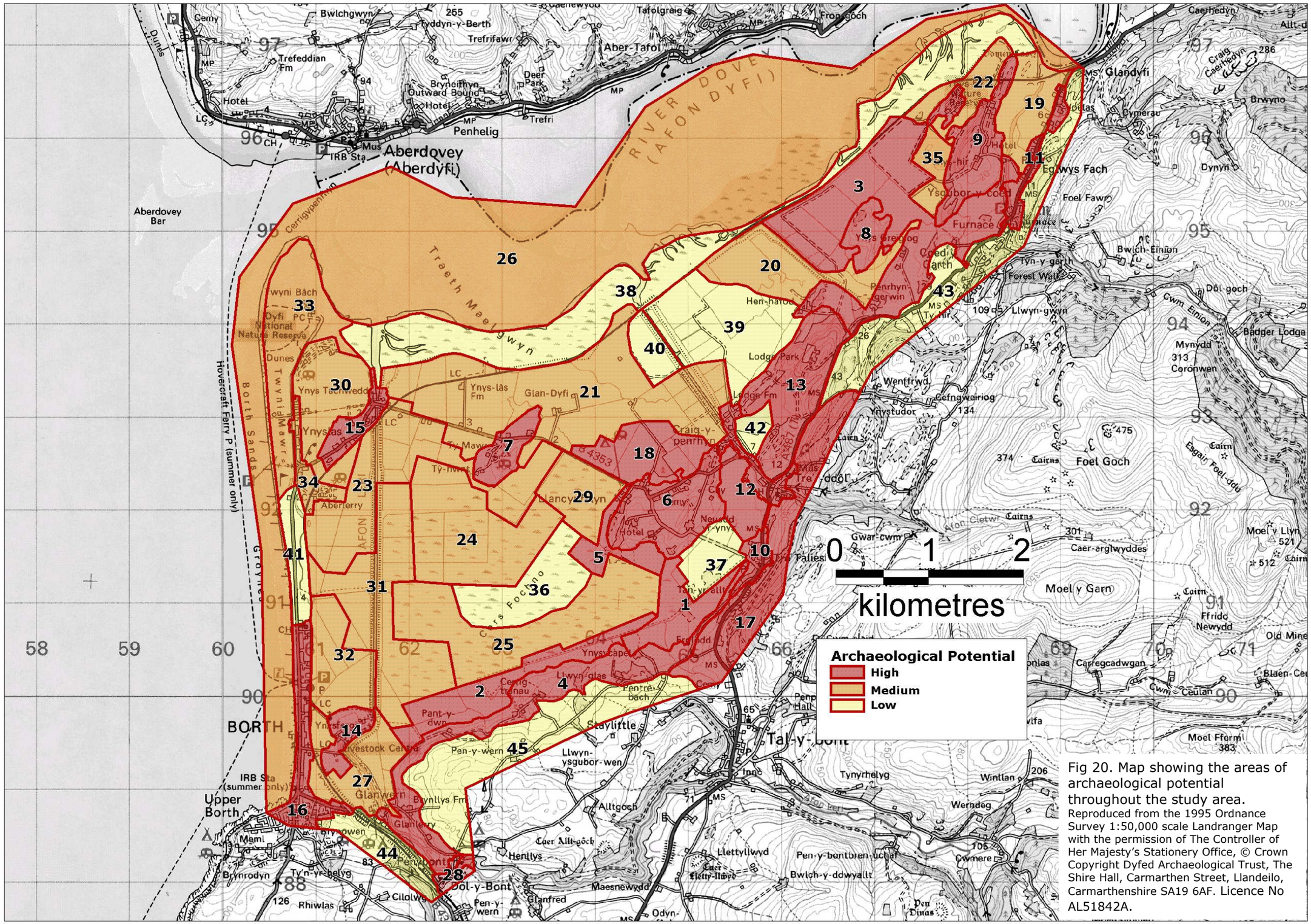


Fig 20. Map showing the areas of archaeological potential throughout the study area.

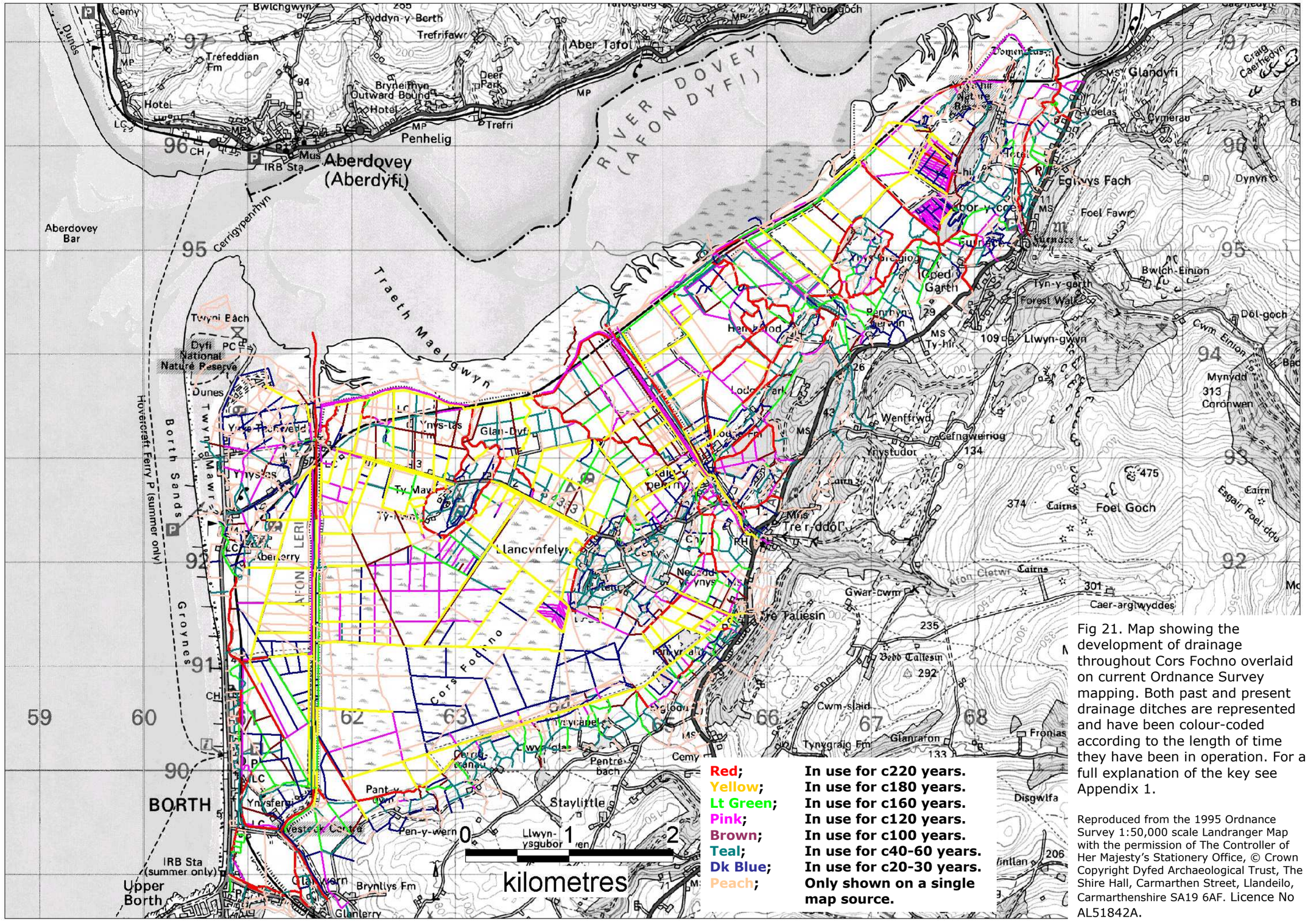


Fig 21. Map showing the development of drainage throughout Cors Fochno overlaid on current Ordnance Survey mapping. Both past and present drainage ditches are represented and have been colour-coded according to the length of time they have been in operation. For a full explanation of the key see Appendix 1.

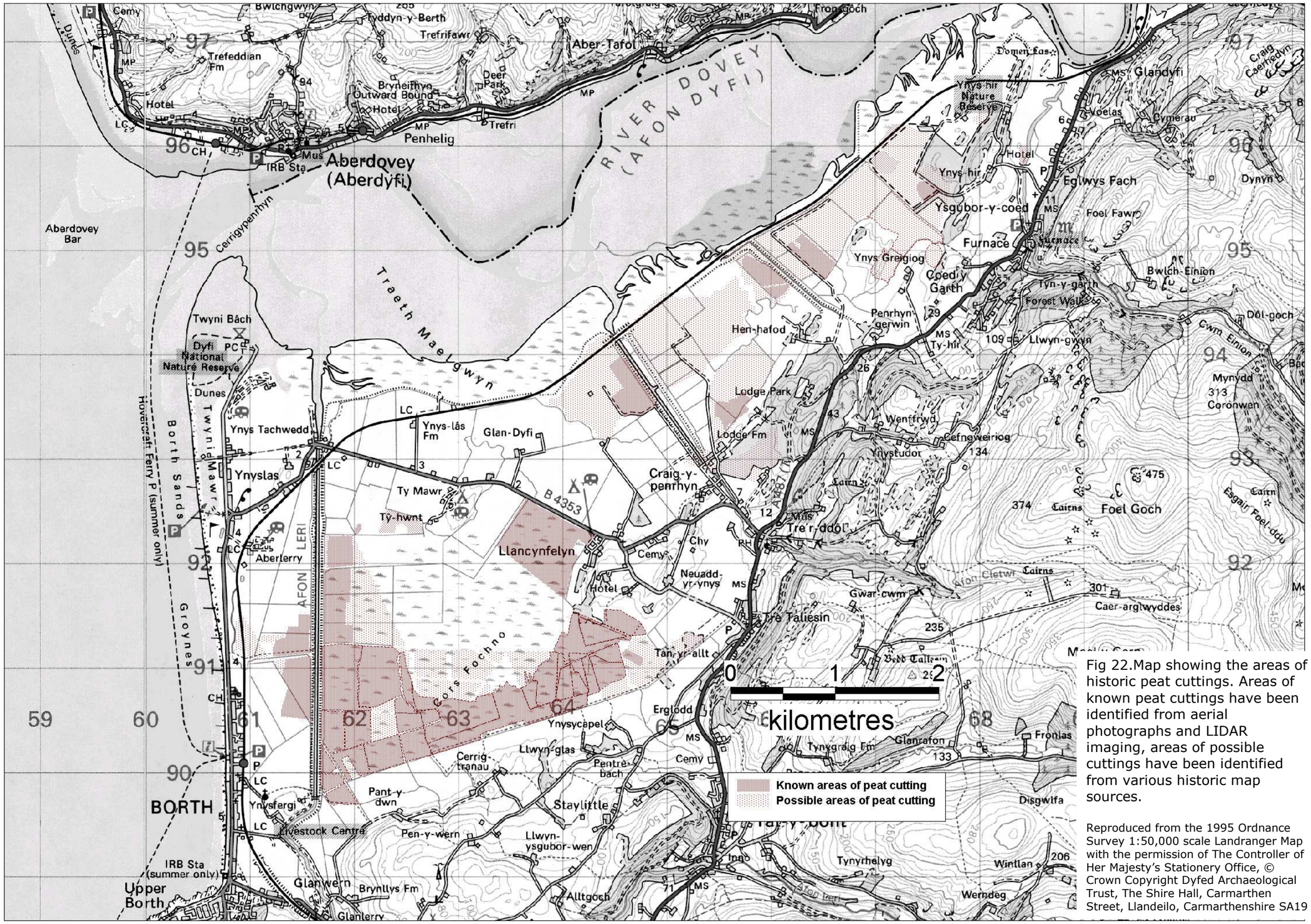
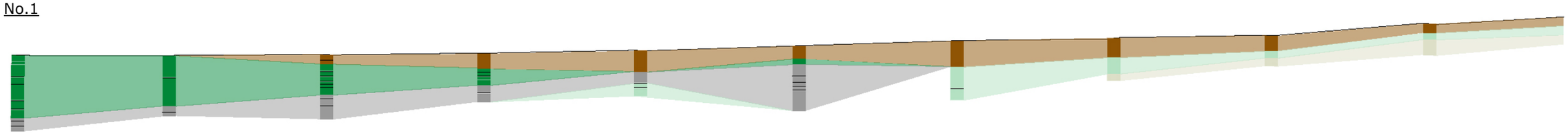


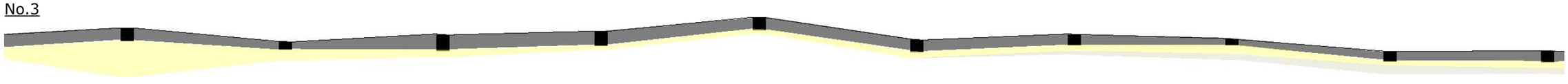
Fig 22.Map showing the areas of historic peat cuttings. Areas of known peat cuttings have been identified from aerial photographs and LIDAR imaging, areas of possible cuttings have been identified from various historic map sources.

No.1



No.2

No.3



No.4

Fig 23. A simplified and colour-coded representation of the profile of Bryn Sant as established from the results of the auger survey. The profile is taken from the results of line 1, the longest profile, which runs continuously from the southwest at the top left (No.1), to the northeast at the bottom right (No.4).
Dark greys represent topsoil and browns represent desiccated peat. Purples are mixed clay and peat deposits, with green showing areas of undisturbed wet peat. Yellow represents layers of mineral soils and greys are underlying clays.

APPENDIX 1

GIS LAYERS (MAPINFO TABLES)

MAP REGRESSION

Lodge Park Plan 1779;
Ditches, boundaries and specific features (e.g. areas of peat cuttings, buildings) taken from 'A Map of Lodge Park in the County of Cardigan belonging to Edward Loveden Loveden' 1779 T.Lewis. Transcribed onto modern digital mapping.

1790 Map;
Ditches, boundaries and specific features (e.g. areas of limekilns, buildings, common land etc) taken from 'Map of Cors Fochno and the several islands situate therein with part of the Navigable River Dovey in the County of Cardigan' 1790 T.Lewis. Transcribed onto modern digital mapping although a rectified scan of this map is also available (see CCW).

Manor of Generglyn AB c1824;
Ditches, boundaries and specific features (e.g. roads, buildings etc) taken from the two maps 'Manor of Generglyn Map A; River, Drains and Embankments' and 'Manor of Generglyn Map B; Roads and Allotments', both by C.Mickleburgh. The maps are undated but presumably date to the period of enclosure when Mickleburgh was the surveyor in c1824. Transcribed onto modern digital mapping.

1844 7 Tithe Maps;
Ditches, boundaries and specific features (e.g. roads, buildings etc) taken from the various tithe maps that cover the area, dating between 1844 and 1847. These include: Llanfihangel geneu'r Glyn Parish, Ysgubor y coed Township
Llanfihangel geneu'r Glyn Parish, Cynull mawr & Trymynach 1848
Llanfihangel geneu'r Glyn Parish, Ceulan y Maesmawr & Henllys townships.
Transcribed onto modern digital mapping.

1st OS 1888-9;
Ditches, boundaries and specific features (e.g. roads, buildings etc) taken from the 1st edition 1;2500 Ordnance Survey maps dating to 1888 & 1889.These maps are available as rectified scans.

2nd OS 1901-05;
Ditches, boundaries and specific features (e.g. roads, buildings etc) taken from the 2nd edition 1;2500 Ordnance Survey maps dating to 1901 & 1905.These maps are available as rectified scans.

Prov OS 1953;
Ditches, boundaries and specific features (e.g. roads, buildings etc) taken from the 1;10,560 Ordnance Survey provisional edition maps dating to 1953.

OS 1964;
Ditches, boundaries and specific features (e.g. roads, buildings etc) taken from the 1;10,560 Ordnance Survey maps dating to 1964.

Modern OS;
Mainly ditches taken from modern Ordnance Survey map sources.

PROJECT SPECIFIC

Ditches;
The layout of drainage ditches throughout the study area as depicted on historic and modern map sources. The drainage ditches are depicted as linears, and colour coded according to the length of time they have been in active operation, as far as can be established from the map sources. The accompanying table records the usual array of standard information as well as notes on the length of period the ditch was in use and its current state, as well as the sources used for that information.
Below are keys to the colour-coding, the map sources used and a table showing how the period of use was established.

Red;	Ditch in use for c220 years.
Yellow;	Ditch in use for c180 years.
Lt Green;	In use for c160 years.
Pink;	In use for c120 years.
Brown;	In use for c100 years.
Teal;	In use for c40-60 years.
Dk Blue;	In use for c20-30 years.
Peach;	Extras that only show on a single map source.

Maps used;	A	Modern OS mapping	2008
	B	Provisional edition OS maps	1953
	C	2nd edition OS maps	1901-05
	D	1st edition OS maps	1888-89
	E	Tithe maps	1844-47
	F	Enclosure maps	c1824
	G	Lewis's estate map	1790

	A	B	C	D	E	F	G
A		55	103	119	161	184	218
B	55		48	64	106	129	163
C	103	48		16	58	81	115
D	119	64	16		42	65	99
E	161	106	58	42		23	57
F	184	129	81	65	23		34
G	218	163	115	99	57	34	

Ditches buffered;
The 'ditches' table with buffer zones drawn around the linear ditches in an attempt to illustrate the wider areas that would have been effected by water-loss into these drainage ditches. Below is a table illustrating how the affected areas were established and their relevant colour-coding.
The actual areas that would have been effected by water-loss has not been investigated on the ground therefore these areas are merely to illustrate the extensive effect of the drainage and how this may have varied across the area of Cors Fochno.

Period of use (in years)	Area affected (in metres)	Colour coding
c220	40	Red
c180	35	Yellow
c160	30	Green
c120	25	Pink
c100	20	Brown
c40-60	10	Teal
c20-30	5	Dark Blue

General Relief;
A series of tables showing the solid topography of the study area. The tables are broken down into General Relief1 to General Relief5 along with General Relief water, General Relief Sea and General Relief Settlement each showing polygons and linears representing different known ground levels, and some soil types, all colour-coded. All are accompanied by tables containing standard data.

General Relief5 depicts land over 30m. O.D., represented as black polygons. This information is taken from modern mapping sources and LIDAR data.

General Relief4 depicts land over 20m. O.D., represented as dark-grey polygons. This information is taken from modern mapping sources and LIDAR data.

General Relief3 depicts land over 10m. O.D., represented as grey polygons. This information is taken from modern mapping sources and LIDAR data.

General Relief2 depicts land between 0m. O.D. and 10m O.D. This is represented in the main with green polygons, although a khaki polygon represents the gravel banks upon which much of Borth village has been built. This information is taken from modern mapping sources, LIDAR data and digital soil maps provided by CCW.

General Relief1 depicts land that is currently either at 0m.O.D. or even just below, but where soil analysis appears to demonstrate either a thin peat covering or no peat deposits. For example, where ground deposits consist of gleys or brown earths. It is hoped that by contrast the blank areas show where the underlying mineral soils and solid geology drops to greater depths resulting in successive layers of peat-growth above. These are represented as light green polygons for areas of gley and yellow polygons for areas of brown earths. This information is taken mainly from soil maps provided by CCW.

General Relief water depicts current boundaries of rivers, streams and the sea, at both low-water and high-water marks. This is represented by dark-blue linears representing rivers, streams and the low-water mark, light-blue linears representing high-water marks and light-blue polygons showing areas where the soils consist mainly of alluvial deposits. This information is taken from modern mapping sources and digital soil maps provided by CCW.

General Relief Sea etc depicts areas of sea and deeper river channels below the low-water mark, and estuarine deposits. This information is taken from modern mapping sources.

General Relief Settlement depicts the main areas of current nucleated settlement, such as the villages of Borth, Tre Taliesin and so on. This information is taken from modern map sources.

AP Sites;
A scribble (rough working notes) layer recording sites and features depicted on various aerial photographs of Cors Fochno. These features are represented digitally as polygons and linears with very brief notes in the accompanying tables describing the sites and features and the aerial photograph sources.
This table was used mainly as rough visual notes to back up other information.

Peat Cuttings;
A layer illustrating areas of peat cutting throughout the study area. Polygons have been used to illustrate discreet areas of peat cutting although it has not proved possible to closely date many of these areas. Light-brown polygons depict areas

of possible cuttings as depicted on historic map sources, the dark-brown polygons represent areas where evidence of peat cuttings are still visible on aerial photographs or LIDAR imaging. The accompanying table records the standard information but also includes descriptive notes and the sources used for the information.
This information was taken from historic map sources, aerial photographs and LIDAR data.

Potential;
The archaeological Potential table is accompanied by Table 1 (p59). This consists of polygonal data identifying differing areas of archaeological potential within the study area.
The accompanying tables contains the standard information but also explains the specific archaeological potential, palaeoenvironmental potential, threats, current land-use and possible further work required to refine the potential.
This layer is an accumulation of the desk-based research and fieldwork associated with this project.

Routes;
This consists of several layers attempting to show the changing pattern of routeways through the study area. These layers are currently incomplete but it is intended to have at least five different layers each representing different periods. The routes are illustrated by linears marking both main roads and tracks as well as main footpaths. Tracks and footpaths to specific farmsteads and dwellings are not necessarily shown unless they form part of a more extensive route.

Routes depicts roads, tracks, footpaths and railways depicted on current map sources.

Routes 2 depicts roads, tracks, footpaths and railways depicted on the 2nd edition Ordnance Survey map of 1901-05.

Routes 3 depicts roads, tracks and footpaths depicted on the tithe maps of 1844-47.

Routes 4 depicts roads, tracks and footpaths depicted on Lewis map of 1790 and other small scale maps of a similar period.

Routes 5 depicts likely main roads and tracks in operation during the medieval period.

Sites;
This layer is a scribble layer depicting possible areas to be investigated during the fieldwork stage of the project.

INVESTIGATIONS

Archaeological Investigations;
Polygons showing areas of previous archaeological investigations within the study area. Each polygon is accompanied with basic information that also states what type of archaeological investigation it is depicting. These investigations range from desk-based assessments and walk-over survey, many associated with agri-environmental schemes, to geophysical surveys, photographic records and excavations.

Trackway excavation area;
A single polygon showing the area investigated during the 2003-05 excavations.

Trench locations;
Polygons and lines depicting the locations for the trenches opened up during the 2003-05 excavations.

KNOWN SITES

GAT sites nearby;
Point data showing HER sites recorded by Gwynedd Archaeological Trust on the northern side of the Dyfi. The accompanying tables records information such as site type, name, period, location and PRN.
Information taken from Gwynedd Archaeological Trust HER provided through END Exchange.

Listed Buildings;
Point and polygon data showing designated listed buildings within the study area. The accompanying tables records information such as site type, name, period, location and record no.
Information taken from Cadw digital databases provided through END Exchange.

NMW;
Point data showing findspots recorded by the National Museum of Wales. The accompanying tables records information such as site type, location and record no.
Information taken from National Museum of Wales digital databases provided through END Exchange.

Parks;
Polygons showing areas of designated historic parks and gardens within the study area. The accompanying tables records information such as name, location and record no.
Information taken from Cadw digital databases provided through END Exchange.

RCAHMW;
Point data showing sites recorded on the National Monuments Record by the Royal Commission on Ancient and Historic Monuments in Wales within the study area. The accompanying tables records information such as site type, name, period, location and NPRN.
Information taken from RCAHMW digital databases provided through END Exchange.

Roman;
Point and linear data showing sites and features of a Roman date within the study area. This data is taken from a previous DAT study of Roman Roads in South-west Wales undertaken for Cadw. The accompanying tables records information such as site type, name, period, location and PRN.

SAMs;
Point and polygon data showing designated Scheduled Ancient Monuments within the study area. The accompanying tables records information such as site type, name, period, location and record no.
Information taken from Cadw digital databases provided through END Exchange.

SMR;
Point data showing archaeological sites and features recorded in the regional Historic Environment Record at DAT. Red stars indicate existing records, blue stars are new sites added during the course of this project. This table also incorporates the sites recorded in the other tables (except GAT sites). The accompanying table records information such as site type, name, period, location, description and PRN.

ENVIRO AREAS

Biosphere;
Polygons showing different areas within the Unesco Biosphere reserve of Cors Fochno. Basic information is provided in the accompanying table.
Layer taken from a series of mapinfo layers created by CCW.

NNR;
Polygons showing the areas of the Dyfi National Nature Reserve within Cors Fochno. Basic information is provided in the accompanying table.
Layer taken from a series of mapinfo layers created by CCW.

PSAC;
Polygons showing the areas of the Cors Fochno PSAC (possible Special Area of Conservation) and Pen Llyn a'r Sarnau/Lleyn Peninsula and the Sarnau PSAC within the study area. Basic information is provided in the accompanying table.
Layer taken from a series of mapinfo layers created by CCW.

RAMSAR;
Polygons showing the areas of Cors Fochno and Dyfi included in the Ramsar List of Wetlands of International Importance. Basic information is provided in the accompanying table.
Layer taken from a series of mapinfo layers created by CCW.

SPA;
Polygons showing the area of the Aberdyfi SPA (Special Protection Area) within the study area. Basic information is provided in the accompanying table.
Layer taken from a series of mapinfo layers created by CCW.

SSSI;
Polygons showing the area of the SSSI (Sites of Special Scientific Interest) within the study area. Basic information is provided in the accompanying table.
Layer taken from a series of mapinfo layers created by CCW.

BRYN SANT

Survey;
This folder contains the results of the topographical survey of Bryn Sant converted into a variety of mapinfo tables.

Auger;
A mapinfo table showing the locations and results of the auger survey at Bryn Sant. The locations are depicted as point data and the results are summarised in the accompanying table.

Test Pits;
A mapinfo table showing the locations and results of the test pits excavated at Bryn Sant. The locations are depicted as linear data and the results are summarised in the accompanying table.

TAN YR ALLT

Survey S;
This folder contains the results of the topographical survey of the southern area of Tan yr Allt below the farmstead, converted into a variety of mapinfo tables.

Survey N;
This folder contains the results of the topographical survey of the northern area of Tan yr Allt adjacent to the minor road, converted into a variety of mapinfo tables.

YNYS CAPEL

Dxf;
This folder contains the results of the topographical survey of Ynys Capel converted into a variety of mapinfo tables.

Auger;
A mapinfo table showing the locations of the auger survey at Ynys Capel. The locations are depicted as point data and the results are very briefly summarised in the accompanying table.

Enclosure;
A mapinfo table showing some of the major features identified from the geophysical survey. This table is for reference only and contains no associated data.

Peat extent;
A mapinfo table depicting the presumed extent of the main peat deposits at Ynys Capel, based on auger results and the topographical survey. This table is for reference only and contains no associated data.

APPENDIX 2

PRN GAZETEER TAKEN FROM THE HER

PRN: 4031 **NGR:** SN68729687
SITE NAME: TOMEN LAS
SITE TYPE: Motte
SITE STATUS: Scheduled ancient monument
FORM: Earthwork
CONDITION: Substantially intact
SUMMARY:
Tree covered motte on the end of a spur of higher ground extending into the Dyfi. The motte is surrounded on three sides by a rock-cut ditch and on its fourth side by marsh. A possible bailey lies to its north. N.Page 1998

PRN: 4033 **NGR:** SN67139120
SITE NAME: BEDD TALIESIN;GWELY TALIESIN
SITE TYPE: Round barrow
SITE STATUS: Scheduled ancient monument
FORM: Earthwork
CONDITION: Damaged
SUMMARY:
A slightly asymetrical stone kerb cairn with an internal stone cist. The cairn is 12-13m in diameter and 1.5m high. The cist has collapsed inwards and is c.2.0m x 0.5m x 0.5m. It was covered by a capstone 1.75m x 1.1m x 0.4m which now lies to the north of the cist. JH based on Cadw 1988 & CCH 1994.

PRN: 5191 **NGR:** SN61158975
SITE NAME: BORTH ST MATTHEW'S CHURCH
SITE TYPE: Church
SITE STATUS:
FORM: Building
CONDITION: Intact
SUMMARY:
Modern church, built new in the 19th century church on a de novo site. NDL 2004

PRN: 5427 **NGR:** SN685952
SITE NAME: FURNACE;DYFI
SITE TYPE: Blast furnace
SITE STATUS: Scheduled ancient monument
FORM: Building
CONDITION: Unknown
SUMMARY:
18th Century blast furnace later converted to use as sawmill. EM Jan-94.

PRN: 5428 **NGR:** SN6846995141
SITE NAME: FURNACE HOUSE
SITE TYPE: Dwelling
SITE STATUS: Listed building
FORM: Building
CONDITION: Intact
SUMMARY:
House associated with the furnace complex at Ffwrnais. Listed building. RPS September 2001

PRN: 5429 **NGR:** SN6850195173
SITE NAME: FURNACE BRIDGE
SITE TYPE: Bridge
SITE STATUS: Listed building
FORM: Building
CONDITION: Intact

SUMMARY:
A stone-built single-span road bridge over the Einion, probably later 18th century. Illustrated in an 1804 sketch by P.J. de Loutherbourg and in J.G. Wood 1813 engraving. Built of rubble stonewith a parapet built up of very large long squared stones. Segmental arch, cemented beneath, stone voussoirs, slightly recessed (PP 09 - info from Cadw Listed Buildings database).

PRN: 5430 **NGR:** SN68609551
SITE NAME: EGLWYSFACH CHURCH;ST MICHAEL'S;LLANFIHANGE
SITE TYPE: Church
SITE STATUS:
FORM: Documents
CONDITION:
SUMMARY:
Site of post-medieval chapelry, firstly to Llanbadarn Fawr parish and then to Llanfihangel Genau'r-glyn; now in Ysgubor-y-coed parish. It was formerly known as `Llanfihangel Capel Edwin', presumably after a lay benefactor.It appears not to be a medieval foundation, having probably been founded in c.1623, but was entirely (re)built in c.1840, as PRN 17365, some 50m to the west of the earlier site, but within the area of the original churchyard, which was not extended. The churchyard is square, and regular in plan. NDL 2004

PRN: 5431 **NGR:** SN64589218
SITE NAME: LLANGYNFELYN PARISH CHURCH;ST CYNFELYN'S
SITE TYPE: Church
SITE STATUS:
FORM: Documents
CONDITION:
SUMMARY:
Medieval chapelry, which became a parish church during the post-medieval period. A small church, comprising a chancel/nave, without structural division. The north transept is from the earlier 17th century, and the south porch is from the mid-late 19th century when the church was restored (as post-medieval PRN 17366). See early medieval predecessor PRN 50147 for site description, discussion and management recommendations. NDL 2004

PRN: 5432 **NGR:** SN61679295
SITE NAME: AFON LERI BRIDGE
SITE TYPE: Bridge
SITE STATUS:
FORM: Building
CONDITION: Intact
SUMMARY:
A railway bridge built in 1863. Consists of seven spans with wooden piers (PP 31/03/09).

PRN: 5437 **NGR:** SN66959286
SITE NAME: YNYS TUDUR
SITE TYPE: Round barrow
SITE STATUS: Scheduled ancient monument
FORM: Earthwork
CONDITION: Unknown
SUMMARY:

PRN: 5439 **NGR:** SN660917
SITE NAME: TRE TALIESIN
SITE TYPE: Standing stone
SITE STATUS:
FORM: Other structure
CONDITION: Moved
SUMMARY:

PRN: 5440 **NGR:** SN616934
SITE NAME: YNYS-LAS HARBOUR

SITE TYPE: Harbour
SITE STATUS:
FORM: Other structure
CONDITION: Unknown
SUMMARY:

PRN: 5441 **NGR:** SN66059222
SITE NAME: TRE'R DDOL MILL SITE
SITE TYPE: Mill
SITE STATUS:
FORM: Building
CONDITION: Destroyed
SUMMARY:
Site of former water-powered corn mill, believed to have been working until at least 1905. The mill is shown on Ordnance Survey mapping of 1905. Some machinery was removed to Mason's Yard in Llanbadarn but their present whereabouts are unknown (PP - taken from RCAHMW Coflein (H. A. Malaws) 31/03/09).

PRN: 5446 **NGR:** SN65159015
SITE NAME: TANYRALLT MINE;ALLTYCRIB NORTH;TANY-RALLT;TA
SITE TYPE: Lead mine
SITE STATUS: CTL
FORM: Earthwork
CONDITION: Unknown
SUMMARY:
Lead ore output-1200

PRN: 6094 **NGR:** SN6090
SITE NAME: GORS FOCHNO
SITE TYPE: Findspot
SITE STATUS:
FORM: Finds
CONDITION:
SUMMARY:

PRN: 6095 **NGR:** SN64499048
SITE NAME: YNYSCAPEL
SITE TYPE: Chapel
SITE STATUS:
FORM: Place-name
CONDITION:
SUMMARY:

PRN: 6096 **NGR:** SN63059274
SITE NAME: TY MAWR MOCHINO
SITE TYPE: Coin hoard
SITE STATUS:
FORM: Finds
CONDITION:
SUMMARY:

PRN: 6097 **NGR:** SN62039194
SITE NAME: GORS FOCHNO
SITE TYPE: Unknown
SITE STATUS:
FORM: Cropmark
CONDITION:
SUMMARY:
Cropmark of unknown significance. RPS September 2001

PRN: 6098 **NGR:** SN62159173
SITE NAME: GORS FOCHNO
SITE TYPE: Unknown
SITE STATUS:
FORM: Cropmark
CONDITION:
SUMMARY:
Cropmark of unknown significance. RPS September 2001

PRN: 6179 **NGR:** SN61958878
SITE NAME: BRYN LLYS
SITE TYPE: Llys
SITE STATUS:
FORM: Place-name
CONDITION:
SUMMARY:

PRN: 6200 **NGR:** SN659920
SITE NAME: CLETWR HALL
SITE TYPE: Findspot
SITE STATUS:
FORM: Finds
CONDITION:
SUMMARY:
A hammer stone made from an elongated pebble, which was battered at both ends. The stone was recovered from a 'heap of stones thrown out of the Llain-Hir (Dolcletwr) Copper Mine (Grimes 1951, 165). NAP 2004.

PRN: 6202 **NGR:** SN65789282
SITE NAME: CRAIG Y PENRHYN
SITE TYPE: Unknown
SITE STATUS:
FORM: Cropmark
CONDITION:
SUMMARY:
Cropmark of unknown significance. RPS September 2001

PRN: 6203 **NGR:** SN65259035
SITE NAME: ERGLODD
SITE TYPE: Fortlet
SITE STATUS:
FORM: Cropmark;Buried Feat
CONDITION:
SUMMARY:
A small 45m square cropmark with rounded corners, with a 20m square inside identified from aerial photographs. On a southwest to northeast alignment. Located on the end of a short spur near the edge of the flood plain, overlooking the estuary and to the east of a suggested route of RR69c. Excavation revealed a 2m wide ditch and a 3m wide rampart and ceramics of late 1st to early 2nd century date.DS.27.10.2004

PRN: 7105 **NGR:** SN66359360

SITE NAME: PARK LODGE
SITE TYPE: Dwelling
SITE STATUS: Listed building
FORM: Building
CONDITION: Intact
SUMMARY:
A country house with probable 17th century origins but altered in the 19th century.
Lodge Park is a deer park of uncertain date, but probably late 16th/early 17th century when it was owned by the Pryses of Gogerddan. The house may have originated as a hunting lodge. The house was occupied in the 1620s by Sir Hugh Myddleton who came to the county to investigate the mineral resources. The lodge may have been rebuilt in c.1670 by Thomas Pryse. The shell of the current house is probably late 17th century consisting of main rooms raised above a basement kitchen and services, essentially a scaled-down country house of the type of Gogerddan. Substantial repairs and alterations are recorded in the late 18th century (PP 1/4/09 - from Cadw Listed Buildings Database).

PRN: 7375 **NGR:** SN609895
SITE NAME: BORTH
SITE TYPE: Findspot
SITE STATUS:
FORM: Finds
CONDITION:
SUMMARY:

PRN: 7380 **NGR:** SN6207589310
SITE NAME: BRYN LLYS
SITE TYPE: Platform
SITE STATUS:
FORM: Earthwork
CONDITION: Damaged
SUMMARY:
Described by HJ Thomas in 1970 thus; "At Llandre... on a hill-slope overlooking Borth Bog, west of the farm at Pantydwr, a platform with an earth mound upon it was found - probably representing the site of a clay-walled cottage. A small stream immediately adjacent to the site produced numerous potsherds of black-glazed earthenware (pans and dishes) and North Devon gravel-tempered ware." RPS September 2001; An 11m long and 5m wide rectangular platform with earth bank (continuation of boundary) on SW side circa 0.4m high. At the SE end there is some stone rubble and a bank which may represent part of a former building. There is a track leading up from the NW end of this platform. NGR amended from SN39484684. RR February 2003

PRN: 8332 **NGR:** SN6895
SITE NAME: FURNACE SMELTERY
SITE TYPE: Smelting works
SITE STATUS:
FORM: Documents
CONDITION:
SUMMARY:

PRN: 8476 **NGR:** SN6564192370
SITE NAME: DOL CLETWR
SITE TYPE: Dwelling
SITE STATUS: Listed building
FORM: Building
CONDITION: Unknown
SUMMARY:
A minor gentry house of the mid to late 16th century but much altered, particularly after a fire in 1996. Recorded as part of the Brysgaga estate of the Lloyds through the 17th century. The house is a 16th century substantial stone-walled house with Victorian additions and alterations. Built as a storeyed rather than open-hall house with massive timbers surviving in the ground floor room with massive chimney and adjoining winding stone stair. The diamond-mullion pre-glazing window was one of only two noted in the county and two upper cruck trusses also remain (PP 01/04/09 - taken from Cadw's Listed Buildings Database).

PRN: 8480 **NGR:** SN677963
SITE NAME: YNYS EDWYN

SITE TYPE: Dwelling
SITE STATUS:
FORM: Building
CONDITION: Intact
SUMMARY:
19th century house, with possible earlier kitchen, visited by RCAHM in 1976, when undergoing renovation. RPS September 2001

PRN: 8742 **NGR:** SN6590
SITE NAME: LLETY NGHARAD BACH
SITE TYPE: Standing stone pair
SITE STATUS:
FORM: Documents
CONDITION:
SUMMARY:

PRN: 8916 **NGR:** SN6590
SITE NAME: TRE'R DDOL
SITE TYPE: Building
SITE STATUS:
FORM: Building
CONDITION: Damaged
SUMMARY:
Described by RCAHM in 1977 as an "enigmatic structure." Includes a vaulted chamber with a low opening, postulated to be a possible pig-sty, but this is attached to a single roomed building which has an inserted fireplace. Ruined when recorded. RPS September 2001

PRN: 9147 **NGR:** SN657904
SITE NAME: PENPONTBREN;PENYPONTBREN;PENPOMBREN
SITE TYPE: Zinc mine;Lead mine
SITE STATUS:
FORM: Other structure
CONDITION: Substantially intact
SUMMARY:
Lead ore output-500 tons;Zinc ore output-80 tons

PRN: 9274 **NGR:** SN66839483
SITE NAME: YNYS-FECHAN
SITE TYPE: Cottage
SITE STATUS:
FORM: Building
CONDITION: Damaged
SUMMARY:
Ruined drystone cottage recorded in 1979. Shown on the Ordnance Survey original surveyors drawings of 1833-4 and the tithe map of 1847-8. Shown as abandoned on 1964 1:10560 OS map. (PP 01/04/09)

PRN: 9676 **NGR:** SN6090
SITE NAME: BORTH BOG;CORS FOCHNO
SITE TYPE: Peat bog
SITE STATUS: NNR
FORM: Landform
CONDITION:
SUMMARY:

PRN: 9801 **NGR:** SN64439185
SITE NAME: GWYNFRYN HALL
SITE TYPE: Mansion

SITE STATUS:
FORM: Building
CONDITION: Restored
SUMMARY:
A two-storey country house shown on an early 19th century map. Possibly also shown on a map of 1790, named 'Goetre'. (PP 01/04/09)

PRN: 10066 **NGR:** SN68509514
SITE NAME: FURNACE MILL
SITE TYPE: Mill
SITE STATUS: Listed building
FORM: Building
CONDITION: Unknown
SUMMARY:
Blast-furnace built c. 1755 to smelt iron-ore brought from Cumbria using charcoal from local forests and water-power. Established by the West Midlands firm of Vernon, Kendall & Co. and wholly owned by the Kendalls from 1774, in use until c. 1810. Later converted to a sawmill, for which the large water-wheel was inserted. Apparently illustrated in 1804 sketch by P.J. de Loutherbourg with wheel concealed in lean-to. Restored in 1986 for Cadw. (PP 01/04/09 - taken from Cadw's Listed Buidings Database)

PRN: 10901 **NGR:** SN687956
SITE NAME: LLANEGLWYS;EGLWYSFACH
SITE TYPE: Settlement
SITE STATUS:
FORM: Documents
CONDITION:
SUMMARY:

PRN: 10902 **NGR:** SN6491
SITE NAME: GOYTHENES
SITE TYPE: Settlement
SITE STATUS:
FORM: Documents
CONDITION:
SUMMARY:

PRN: 10903 **NGR:** SN65329045
SITE NAME: ERGLAUT;ERGLODD
SITE TYPE: Settlement
SITE STATUS:
FORM: Documents
CONDITION:
SUMMARY:

PRN: 10904 **NGR:** SN654891
SITE NAME: TALPONT;TALYBONT
SITE TYPE: Settlement
SITE STATUS:
FORM: Documents
CONDITION:
SUMMARY:

PRN: 10961 **NGR:** SN60858950
SITE NAME: PORTUHERAD;BORTH
SITE TYPE: Settlement
SITE STATUS:
FORM: Documents
CONDITION:
SUMMARY:

PRN: 11346 **NGR:** SN684958
SITE NAME: FURNACE
SITE TYPE: Findspot
SITE STATUS:
FORM: Finds
CONDITION:
SUMMARY:
A percussion pebble stone with hollows pecked on either face (Briggs 1984, 26 No.7). The stone is assumed to be prehistoric. NAP 2004.

PRN: 11350 **NGR:** SN608902
SITE NAME: YNYSLAS
SITE TYPE: Findspot
SITE STATUS:
FORM: Finds
CONDITION:
SUMMARY:
Not necessarily man-made object?. Found in the submerged forest. GW. 1995.

PRN: 11355 **NGR:** SN6092
SITE NAME: GORED WYDDNO
SITE TYPE: Fish trap
SITE STATUS:
FORM: Documents
CONDITION:
SUMMARY:
The fish trap is mentioned in 'Hanes Taliesin' which suggests the early mediaeval use of fish traps, although the particular fish trap in question is mythical. GW. 1995.

PRN: 11654 **NGR:** SN642901
SITE NAME: LLWYN GLAS
SITE TYPE: Findspot
SITE STATUS:
FORM: Documents
CONDITION:
SUMMARY:

PRN: 12444 **NGR:** SN6288
SITE NAME: LLYSGOED
SITE TYPE: Llys
SITE STATUS:
FORM: Documents
CONDITION:
SUMMARY:

PRN: 12446 **NGR:** SN6195
SITE NAME: DOVEY ESTUARY
SITE TYPE: Ferry crossing
SITE STATUS:
FORM: Documents
CONDITION:
SUMMARY:
PRN: 12447 **NGR:** SN6996

SITE NAME: GLAN DYFI
SITE TYPE: Ford
SITE STATUS:
FORM: Documents
CONDITION:
SUMMARY:

PRN: 13627 **NGR:** SN674953
SITE NAME: YNYSEIDOL BOG
SITE TYPE: Common land
SITE STATUS: CL
FORM: Topography
CONDITION:
SUMMARY:
An area of overgrown, wet marsh land which has formed part of the region's common land since the medieval period. Throughout the 19th century much of this area is used for peat-cutting. (PP 01/04/09)

PRN: 13640 **NGR:** SN655939
SITE NAME: CRAIG Y PENRHYN
SITE TYPE: Common land
SITE STATUS:
FORM: Topography
CONDITION:
SUMMARY:

PRN: 13645 **NGR:** SN612892
SITE NAME: WERNLERI
SITE TYPE: Common land
SITE STATUS:
FORM: Topography
CONDITION:
SUMMARY:

PRN: 13656 **NGR:** SN638922
SITE NAME: CORS FOCHNO
SITE TYPE: Common land
SITE STATUS: CL
FORM: Topography
CONDITION:
SUMMARY:

PRN: 13657 **NGR:** SN652913
SITE NAME: CORS FOCHNO
SITE TYPE: Common land
SITE STATUS: CL
FORM: Topography
CONDITION:
SUMMARY:

PRN: 13658 **NGR:** SN646913
SITE NAME: CORS FOCHNO
SITE TYPE: Common land
SITE STATUS: CL
FORM: Topography
CONDITION:
SUMMARY:

PRN: 13659 **NGR:** SN622908
SITE NAME: CORS FOCHNO

SITE TYPE: Common land
SITE STATUS: CL
FORM: Topography
CONDITION:
SUMMARY:

PRN: 13670 **NGR:** SN609890
SITE NAME: WERN LERI
SITE TYPE: Common land
SITE STATUS:
FORM: Topography
CONDITION:
SUMMARY:

PRN: 13678 **NGR:** SN637924
SITE NAME: CORS FOCHNO
SITE TYPE: Common land
SITE STATUS:
FORM: Topography
CONDITION:
SUMMARY:

PRN: 13680 **NGR:** SN656935
SITE NAME: MORFA CYD
SITE TYPE: Common land
SITE STATUS:
FORM: Topography
CONDITION:
SUMMARY:

PRN: 14126 **NGR:** SN655914
SITE NAME: TAN YR ALLT
SITE TYPE: Common land
SITE STATUS:
FORM: Topography
CONDITION:
SUMMARY:

PRN: 14390 **NGR:** SN68049506
SITE NAME: COED YSGUBOR-Y-COED
SITE TYPE: Burnt mound
SITE STATUS:
FORM: Earthwork
CONDITION: Intact
SUMMARY:

PRN: 14391 **NGR:** SN68069507
SITE NAME: COED YSGUBOR-Y-COED
SITE TYPE: Burnt mound
SITE STATUS:
FORM: Buried Feature?
CONDITION:
SUMMARY:

PRN: 14392 **NGR:** SN68079509
SITE NAME: COED YSGUBOR-Y-COED
SITE TYPE: Burnt mound

SITE STATUS:
FORM: Buried Feature?
CONDITION:
SUMMARY:

PRN: 17366 **NGR:** SN6457892188
SITE NAME: ST CYNFELYN'S
SITE TYPE: Church
SITE STATUS: Listed building
FORM: Building
CONDITION: Unknown
SUMMARY:

PRN: 17929 **NGR:** SN691967
SITE NAME:
SITE TYPE: Quay
SITE STATUS:
FORM: Documents
CONDITION: Unknown
SUMMARY:

PRN: 18060 **NGR:** SN687963
SITE NAME: AFON EINION
SITE TYPE: Flood defence
SITE STATUS:
FORM: Documents
CONDITION: Unknown
SUMMARY:
Earthwork embankments-flood water defences adjacent to Afon Melindwr and Afon Einion (part of) of unknown construction date. EM Jan-94.

PRN: 18264 **NGR:** SN687959
SITE NAME: DOLEN-EGLWYS FARM
SITE TYPE: Farmstead
SITE STATUS:
FORM: Documents
CONDITION: Unknown
SUMMARY:
Extant by 1788 at least. EM Jan-94.

PRN: 19226 **NGR:** SN67719439
SITE NAME: TAI-Y-FFORDD-FAWR
SITE TYPE: Farmstead
SITE STATUS:
FORM: Complex
CONDITION: Unknown
SUMMARY:
Extant by 1788 at least. EM Jcn-94. Farmstead complex shown on 1964 6" OS map. RPS October 2001

PRN: 19464 **NGR:** SN61638867
SITE NAME: MELIN Y WERN
SITE TYPE: Mill
SITE STATUS:
FORM: Place-name
CONDITION:
SUMMARY:

PRN: 19492 **NGR:** SN65529310
SITE NAME: LODGE FARM
SITE TYPE: Lodge
SITE STATUS:

FORM: Building
CONDITION: Unknown
SUMMARY:

PRN: 19494 **NGR:** SN65639254
SITE NAME: PONT LLANERCH
SITE TYPE: Bridge
SITE STATUS:
FORM: Other structure
CONDITION: Unknown
SUMMARY:

PRN: 19496 **NGR:** SN65229235
SITE NAME:
SITE TYPE: Quarry
SITE STATUS:
FORM: Earthwork
CONDITION: Unknown
SUMMARY:

PRN: 19497 **NGR:** SN65909222
SITE NAME: PONT TRERDDOL
SITE TYPE: Bridge
SITE STATUS:
FORM: Other structure
CONDITION: Unknown
SUMMARY:
A concrete road bridge, dated 1936, built by Cardiganshire County Council as part of the Tre'r-ddol by-pass road. (PP 01/04/09 - taken from RCAHMW Coflein description)

PRN: 19498 **NGR:** SN65119208
SITE NAME:
SITE TYPE: Quarry
SITE STATUS:
FORM: Earthwork
CONDITION: Unknown
SUMMARY:

PRN: 19500 **NGR:** SN65129200
SITE NAME: LLANGYNFELYN;LLANCYNFELYN;TALIESIN;LLAN CWM
SITE TYPE: Lead mine;Copper mine
SITE STATUS: CTL
FORM: Earthwork
CONDITION: Unknown
SUMMARY:
A large complex of mine shafts and worked lodes. Visible above ground is a fine example of a Cornish stack.

PRN: 19501 **NGR:** SN65969191
SITE NAME: DOLCLETTWR;TREDDOL;LLAINHIR;DOL-CLETWR;DO
SITE TYPE: Zinc mine;Lead mine;Copper mine
SITE STATUS: CTL
FORM: Building
CONDITION: Unknown
SUMMARY:
Copper ore output-100 tons;Lead ore output-20 tons;Zinc ore output-150 tons
PRN: 19504 **NGR:** SN65659164
SITE NAME: PWLL ROMAN;DOLCLETTWR
SITE TYPE: Lead mine;Copper mine
SITE STATUS:
FORM: Earthwork

CONDITION: Unknown
SUMMARY:
In operation at the time of the 1888 Ordnance Survey map. (PP 01/04/09)

PRN: 19506 **NGR:** SN65629109
SITE NAME:
SITE TYPE: Quarry
SITE STATUS:
FORM: Earthwork
CONDITION: Unknown
SUMMARY:

PRN: 19507 **NGR:** SN65599040
SITE NAME: ERGLODD;EURGLAWDD;ERGLWYDD;ERGLODD UNIT
SITE TYPE: Zinc mine;Lead mine
SITE STATUS:
FORM: Earthwork
CONDITION: Unknown
SUMMARY:
Lead ore output-150 tons; zinc ore output-15 tons. Spoil heaps mine buildings?. Early mining site?

PRN: 19509 **NGR:** SN66259420
SITE NAME: HENHAFOD
SITE TYPE: Hafod
SITE STATUS:
FORM: Place-name
CONDITION:
SUMMARY:
"Hafod" place-name of unknown significance. RPS October 2001

PRN: 19511 **NGR:** SN66809395
SITE NAME: FELIN LODGE
SITE TYPE: Lodge
SITE STATUS:
FORM: Building
CONDITION: Unknown
SUMMARY:
A lodge shown on the Lewis map of 1790. (PP 01/04/09)

PRN: 19512 **NGR:** SN66829390
SITE NAME: Felin Lodge Bridge
SITE TYPE: Bridge
SITE STATUS:
FORM: Other structure
CONDITION: Unknown
SUMMARY:
A single arch road bridge, 6ft6in in span. Mentioned in a report of Cardigan Surveyor James W. Szlumper in 1878. (PP 01/04/09 - taken from Coflein)

PRN: 19513 **NGR:** SN66699388
SITE NAME: GWAR-Y-FELIN
SITE TYPE: Mill
SITE STATUS:
FORM: Place-name
CONDITION:
SUMMARY:
Place name recorded as 'Gwar-y-felin' on the 1964 Ordnance Survey map but a building called 'Lodge Mill' is shown on the tithe map of 1844. Presumably a mill associated with the Park Lodge estate. (PP 01/04/09)

PRN: 19630 **NGR:** SN68929624
SITE NAME: PONT MELIN-Y-GAREG
SITE TYPE: Bridge
SITE STATUS:
FORM: Other structure
CONDITION: Unknown
SUMMARY:

PRN: 19631 **NGR:** SN68909622
SITE NAME: MELIN-Y-GAREG
SITE TYPE: Corn mill
SITE STATUS:
FORM: Building
CONDITION: Unknown
SUMMARY:

PRN: 19632 **NGR:** SN68409580
SITE NAME:
SITE TYPE: Lodge
SITE STATUS:
FORM: Building
CONDITION: Unknown
SUMMARY:

PRN: 19633 **NGR:** SN68729573
SITE NAME: EGLWYSFACH
SITE TYPE: School
SITE STATUS:
FORM: Building
CONDITION: Unknown
SUMMARY:

PRN: 19635 **NGR:** SN68509520
SITE NAME:
SITE TYPE: Lodge
SITE STATUS:
FORM: Building
CONDITION: Unknown
SUMMARY:

PRN: 19851 **NGR:** SN61569313
SITE NAME: PONT ABERLER
SITE TYPE: Bridge
SITE STATUS:
FORM: Other structure
CONDITION: Intact
SUMMARY:
Modern concrete and steel bridge. N.Page 1997

PRN: 19852 **NGR:** SN61549310
SITE NAME:
SITE TYPE: Quarry
SITE STATUS:
FORM: Earthwork
CONDITION: Unknown
SUMMARY:
Named as "quarry" on the 1st edition but called "Old quarry" by the time of the 2nd Ed. JH May 1998

PRN: 19,53 **NGR:** SN61859313
SITE NAME: YNYS-LAS
SITE TYPE: Railway station
SITE STATUS:
FORM: Building
CONDITION: Unknown
SUMMARY:

PRN: 19854 **NGR:** SN61259287
SITE NAME:
SITE TYPE: Quarry
SITE STATUS:
FORM: Earthwork
CONDITION: Unknown
SUMMARY:

PRN: 19855 **NGR:** SN63509285
SITE NAME: PENPONTBREN-MOCHNO
SITE TYPE: Bridge
SITE STATUS:
FORM: Place-name
CONDITION:
SUMMARY:
The name of the nearby dwellings suggests a bridge crossing. 'Penpontbren' is not recorded on Lewis's map of 1790, but is shown on the enclosure maps of c1824. (PP 01/04/09)

PRN: 19857 **NGR:** SN64359220
SITE NAME:
SITE TYPE: Quarry
SITE STATUS:
FORM: Earthwork
CONDITION: Unknown
SUMMARY:

PRN: 19858 **NGR:** SN64599195
SITE NAME:
SITE TYPE: Lodge
SITE STATUS:
FORM: Building
CONDITION: Unknown
SUMMARY:

PRN: 21398 **NGR:** SN68169584
SITE NAME: YNYS-HIR;PLAS YNYS HIR
SITE TYPE: Mansion
SITE STATUS:
FORM: Building
CONDITION: Unknown
SUMMARY:
Ynyshir Hall is a 2-storey Georgian manor house with a prominent 2-storey porch. Mansion mentioned by SR Meyrick in his 1810 volume "History of Cardiganshire". The building was once owned by Queen Victoria and used as a shooting lodge. In 1966, 1,000 acres of the estate were sold to the RSPB, to establish a bird reserve. The hall is now a hotel. (PP 01/04/09 - taken from RCAHMW Coflein)

PRN: 21494 **NGR:** SN64309020
SITE NAME: LLWYN GLAS
SITE TYPE: Farmhouse
SITE STATUS:
FORM: Documents
CONDITION:
SUMMARY:
A farmstead marked on the Ordnance Survey original surveyors drawings of 1833-4. The farmhouse is also mentioned in the 1919 edition of Archaeologia Cambrensis. (PP 01/04/09)

PRN: 21495 **NGR:** SN6462489852
SITE NAME: LLWYN GLAS BACH
SITE TYPE: Dwelling
SITE STATUS:
FORM: Documents
CONDITION:
SUMMARY:
Dwelling mentioned in 1919 edition of Archaeologia Cambrensis. RPS October 2001, shown of tithe RJ 2002

PRN: 21496 **NGR:** SN67019428
SITE NAME: PENRHINGERWIN
SITE TYPE: Farmhouse
SITE STATUS:
FORM: Documents
CONDITION:
SUMMARY:
A farmstead shown on the Lewis map of 1790. The farmhouse was originally a hearth-passage house, rebuilt in c.1880. The farmstead is mentioned in the 1919 edition of Archaeologia Cambrensis. (PP 01/04/09)

PRN: 21497 **NGR:** SN6734394809
SITE NAME: YNYSGREIGOG
SITE TYPE: Dwelling
SITE STATUS: Listed building
FORM: Building
CONDITION: Intact
SUMMARY:
A late medieval lateral chimney house of a type rare in Ceredigion (Smith 1998 fig 63). The house sits on a rocky outcrop overlooking the reclaimed marshland of the Dyfi Estuary. It is a stone-built, three storey house with a slate gable roof. The NW gable has an end stack and both gables extend slightly above the roof line. The house is of a type that was most common in the period between the late-16th century and the early-18th century.

PRN: 23190 **NGR:** SN67849489
SITE NAME: YNYS EIDIOL
SITE TYPE: Farmstead
SITE STATUS: Listed building
FORM: Complex
CONDITION: Intact
SUMMARY:
The house probably originated in the 17th century as a stone-built long-house with an unusual layout, in which a lobby entry against the main chimney gave access to the house in one direction, and a cow-house in the other. Although the house was partially remodelled in the 19th century with the creation of a new entrance hall and staircase between hall and parlour, the original layout can still be identified, and the blocked doorway into the lobby still discerned. Other C19 modifications include the addition of kitchen and scullery in a continuous outshut at the rear. (PP 01/04/09 - taken from Cadw Listed Buildings Database)

PRN: 24048 **NGR:** SN61708859
SITE NAME: GLAN-LERI;GLAN LERRY
SITE TYPE: Farmstead
SITE STATUS:
FORM: Complex
CONDITION: Intact
SUMMARY:
Historic settlement. A farmstead complex is shown here on the 1965 6" OS map. RPS October 2001.

PRN: 25522 **NGR:** SN6089
SITE NAME: BORTH
SITE TYPE: Lime kiln
SITE STATUS:
FORM: Documents
CONDITION:
SUMMARY:
The only source is "Ceredigion's Coastal Heritage" where lime kilns are mentioned. The area seems to have been excluded from Moore-Colyer's survey. Nothing seen on the ground. GW 1995 NGR indicative exact location unknown RJ 2002

PRN: 25800 **NGR:** SN679956
SITE NAME: YNYS-HIR
SITE TYPE: Copper mine
SITE STATUS: SSSI
FORM: Earthwork
CONDITION: Unknown
SUMMARY:
NGR given by Protheroe-Jones coincident with Plas Ynys Hir. Mining activity seems to be 200m to SE where Old Shafts (Copper) are indicated on 1st edition 6" map.

PRN: 25801 **NGR:** SN690957
SITE NAME: EGLWYS-FACH MINE
SITE TYPE: Lead mine
SITE STATUS: ESA
FORM: Earthwork
CONDITION: Unknown
SUMMARY:

PRN: 25815 **NGR:** SN668941
SITE NAME: LOVEDEN;LOVEDEN UNITED;PENRHYNGERWIN;LOV
SITE TYPE: Lead mine;Copper mine
SITE STATUS: CTL
FORM: Earthwork
CONDITION: Unknown
SUMMARY:
Copper output-100tons;Lead output-1000tons
PRN: 25819 **NGR:** SN628929

SITE NAME: LLWYNWALLTER;LLWYN-WALTER
SITE TYPE: Metal mine
SITE STATUS: ESA
FORM: Earthwork
CONDITION: Unknown
SUMMARY:

PRN: 25820 **NGR:** SN651924
SITE NAME: TY'N-Y-LLWYN
SITE TYPE: Metal mine
SITE STATUS:
FORM: Earthwork
CONDITION: Unknown
SUMMARY:
6" map indicates a more extensive site called Neuadd yr Ynys Mine which includes Ty'n-y-llwyn and Llangynfelin workings (see PRN 19500).

PRN: 25821 **NGR:** SN662924
SITE NAME: TY'N-Y-WERN MINE
SITE TYPE: Lead mine
SITE STATUS:
FORM: Earthwork
CONDITION: Unknown
SUMMARY:

PRN: 25825 **NGR:** SN667929
SITE NAME: TRE'R DDOL MINE;Y FOEL;TRERDDOL;TRENDOL;TR
SITE TYPE: Lead mine
SITE STATUS:
FORM: Earthwork
CONDITION: Unknown
SUMMARY:

PRN: 25826 **NGR:** SN665926
SITE NAME: LODGE PARK
SITE TYPE: Metal mine
SITE STATUS:
FORM: Earthwork
CONDITION: Unknown
SUMMARY:
No map evidence of site at NGR supplied by Protheroe-Jones.Clouston notes site 350m to NNW of this at SN662925.

PRN: 25827 **NGR:** SN650917
SITE NAME: NEW BOG
SITE TYPE: Zinc mine;Lead mine
SITE STATUS:
FORM: Earthwork
CONDITION: Unknown
SUMMARY:

PRN: 25828 **NGR:** SN657905
SITE NAME: PENYBANC MINE;PENYBANK;PENNY BANK
SITE TYPE: Lead mine
SITE STATUS:
FORM: Earthwork
CONDITION: Unknown
SUMMARY:
Map observation is insufficient to distinguish between Penybanc Erglodd and Penpontbren Mines.
PRN: 25836 **NGR:** SN621878
SITE NAME: CIL-OLWG MINE

SITE TYPE: Lead mine
SITE STATUS:
FORM: Earthwork
CONDITION: Unknown
SUMMARY:

PRN: 25964 **NGR:** SN659911
SITE NAME: CEFN ERGLODD
SITE TYPE: Lead mine
SITE STATUS:
FORM: Earthwork
CONDITION: Unknown
SUMMARY:

PRN: 25965 **NGR:** SN654907
SITE NAME: COED ERGLODD
SITE TYPE: Lead mine
SITE STATUS:
FORM: Earthwork
CONDITION: Unknown
SUMMARY:

PRN: 25972 **NGR:** SN657908
SITE NAME: TROED-RHIW-FEDWEN
SITE TYPE: Lead mine
SITE STATUS:
FORM: Earthwork
CONDITION: Unknown
SUMMARY:

PRN: 28211 **NGR:** SN663935
SITE NAME: THE PARK
SITE TYPE: Park
SITE STATUS: PGW
FORM: Topography
CONDITION:
SUMMARY:
The Park, or Lodge Park, was formerly a deer park of uncertain date probably established by Sir John Pryse (died 1584) or his son Sir Richard (died 1623). It was first mapped in 1779 when it measured some 150 acres. (PP 01/04/09)

PRN: 30762 **NGR:** SN62019361
SITE NAME:
SITE TYPE: Breakwater
SITE STATUS:
FORM: Other structure
CONDITION: Various
SUMMARY:
Breakwaters present on the 1901 map are more extensive than on the 1964 edition, 42 are shown in 1901 as compared with only 6 in 1964. G.Williams 1995

PRN: 30763 **NGR:** SN64609440
SITE NAME:
SITE TYPE: Salt works
SITE STATUS:
FORM: Topography
CONDITION:
SUMMARY:
Saltings marked on the 1901 map are still present on the 1964 edition. It extends out 100yds on the mudflats between LW & HW mark.

PRN: 30764 **NGR:** SN65079461
SITE NAME:
SITE TYPE: Breakwater
SITE STATUS:
FORM: Other structure
CONDITION: Damaged
SUMMARY:
Breakwaters present on 1891 & 1901 OS maps and also 1964, though fewer in number in late 19th century. GW 1995 A series of wooden breakwaters, now firmly landlocked in the saltmarsh. N Page 1998

PRN: 30787 **NGR:** SN61638974
SITE NAME:
SITE TYPE: Quarry
SITE STATUS:
FORM: Earthwork
CONDITION: Unknown
SUMMARY:
Marked as quarries in 1888, but not on later maps.

PRN: 30791 **NGR:** SN610940
SITE NAME: TWYNI MAWR
SITE TYPE: Sea defences
SITE STATUS:
FORM: Earthwork
CONDITION: Unknown
SUMMARY:
Undated sea defences which cary a road and track along the landward side of Twyni Mawr and continues northwards towards Twyni Bach and beyond the HWM onto the Dyfi Estuary as a footpath. Possibly associated with another sea defence PRN 30799. RPS,1996.

PRN: 30798 **NGR:** SN60609300
SITE NAME: FOEL YNYS
SITE TYPE: Hut
SITE STATUS:
FORM: Building
CONDITION: Intact
SUMMARY:
A prefabricated concrete hut, 5 x 8m probably of WW2 date. In dunes, some 15m landward of Observation Post PRN 31448. GW 1995

PRN: 30799 **NGR:** SN66499438
SITE NAME: AFON DDU SEA DEFENCES
SITE TYPE: Sea defences
SITE STATUS:
FORM: Earthwork
CONDITION: Substantially intact
SUMMARY:
An earth bank constructed along the west bank of the Afon Ddu sometime during the early 20 th century. N Page 1998 Forms part of the sea defences which extend northwards from Borth, along the course of the Afon Leri to its mouth on the Dyfi estuary. The defences then turn eastwards and follow the southern side of the estuary inland a far as the Ynys Hir Nature Reserve. Spurs of the sea defences turn inland along the line of streams and rivers flowing towards the estuary, in all over 16 square kilometres of low lying farmland are located on the landward side of the sea defences, and the area is crossed by numerous drainage channels, which often define many of the fields. G Williams, 1995 The chronology of the sea defences is unresolved. JH May 1998

PRN: 30800 **NGR:** SN66799628
SITE NAME: DYFI BREAKWATERS
SITE TYPE: Sea defences
SITE STATUS:
FORM: Other structure
CONDITION: Damaged
SUMMARY:
Five breakwaters shown on the 1887, 1901 & 1964 OS maps, measuring in length;1)286m 2)586m 3)660m 4)270m 5)250m. GW 1995 Pitched stone construation. N Page 1998

PRN: 30801 **NGR:** SN68579722
SITE NAME: DOMEN LAS BREAKWATERS
SITE TYPE: Sea defences
SITE STATUS:
FORM: Other structure
CONDITION: Substantially intact
SUMMARY:
7 breakwaters shown on the 1887,1901 and 1964 OS maps. All are 20m in length, the southernmost apparently being of heaviest construction. GW 1995 A series of breakwaters along the south bank of the Dyfi, just north of Domen Las. N.Page 1998

PRN: 30894 **NGR:** SN6092
SITE NAME: YNYS-LAS
SITE TYPE: Findspot
SITE STATUS:
FORM: Finds
CONDITION:
SUMMARY:
Findspot for a composite tool of antler, an axe or edge blade or sleeve for a flint blade or pick. Found on beach between Borth and Ynys-las. GW. 1995.

PRN: 30898 **NGR:** SN60429255
SITE NAME: BORTH;YNYS LAS
SITE TYPE: Submerged forest
SITE STATUS:
FORM: Landform
CONDITION:
SUMMARY:
The submerged forest extends along the beach for some 4.1 km at Borth and Ynyslas. Only small sections are exposed at any one time. A thorough survey has been carried out by A.Hayworth (Hayworth 1985) over a period of time and a study made by him of palaeobotanical aspects of the area. The forest florished between 5,000 and 4,500 BP. From 4,800 - 4,000 the area became waterlogged with peat growth, although oaks were growing until 3100 BP at the southern end. Dr. Hayworth also published a hearth from the site. Mesolithic contexts of Submerged Forest have also been the subject of a thesis by Martin Lewis (SDUC Lampeter: not yet consulted). A hearth (PRN 30903) was published by Dr.Hayworth, dated by association with the peat to C 4,000 BP. A number of finds, datable examples of which are of Mesolithic date,

have come from the submerged forest. The exposures consist of peat and the stumps and branches of trees. Only a small area exposed at any one time. These are vulnerable to erosion and machining to keep the beach clear. The peat is also machined away with the stones (Driver 1995). A plan of the forest in 1995 was supplied by T.Driver. He marked northern areas of peat and southern areas of peat and trees stumps plus an old water channel? When visited the area of trees extended further south and there was very little peat present. In the northern areas were a few patches of peat only - some actively eroding. The finds consist of a mesolithic composite tool of antler (PRN 30894), two flints (30907), the skeleton of an aurochs (30904) and a piece of antler (11355). GW. 1995.

PRN: 30899 **NGR:** SN6092
SITE NAME: BORTH BEACH
SITE TYPE: Findspot
SITE STATUS:
FORM: Finds
CONDITION:
SUMMARY:
A flint pick from an unspecified location in Borth Bog. NAP 2004.

PRN: 30901 **NGR:** SN60549243
SITE NAME: BORTH SANDS
SITE TYPE: Findspot
SITE STATUS:
FORM: Finds
CONDITION:
SUMMARY:
Findspot for a hob nailed leather shoe, C19?, found in the submerged forest. GW. 1995.

PRN: 30903 **NGR:** SN60459285
SITE NAME: YNYS-LAS
SITE TYPE: Burnt mound
SITE STATUS:
FORM: Buried Feature
CONDITION: Destroyed
SUMMARY:
Discovered on the peat on Borth beach. Sieved for food debris which was not discovered but may have been washed clean by the sea. See PRN 30989. Fire-cracked stones and charcoal, the latter in peat apparently derived from small branches laid on the stones. The peat is dated to C 4,000 BP. GW. 1995.

PRN: 30904 **NGR:** SN6092
SITE NAME: BORTH SANDS
SITE TYPE: Findspot
SITE STATUS:
FORM: Finds
CONDITION:
SUMMARY:
Discovered on Borth beach. The post - cranial skeleton of an aurochs. GW. 1995.

PRN: 30905 **NGR:** SN626882
SITE NAME: DOLYBONT
SITE TYPE: Findspot
SITE STATUS:
FORM: Finds
CONDITION:
SUMMARY:

PRN: 30907 **NGR:** SN6092
SITE NAME: BORTH BEACH
SITE TYPE: Findspot
SITE STATUS:
FORM: Finds
CONDITION:
SUMMARY:
Many flints retrieved by a local fieldworker (R Evans) and reported to staff at the RCAHMW. There are no details of the circumstances of recovery, nor any accurate location details of the findspot(s). NAP 2004.

PRN: 31449 **NGR:** SN606930
SITE NAME: FOEL-YNYS
SITE TYPE: Military structure
SITE STATUS:
FORM: Other structure
CONDITION:
SUMMARY:
Fragments of brick and concrete are scattered on a storm beach in the area. There may derive from recorded World War Two structures of which there are a number in the area (30798, 31448, 31450) although the concrete may derive from recorded trenchments further south. GW. 1995.

PRN: 31450 **NGR:** SN60689292
SITE NAME: FOEL-YNYS
SITE TYPE: Observation post
SITE STATUS:
FORM: Other structure
CONDITION: Substantially intact
SUMMARY:
The site is situated in an elevated position on a rocky knoll over looking the sea. The area is a golf course the site is of World War II date. It consists of a concrete and brick plinth measuring 1.5m X 4m. The landward half supports a back building, open to seaward. Inside is a concrete block with butts set into it. There is a concrete column on the roof of the building. GW. 1995.

PRN: 31465 **NGR:** SN60589300
SITE NAME: FOEL-YNYS
SITE TYPE: Observation post
SITE STATUS:
FORM: Building
CONDITION: Intact
SUMMARY:
At the junction of dunes and a storm beach overlooking the beach. The building measures 7.5 X 4m. It consists of two compartments, the northern open at the rear, the southern an enclosed room. Observation slits face the beach. 15m seaward of building 30798. GW. 1995.

PRN: 31470 **NGR:** SN608889
SITE NAME: UPPER BORTH
SITE TYPE: Port
SITE STATUS:
FORM: Documents
CONDITION:
SUMMARY:
Upper Borth was involved in herring fishing. The Afon Leri previously entered the sea near Upper Borth but was later diverted northwards. GW. 1995.

PRN: 31472 **NGR:** SN60909105
SITE NAME: BORTH GOLF COURSE
SITE TYPE: Peat cutting;Drainage system
SITE STATUS:
FORM: Cropmark
CONDITION:
SUMMARY:
The area is one of watercourses (part of an earlier course of the Leri) encroached on by sand. It supported short grass. The area was parched when visited showing irregularly spaced green ? running east-west. The features probably represent drainage rather than peat cutting or ridge and furrow? The whole area is fairly irregular. Of little importance. No further action recommended. GW. 1995.

PRN: 35312 **NGR:** SN61709318
SITE NAME:
SITE TYPE: Sea defences
SITE STATUS:
FORM: Earthwork
CONDITION: Intact
SUMMARY:
Earth bank between and along the Afon Leri and Afon Clettwr. Until the construction of the railway this bank was the primary sea defence of the area. N.Page 1998 Forms part of the sea defences which extend northwards from Borth, along the course of the Afon Leri to its mouth on the Dyfi estuary. The defences then turn eastwards and follow the southern side of the estuary inland a far as the Ynys Hir Nature Reserve. Spurs of the sea defences turn inland along the line of streams and rivers flowing towards the estuary, in all over 16 square kilometres of low lying farmland are located on the landward side of the sea defences, and the area is crossed by numerous drainage channels, which often define many of the fields. G Williams, 1995 The chronology of the sea defences is unresolved. JH May 1998

PRN: 35313 **NGR:** SN61569361
SITE NAME:
SITE TYPE: Sea defences
SITE STATUS:
FORM: Earthwork
CONDITION: Substantially intact
SUMMARY:
Bank constructed along the west bank of the Afon Leri when it was canalised during the 1840s. N.Page 1998 Forms part of the sea defences which extend northwards from Borth, along the course of the Afon Leri to its mouth on the Dyfi estuary. The defences then turn eastwards and follow the southern side of the estuary inland a far as the Ynys Hir Nature Reserve. Spurs of the sea defences turn inland along the line of streams and rivers flowing towards the estuary, in all over 16 square kilometres of low lying farmland are located on the landward side of the sea defences, and the area is crossed by numerous drainage channels, which often define many of the fields. G Williams, 1995 The chronology of the sea defences is unresolved. JH May 1998

PRN: 35314 **NGR:** SN61659320
SITE NAME: YNYS-LAS SAWMILL
SITE TYPE: Saw mill
SITE STATUS:
FORM: Complex
CONDITION: Destroyed
SUMMARY:
A sawmill shown on the 1st edition OS map as a complex situated on the east side of the river Leri. By the time of the second edition, only one building remained on the site and the Ynys-Las sawmill was located on the opposite bank of the river. JH May 1998.

PRN: 35315 **NGR:** SN63859365
SITE NAME: RAILWAY COTTAGE
SITE TYPE: Cottage
SITE STATUS:
FORM: Building
CONDITION: Substantial destruction
SUMMARY:
Site of a cottage shown on early cartographic sources. N.Page 1998
PRN: 35316 **NGR:** SN65229462
SITE NAME:

SITE TYPE: Sea defences
SITE STATUS:
FORM: Earthwork
CONDITION: Substantially intact
SUMMARY:
A short length of earth bank shown on early OS maps running parallel to the Dyfi. Undated but likely to be early 19th century but possibly earlier. N.Page 1998

PRN: 35317 **NGR:** SN65829412
SITE NAME:
SITE TYPE: Bank (earthwork)
SITE STATUS:
FORM: Earthwork
CONDITION: Unknown
SUMMARY:
A curving earth bank shown on the early OS coverage enclosing an area to the north of Hen Hafod. Likely to be early-19th century.N.Page 1998

PRN: 35318 **NGR:** SN64559425
SITE NAME:
SITE TYPE: Sea defences
SITE STATUS:
FORM: Earthwork
CONDITION: Intact
SUMMARY:
Earth bank running along east bank of the canalised Afon Clettwr. It is cut by the railway line. Mid-19th century. May have been recently consolidated N.Page 1998 Forms part of the sea defences which extend northwards from Borth, along the course of the Afon Leri to its mouth on the Dyfi estuary. The defences then turn eastwards and follow the southern side of the estuary inland a far as the Ynys Hir Nature Reserve. Spurs of the sea defences turn inland along the line of streams and rivers flowing towards the estuary, in all over 16 square kilometres of low lying farmland are located on the landward side of the sea defences, and the area is crossed by numerous drainage channels, which often define many of the fields. G Williams, 1995 The chronology of the sea defences is unresolved. JH May 1998

PRN: 35319 **NGR:** SN66859424
SITE NAME: AFON DDU
SITE TYPE: Sea defences
SITE STATUS:
FORM: Earthwork
CONDITION: Unknown
SUMMARY:
A sea defence along the eastern bank of the Afon Ddu. JH May 1998 Forms part of the sea defences which extend northwards from Borth, along the course of the Afon Leri to its mouth on the Dyfi estuary. The defences then turn eastwards and follow the southern side of the estuary inland a far as the Ynys Hir Nature Reserve. Spurs of the sea defences turn inland along the line of streams and rivers flowing towards the estuary, in all over 16 square kilometres of low lying farmland are located on the landward side of the sea defences, and the area is crossed by numerous drainage channels, which often define many of the fields. G Williams, 1995 The chronology of the sea defences is unresolved. JH May 1998

PRN: 35322 **NGR:** SN65529500
SITE NAME:
SITE TYPE: Sea defences
SITE STATUS:
FORM: Earthwork
CONDITION: Substantial destruction
SUMMARY:
A short length of earth bank. Part of the original sea wall now superseded by the railway. N.Page 1998 Forms part of the sea defences which extend northwards from Borth, along the course of the Afon Leri to its mouth on the Dyfi estuary. The defences then turn eastwards and follow the southern side of the estuary inland a far as the Ynys Hir Nature Reserve. Spurs of the sea defences turn inland along the line of streams and rivers flowing towards the estuary, in all over 16 square kilometres of low lying farmland are located on

the landward side of the sea defences, and the area is crossed by numerous drainage channels, which often define many of the fields. G Williams, 1995 The chronology of the sea defences is unresolved. JH May 1998

PRN: 35323 **NGR:** SN65729511
SITE NAME:
SITE TYPE: Sea defences
SITE STATUS:
FORM: Earthwork
CONDITION: Substantial destruction
SUMMARY:
A short length of earth bank. Part of the original sea wall now superseded by the railway. N.Page 1998 Forms part of the sea defences which extend northwards from Borth, along the course of the Afon Leri to its mouth on the Dyfi estuary. The defences then turn eastwards and follow the southern side of the estuary inland a far as the Ynys Hir Nature Reserve. Spurs of the sea defences turn inland along the line of streams and rivers flowing towards the estuary, in all over 16 square kilometres of low lying farmland are located on the landward side of the sea defences, and the area is crossed by numerous drainage channels, which often define many of the fields. G Williams, 1995 The chronology of the sea defences is unresolved. JH May 1998

PRN: 35324 **NGR:** SN66269540
SITE NAME:
SITE TYPE: Sea defences
SITE STATUS:
FORM: Earthwork
CONDITION: Substantial destruction
SUMMARY:
A short length of earth bank. Part of the original sea wall now superseded by the railway. N.Page 1998 Forms part of the sea defences which extend northwards from Borth, along the course of the Afon Leri to its mouth on the Dyfi estuary. The defences then turn eastwards and follow the southern side of the estuary inland a far as the Ynys Hir Nature Reserve. Spurs of the sea defences turn inland along the line of streams and rivers flowing towards the estuary, in all over 16 square kilometres of low lying farmland are located on the landward side of the sea defences, and the area is crossed by numerous drainage channels, which often define many of the fields. G Williams, 1995 The chronology of the sea defences is unresolved. JH May 1998

PRN: 35325 **NGR:** SN66919586
SITE NAME:
SITE TYPE: Flood defence
SITE STATUS:
FORM: Earthwork
CONDITION: Unknown
SUMMARY:
Bank/boundary. N.Page 1998

PRN: 35326 **NGR:** SN68839633
SITE NAME:
SITE TYPE: Flood defence
SITE STATUS:
FORM: Earthwork
CONDITION: Substantially intact
SUMMARY:
A bank that extends from Pont Melyn-y-gareg along the lower reaches of the east bank of the Afon Einion and then eastwards along the southern bank of the Dyfi. It is shown on the OS 1st Ed and is cut by the railway line. N.Page 1998

PRN: 35327 **NGR:** SN68429578
SITE NAME:
SITE TYPE: Flood defence
SITE STATUS:
FORM: Earthwork
CONDITION: Substantially intact
SUMMARY:
A bank that extends along the west bank of the Afon Einion from Lodge to Domen Las.N.Page 1998

PRN: 35328 **NGR:** SN68669631
SITE NAME:
SITE TYPE: Flood defence
SITE STATUS:
FORM: Earthwork
CONDITION: Substantially intact
SUMMARY:
A bank that extends south along the Afon Einion from Pont Melyn-y-gareg.N.Page 1998

PRN: 35330 **NGR:** SN69479720
SITE NAME:
SITE TYPE: River crossing
SITE STATUS:
FORM: None
CONDITION:
SUMMARY:
Historic fording point shown on early OS maps. N.Page 1998 Routeway shown on 1st edition OS map and the ford is named as such. On the 2nd edition OS map most of the route is still shown except for the central section and the ford is no longer named. JH May 1998

PRN: 35332 **NGR:** SN67939663
SITE NAME:
SITE TYPE: Sluice
SITE STATUS:
FORM: None
CONDITION:
SUMMARY:
A sluice marked and named as such on the 2nd Ed OS map. N.Page 1998

PRN: 35333 **NGR:** SN61659320
SITE NAME:
SITE TYPE: Landing point
SITE STATUS:
FORM: Other structure
CONDITION: Substantially intact
SUMMARY:
A landing place, and public watering hole, shown on the enclosure maps of c1824. Still marked as a landing place on the tithe map (1845) and enclosure award map (1847). (PP 01/04/09)

PRN: 35334 **NGR:** SN62579367
SITE NAME:
SITE TYPE: Pill box
SITE STATUS:
FORM: Other structure
CONDITION: Intact
SUMMARY:
Hexagonal (type 24) pillbox constructed on the sea wall. N.Page 1998

PRN: 35335 **NGR:** SN62959348
SITE NAME:
SITE TYPE: Military building
SITE STATUS:
FORM: Building
CONDITION: Intact
SUMMARY:
Fortified rectangular building with an observation slit along its west side looking along the railway line. A WWII building of unknown function. N.Page 1998

PRN: 35336 **NGR:** SN61569361
SITE NAME:
SITE TYPE: Landing point
SITE STATUS:
FORM: Documents
CONDITION: Unknown
SUMMARY:
Landing place shown on enclosure award map (1847).N.Page 1998

PRN: 35339 **NGR:** SN68289711
SITE NAME:
SITE TYPE: Sluice
SITE STATUS:
FORM: Other structure
CONDITION: Damaged
SUMMARY:
A wooden structure in the former course of a small creek. Probably a sluice. There is a low earth bank nearby which may be associated with the sluice structure. N.Page 1998

PRN: 35340 **NGR:** SN67979665
SITE NAME:
SITE TYPE: Sea defences
SITE STATUS:
FORM: Earthwork
CONDITION: Restored
SUMMARY:
Curving bank which now forms the boundary of the RSPB reserve of Ynys Hir. Well maintained. N.Page 1998 Forms part of the sea defences which extend northwards from Borth, along the course of the Afon Leri to its mouth on the Dyfi estuary. The defences then turn eastwards and follow the southern side of the estuary inland a far as the Ynys Hir Nature Reserve. Spurs of the sea defences turn inland along the line of streams and rivers flowing towards the estuary, in all over 16 square kilometres of low lying farmland are located on the landward side of the sea defences, and the area is crossed by numerous drainage channels, which often define many of the fields. G Williams, 1995 The chronology of the sea defences is unresolved. JH May 1998

PRN: 35341 **NGR:** SN66909587
SITE NAME:
SITE TYPE: Boundary bank
SITE STATUS:
FORM: Other structure
CONDITION: Substantial destruction
SUMMARY:
Pitched-stone boundary bank formerly a continuation of 35325 until cut by the railway in the mid 19th century. N.Page 1998

PRN: 35342 **NGR:** SN67959667
SITE NAME:
SITE TYPE: Breakwater
SITE STATUS:
FORM: Other structure
CONDITION: Damaged
SUMMARY:
Pitched-stone wall. Probably a breakwater. Now landlocked in the saltmarsh. Severe erosion in places.N.Page 1998

PRN: 35412 **NGR:** SN65939194
SITE NAME: CWM CLETTWR;DOL CLETTWR
SITE TYPE: Leat
SITE STATUS:
FORM: Earthwork
CONDITION: Substantially intact
SUMMARY:
Leat running to Dolclettwr mine, PRN 19501. The leat is shown on the OS 1st Ed but not on the second edition, published in 1905 and revised in 1904. The leat is still a standing earthwork. A small reservoir exists at its eastern end where it comes off from the Afon Clettwr. JH Nov 1997 based on EM 1996

PRN: 35897 **NGR:** SN61629322
SITE NAME: YNYS-LAS SAWMILL
SITE TYPE: Saw mill
SITE STATUS:
FORM: Complex
CONDITION: Unknown
SUMMARY:
A sawmill shown on the 2nd ed OS map replacing sawmill PRN 35314 shown on the 1st ed OS map on the other side of the river. JH May 1998

PRN: 35898 **NGR:** SN61609289
SITE NAME: YNYS-LAS SAWMILL
SITE TYPE: Railway
SITE STATUS:
FORM: Other structure
CONDITION: Unknown
SUMMARY:
A short railway line from the Cambrian railway to the 20th century saw mill at Ynys-Las PRN 35314. JH May 1998

PRN: 36865 **NGR:** SN68169584
SITE NAME: YNYS-HIR
SITE TYPE: Garden
SITE STATUS:
FORM: Topography
CONDITION:
SUMMARY:

PRN: 38112 **NGR:** SN6628193512
SITE NAME: LODGE PARK ESTATE
SITE TYPE: Park
SITE STATUS: PGW
FORM: None
CONDITION: Not known
SUMMARY:
Remnants of medieval deer park; part of Goerddan Estate. Physical remnants include reservoir, tracks, leats & mineral workings dating 17th-19thC; wells, quarries & a curious building (PRN 38120). Lodge Park house, Park Lodge, Felin Lodge Bridge.Site survives as excellent example of medieval deer park & late medieval/post medieval estate. Includes variety of archaeological sites in varying states of preservation. CAP 1999

PRN: 38113 **NGR:** SN6623693261

SITE NAME: LODGE PARK RESERVOIR
SITE TYPE: Reservoir
SITE STATUS:
FORM: None
CONDITION: Not known
SUMMARY:
Reservoir recorded on 1891 & 1901 OS maps. Pond reconstructed 1887-1901, by damming stream (photographs record event). Overflow sluice to exit leat, flowing S to drainage ditches.Present site altered by FE road. Pond retains water and is surrounded by natural broadleaf. CAP 1999

PRN: 38114 **NGR:** SN6621093204
SITE NAME: LODGE PARK RESERVOIR EXIT LEAT
SITE TYPE: Leat
SITE STATUS:
FORM: None
CONDITION: Not known
SUMMARY:
Route of exit leat from pond as recorded on 1906 map.Site appears to have been destroyed by FE road. CAP 1999

PRN: 38115 **NGR:** SN6605993185
SITE NAME: LODGE PARK DRAINAGE DITCHES
SITE TYPE: Ditch
SITE STATUS:
FORM: None
CONDITION: Not known
SUMMARY:
System of interconnecting drainage ditches fed by the exit leat from the reservoir & other channels. Constructed between 1845 & 1887. Area recorded as marshland on OS 1891 & 1901 maps.Existent system of drainage located in partly felled area & part lodgepole pine. CAP 1999

PRN: 38116 **NGR:** SN6627493438
SITE NAME: LODGE PARK; BUSHELL'S WELL
SITE TYPE: Well
SITE STATUS:
FORM: None
CONDITION: Not known
SUMMARY:
Well located in natural woodland S of Lodge Park house. Presumably constructed on site of natural spring recorded on 1779 estate map. Pool c0.3m deep with leat running to west.Intact well in excellent state of repair. Constructed in linear slabs of local shales with stone lip holding back pool of clear water c.0.3m deep; exit leat c.0.3m wide x 1m deep, runs out west. CAP 1999

PRN: 38117 **NGR:** SN6654993548
SITE NAME: LODGE DEER PARK BOUNDARY
SITE TYPE: Wall
SITE STATUS:
FORM: None
CONDITION: Not known
SUMMARY:
Deer park boundary defined on 1675 map by John Ogilvy. 1667 lease described the boundary as formed on the thoroughfare by a stone wall & on the other side by a hedge and ditch. Boundary enclosed c.100 acres.Deer park wall visible adjoining A487 trunk road, E side of park; form S boundary with open fields and is visible as bank and ditch on N perimeter, where bank is faced with vertical slabs. CAP 1999

PRN: 38118 **NGR:** SN6615992500
SITE NAME: PANTGLAS MAWR LEVEL III
SITE TYPE: Level
SITE STATUS:
FORM: None
CONDITION: Not known
SUMMARY:
Smaller of two levels located in the SW corner of the woods to N & S sides of footpath & hollow way PRN 38124.Small entrance cut into W facing slopes. CAP 1999

PRN: 38119 **NGR:** SN6615093318
SITE NAME: LODGE PARK LEVEL I
SITE TYPE: Level
SITE STATUS:
FORM: None
CONDITION: Not known
SUMMARY:
Level cut in E into natural rock face.Of unknown date - mining leases in the area were taken up by Sir Hugh Middleton, who resided at Lodge Park until 1631, but the level is more likely to date early 17thC, who resided in the area until 1642.Entrance to underground workings now blocked up with bread-oven door inserted into brickwork. Located on edge of crop. CAP 1999

PRN: 38120 **NGR:** SN6677793853
SITE NAME: PANT COCH WOODS UNDERGROUND CHAMBER
SITE TYPE: Folly
SITE STATUS:
FORM: Other structure
CONDITION: Substantially intact
SUMMARY:
Described as enigmatic structure in 1997 report. Structure unrelated in shape to that recorded by OS in 1891 on edge of road. Structure comprises outer compartments & underground chamber of intriguing design. ? medieval in date or estate folly.Intact underground cell c.3.5m x 1.8m wide with dry corbelled stone roof, built into hillside & entered through low lintelled opening. Outer compartment includes fireplace & remnants of timber roof. Located W of hillside track in dense undergrowth. CAP 1999

PRN: 38121 **NGR:** SN6636493000
SITE NAME: PARK GATE
SITE TYPE: Cottage
SITE STATUS:
FORM: Building
CONDITION: Substantial destruction
SUMMARY:
Rectangular building aligned with the road, recorded by OS in 1891, but not in 1901. Site recorded on 1779 Estate map.Site survives as level area in natural woodland; no structural remains. CAP 1999

PRN: 38123 **NGR:** SN6642993214
SITE NAME: PARK WALL STRUCTURE
SITE TYPE: Structure
SITE STATUS:
FORM: None
CONDITION: Substantial destruction
SUMMARY:
Site of a small building presumably associated with the estate, recorded by 1997 survey.Unlocated; presumed destroyed. CAP 1999

PRN: 38124 **NGR:** SN6620192545
SITE NAME: PANTGLAS MAWR HOLLOW WAY
SITE TYPE: Hollow way
SITE STATUS:
FORM: None
CONDITION: Near intact
SUMMARY:
Route paralleling A487 trunk road; recorded as established route on Lodge 1789 Estate Survey.Route runs through woodland and is in use as a public footpath. CAP 1999

PRN: 38125 **NGR:** SN6654692843
SITE NAME: PANTGLAS MAWR FARMSTEAD
SITE TYPE: Farmstead
SITE STATUS:
FORM: Complex
CONDITION: Damaged
SUMMARY:
Farmstead inhabited 1789. Recorded on 1891 & 1901 OS maps.Site survives as platform with few structural remains on edge of FE land. CAP 1999

PRN: 38126 **NGR:** SN6615592535
SITE NAME: PANTGLAS MAWR LEVEL I
SITE TYPE: Level
SITE STATUS:
FORM: None
CONDITION: Not known
SUMMARY:
Level cut in east, located W side of public footpath. Recorded on 1901 map.Overgrown level in natural woodland. CAP 1999

PRN: 38127 **NGR:** SN6619093314
SITE NAME: LODGE PARK SHAFT I
SITE TYPE: Shaft
SITE STATUS:
FORM: None
CONDITION: Not known
SUMMARY:
Shaft located E side of track to Lodge Park house, from S side. Presumably connected to level PRN 38119.Shaft on edge of woodland, recently fenced By FE. CAP 1999

PRN: 38129 **NGR:** SN6652292842
SITE NAME: PANTGLAS MAWR LEVEL II
SITE TYPE: Level
SITE STATUS:
FORM: None
CONDITION: Not known
SUMMARY:
Level located S of footpath. Recorded as Lodge Park Mine, worked 1895-1897 in mining returns.Overgrown level in mixed woodland. CAP 1999

PRN: 38145 **NGR:** SN6522189486
SITE NAME: ALLT Y CRIB
SITE TYPE: Mine
SITE STATUS:
FORM: None
CONDITION: Not known
SUMMARY:
Extensive mineral workings documented from 1641, when a shaft was sunk to 38 fathoms (c.76m) and a deep adit was driven 200 fathoms to meet this shaft. Dressing sites presumably located in valley to east of hillside workings.Overgrown workings and extensive spoil tips dating 17thC to 1891. Site holds possibility of extensive sub-surface archaeology relating to 17th/18thC mineral workings. CAP 1999

PRN: 39385 **NGR:** SN67329480

SITE NAME: YNYSGREIGIOG
SITE TYPE: Farm
SITE STATUS: Listed building
FORM: Complex
CONDITION: Various
SUMMARY:
Ynysgreigiog is a large farm of approximately 267 acres (108ha) on the southern side of the Dyfi Estuary. The farm, as its name suggests, occupies a rocky outcrop in the surrounding reclaimed marsh and has land both on the marsh and on Mynydd Coronwen to the southwest. Estate maps dating from 1788 of the neighbouring farms of Ynys Fach (PRN 39390 - now part of Ynysgreigiog) and Ynys Eidol show that the field pattern and boundaries were in existence by the mid- to late-18th century. The farm almost certainly pre-dates this, the house (PRN 21497) is of a type that was most common in the period between the late-16th century and the early-18th
century. In its present form the farm includes land that was held by five different holdings during the mid 19th century and it contains the sites of some abandoned farms, smallholdings and cottages which date from the 18th and 19th centuries. The
Llanfihangel Geneurglyn parish tithe map of 1845 shows three of the current buildings, the house PRN 21497; the old cowhouse and barn PRN 39386; and the former cowhouse PRN 39388. It also shows two further buildings that have since disappeared. The L-shaped cowhouse (PRN 39387) was shown on the Ordnance Survey 1st edition map of 1890 by which time the current layout had been established. The boundaries across the site are an
interesting mixture of 18th century, or earlier earth banks, banks with hedges, banks and drainage ditches, stone walls and modern stock fences. Many of the boundaries around Ynys Fach are low earth banks which follow the ridge lines of the rocky outcrop on which the farm sits. Originally these boundaries must have either been substantially bigger or topped with a hedge to make them effective for stock control. There are also low, very eroded boundary banks on Mynydd Coronwen.

PRN: 39386 **NGR:** SN67329474
SITE NAME: YNYSGREIGIOG
SITE TYPE: Combination farm building
SITE STATUS:
FORM: Building
CONDITION: Substantially intact
SUMMARY:
Single-storey, random rubble built structure with a slate gabled roof. The rafters and joists of the roof structure are semi-worked and appear to be small tree trunks or large branches. The laths, or roof batons are split withies. The building is divided into a barn and storage area in the northern half and a cowshed in the southern half. Entry to the barn area is via a central double door with a timber lintel, a slatted wooden door is still place. The cowshed area is entered through two square headed doors with stone lintels. This building appears on the tithe map of 1845 and probably dates from the 18th century.

PRN: 39387 **NGR:** SN67299480
SITE NAME: YNYSGREIGIOG
SITE TYPE: Cowshed
SITE STATUS:
FORM: Building
CONDITION: Intact
SUMMARY:
Single storey, L-shaped cowshed of random rubble construction with a slate gabled roof. The building contains a number of open sheds with square headed openings, one of the openings has been blocked by a modern wall. The sheds open onto a small yard below the house. This building was first shown on the Ordnance Survey 1st edition map of 1890. Open sheds such as these were typically used for housing young beasts and fatstock.

PRN: 39388 **NGR:** SN67349481
SITE NAME: YNYSGREIGIOG
SITE TYPE: Cowshed
SITE STATUS: Listed building
FORM: Building
CONDITION: Substantially intact
SUMMARY:
Small rectangular cowshed with loft above. The building is of random rubble construction with a slate gable roof. The loft is approached via steps on the east gable end, and it has a central half-dormer pitching door

with a slate pitched roof in the south elevation. There is a feed hatch from the lost to the cowhouse below. The cowhouse is entered via a slightly off-centre door in the south wall and there are three small square windows in the same wall. All the openings are square headed and the windows are probably 20th century insertions. The building is no longer used for cattle, which were formerly stalled in a single line along the rear wall. This building was shown on the Llanfihangel Geneurglyn tithe map of 1845 and it probably dates from the late 18th or early 19th century.

PRN: 39389 **NGR:** SN67079504
SITE NAME: YNYS FACH
SITE TYPE: Cowshed;Barn
SITE STATUS:
FORM: Building
CONDITION: Substantially intact
SUMMARY:
A two-storey stone-built cowhouse with loft above. There is a ruinous two-storey extension on the southwest end which still stands to gable height. The southwest gable of the surviving section has been cement rendered to protect the slate tiles. The cowhouse forms the southeast side of a small yard defined by stone and earth banks and entered through a gateway marked by two large upright stones. There are two openings in the ruinous extension, a door and small window, both are headed by a timber lintel. The four main openings in the main building
are three doors and a pitching door in the loft. All of these openings have segmental arch heads in blue brick. There are two ventilation loops, one either side of the centre door. The northeasternmost door of the three leads into a lean-to type extension. Internally the cowshed was arranged so that the cows were stalled looking along the building. The cowshed was shown on the tithe map of 1845 and it probably dates from the late 18th or early 19th century.

PRN: 39390 **NGR:** SN67029511
SITE NAME: YNYS FACH
SITE TYPE: Farmhouse
SITE STATUS:
FORM: Building
CONDITION: Substantial destruction
SUMMARY:
Remains of a stone-built house with a gabled roof. The house, which is now roofless and in a ruinous condition, consited of a main northeast-southwest range with a smaller, gabled range on the northeast end of the northwest side. A small rectangular extension, that was central along the main range was located in the angle of the two ranges. The smaller gabled range
had an enclosure on its northwest side. The site is now overgrown and is partially covered with rubble and fallen masonry making it difficult to determine an exact ground plan. A door in the northeast wall of the main range leads from the small extension. There is a stone vent loop in the southwest end of the main range which suggests that this area of the building formerly held animals. It may be that the house was originally a longhouse, where people and animals were housed in the same building, before developing
into its final form. The longhouse is one of the earliest types of farm buildings and if Ynys Fach farmhouse has developed from the longhouse tradition it may argue for a long occupation of this site. Ynys Fach farm is included in a survey dating from 1788 which shows that the layout of fields, tracks and the main buildings were well established by the later 18th century.

PRN: 39391 **NGR:** SN67049505
SITE NAME: YNYS FACH
SITE TYPE: Pigsty
SITE STATUS:
FORM: Building
CONDITION: Substantially intact
SUMMARY:
Double in-and-out pigsty constructed from random rubble. The sleeping compartments were covered by a gable roof, probably slate, which has now been lost. The sleeping quarters are c.2m x 2m with a similar size yard in front. This type of pigsty is the most common and it is found in Wales from the 18th century onwards, although this example dates from the late 19th century.

PRN: 39394 **NGR:** SN67559495
SITE NAME: YNYSGRIEGIOG
SITE TYPE: Peat cutting

SITE STATUS:
FORM: Topography
CONDITION: Damaged
SUMMARY:
Area of peat bog formerly used by locals for peat cutting. The peat cutting has reduced the level of the area by some 0.5-1m below the surrounding ground surface. A strip of higher ground running acros the area may have been an access route, or it may be an area left uncut when extraction ceased.

PRN: 45565 **NGR:** SN6496990595
SITE NAME:
SITE TYPE: Structure
SITE STATUS:
FORM: Buried Feature
CONDITION:
SUMMARY:
Timbers exposed during drainage work. A substanial box structure 3m long,1.5m wide and 0.6m high. Individual timber were c.60mm in thickness. Structure buried within Glay deposit with external surfaces lined with sphagnum moss,ispolating the timbers from the glay. Timbers had evidence of adze working together with timber jointing -mortice and tennon and half lap jointing.Radiocarbon date 3210-3280BP. RJ2004

PRN: 48889 **NGR:** SN6550091080
SITE NAME: TAN YR ALLT
SITE TYPE: Farmstead;Cottage
SITE STATUS:
FORM: Building
CONDITION: Unknown
SUMMARY:
A farmstead marked on Lewis's map of 1790. (PP 01/04/09)

PRN: 50147 **NGR:** SN64589218
SITE NAME: LLANGYNFELYN PARISH CHURCH;ST CYNFELYN'S
SITE TYPE: Churchyard
SITE STATUS:
FORM: Earthwork
CONDITION: Intact
SUMMARY:
Early medieval D site, ie. possible early medieval origins. Churchyard occupied by the medieval Llangynfelyn church PRNs 5431 and 17336, a chapelry which became a parish church during the post-medieval period. It was not listed in the `Taxatio' of 1291. It was probably a Welsh foundation, Ceredigion remaining in Welsh hands during most of the 12th and 13th centuries. It was in private patronage. The small oval churchyard is considerably raised above its surroundings and occupies an `island' within the extensive coastal marshland area of Cors Fochno. NDL 2004

PRN: 94898 **NGR:** SN60959196
SITE NAME: ABERLERI FARM
SITE TYPE: Farmstead
SITE STATUS: NNR
FORM: Building
CONDITION: Intact
SUMMARY:

PRN: 94899 **NGR:** SN64389055
SITE NAME: YNYS CAPEL
SITE TYPE: Enclosure
SITE STATUS:
FORM: Buried feature
CONDITION: Not known
SUMMARY:
PRN: 94900 **NGR:** SN608890
SITE NAME: BORTH
SITE TYPE: Village

SITE STATUS:
FORM: Topography
CONDITION: Intact
SUMMARY:
A village built along a gravel spit enclosing Cors Fochno to the east. The village appears to have its origins as a small fishing port (see PRN 31470) but expanded and developed into a seaside resort during the 19th century. (PP 06/04/09)

PRN: 94901 **NGR:** SN60819232
SITE NAME: MIN-Y-DON
SITE TYPE: Garden
SITE STATUS:
FORM: Documents
CONDITION: Not known
SUMMARY:
A garden recorded by the RCAHMW, apparently shown on the 2nd edition Ordnance Survey map of 1901, the main element of which includes a greenhouse. (PP 06/04/09)

PRN: 94902 **NGR:** SN61399274
SITE NAME: YNYS LAS GARDENS
SITE TYPE: Nursery garden
SITE STATUS:
FORM: Other structure
CONDITION: Near Intact
SUMMARY:
Nursery gardens first shown on the 1st edition Ordnance Survey map of 1889 adjoining the railway. Depicted as a walled garden with a range of greenhouses adjoining a building. The gardens still appear to be in use. (PP 06/04/09)

PRN: 94903 **NGR:** SN60879373
SITE NAME:
SITE TYPE: Anti landing obstacle
SITE STATUS: RAMSAR
FORM: Other structure
CONDITION: Near Intact
SUMMARY:
An anti-tank pimple and one anti-tank cylinder recorded by the RCAHMW from the Defence of Britain project. Located by the entrance to a layby, they are not in original situ, and the anti-tank cylinder has since been removed. (PP 06/04/09)

PRN: 94904 **NGR:** SN64869068
SITE NAME: LLANGYNFELYN
SITE TYPE: Trackway
SITE STATUS:
FORM: Buried feature
CONDITION: Damaged
SUMMARY:
A timber trackway revealed by excavations in 2003-05, running from teh southern edge of Cors Fochno to the island of Llangynfelyn. Timber elements of the trackway have been preserved by the wetland peat conditions. The trackway consists of a timber substructure, overlaid with industrial debris from an Iron Age/Roman lead-smelting site. The trackway itself has been readiocarbon dated to the 10th-12th century. (PP 06/04/09)

PRN: 94905 **NGR:** SN657914
SITE NAME: TRE TALIESIN
SITE TYPE: Village
SITE STATUS:
FORM: Topography
CONDITION: Intact
SUMMARY:
A village situated on the eastern edge of Cors Fochno in northern Ceredigion. (PP 06/04/09)

PRN: 94906 **NGR:** SN608930
SITE NAME: YNYSLAS MILITARY CAMP
SITE TYPE: Barracks
SITE STATUS:
FORM: Documents
CONDITION: Not known
SUMMARY:
Former barracks asociated with a Cold War missile testing range, recorded by the RCAHMW. (PP 06/04/09)

PRN: 94907 **NGR:** SN614939
SITE NAME: AFON LERI
SITE TYPE: Fishtrap
SITE STATUS: NNR
FORM: Other structure
CONDITION: Not known
SUMMARY:
A possible fish trap, recorded by the RCAHMW from aerial photographs and described as possible intertidal structures. Located at the mouth of the Afon Leri. (PP 06/04/09)

PRN: 94908 **NGR:** SN68409511
SITE NAME: FURNACE
SITE TYPE: Village
SITE STATUS:
FORM: Topography
CONDITION: Intact
SUMMARY:
A small village at a crossing of the Afon Einion. Presumably built up around the 18th century blast furnace (PRN 5427). (PP 06/04/09)

PRN: 94909 **NGR:** SN65449126
SITE NAME: TAN YR ALLT
SITE TYPE: Trackway
SITE STATUS:
FORM: Buried feature
CONDITION: Near Intact
SUMMARY:
A gravel trackway running for at least 250m along the edge of Cors Fochno, recorded through excavations in 2008. The trackway runs along the top of the peat and has ben interpreted as associated with peat cutting activity in teh early 20th century. (PP 06/04/09)

PRN: 94910 **NGR:** SN62018863
SITE NAME: BRYNLLYS
SITE TYPE: Defended enclosure
SITE STATUS:
FORM: Cropmark
CONDITION: Not known
SUMMARY:
A cropmarked enclosure recorded by the RCAHMW during aerial reconnaissance in 2006. Described as a large ditched enclosure, approximately 200m north-west/south-east, lying to south of Brynllys farm at the bottom of the hillslope, just above the Leri river. A wide ditch lies immediately south of the farm, narrowing to a thinner ditch, possibly bivallate, for the remainder of the circuit. A number of pits are also visible.The position is not typically defensive. (PP 06/04/09 - taken from Coflein)
PRN: 94911 **NGR:** SN60939009

SITE NAME: BORTH RAILWAY STATION
SITE TYPE: Railway station
SITE STATUS: Listed building
FORM: Building
CONDITION: Intact
SUMMARY:
A railway station built in 1863-4 for the railway promoter Thomas Savin on his new Machynlleth to Aberystwyth line. The station design is very similar to the original part of Aberystwyth station which was built in 1864. (PP 06/04/09)

PRN: 94912 **NGR:** SN63208983
SITE NAME: CERRIG CERRANAU ISAF
SITE TYPE: Farmstead
SITE STATUS: Listed building
FORM: Building
CONDITION: Intact
SUMMARY:
A farmstead near the southern edge of Cors Fochno. The current farm buildings are early 19th century and the complex is shown on the Ordnance Survey original surveyors drawings of 1833-4. It has been grade II listed as a substantial farmhouse with regional character. (PP 06/04/09)

PRN: 94913 **NGR:** SN65959288
SITE NAME: BODFAGEN
SITE TYPE: Farmstead;dwelling
SITE STATUS:
FORM: Building - ruined
CONDITION: Near Destroyed
SUMMARY:
A dwelling and farmstead shown on an estate map of 1779 lying within Lodge Park. At that time it is recorded as having just over 79 acres of land attached to it. The name comes from the original (16th century?) name of the park - Parc Bodvage/Bodfrigan, and in the 17th century several occupants of Bodvage or Bodvagan are mentioned including John Lloyd 1714, Thomas Lloyd 1755-9, John Pugh Pryse 1765, Robert Owen 1781-4, Robert Pugh 1784-7, John Pierce 1789-99, Hugh Rowland 1810-13, but this is believed to refer to the orignal Park Lodge mansion to the north (PRN 7105). The site had been abandoned by the time of the 1888 Ordnance Survey map, although current aerial photos still show ruined walls here. (PP 06/04/09)

PRN: 94914 **NGR:** SN65879344
SITE NAME: TRWYN Y BUARTH
SITE TYPE: Farmstead
SITE STATUS:
FORM: Building
CONDITION: Not known
SUMMARY:
A farmstead shown on an estate plan of 1779, with a T-shaped arrnagement of buildings. The farmstead is still in use. (PP 06/04/09)

PRN: 94915 **NGR:** SN66319423
SITE NAME: HEN HAFOD
SITE TYPE: Farmstead
SITE STATUS:
FORM: Building
CONDITION: Not known
SUMMARY:
A farmstead complex that may have early origins as a hafod site (see PRN 19509). The farmstead is shown on an early estate map of 1779, which shows two buildings with an attached small circular enclosure, and just over 109 acres of associated land. The 1888 Ordnance Survey map shows a rough complex of buildings around a central courtyard. The farmstead is still in use. (PP 06/04/09)

PRN: 94916 **NGR:** SN61278959

SITE NAME: YNYS FERGI
SITE TYPE: Farmstead
SITE STATUS:
FORM: Building
CONDITION: Intact
SUMMARY:
A farmstead complex on the edge of Ynys Fergi, an island within Cors Fochno wetlands close to the village of Borth. The farmstead is marked as a single building on Lewis's map of 1790. The farmstead is still in use. (PP 06/04/09)

PRN: 94917 **NGR:** SN60949109
SITE NAME: PEN Y BONT; ABERLERRY UCHA
SITE TYPE: Farmstead;dwelling
SITE STATUS:
FORM: Documents
CONDITION: Not known
SUMMARY:
A dwelling and possible asociated farmstead marked on Lewis's map of 1790 on the banks of the Leri. The building is still shown on theparish tithe map of 1847-8 but had gone by the time of the 1888 Ordnance Survey map. (PP 06/04/09)

PRN: 94918 **NGR:** SN61149251
SITE NAME: TY GWYN
SITE TYPE: Farmstead;dwelling
SITE STATUS:
FORM: Building
CONDITION: Intact
SUMMARY:
Shown as a single unnamed building on a map of 1790, labelled as 'Ty Gwin' on the enclosure maps of c1824. By the time of the 1889 Ordnance Survey it appears to have expanded into a farmstead. Still occupied. (PP 06/04/09)

PRN: 94919 **NGR:** SN61389293
SITE NAME: TY CANOL; TY MAWR
SITE TYPE: Farmstead
SITE STATUS:
FORM: Building
CONDITION: Intact
SUMMARY:
Marked on Lewis's map of 1790 as a single building, called Ty Mawr. By the time of the Ordnance Survey original surveyors drawings of 1833-4 it appears to havce expanded into a farmstead, called Ty Canol. Still in use. (PP 06/04/09)

PRN: 94920 **NGR:** SN60759294
SITE NAME: MOEL YNYS
SITE TYPE: Farmstead;dwelling
SITE STATUS:
FORM: Building
CONDITION: Intact
SUMMARY:
A dwelling and possible farmstead. Marked on Lewis's map of 1790 as two buildings with adjoining enclosures. The arrangement of the two buildings still appears on current map sources. (PP 06/04/09)

PRN: 94921 **NGR:** SN63339291
SITE NAME: PEN MOCHNO; PEN PONTPREN
SITE TYPE: Farmstead
SITE STATUS:
FORM: Documents
CONDITION: Intact
SUMMARY:
A farmstead complex on the edge of Ynys Mochno in the centre of Cors Fochno. 'Pen Mochno' is marked

on Lewis's map of 1790 but the precise lcoation is unclear. On the enclosure map of c1824 'Pen Pontpren is shown in its current location. Farmstead still in use. (PP 06/04/09)

PRN: 94922 **NGR:** SN62739241
SITE NAME: TY HWNT
SITE TYPE: Farmstead
SITE STATUS:
FORM: Building
CONDITION: Intact
SUMMARY:
A small farmstead on the southern side of Ynys Mochno. Shown on Lewis's map of 1790, still in use. (PP 06/04/09)

PRN: 94923 **NGR:** SN63169253
SITE NAME:
SITE TYPE: Farmstead;dwelling
SITE STATUS:
FORM: Documents
CONDITION: Not known
SUMMARY:
A dwelling or small farmstead complex marked on Lewis's map of 1790 as two buildings on the east side of Ynys Mochno. The site is no longer marked on the enclosure map of c1824. (PP 06/04/09)

PRN: 94924 **NGR:** SN65059183
SITE NAME: NEAUDD; NEAUDD YR YNYS
SITE TYPE: Farmstead
SITE STATUS: Listed building
FORM: Building
CONDITION: Intact
SUMMARY:
A farmstead complex. Possibly originating as a single dwelling as shown on Lewis's map fo 1790, belonging to Mrs Pryse. A single building is still shown on teh enclosure maps of c1824 but the tithe map of 1844 shows a small farmstead complex developing alongside. By the later 19th century an open hay barn was built here, now grade II listed as a good example of a farm building type rare in the county, exceptionally complete and with to'r brat slating, also now rare. Farmstead still occpuied. (PP 06/04/09)

PRN: 94925 **NGR:** SN64599172
SITE NAME: GELLI
SITE TYPE: Farmstead
SITE STATUS:
FORM: Building
CONDITION: Intact
SUMMARY:
A farmstead complex shown on Lewis's map of 1790. Farmstead still in use. (PP 06/04/09)

PRN: 94926 **NGR:** SN64519226
SITE NAME: DAN Y LLAN; TAN Y LLAN; FERM TANLLAN
SITE TYPE: Farmstead
SITE STATUS:
FORM: Building
CONDITION: Intact
SUMMARY:
First shown on Lewis's map of 1790 as a single building, but expanded to a small farmstead complex by the time of the tithe map of 1844. The complex appears to have continued expanding, and is still in use. (PP 06/04/09)

PRN: 94927 **NGR:** SN65509280
SITE NAME: CRAIG YR PENRHYN
SITE TYPE: Limekilns

SITE STATUS:
FORM: Documents
CONDITION: Not known
SUMMARY:
Severla limekilns in operation at Craig yr Penrhyn during the late 18th and 19th century. First shown on an estate map of 1779, when 'limekilns' are labelled, and still in operation on the 1888 Ordnance Survey map. The tithe map of 1844 also labels the area as limekilns and furnaces. (PP 06/04/09)

PRN: 94928 **NGR:** SN65569262
SITE NAME: CRAIG YR PENRHYN COMMON
SITE TYPE: Common land
SITE STATUS:
FORM: Documents
CONDITION: Not known
SUMMARY:
A small area of common land shown on Lewis's map of 1790. (PP 06/04/09)

PRN: 94929 **NGR:** SN65979221
SITE NAME: TRE'R DDOL
SITE TYPE: Village
SITE STATUS:
FORM: Topography
CONDITION: Intact
SUMMARY:
A small village on the edge of Cors Fochno in northern Ceredigion. (PP 06/04/09)

PRN: 94930 **NGR:** SN67419587
SITE NAME: YNYS FEIRIG
SITE TYPE: Farmstead;dwelling
SITE STATUS:
FORM: Documents
CONDITION: Not known
SUMMARY:
A dwelling or small farmstead complex occpuying a small island at the northern end of Cors Fochno, shown on the enclosure map of c1824. A small quarry and well lie nearby. Still marked on the tithe map of 1847-8 but gone by the time of the 1888 Ordnance Survey map. (PP 06/04/09)

PRN: 94931 **NGR:** SN64759229
SITE NAME: TYLLWYD
SITE TYPE: Farmstead;dwelling
SITE STATUS:
FORM: Documents
CONDITION: Not known
SUMMARY:
An L-shaped building shown on the enclosure maps of c1824, possibly also marked on Lewis's map of 1790 but the map is not clear in this area. Still shown on teh tithe map of 1844 but gone by the Ordnance Survey map of 1888. (PP 06/04/098)

PRN: 94932 **NGR:** SN65459278
SITE NAME: CRAIG YR PENRHYN
SITE TYPE: Hamlet
SITE STATUS:
FORM: Topography
CONDITION: Intact
SUMMARY:
A small hamlet on a rocky outcrop within Cors Fochno, connecting Tre'r Ddol to Llllangynfelyn. (PP 06/04/09)

PRN: 94933 **NGR:** SN63589306
SITE NAME: GLAN DYFI
SITE TYPE: Farmstead
SITE STATUS:

FORM: Building
CONDITION: Intact
SUMMARY:
A farmstead complex that appears to have been established at some between the enclsoure maps of c1824 and the Orndnace Survey original surveyors drawings of 1833-4. Farmstead still in use. (PP 06/04/09)

PRN: 94934 **NGR:** SN62448960
SITE NAME: PANT Y DWN
SITE TYPE: Farmstead
SITE STATUS:
FORM: Building
CONDITION: Intact
SUMMARY:
A farmstead complex established at some point between the enclosure maps of c1824 and the Ordnance Survey original surveyors drawings of 1833-4. Farmstead still in use. (PP 06/04/09)

PRN: 94935 **NGR:** SN63439002
SITE NAME: CERRIG TRANAU; CERRIG CYRANAU UCHAF
SITE TYPE: Farmstead
SITE STATUS:
FORM: Building
CONDITION: Intact
SUMMARY:
A farmstead complex shown on the Ordnance Survey original surveyors drawings of 1833-4. Farmstead still in use. (PP 06/04/09)

PRN: 94936 **NGR:** SN64469045
SITE NAME: YNYS CAPEL
SITE TYPE: Farmstead
SITE STATUS:
FORM: Building
CONDITION: Intact
SUMMARY:
A farmstead complex on the southern margins of Cors Fochno. The provinence of the name is unknown. The farmstead is shown on the Ordnance Survey original surveyors drawings of 1833-4 and is still in use. The 19th century (and possibly earlier) elements of the complex comprises the farmhouse, a barn facing and an adjacent peat-store. (PP 06/04/09)

PRN: 94937 **NGR:** SN63799323
SITE NAME: GLAN MORFA
SITE TYPE: Farmstead
SITE STATUS:
FORM: Building
CONDITION: Intact
SUMMARY:
A mid 19th century farmstead shown on the parish tithe map of 1844. Farmstead still in use. (PP 06/04/09)

PRN: 94938 **NGR:** SN62989280
SITE NAME: TAN Y BRYN
SITE TYPE: Farmstead
SITE STATUS:
FORM: Building
CONDITION: Intact
SUMMARY:
A mid-19th century farmstead complex shown on the parish tithe map of 1844. Farmstead still in use. (PP 06/04/09)

PRN: 94939 **NGR:** SN63889031
SITE NAME: CAE TY POETH
SITE TYPE: Placename
SITE STATUS:
FORM: Documents

CONDITION: Not known
SUMMARY:
A field name recorded on the tithe map as 'Cae Ty Poeth' which translates as hot/burning house. No structures are shown on the tithe map within or adjoining the field. (PP 06/0/09)

PRN: 94940 **NGR:** SN65009231
SITE NAME: TYN-Y-LLWYN
SITE TYPE: Farmstead
SITE STATUS:
FORM: Building
CONDITION: Intact
SUMMARY:
A small mid-19th century farmstead complex on the northern side of Llangynfelyn. Shown on the tithe map of 1844, still occupied. (PP 07/04/09)

PRN: 94941 **NGR:** SN68309636
SITE NAME: CAE'R BERLLAN
SITE TYPE: Farmstead;dwelling
SITE STATUS:
FORM: Building
CONDITION: Not known
SUMMARY:
A dwelling or small farmstead complex at the northern end of Cors Fochno, northern Ceredigion. The farmstead is first recorded on the tithe map of 1847-8, marked as a single unnamed building. (PP 07/04/09)

PRN: 94942 **NGR:** SN62808959
SITE NAME: CWM-GEULAN
SITE TYPE: Farmstead
SITE STATUS:
FORM: Documents
CONDITION: Not known
SUMMARY:
A small farmstead complex overlooking the southern edge of Cors Fochno, first recorded on the Ordnance Survey map of 1888. The site has since been abandoned. (PP 07/04/09)

PRN: 94943 **NGR:** SN62949269
SITE NAME: TY MAWR MOCHNO
SITE TYPE: Farmstead
SITE STATUS:
FORM: Building
CONDITION: Near Intact
SUMMARY:
A mid to late 19th century farmstead complex on the northernwestern side of Ynys Mochno. First marked on the Ordnance Survey map of 1889, still mostly in occupation. (PP 07/04/09)

PRN: 94944 **NGR:** SN62599333
SITE NAME: YNYS LAS FARM
SITE TYPE: Farmstead
SITE STATUS:
FORM: Building
CONDITION: Not known
SUMMARY:
A small mid - late 19th century farmstead complex on the northern fringes of Cors Fochno. First recorded on the Ordnance Survey map of 1889. Farmstead still in use. (PP 07/04/09)

PRN: 94945 **NGR:** SN65749249
SITE NAME: LLANERCH
SITE TYPE: Farmstead
SITE STATUS:
FORM: Building
CONDITION: Not known

SUMMARY:
A mid-late 19th century farmstead complex on the road between Tre'r Ddol and Craig yr Penrhyn. First shown on the Ordnance Survey map of 1888, site is still occupied. (PP 07/04/09)

PRN: 94946 **NGR:** SN63489007
SITE NAME: CERRIG-TRANAU-UCHAF
SITE TYPE: Enclosure
SITE STATUS:
FORM: Cropmark
CONDITION: Not known
SUMMARY:
Aerial photographs and LIDAR imaging picks out a roughly circular enclosure overlooking the southern edge of Cors Fochno. The enclosure measures 130m NE-SW by 120m NW-SE and is occupied by Cerrig-Tranau-Uchaf farmstead (PRN 94935) but may predate the farmstead. (PP 07/04/09)

APPENDIX 3

AUGER RESULTS

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Line 1 (long profile running NE-SW)
Augers taken at 2.5m intervals

Auger hole 1 (AH1) – Ground surface at 12.644m O.D.

Ground Surface	to	0.21m	Mid grey-brown topsoil
0.21m	to	0.57m	Mid orange-brown sandy-clay
0.57m	to	0.77m	Firm light grey sandy-clay with rare small sub-angular stones and some slightly larger sub-rounded stone.
0.77m	to	0.80m	Friable dark brown clayey-sand with common small gravel inclusions and a slight peaty smell.

Auger hole 2 (AH2) – Ground surface at 12.454m O.D.

Ground Surface	to	0.13m	Mid grey-brown topsoil
0.13m	to	0.30m	Firm mid yellow-brown sandy-clay with rare small sub-angular stone and occasional roots.

Auger hole 3 (AH3) – Ground surface at 12.6m O.D.

Ground Surface	to	0.25m	Mid grey-brown topsoil
0.25m	to	0.35m	Firm mid yellow-brown sandy-clay.

Auger hole 4 (AH4) – Ground surface at 12.693m O.D.

Ground Surface	to	0.23m	Mid grey-brown topsoil
0.23m	to	0.28m	Firm mid yellow-brown sandy-clay.

Auger hole 5 (AH5) – Ground surface at 12.942m O.D.

Ground Surface	to	0.21m	Mid grey-brown topsoil
0.21m	to	0.24m	Firm mid yellow-brown sandy-clay.

Auger hole 6 (AH6) – Ground surface at 12.625m O.D.

Ground Surface	to	0.20m	Mid grey-brown topsoil
0.20m	to	0.30m	Firm mid orange-brown sandy-clay.

Auger hole 7 (AH7) – Ground surface at 12.726m O.D.

Ground Surface	to	0.19m	Mid grey-brown topsoil
0.19m	to	0.28m	Firm mid orange-brown sandy-clay.

0.28m	to	0.32m	Firm light-grey clay

Auger hole 8 (AH8) – Ground surface at 12.661m O.D.

Ground Surface	to	0.10m	Mid grey-brown topsoil
0.10m	to	0.18m	Friable mid brown silty-clay mixed with underlying deposit.
0.18m	to	0.23m	Firm mid orange-brown sandy-clay
0.23m	to	0.32m	Firm light-grey clay mixed with mid orange-brown sandy-clay.

Auger hole 9 (AH9) – Ground surface at 12.483m O.D.

Ground Surface	to	0.16m	Mid grey-brown topsoil, very loose
0.16m	to	0.23m	Friable mid orange-brown sandy-clay with some mixed topsoil
0.23m	to	0.36m	Firm light orange-grey sandy-clay with common small angular stone.

Auger hole 10 (AH10) – Ground surface at 12.528m O.D.

Ground Surface	to	0.19m	Mid grey-brown topsoil
0.19m	to	0.27m	Friable mid orange-brown sandy-clay with common small sub-angular stone
0.27m	to	0.36m	Firm mid orange-brown sandy-clay with rare medium sub-rounded stone.

Auger hole 11 (AH11) – Ground surface at 12.479m O.D.

Ground Surface	to	0.10m	Mid grey-brown topsoil
0.10m	to	0.23m	Friable mid orange-brown sandy-clay mixed with topsoil
0.23m	to	0.32m	Firm mid orange-brown sandy-clay
0.32m	to	0.37m	Firm light-grey clay

Auger hole 12 (AH12) – Ground surface at 12.394m O.D.

Ground Surface	to	0.17m	Mid grey-brown topsoil
0.17m	to	0.32m	Firm mid orange-brown sandy-clay with occasional medium sub-rounded stone.

Auger hole 13 (AH13) – Ground surface at 12.284m O.D.

Ground Surface	to	0.21m	Mid grey-brown topsoil
0.21m	to	0.33m	Firm mid orange-brown sandy-clay.
0.33m	to	0.41m	Firm light-grey clay

Auger hole 14 (AH14) – Ground surface at 12.175m O.D.

Ground Surface	to	0.20m	Mid grey-brown topsoil
0.20m	to	0.28m	Firm mid orange-brown sandy-clay.
0.28m	to	0.32m	Friable mid orange-brown sandy clay mixed with light grey clay
0.32m	to	0.35m	Firm light grey clay

Auger hole 15 (AH15) – Ground surface at 12.119m O.D.

Ground Surface	to	0.15m	Mid grey-brown topsoil
0.15m	to	0.28m	Firm mid orange-brown sandy-clay.
0.28m	to	0.31m	Firm mid orange-brown sandy-clay with common small angular stones.

Auger hole 16 (AH16) – Ground surface at 12.014m O.D.

Ground Surface	to	0.20m	Mid grey-brown topsoil
0.20m	to	0.26m	Friable mid brown silty-clay with occasional flecks of crumbly stone
0.26m	to	0.35m	Firm light grey clay.

Auger hole 17 (AH17) – Ground surface at 11.975m O.D.

Ground Surface	to	0.13m	Mid grey-brown topsoil
0.13m	to	0.19m	Friable dark brown silty-clay with occasional sub-angular stone flakes
0.19m	to	0.21m	Firm mid orange-brown sandy-Clay
0.21m	to	0.33m	Firm light grey clay.

Auger hole 18 (AH18) – Ground surface at 11.848m O.D.

Ground Surface	to	0.12m	Mid grey-brown topsoil
0.12m	to	0.17m	Mid grey-brown topsoil with common gravel inclusions
0.17m	to	0.23m	Friable dark brown silty-clay
0.23m	to	0.29m	Firm mid orange-brown sandy-clay
0.29m	to	0.37m	Firm light grey clay

Auger hole 19 (AH19) – Ground surface at 11.785m O.D.

Ground Surface	to	0.18m	Mid grey-brown topsoil
0.18m	to	0.23m	Friable dark brown silty-clay with common gravel inclusions
0.23m	to	0.34m	Firm light grey-brown clay with occasional large sub-angular stone.

Auger hole 20 (AH20) – Ground surface at 11.718m O.D.

Ground Surface	to	0.15m	Mid brown topsoil
0.15m	to	0.23m	Firm mid yellow-brown sandy-

			clay with occasional small sub-angular stone
0.23m	to	0.31m	Firm light blue-grey sandy-clay with occasional angular stone flakes.

Auger hole 21 (AH21) – Ground surface at 11.642m O.D.

Ground Surface	to	0.11m	Dark brown dry peaty topsoil
0.11m	to	0.34m	Friable mid brown peaty-clay with occasional sub-angular gravel
0.34m	to	0.42m	Firm mid brown clay mixed with light grey clay and occasional sub-angular gravel.

Auger hole 22 (AH22) – Ground surface at 11.554m O.D.

Ground Surface	to	0.19m	Dark brown dry peaty topsoil
0.19m	to	0.31m	Friable mid brown peaty-clay with occasional sub-angular gravel
0.31m	to	0.39m	Firm light blue-grey clay.

Auger hole 23 (AH23) – Ground surface at 11.420m O.D.

Ground Surface	to	0.13m	Dark brown dry peaty topsoil with occasional clay lumps
0.13m	to	0.30m	Friable mid brown peaty-clay with occasional sub-angular gravel
0.30m	to	0.40m	Firm light blue-grey clay.

Auger hole 24 (AH24) – Ground surface at 11.307m O.D.

Ground Surface	to	0.17m	Dark brown dry peaty topsoil
0.17m	to	0.32m	Friable mid brown peaty-clay with occasional sub-angular gravel
0.32m	to	0.39m	Firm light blue-grey clay.

Auger hole 25 (AH25) – Ground surface at 11.193m O.D.

Ground Surface	to	0.18m	Dark brown dry peaty topsoil
0.18m	to	0.34m	Friable mid brown peaty-clay mixed with light grey clay
0.34m	to	0.42m	Firm light blue-grey clay with occasional medium sub-angular gravel.

Auger hole 26 (AH26) – Ground surface at 11.054m O.D.

Ground Surface	to	0.33m	Dark brown compact dry peaty topsoil
0.33m	to	0.50m	Friable mid brown peaty-clay with occasional sub-angular stone flakes. Separated from

			topsoil by 20mm thick band of gravel
0.50m	to	0.60m	Firm light blue-grey clay.

Auger hole 27 (AH27) – Ground surface at 10.907m O.D.

Ground Surface	to	0.28m	Dark brown peaty topsoil
0.28m	to	0.53m	Firm light blue-grey clay with rare small sub-angular gravel.

Auger hole 28 (AH28) – Ground surface at 10.796m O.D.

Ground Surface	to	0.43m	Dark brown peaty topsoil
0.43m	to	0.50m	Friable and wet mix of peat and brown clay
0.50m	to	0.59m	Friable and wet mix of light blue-grey clay and wet peat.
0.59m	to	0.67m	Firm light blue-grey clay with occasional small sub-angular stone
0.67m	to	0.76m	Firm light orange-blue clay with occasional small gravel inclusions.

Line 8 – Augers taken at 5m intervals
(Extension of line 1 running NE-SW)

Auger hole 29 (AH29) – Ground surface at 10.773m O.D.

Ground Surface	to	0.14m	Dark brown dry peaty topsoil
0.14m	to	0.30m	Loose mid brown peaty-loam
0.30m	to	0.80m	Firm light blue-grey clay with frequent small sub-angular stones.

Auger hole 30 (AH30) – Ground surface at 10.490m O.D.

Ground Surface	to	0.35m	Dark brown dry peaty topsoil
0.35m	to	0.63m	Friable dark brown peat mixed with some light grey clay
0.63m	to	0.80m	Firm light blue-grey clay with frequent small sub-angular stones.

Auger hole 31 (AH31) – Ground surface at 10.451m O.D.

Ground Surface	to	0.39m	Dark brown peaty topsoil
0.39m	to	0.66m	Friable mid brown peaty-loam with bracken roots
0.66m	to	0.70m	Firm dry light blue-grey clay with common small crumbly sub-angular stone.
0.70m	to	0.75m	Friable dark brown peat with occasional medium sub-angular stone
0.75m	to	0.90m	Firm light green-grey clay with frequent small sub-angular stone.

Auger hole 32 (AH32) – Ground surface at 10.404m O.D.

Ground Surface	to	0.75m	Dark brown peaty topsoil
0.75m	to	1.10m	Friable dark brown peat
1.10m	to	1.38m	Firm mid grey-brown clay with frequent small sub-angular stone.

Auger hole 33 (AH33) – Ground surface at 10.282m O.D.

Ground Surface	to	1.50m	Dark brown peaty-loam
1.50m	to	1.75m	Firm dark grey clay with abundant small sub-angular stone.

Auger hole 34 (AH34) – Ground surface at 9.859m O.D.

Ground Surface	to	1.40m	Dark brown peaty-loam
1.40m	to	1.60m	Firm light green-grey clay with occasional peaty inclusion.
1.60m	to	1.69m	Firm light grey clay.

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Line 1- Augers taken at 5m intervals
(Westernmost line, running NNW-SSE)

Auger hole 1 (AH1)

Ground Surface	to	0.04m	Mid grey-brown topsoil and turf
0.04m	to	0.27m	Loose mid grey-brown silty-clay
0.27m	to	0.33m	Friable light brown silty-clay
0.33m	to	0.48m	Friable dark brown silty-peat with rare small gravel inclusions.

Auger hole 2 (AH2)

Ground Surface	to	0.05m	Mid grey-brown topsoil and turf
0.05m	to	0.15m	Loose mid grey-brown silty-clay with rare small sub-rounded stone.
0.15m	to	0.40m	Loose dark brown peat.
0.40m	to	0.62m	Friable dark brown peaty-clay with occasional small rounded stone.

Auger hole 3 (AH3)

Ground Surface	to	0.05m	Mid grey-brown topsoil and turf
0.05m	to	0.49m	Friable dark grey-brown peaty-clay with rare wood inclusions.
0.49m	to	0.53m	Friable mid brown silty-clay.
0.53m	to	0.98m	Friable light brown silty-clay with occasional peaty inclusions increasing to the base of the deposit.

Auger hole 4 (AH4)

Ground Surface	to	0.05m	Mid grey-brown topsoil and turf
0.05m	to	0.51m	Friable light brown silty-peat with rare small sub-rounded stone.
0.51m	to	0.99m	Friable light brown silty-clay with occasional small rounded stone

Auger hole 5 (AH5)

Ground Surface	to	0.05m	Mid grey-brown topsoil and turf
0.05m	to	0.21m	Loose light brown silty-peat with occasional small sub-angular stone.
0.21m	to	0.37m	Loose deposit missing from sample.
0.37m	to	0.54m	Friable light brown silty-clay with common small angular stone.
0.54m	to	0.76m	Mid brown peat with occasional

small sub-angular stone.

Auger hole 6 (AH6)

Ground Surface	to	0.05m	Mid grey-brown topsoil and turf
0.05m	to	0.16m	Friable light brown silty-clay with common small sub-angular stone.
0.16m	to	0.36m	Loose mid brown peat with rare small sub-rounded stone.
0.36m	to	0.41m	Sample missing.
0.41m	to	0.55m	Mid brown silty-clay with rare small sub-rounded stone.
0.55m	to	0.78m	Mid brown peat with occasional small sub-rounded stone.
0.78m	to	0.81m	Firm light grey clay with rare small sub-angular stone.

Auger hole 7 (AH7)

Ground Surface	to	0.05m	Mid grey-brown topsoil and turf
0.05m	to	0.20m	Friable light brown silty-clay with occasional small sub-angular stone.
0.20m	to	0.28m	Loose light brown silty-clay with common sub-rounded stone.

Auger hole 8 (AH8)

Ground Surface	to	0.03m	Mid grey-brown topsoil and turf
0.03m	to	0.13m	Friable mid brown silty-clay with common small sub-angular stone.
0.13m	to	0.84m	Friable mid grey-brown silty-clay with occasional small sub-rounded stone.
0.84m	to	0.98m	Firm light grey clay with rare small sub-angular stone.

Auger hole 9 (AH9)

Ground Surface	to	0.04m	Mid grey-brown topsoil and turf
0.04m	to	0.08m	Friable mid grey-brown silty-clay with occasdional small sub-angular stone.
0.08m	to	0.13m	Friable light brown silty-clay
0.13m	to	0.30m	Friable light brown silty-clay occasional small sub-rounded stone.

Line 2 - Augers taken at 5m intervals
(Central line, running NNW-SSE)

Auger hole 1 (AH1)

Ground Surface	to	0.05m	Mid grey-brown topsoil and turf
0.05m	to	0.10m	Friable mid grey-brown silty-clay

0.10m	to	0.74m	Dark brown peat
0.74m	to	1.00m	Friable light brown peaty-clay with rare small angular flat stone inclusions.

Auger hole 2 (AH2)

Ground Surface	to	0.13m	Mid grey-brown topsoil and turf
0.13m	to	0.37m	Material missing from sample
0.37m	to	0.56m	Friable dark brown peat
0.56m	to	0.96m	A mixed peat and light brown clay layer with occasional large stone inclusions.

Auger hole 3 (AH3)

Ground Surface	to	0.05m	Mid grey-brown topsoil and turf
0.05m	to	0.18m	Material missing from sample
0.18m	to	0.30m	Friable dark brown peat
0.30m	to	0.45m	Friable dark grey peaty-clay with occasional angular stone inclusions
0.45m	to	0.90m	Firm light grey peaty-clay with occasional small-medium sub-rounded stone

Auger hole 4 (AH4)

Ground Surface	to	0.08m	Mid grey-brown topsoil and turf
0.08m	to	0.50m	Loose dark brown peat with rare small sub-rounded stone inclusions
0.50m	to	0.80m	Firm light brown clay with common small sub-rounded stone

Auger hole 5 (AH5)

Ground Surface	to	0.06m	Mid grey-brown topsoil and turf
0.06m	to	0.11m	Material missing from sample
0.11m	to	0.17m	Friable mid brown peat with rare small stone inclusions
0.17m	to	0.61m	Loose mid brown peaty-clay with rare large sub-angular stone
0.61m	to	0.91m	Firm mid orange-brown sandy-clay with common medium sub-angular stone

Auger hole 6 (AH6)

Ground Surface	to	0.02m	Mid grey-brown topsoil and turf
0.02m	to	0.22m	Loose dark brown peat with occasional small sub-angular stone
0.22m	to	0.34m	Loose dark brown peat
0.34m	to	0.36m	Firm light brown peaty-clay with

			common small sub-rounded stone
0.36m	to	0.49m	Material missing from sample (too wet)

Auger hole 7 (AH7)

Ground Surface	to	0.05m	Mid grey-brown topsoil and turf
0.05m	to	0.41m	Loose dark brown peaty-silt
0.41m	to	0.55m	Light grey-brown sandy-clay with abundant rounded stone

Auger hole 8 (AH8)

Ground Surface	to	0.05m	Mid grey-brown topsoil and turf
0.05m	to	0.58m	Loose mid brown peat with occasional sub-angular stone
0.58m	to	0.63m	Mixed grey and orange-brown peaty-clay
0.63m	to	0.68m	Very wet light grey-brown clay with occasional sub-angular stone and gravel
0.68m	to	0.88m	Firm light grey clay with common small sub-angular stone

Auger hole 9 (AH9)

Ground Surface	to	0.03m	Mid grey-brown topsoil and turf
0.03m	to	0.08m	Friable mid grey brown peaty-clay
0.08m	to	0.11m	Material missing from sample
0.11m	to	0.32m	Firm light brown clay
0.32m	to	0.47m	Firm light grey-brown clay with abundant small sub-angular stones

Auger hole 10 (AH10)

Ground Surface	to	0.06m	Mid grey-brown topsoil and turf
0.06m	to	0.14m	Material missing from sample
0.14m	to	0.37m	Loose dark brown silty-peat with common small sub-angular stone
0.37m	to	0.67m	Firm mid orange-grey clay with a layer of broken slate at 0.50m

Auger hole 11 (AH11)

Ground Surface	to	0.06m	Mid grey-brown topsoil and turf
0.06m	to	0.12m	Material missing from sample
0.12m	to	0.29m	Friable light brown peaty-silt with rare small sub-angular stone
0.29m	to	0.49m	Firm light brown peaty-clay with occasional sub-angular stone
0.49m	to	0.66m	Firm mid orange-brown clay

Auger hole 12 (AH12)

Ground Surface	to	0.04m	Mid grey-brown topsoil and turf
0.04m	to	0.43m	Loose light brown clayey-peat with occasional sub-angular stone
0.43m	to	0.52m	Loose layer of gravel
0.52m	to	0.55m	Firm mid brown-orange sandy clay with occasional sub-rounded stone

Auger hole 13 (AH13)

Ground Surface	to	0.08m	Mid grey-brown topsoil and turf
0.08m	to	0.30m	Unrecorded
0.30m	to	0.44m	Friable light brown clayey-peat with occasional sub-angular stone
0.44m	to	0.52m	Firm light orange-brown clay
0.52m	to	0.65m	Light grey clay with common small sub-rounded stone

Auger hole 14 (AH14)

Ground Surface	to	0.08m	Mid grey-brown topsoil and turf
0.08m	to	0.35m	Friable light brown silty-peat with rare large sub-angular stone
0.35m	to	0.49m	Friable light brown silty-peat with occasional small sub-angular stone
0.49m	to	0.61m	Friable dark brown peaty-clay with common sub-angular stone

Auger hole 15 (AH15).

Ground Surface	to	0.06m	Mid grey-brown topsoil and turf
0.06m	to	0.48m	Loose mid brown silty-clay with occasional sub-angular stone
0.48m	to	0.61m	Firm dark grey clay
0.61m	to	0.78m	Friable light brown silty-clay with occasional sub-angular stone

Auger hole 16 (AH16)

Ground Surface	to	0.05m	Mid grey-brown topsoil and turf
0.05m	to	0.21m	Mid grey-brown silty-clay with rare sub-angular stone
0.21m	to	0.39m	Friable light grey clay
0.39m	to	0.49m	Firm light grey clay with rare small sub-rounded stone
0.49m	to	0.59m	Firm light grey clay with common sub-angular stone
0.59m	to	0.62m	Friable light grey clay with abundant small to medium sub-rounded stone
0.62m	to	0.75m	Material missing from sample

Auger hole 17 (AH17)

Ground Surface	to	0.05m	Mid grey-brown topsoil and turf
0.05m	to	0.23m	Loose dark brown silty-clay
0.23m	to	0.41m	Loose dark brown silty-clay with abundant sub-angular stone
0.41m	to	0.60m	Material missing from sample
0.60m	to	0.67m	Firm mid grey clay overlying loose gravel

Auger hole 18 (AH18)

Ground Surface	to	0.04m	Mid grey-brown topsoil and turf
0.04m	to	0.22m	Mid grey-brown silty-clay with rare sub-angular stone
0.22m`	to	0.32m	Mid grey-brown silty-clay with abundant rounded stone
0.32m	to	0.52m	Material missing from sample
0.52m	to	0.62m	Firm light grey-brown clay with common sub-angular stone
0.62m	to	0.72m	Material missing from sample (too wet).

Line 3 - Augers taken at 5m intervals
(Easternmost line, running NNW-SSE)

Auger hole 1 (AH1)

Ground Surface	to	0.15m	Friable mid brown silty topsoil and turf
0.15m	to	0.36m	Dark brown sandy-silt mixed with amorphous peat
0.36m	to	0.45m	Dark brown peat with occasional small gravel and clay inclusions
0.45m	to	0.62m	Dark brown amorphous peat (water table reached at 0.5m)
0.62m	to	0.82m	Firm light grey silty-clay with common rounded gravel

Auger hole 2 (AH2)

Ground Surface	to	0.10m	Friable mid brown sandy-silt topsoil and turf
0.10m	to	0.16m	Dark brown amorphous peat
0.16m	to	0.30m	Firm light grey sandy-clay with occasional small sub-angular stone
0.30m	to	0.45m	Firm dark grey sandy-clay with rare medium sub-angular stone

Auger hole 3 (AH3)

Ground Surface	to	0.17m	Friable mid brown sandy-silt topsoil and turf
0.17m	to	0.35m	Friable light brown sandy-clay

			with rare small sub-angular stone
0.35m	to	0.45m	Firm light orange-grey sandy-clay
0.45m	to	0.50m	Firm mid brown-grey sandy-clay with occasional small-medium angular stone
0.50m	to	0.65m	Firm mid grey clay with occasional medium sub-angular stone
0.65m	to	0.85m	Firm mid grey clay with common sub-angular gravel
0.85m	to	1.00m	As above but very wet, overlying a yellow sandy-clay

Auger hole 4 (AH4)

Ground Surface	to	0.20m	Friable dark brown silt topsoil and turf
0.20m	to	0.31m	Friable mid yellowish-brown sandy-clay with occasional sub-angular stone
0.31m	to	0.45m	Firm light yellow-grey sandy-clay with occasional sub-angular stone

Auger hole 5 (AH5)

Ground Surface	to	0.35m	Friable dark brown silt topsoil and turf
0.35m	to	0.60m	Firm mid grey sandy-clay with occasional angular stone
0.60m	to	0.75m	Friable mid yellow-brown sandy-clay with rare medium sub-rounded stone
0.75m	to	0.85m	Firm and wet yellow-grey sandy-silt with common sub-rounded gravel

Auger hole 6 (AH6)

Ground Surface	to	0.10m	Friable dark brown silty topsoil and turf
0.10m	to	0.35m	Friable dark brown peaty-clay with bands of broken shale fragments
0.35m	to	0.50m	Friable dark brown peaty-clay with occasional angular stone and light grey clay inclusions
0.50m	to	0.60m	Friable mid yellow-brown silty-clay with possible charcoal fragments bottoming onto stone

Auger hole 7 (AH7)

Ground Surface	to	0.10m	Friable dark brown silty topsoil and turf
0.10m	to	0.27m	Unrecorded

0.27m	to	0.47m	Friable light brown sandy-silt with common sub-rounded pebbles

Auger hole 8 (AH8)

Ground Surface	to	0.10m	Friable dark brown silty topsoil and turf
0.10m	to	0.15m	Friable mid grey-brown sandy-silt with occasional sub-angular stone
0.15m	to	0.25m	Friable mid grey-brown sandy-clay with rare medium sub-rounded stone

Auger hole 9 (AH9)

Ground Surface	to	0.10m	Friable dark brown silty topsoil and turf
0.10m	to	0.20m	Friable mid brown sandy-silt with occasional large sub-rounded stone
0.20m	to	0.30m	Friable mid grey-brown silty-sand with occasional sub-rounded stone

Auger hole 10 (AH10)

Ground Surface	to	0.10m	Friable dark brown silty topsoil and turf
0.10m	to	0.20m	Friable mid brown sandy-silt with common sub-angular stone
0.20m	to	0.30m	Friable mid brown sandy-silt with occasional large sub-angular stone

Auger hole 11 (AH11)

Ground Surface	to	0.10m	Friable dark brown silty topsoil and turf
0.10m	to	0.20m	Friable mid grey-brown sandy-silt with occasional sub-angular stone

Auger hole 12 (AH12)

Ground Surface	to	0.09m	Friable mid brown silty topsoil and turf
0.09m	to	0.26m	Friable mid brown silty-clay with rare small sub-angular stone and a band of broken shale for the last 0.06m
0.26m	to	0.36m	Firm light grey-brown sandy-silt with rare sub-angular stone

Auger hole 13 (AH13)

Ground Surface	to	0.10m	Friable mid brown silty topsoil

			and turf
0.10m	to	0.16m	As above with common sub-rounded stone
0.16m	to	0.23m	Friable mid brown silty-clay with a base of sub-rounded gravel
0.23m	to	0.43m	Friable dark brown sandy-silt with possible burnt (blackened) material mixed in.
0.43m	to	0.73m	Friable mid orange-brown sandy-clay with possible burnt (blackened) material mixed in
0.73m	to	0.93m	Firm mid orange sandy-clay, wetter
0.93m	to	1.00m	Firm and wet dark reddish-brown sandy-clay with blackened fragments. Overlies solid shale

WETLAND MARGINS SURVEY: CORS FOCHNO

RHIF YR ADRODDIAD / REPORT NUMBER 2008/114

Mawrth 2009
March 2009

Paratowyd yr adroddiad hwn gan / This report has been prepared by Philip Poucher

Swydd / Position: Project Manager

Llofnod / Signature ..... Dyddiad / Date

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

ar ran Ymddiriedolaeth Archaeolegol Dyfed Cyf.
on behalf of Dyfed Archaeological Trust Ltd.

Swydd / Position:

Llofnod / Signature ..... Dyddiad / Date

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

As part of our desire to provide a quality service we would welcome any comments you may have on the content or presentation of this report