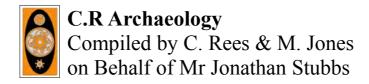
Results of Desk-based Assessment at

Proposed Mountain Bike Track, Near Betws-y-Coed



NGR SH 80583 57359

Report Number CR73-2014



Acknowledgements

With thanks to staff at Bangor and Conwy Archives & Gwynedd H.E.R for all their help during our research.

Site Visit Conducted by Matthew Jones Historical Research Conducted by Matthew Jones Report Written by Catherine Rees & Matthew Jones



Planning Application Number: Pre-planning

National Grid Reference: NGR SH 80583 57359
Client: Mr Jonathan Stubbs

Report Authors: M. Jones & C. Rees

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Appendix A. Results of 1000m Radius Gwynedd Historical Environment Search

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1.0 Introduction

C.R Archaeology have been instructed by Mr Jonathan Stubbs of 350 (Mountain Biking) to conduct an archaeological assessment of the site of a proposed new mountain bike track and bike lift to the rear of Tree Top Adventure, Llanrwst Road, near Betws-y-Coed (figure 1).

The proposed scheme will cover an area of approximately 1000m x 600m although there will be minimal ground works associated with the development. Only a small fraction of this large area will be utilised for the creation of mountain bike trackways and a bike lift with associated concrete raft construction. Every attempt will be made to avoid the removal of any trees and the development will have a minimal impact on the surrounding landscape. The outline details of this development are shown in figure 2.

The final routes of the bike runs have been influenced by the preliminary results of the research undertaken in the production of this document. Features of archaeological/historic interest identified during this assessment phase of works (including mine workings and agricultural features) have been avoided wherever possible so that the development will have a minimal negative impact on the known archaeology of the area.

This document has also been prepared to supply the Snowdonia National Park Archaeologist with information as to the potential archaeological impacts of the aforementioned scheme. It is intended that the results of the works outlined in this document will inform decisions as to the nature of any archaeological mitigation strategies which may be required.

The site is located in coniferous forestry adjacent to the A470 Llanrwst road. It is positioned on the steep slopes of a hill. The site is situated within the Snowdonia National Park. It does not contain any Listed Buildings or Scheduled Ancient Monuments. There are however several designated sites in the vicinity including Grade II and II* Listed agricultural buildings at Rhyd-y-Creua, Cilcennus and Hafod Farms. Within the proposed development area there is a sheep fold and field boundaries shown on the earlier editions of the Ordnance Survey.

The Conwy Valley was extensively exploited for lead and other minerals during the Post Medieval period and large areas around Betws-y-Coed and Trefriw were mined. Smaller quarries and mines have been recorded on both the east and west sides of the Conwy valley. Extensive lead mining activity was carried out within the site limits and in the surrounding area. There are numerous Post Medieval sites associated with the extraction industries surrounding and within the site.

The coniferous trees which currently cover the site are a relatively recent addition to the landscape and have been planted after the surveying for the 1954 Ordnance Survey Map was undertaken. The area can be shown on historic mapping to have once contained deciduous woodland and formed part of an extensive woodland which covered an area from the north of Hendre Estate down to the foothills of Gallt-y-Foel. This woodland did not cover the whole of the proposed development area with approximately one third of the land shown as grazing or bare rock/mine workings. The tree roots are likely to have caused extensive damage to any underlying remains.

It is believed that any activity on site prior to the Post Medieval Period is likely to have periodic and temporary due to the steep topography of the area which would have made the land unsuitable for anything other than the grazing of sheep and hunting. It must however be noted that there is the possibility that metal extraction could have been undertaken during earlier periods and a Bronze Age flat axe was recovered from the head of a lead mine near the Oakland Estate. The more recent mining activity is however likely to have removed all trace of any earlier workings.

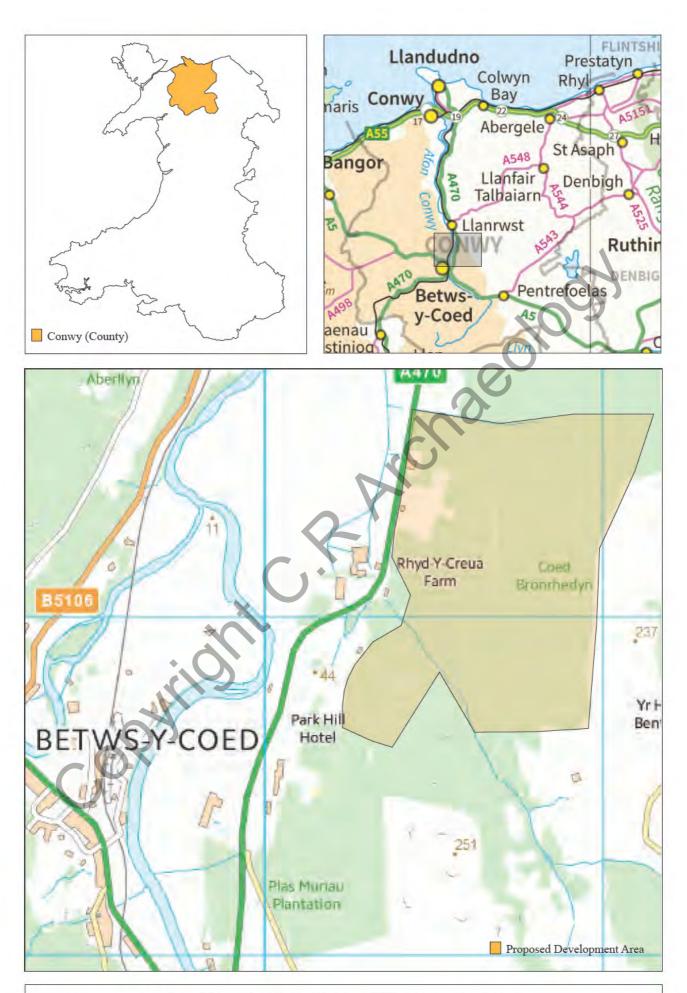
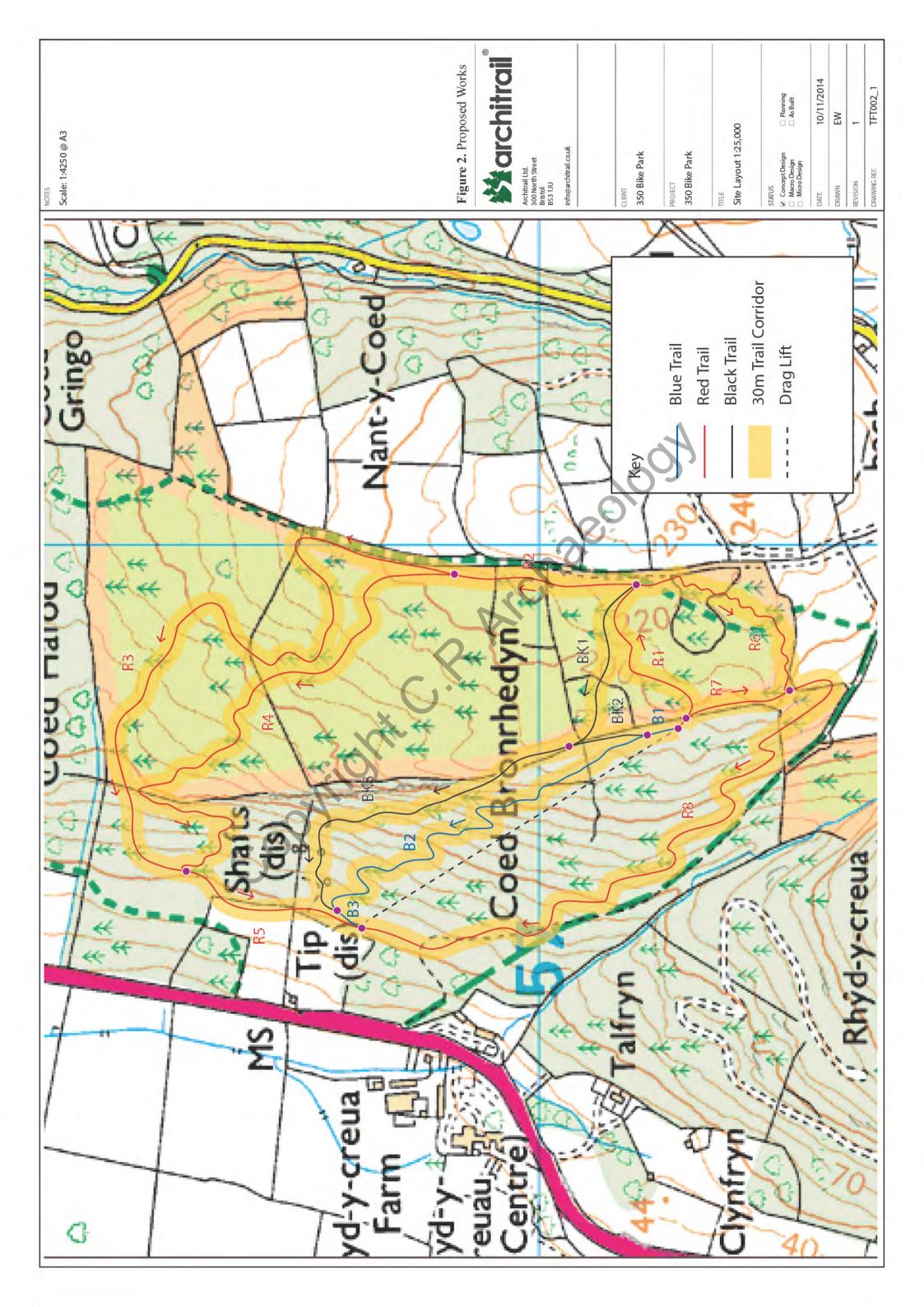


Figure 1. Site Location Map - Source: OS Open Data (Contains Ordnance Survey data © Crown copyright and database right 2014)



Due to the steep topography, Post Medieval industrial activity and damage from tree roots it is considered that this is an area of low archaeological potential. There is the small possibility that the works required in the construction of the bike lift will uncover archaeological remains, and it may be considered prudent to conduct an archaeological watching brief on the groundworks associated with the development but it is felt unlikely that this will yield a positive result.

The impact of the development on designated sites within the immediate area has been examined in this assessment and it not felt that the siting of a mountain bike centre in this location will have a detrimental effect on designated historic assets (Listed Buildings/Park & Gardens of Special Historic Interest) or the character of this area of the Snowdonia National Park.

2.0 Project Aims & Objectives

This programme of works for the proposed site of the mountain bike centre aimed to undertake a desk-based assessment and walkover survey. It also aimed to examine the impact of the proposed scheme upon the character of the historic landscape.

The first aim of this scheme of works was to undertake desk based historical research exploring the history/archaeology of the site. This information included a map progression and archival research in order to compile a coherent narrative history of the site and it's environs.

The Gwynedd Historic Environment Record (HER), the Royal Commission on the Ancient and Historical Monuments Wales (RCAHMW) database, Bangor University and Conwy Archives along with relevant publications were consulted to compile a record of known archaeological sites in the vicinity.

The second aim of this archaeological investigation was to undertake a walkover survey of the site and assess the survival of above ground archaeological remains (i.e. earthworks and standing structures).

It is intended that this document be utilised to inform further archaeological planning decisions and conditions at the site.

The objectives of this programme of works were:

- To make full and effective use of existing information to establish the archaeological significance of the site
- To assess the impact of the development proposals on surviving monuments or remains both within the development area and in the surrounding landscape
- To help inform future decision making, design solutions and potential mitigation strategies

3.0 Scheme of Works - Methodology

Archaeological works were conducted in two sections and each is detailed separately below.

3.1 Desk Based Research

A complete and coherent history of the site was compiled utilising material sourced from Conwy Archives, Bangor University Archives and the Gwynedd HER. This allowed as comprehensive a history as possible to be compiled. A full map progression of the area was undertaken. Where appropriate the archive information was supplemented with information from local libraries and specialist interest websites & journals.

In order to identify the character of archaeological remains in the vicinity of the site a search of the Gwynedd HER was conducted examining an area within a 1000m radius of the centre of the proposed works. The RCAHMW database and aerial photographs/satellite imagery of the site were also examined. The information collected is discussed within the main report text.

The works were carried out accordance with the IfA Standards and Guidance for historic environment desk-based assessment (IfA 1994 (Revised 2009).

This material forms the historical background for a full archaeological report.

3.2 Walkover Survey

A walkover survey of the proposed site was undertaken by Matthew Jones of C.R Archaeology. Due to the large area covered and the dense tree cover it was not possible to walk the site in its entirety. A photographic record of the site was created showing the general character of the area and the general condition of the mine workings within the area. The location of the photographs taken was noted on the site plan and this is included in Appendix B.

In this instance although a detailed walkover could not be conducted it was felt that an adequate visual assessment was made during the site visit.

A second site visit was undertaken when the route for the bike trackway was finalised. In order to avoid the SSI's on site it will be necessary that the track will pass over a post medieval mine shaft identified through archive research and the second visit was made to record the above ground remains of this working. A photographic record with scales was made although it was deemed unsafe to enter the feature.

The works were carried out accordance with the IFA Standards and Guidance for historic environment desk-based assessment (IfA 1994 (Revised 2009).

3.3 Equipment

The photographic record compiled during the walkover survey was undertaken using a 14.2 megapixel Sony A350 digital camera with a variety of standard and other lenses. Images were captured in RAW format for later processing into high resolution JPG and TIF files.

3.4 Timetable for Proposed Works

The walkover surveys were undertaken on the 6^{th} July 2014, the second walkover was undertaken on September 30^{th} 2014. Further time was allotted for archive research, report compilation and site archiving.

3.5 Staffing

The project was managed by Catherine Rees (BA (Archaeology), MA (Archaeology) Postgraduate Diploma (Historic Environment Conservation) & Matthew Jones (BA (Archaeology), MA (Archaeology). All staff will have a skill set equivalent to the IfA AIfA level. C.Vs for all staff employed on the project can be provided on request. All projects are carried out in accordance with IfA Standard and Guidance documents.

3.6 Monitoring

This report was compiled during the pre-planning phase of the application. It is however intended that this document be submitted to the Snowdonia National Park Archaeologist who will make further decisions as to any archaeological mitigation which may be required should the proposed development be granted planning permission.

3.7 Health and Safety

A risk assessment was conducted prior to the commencement of works and site staff were familiarised with its contents. A first aid kit was located in the site vehicle.

All staff were issued with appropriate Personal Protective Equipment (PPE) for the site work. This consisted of:

- Hi-visibility vests (EN471)
- Safety footwear steel toecap and mid-sole boots and Wellingtons (EN345-47)
- Mobile Telephone
- Suitable Walking Boots & Waterproofs

All staff have passed at least a CITB health and safety test at least operative level and carry a Construction Related Organisation (CRO) White Card for Archaeological Technician (Code 5363) or a Site Visitor card.

3.8 The Report

This report clearly and accurately incorporates information gained from the programme of archaeological works. It presents the documentary evidence gathered in such a way as to create a clear and coherent record. The report contains a site plan showing the locations of photographs taken.

The desk-based assessment considered the following:

- the nature, extent and degree of survival of archaeological sites, structures, deposits and landscapes within the study area
- the significance of any remains in their context both regionally and nationally
- the history of the site
- the potential impact of any proposed development on the setting of known sites of archaeological importance
- the potential for further work with appropriate recommendations

It is intended that this report will inform decisions as to the necessity and/or nature of any further archaeological mitigation strategies which may be required.

A digital Adobe PDF version and a bound paper copy of the final report and will be lodged with the Gwynedd Historic Environment Record within six months of the planning application decision.

3.8.1 Copyright

C.R Archaeology and sub-contractors shall retain full copyright of any commissioned reports, tender documents or other project documents, under the Copyright, Designs and Patents Act 1988 with all rights reserved; excepting that it hereby provides a licence to the client and the local authority for the use of the report by the client and the local authority in all matters directly relating to the project as described in the Project.

4.0 Geographic and Geological Context

4.1 Topography

The site is located adjacent to the A470 Llanrwst Road where it runs approximately north-south between Llanrwst and Betws-y-Coed. It is on a steep hillside which is currently covered with coniferous forestry.

4.2 Geology

The superficial geology at the site is not recorded. The bedrock geology at the site is formed from two strata. The first covered is "Upper Crafnant Volcanic Formation - Felsic Tuff And Felsic Tuffite. Igneous Bedrock formed approximately 454 to 455 million years ago in the Ordovician Period. Local environment previously dominated by explosive eruptions of silica-rich magma. These rocks were formed from viscous and highly gaseous silica-rich magma. It rose to the surface, where sudden pressure relief caused explosive volcanic eruptions, producing fragmentary pyroclastic material or ash". The second strata is "Snowdon Volcanic Group - Mudstone And Siltstone. Sedimentary Bedrock formed approximately 451 to 461 million years ago in the Ordovician Period. Local environment previously dominated by shallow seas. These rocks were formed in shallow seas with mainly siliciclastic sediments (comprising of fragments or clasts of silicate minerals) deposited as mud, silt, sand and gravel" (www.bgs.ac.uk).

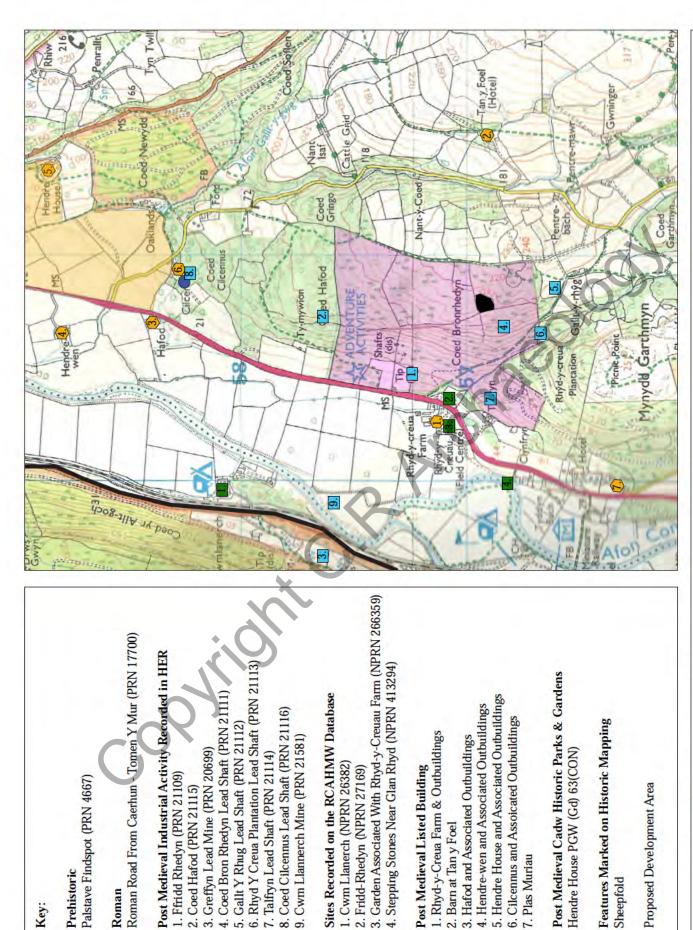
5.0 Archaeological and Historical Background

Research was conducted at Conwy and Bangor University Archives The records held for the parish of Llanrwst and the Bodnant Estate along with mining records for the area were examined. Relevant information from these searches is included below. Where the exact location of findspots/sites is unknown this information is included only if it is felt relevant to provide an indication of the archaeology of the area.

A search of the Gwynedd Historic Environment Record was conducted on the 17 July 2014. An area covering a radius of 1000m from the central point of the development was examined. The results of this search are included in Appendix A and are plotted on figure 3. Figure 3 also includes the results of a search of the RCAHMW database, Listed Buildings and Registered Historic Parks & Gardens within the vicinity of the site. There are 16 Listed Buildings in the vicinity of the proposed development, along with one Grade II Listed Garden. There are no Scheduled Ancient Monuments within a 2km search radius of the site. The nearest monuments are Hafodlas Slate Quarry Mills (CN295) situated 2.3km to the west of the development, Capel Garmon Burial Chamber (DE001) located 2.5km to the south-east of the development and Coed Mawr Pool Lead Mine (CN332) which lies 2.7km to the north-west of the proposed development. Distances have been measured from the monument to the closest site boundary.

5.1 Prehistoric

A single record from the prehistoric period was held in the Gwynedd HER. This was the findspot of a single Bronze Age palstave axe (PRN 4667) which was recovered from the head of a lead mine near the Oakland estate (Davies 1929: 341-2). The discovery was reported in the Liverpool Courier (November 9th 1822). The article reported that it was discovered "in the ruins of the earth two yards deep, as some miners were digging and forming a puddle or washing place for lead at the Lead Mine Works adjoining Cilcennis, about two and one half miles south of Llanrwst" (Bennet & Vernon 1992: 102). It raises the interesting possibility that the metal veins in this area were known to and exploited by the prehistoric population but it is likely that any conclusive evidence of this would have been removed by Post Medieval activity.



Key:

Figure 3. Sites Within 1000m Search Radius (Source Gwynedd HER) & Additional Designated Historic Assets (Contains Ordnance Survey data © Crown copyright 2014 Licence Number 100055289)

5.2 Romano-British

It has been postulated that part of the Roman Road which runs between the forts of Canovium and Tomen Y Mur (PRN 17700) lies within the search area (Hopewell 2014: 24). It is located on the opposite site of the River Conwy and does not cross into the proposed development area.

5.3 Medieval

A study carried out by Johnson for the Gwynedd Archaeological Trust has identified the Medieval Township of Cwmllanerch (PRN 6838) within the area of Betws-y-Coed.

5.4 Post-Medieval

The Conwy valley is well known for its extensive lead and mineral mines which were exploited during the Post Medieval period. Large areas around Betws-y-Coed and Trefriw were mined and smaller quarries and mines have been recorded on both the east and west sides of the Conwy valley. Extensive lead mining activity was conducted both within the 1000m search radius of the site and within the site boundaries.

Within 500m of the central point of the development are the mines of Ffridd Rhedyn (PRN 21109) and Coed Hafod (PRN 21115). It has been suggested that both these sites may have been worked in the 17th century when the lease for the land was held by the Wynn family of the Gwydyr Estate. Evidence of this is attributed to the presence of spoil tips but no associated mine.

Documentary evidence was sourced from the Porth-yr-Aur manuscripts and the accounts of Trefriw shipping wharf. These documents discuss the formation of a company in the 1820 and the awarding of a lease on the land in 1850. This company is named as The Gallt-y-Ffrith Rhedyn Lead Mining Company. In the 1853 Mining Journal they registered as Limited Liability Company and in 1856 over 5000 shares were issued at £10 each. Evidence for working at mine then tails off until 1860 when it is reported in the Trefriw wharfage books that lead ore weighing over three quarters of tonne had come form this site. It is believed that around this time the site was taken over by a new owner who is listed as Mr J Collingwood in 1869 (Bennett & Vernon 1992: 105).

No further information regarding the mine could be found until 1901 when a letter shows that the then owner George Wynne was in arrears of half a years rent (£6) on the site. This shows that the site was not a large operation and it continued this way until 1908 when George Wynne died and the site was closed (Bennett & Vernon 1992: 107).

The 1000m HER search identified the remains of numerous other small mining ventures and gives an idea about the landscape use in this period. These will be listed and included on figure 3 but the individual histories or each mine/shaft will not be discussed in any detail.

The following mines/shafts are located with 1000m of the centre of the proposed development area: Greffyn Lead Mine (PRN 20699), Coed Bron Rhedyn Lead Shaft (PRN 21111), Gallt Y Rhug Lead Shaft (PRN 21112), Rhyd Y Creua Plantation Lead Shaft (PRN 21113), Talfryn Lead Shaft (PRN 21114), Coed Cilcennus Lead Shaft (PRN 21116) and Cwm Llannerch Mine (PRN 21581).

Further information on the mines can be found in an extensive seven volume study of the Mines of the Gwydyr Forest compiled by John Bennett and Robert Vernon in 1992 which includes entries for the mines /workings mentioned above (relevant material is contained in Volume 4: Aberllyn Mine, Betws-y-Coed and Adjacent Sites). This work includes a detailed compilation and dissemination of archival material and the survey and recording of the sites within the proposed development area. Figure 4 has correlated the maps from their work with Ordnance Survey data to produce a record of the location of identified workings.

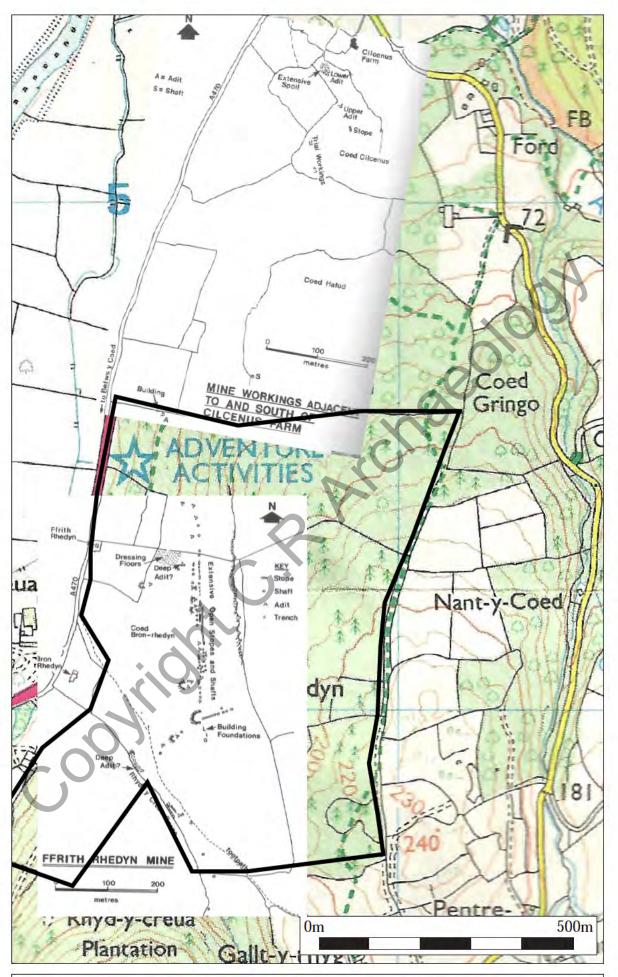


Figure 4. Survey of Mine Workings at Cilcennus Farm & Ffrith Rhedyn Produced by Bennett & Vernon (1992: 103, 108) Overlaid on Ordnance Survey Map of Area.

Proposed Development Outline Marked in Black.
(Contains Ordnance Survey data © Crown copyright 2014 Licence Number 100055289)

Two Post-Medieval farms are identified on the Royal Commission database as lying within the 1000m search area. Cwn Llanerch (NPRN 26382) is situated on the western side of the Conwy Estuary and Fridd-Rhedyn (NPRN 27169) is located on the eastern side of the Conwy and along the main road. Both are believed to date from the 19th century. An early 1900's garden (NPRN 266359) associated with the Rhyd-y-Creuau Farm and a set of stepping stones near Glan Rhyd (NPRN 413294) have also been recorded.

There are a number of Listed Buildings within the vicinity of the development. They are all of Post Medieval date and are predominantly of agricultural origin. They occupy the lower lying river valley floor or the foothills of neighbouring slopes. These farms almost all had mines occupying their land and it appears that it is these ventures which facilitated the building works which have resulted in Listed Building status.

The following structures are shown on figure 3:

- 1. Rhyd-y-Creua Farm. Group of three Grade II Listed Buildings Agricultural Range (18780), Barn (18781) and Haybarn (18782)
- **2.** Tan y Foel. Grade II Listed Barn (18774)
- **3.** Hafod Farm. Group of three Grade II Listed Buildings Hafod (18775), Agricultural Range (18778) and Carthouse (18777)
- **4.** Hendre-wen Farm. Group of two Listed Buildings Grade II* Hendre-wen House (110) and Former Stable Block (111)
- **5.** Hendre House. Group of four Grade II Listed Buildings and a Listed Historic Park & Gardens. Includes Hendre House (113), Coachhouse (114), Stable Block (18765), Agricultural Range (115)
- **6.** Cilcennus Farm. Group of two Listed Buildings Grade II* Cilcennus House (112) and Grade II Agricultural Range (18773)
- 7. Plas Muriau. Grade II Listed House (18790)

5.4.1 Cartographic Evidence

Although a search was conducted of the map collections of estates in the area no documentation was sourced which showed the proposed site. The 1841 Tithe was therefore the earliest document which showed the land.

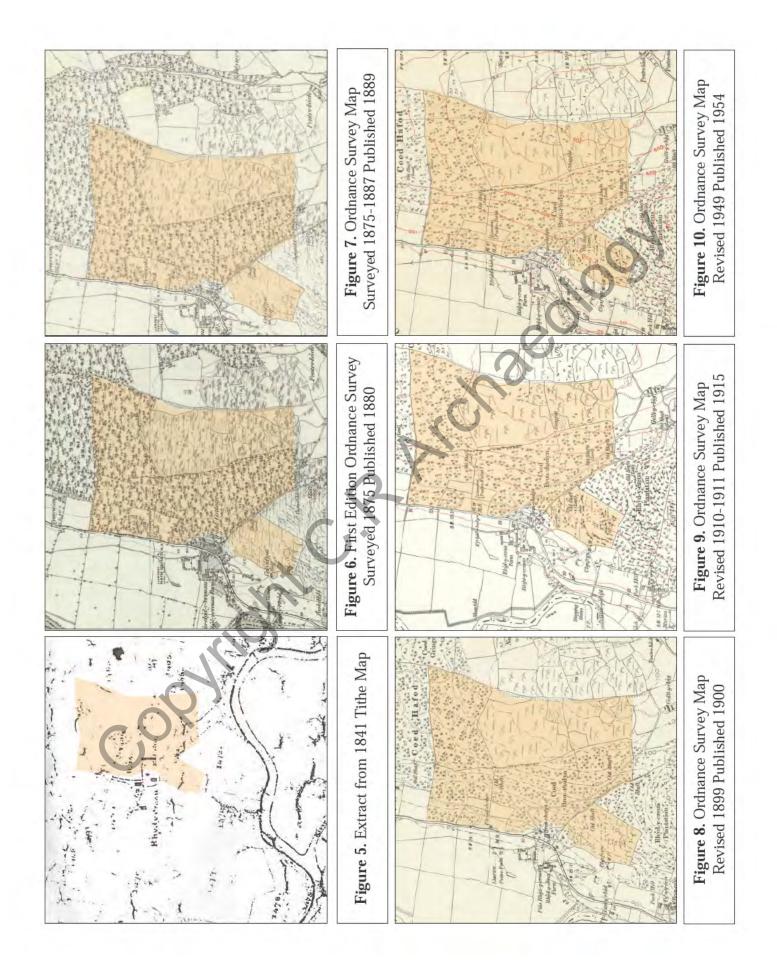
Tithe Map (Figure 5)

The 1841 Tithe Map and Schedule for the area held at Conwy Archives was consulted. Unfortunately the portion of this document directly relating to the site is badly damaged and illegible. The farm of Rhydycreau can just be made out along with the river Conwy but field numbers for the site itself have been lost and little can be said about the land use.

Ordnance Survey (Figures 6 - 10)

The First Edition Ordnance Survey Map for the site was surveyed in 1875 and published in 1880 and maps were sourced from this edition until 1954. There is little change shown to the proposed site over time and the field boundaries shown on the current Ordnance Survey are shown on the First Edition. On these historic maps the site is partially covered by woodland, the area to the east of the site which is currently covered by coniferous forestry is shown as grazing and the portion to the south-west of the site is shown as uncovered by vegetation. The faster growing species which have been planted onsite post date the 1949 survey date of the 1954 Ordnance Survey edition.

Of interest is a sheep fold marked on all editions of the map and which is included in figure 3.



6.0 Walk Over Survey (Plates 1 - 10)

A walk over survey of the proposed development site was conducted by Matthew Jones of C.R Archaeology on the 7th July 2014. A second site visit was conducted on the 30th September 2014 to record the above ground remains of a mine shaft which will be affected by the proposed siting of the trackway. The location of the photographs taken was noted on the site plan and this is included in Appendix B.

The land is on a steep hill slope which raises upwards from the line of the A470. It is covered in coniferous forestry with some deciduous species. The dense ground cover made identification of features difficult and only the larger structures were visible. A number of rocky outcrops were noted and the soil cover is generally rather shallow.

There is what appears to an artificial plateaux located approximately at the centre of the proposed development which is the centre for mining activity within the area. A number of features were noted including bell shafts, open above ground strip mines and spoil tips. The building foundations marked on the Ffrith Rhedyn Mine plan (Bennett & Vernon 1992: 108) could not be identified on the ground.

Satellite imagery of the proposed development area was consulted and although it can not be included here to copyright restrictions it did not reveal any obvious features which were not previously recorded by Bennett & Vernon, Ordnance Survey, Gwynedd HER or by the RCAHMW.

7.0 Discussion of Archaeological Potential

The following section discusses the potential for archaeological remains from different time periods. It considers the results of the archaeological and historical background research. The potential for archaeological remains is discussed chronologically.

7.1.0 Potential for Prehistoric Remains

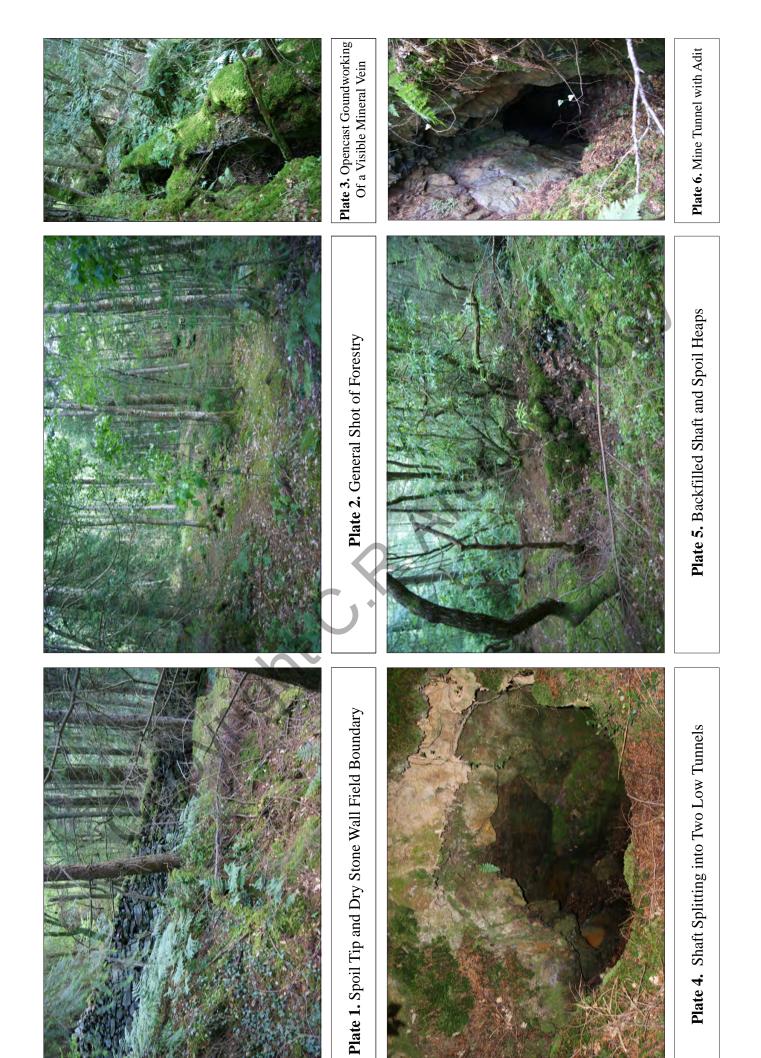
A single record of Prehistoric activity was recorded within the search area examined.

Based on the available evidence the potential for remains from the Prehistoric period within the development area is considered to be low. This is due to the fact that exploitation of the area is likely to have been sporadic and left minimal archaeological trace. This low level of activity is coupled with later Post Medieval industrial activity and damage from tree roots which are likely to have removed what few remains may once have existed. The significance of remains from this period is considered to be low when considering isolated finds.

7.1.1 Potential for Roman Remains

Part of the Roman Road which runs between the forts of Canovium and Tomen Y Mur lies within the 1000m search area but is located on the opposite site of the River Conwy. It does not cross into the proposed development area.

Based on the available evidence the potential for remains from the Roman/Romano-British period within the development area is considered to be low. This is due to the fact that exploitation of the area is likely to have been sporadic and left minimal archaeological trace. This low level of activity is coupled with later Post Medieval industrial activity and damage from tree roots which are likely to have removed what few remains may once have existed. The significance of remains from this period is considered to be low when considering isolated finds.



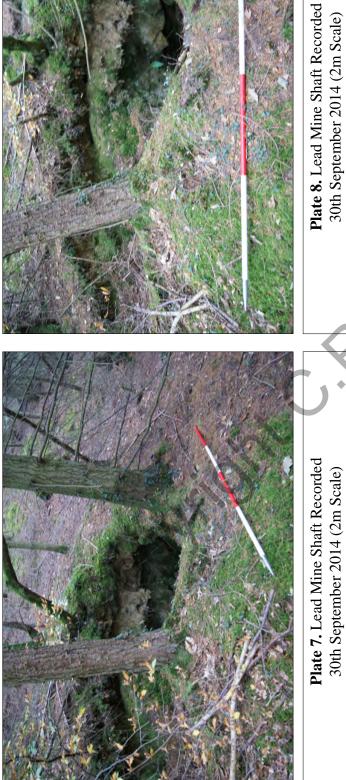


Plate 7. Lead Mine Shaft Recorded 30th September 2014 (2m Scale)



Plate 10. Proposed Bridge Design to Cross Mine Shaft



Plate 9. Lead Mine Shaft Recorded 30th September 2014 (2m Scale)

7.1.2 Potential for Early Medieval/Medieval Remains

There are no remains from this period from within the 1000m search area. The Medieval Township of Cwmllanerch has been identified as having been located within the area of Betws-y-Coed.

Based on the available evidence the potential for remains from the Early Medieval/Medieval period within the development area is considered to be low. This is due to the fact that exploitation of the area is likely to have been sporadic and left minimal archaeological trace. This low level of activity is coupled with later Post Medieval industrial activity and damage from tree roots which are likely to have removed what few remains may once have existed. The significance of remains from this period is considered to be low when considering isolated finds.

7.1.3 Potential for Post-Medieval Remains

There are numerous Post-Medieval remains with the locality of the site, predominantly of an agricultural or industrial (mining) nature. There are numerous sites related to the extraction of lead within the site limits. A Post Medieval sheep fold was also noted within the proposed development area.

The potential for remains from this period is considered to be high and the significance of such remains is considered to be low-moderate. This significance is attributed due to the large numbers of such remains within the Conwy Valley and the comprehensive record of the workings which was compiled by Bennett & Vernon in 1992.

7.2 The Significance of the Development Site

For all periods other than Post Medieval the archaeological potential of the development area is considered to be low. This is due to the steep topography, shallow soil depth and later damage by tree roots and industrial activity. It is likely that any archaeological remains from these earlier periods found on the site will be stray finds which would reveal little of the history of the area and the significance of the site is therefore considered to be low.

The site is of low-moderate significance in terms of the Post Medieval remains. The remains are characteristic of those found within the Conwy Valley and are of a group value with neighbouring extraction sites. It is felt that these remains are of local rather than regional significance.

7.3 The Impact of the Development on Known Sites of Archaeological/Historic Interest

Due the steep topography of the proposed development area and the dense tree cover which is to be retained the site would not be visible from neighbouring properties.

The character of the historic landscape in this area is predominantly the result of Post Medieval activity. The area is zoned with agricultural sites found on the lower lying valley floor and lower hill slopes and extensive tree cover on the steep upland slopes. Sites relating to lead and other mineral extraction are concentrated in the upland areas. Below the proposed site is the Tree Top Adventure visitor attraction. As the scheme aims to retain as much of the tree cover as possible, will have minimal groundworks associated with this development, and has been designed so trackways will avoid features of historic interest wherever possible it is not felt that the works will result in a significant detrimental effect on the historic landscape characteristics of the area.

The are no Listed Buildings within the proposed development area. The Listed Buildings situated within the vicinity of the site will be unaffected by the development as its location behind the existing attraction and the screening offered by the trees which are to retained will mean that the development will not be visible from the sites discussed in Section 5.

There are no Scheduled Ancient Monuments within the proposed development area. The nearest monuments are Hafodlas Slate Quarry Mills (CN295) situated 2.3km to the west of the development, Capel Garmon Burial Chamber (DE001) located 2.5km to the south-east of the development and Coed Mawr Pool Lead Mine (CN332) which lies 2.7km to the north-west of the proposed development (distances have been measured from the monument to the closest site boundary). Given these distances and the ground cover/topography of the area the proposed development would have no effect on any Scheduled Ancient Monuments.

Within the proposed development area are numerous features associated with lead extraction and these extensive workings are shown on figure 4. There is also a Post Medieval sheep fold which is shown on figure 3. The majority of these sites will be unaffected by the proposed works as one of the aims of this report was to highlight known archaeological sites so that the development can be located so as to avoid these features. As an element of the development it is proposed that information boards be created to make visitors aware of the history of the area which will have a positive effect on raising awareness of industry in the Conwy Valley.

Where it is unavoidable one of the mine shafts will have to be bridged. A photographic record of this feature has been made and the works associated with this action will not destroy the feature. This feature is not felt to be of great archaeological significance and it's value is largely as a part of a group with associated mining remnants. The works will have a minimal impact on the feature and this impact will last only for the lifetime of the development. An artists impression of the works is included as plate 10.

Groundworks associated with the proposed development, although very limited in scope, may have a potential negative impact on unknown below ground archaeological remains. This is considered to be unlikely given the low archaeological potential of the site.

7.4 Potential Mitigation Strategies

Methodologies to mitigate the possible impacts of the proposed works have been explored. This section applies to the direct physical impact the scheme may have on unknown below ground remains and the effect of works on any known sites.

As previously discussed there are known sites within the development area relating to agriculture and lead mining. Mitigation is however already in place to design the development around these sites so that they will be unaffected by the scheme. These sites have previously been studied and recorded and there is little to be gained by repeating these works. It would be possible to supplement this work through the compilation of a comprehensive photographic record of the structures.

Groundworks associated with the proposed development, although very limited in scope may have a potential impact on unknown below ground archaeological remains. This could be mitigated through conducting an archaeological watching brief on intrusive groundworks but this should be balanced against the low potential of such remains being located within the proposed development area.

8.0 Conclusion

The proposed site of the mountain bike track is set within a steep upland landscape which has dense tree cover. It is a Post Medieval landscape containing extensive industrial and agricultural remains, some of which are found within the proposed development area.

This study has concluded that the development is located within an area of low archaeological potential and known sites within the development area are to be avoided wherever possible. The feature which has been identified as being impacted upon has been recorded photographically. It is therefore recommended that either no further archaeological mitigation or limited further archaeological mitigation is necessary.

Due the topography/tree cover of the proposed development site the track and bike lift would not be visible from a distance and would be hidden from any potentially vulnerable neighbouring sites. The proposed development will therefore not have a visual impact on the Listed Buildings or Registered Parks & Gardens which are located within the vicinity of the site.

The low impact character of the bike track would be considered to generally be in-keeping with the historic characteristics of this area and would not be deemed to have a negative impact on the wider landscape character. The fundamental characteristics of this area of this area of Conwy County will be unaltered by this development and in no instance will the scheme prevent the understanding of the historic function of this landscape, or of its evolution. Its location behind an outdoor adventure centre is considered to be a complimentary land use, especially given the prominence of outdoor activities in the Betws-y-Coed area and with the Snowdonia National Park in general.

The impact of the development on designated sites within the immediate area has been examined in this assessment and it not felt that the siting of a mountain bike centre in this location will have a detrimental effect on designated historic assets (Listed Buildings/Park & Gardens of Special Historic Interest) or on the character of this area of the Snowdonia National Park.

9.0 Bibliography

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Maps

1841 Tithe Map for Betws-y-Coed Area (Conwy Archives)

1880 First Edition Ordnance Survey (www.maps.nls.uk/geo/records/)

1889 Ordnance Survey (www.maps.nls.uk/geo/records/)

1899 Ordnance Survey (www.maps.nls.uk/geo/records/)

1915 Ordnance Survey (www.maps.nls.uk/geo/records/)

1954 Ordnance Survey (www.maps.nls.uk/geo/records/)

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Appendix A. Results of 1000m Radius Gwynedd Historical Environment Search

GWYNEDD ARCHAEOLOGICAL TRUST HISTORIC ENVIRONMENT RECORD ENQUIRY REPORT - CORE RECORDS

Enquiry reference number: GATHER410

Prepared by: Angharad Stockwell, Gwynedd Archaeological Trust Produced for: Matt Jones, CR Archaeology

The following information has been provided under the terms and conditions of access as detailed on the GAT HER Enquiry and Conditions of Access forms. Copyright is reserved on all data supplied by the GAT HER. All output resulting from the use of the data must acknowledge the source as follows: Derived from information held by the GAT HER Copyright

If you wish to use information derived from material held by the GAT HER for publication in printed or multimedia form or to compile resources for commercial use (with the exception of grey literature reports), prior permission must be obtained in writing.

Search criteria:

All archaeological and historical sites recorded by the Gwynedd HER within 1000m of SH8058357359, Llanrwst

PRN 17700 NAME Part of Roman Road, Canovium - Tomen y Mur NGR SH79765762 COMMUNITY Betws-y-Coed PERIOD AND TYPE Roman, ROAD, Sitetype ranking: 1 SUMMARY DESCRIPTION Exact line of Roman road unknown. <3> EVIDENCE CONDITION INFORMATION CONDITION: Not known CONDITION RATING: Uncertain DESCRIPTION: RELATED EVENT PRN: 40538 YEAR: STATUS None Recorded ASSOCIATED EVENTS GAT40544 Roman Roads in North-west Wales 2004 GAT40538 Roman Roads in North-West Wales 2005 ASSOCIATED ARTEFACTS FIND: None recorded COLLECTION: None recorded DESCRIPTION: None recorded SOURCES Hopewell, D. 2004, Roman Roads in North-west Wales, G1632 REPORT526 <1> Royal Commission on Ancient and Historic Monuments 1964, RCAHMW Inventory Caernarvonshire Vol.III, <3>Hopewell, D. Gwynedd Archaeological Trust 2005, Roman Roads in North-west Wales, G1632 Report 572 <2>

PRN 20699 NAME Lead Mine, Greffyn NGR SH79605750 COMMUNITY Betws-y-Coed PERIOD AND TYPE Post-Medieval, LEAD MINE, Sitetype ranking: 1 SUMMARY DESCRIPTION EVIDENCE CONDITION INFORMATION CONDITION: None Recorded CONDITION RATING: None Recorded DESCRIPTION: None Recorded RELATED EVENT PRN: YEAR: STATUS None Recorded ASSOCIATED EVENTS GAT40413 Gwynedd Metal Mines Survey 1998 ASSOCIATED ARTEFACTS FIND: None recorded COLLECTION: None recorded DESCRIPTION: None recorded SOURCES Ap Owain, S. & Crew, P. , Snp Industrial Record, NO.754708 <1> 1885 , , 8 <2> Gwyn, D. 1998 , Gwynedd Metal Mines Survey, G1468.01, R291 <3>

PRN 21109 NAME Lead Mine, Ffridd Rhedyn NGR SH80505720 COMMUNITY Bro Garmon PERIOD AND TYPE Post-Medieval, LEAD MINE, Sitetype ranking: 1 SUMMARY DESCRIPTION EVIDENCE CONDITION INFORMATION CONDITION: None Recorded CONDITION RATING: None Recorded DESCRIPTION: None Recorded RELATED EVENT PRN: YEAR: STATUS None Recorded ASSOCIATED EVENTS GAT40413 Gwynedd Metal Mines Survey 1998 ASSOCIATED ARTEFACTS

FIND: None recorded COLLECTION: None recorded DESCRIPTION: None recorded SOURCES Ap Owain, S. & Crew, P. , Snp Industrial Record, NO.852701 pp 22-25 <1> Bennett, J. & Vernon, R. 1992 , Mines of the Gwydyr Forest Part 4, p 106 <2> Gwyn, D. 1996 Early Mineral Assaying in Dyffryn Conwy, Industrial Gwynedd, <3> Gwyn, D. 1998 , Gwynedd Metal Mines Survey, G1468.01, R291 <4>

PRN 21111 NAME Lead Shaft, Coed Bron Rhedyn NGR SH80705670 COMMUNITY Bro Garmon PERIOD AND TYPE Post-Medieval, SHAFT, Sitetype ranking: 1 SUMMARY DESCRIPTION EVIDENCE CONDITION INFORMATION CONDITION: None Recorded CONDITION RATING: None Recorded DESCRIPTION: None Recorded RELATED EVENT PRN: YEAR: STATUS None Recorded ASSOCIATED EVENTS GAT40413 Gwynedd Metal Mines Survey 1998 ASSOCIATED ARTEFACTS FIND: None recorded COLLECTION: None recorded DESCRIPTION: None recorded SOURCES Ap Owain, S. & Crew, P., Snp Industrial Record, NO.852703 <1>Gwyn, D. 1998, Gwynedd Metal Mines Survey, G1468.01, R291 <2>

PRN 21112 NAME Lead Shaft, Gallt Y Rhug NGR SH80805640 COMMUNITY Bro Garmon PERIOD AND TYPE Post-Medieval, SHAFT, Sitetype ranking: 1 SUMMARY DESCRIPTION EVIDENCE CONDITION INFORMATION CONDITION: None Recorded CONDITION RATING: None Recorded DESCRIPTION: None Recorded RELATED EVENT PRN: YEAR: STATUS None Recorded

ASSOCIATED EVENTS GAT40413 Gwynedd Metal Mines Survey 1998 ASSOCIATED ARTEFACTS FIND: None recorded COLLECTION: None recorded DESCRIPTION: None recorded SOURCES Ap Owain, S. & Crew, P., Snp Industrial Record, NO.852704 <1> Gwyn, D. 1998, Gwynedd Metal Mines Survey, G1468.01, R291 <2>

PRN 21113 NAME Lead Shaft, Rhyd Y Creua Plantation NGR SH80605660 COMMUNITY Bro Garmon PERIOD AND TYPE Post-Medieval, SHAFT, Sitetype ranking: 1 SUMMARY DESCRIPTION EVIDENCE CONDITION INFORMATION CONDITION: None Recorded CONDITION RATING: None Recorded DESCRIPTION: None Recorded RELATED EVENT PRN: YEAR: STATUS None Recorded ASSOCIATED EVENTS GAT40413 Gwynedd Metal Mines Survey 1998 ASSOCIATED ARTEFACTS FIND: None recorded COLLECTION: None recorded DESCRIPTION: None recorded SOURCES Ap Owain, S. & Crew, P. , Snp Industrial Record, NO.852705 <1> Gwyn, D. 1998 , Gwynedd Metal Mines Survey, G1468.01, R291 <2>

PRN 21114 NAME Lead Shaft, Talfryn NGR SH80405680 COMMUNITY Bro Garmon PERIOD AND TYPE Post-Medieval, SHAFT, Sitetype ranking: 1 SUMMARY DESCRIPTION EVIDENCE CONDITION INFORMATION CONDITION: None Recorded CONDITION RATING: None Recorded DESCRIPTION: None Recorded

RELATED EVENT PRN: YEAR: STATUS None Recorded ASSOCIATED EVENTS GAT40413 Gwynedd Metal Mines Survey 1998 ASSOCIATED ARTEFACTS FIND: None recorded COLLECTION: None recorded DESCRIPTION: None recorded SOURCES Ap Owain, S. & Crew, P., Snp Industrial Record, NO.852706 <1>Gwyn, D. 1998, Gwynedd Metal Mines Survey, G1468.01, R291 <2>

PRN 21115 NAME Lead Shaft, Coed Hafod NGR SH80805760 COMMUNITY Bro Garmon PERIOD AND TYPE Post-Medieval, SHAFT, Sitetype ranking: 1 SUMMARY DESCRIPTION EVIDENCE CONDITION INFORMATION CONDITION: None Recorded CONDITION RATING: None Recorded DESCRIPTION: None Recorded RELATED EVENT PRN: YEAR: STATUS None Recorded ASSOCIATED EVENTS GAT40413 Gwynedd Metal Mines Survey 1998 ASSOCIATED ARTEFACTS FIND: None recorded COLLECTION: None recorded DESCRIPTION: None recorded SOURCES Ap Owain, S. & Crew, P. , Snp Industrial Record, NO.852707 <1> Gwyn, D. 1998 , Gwynedd Metal Mines Survey, G1468.01, R291 <2>

PRN 21116 NAME Lead Shaft, Coed Cilcennus NGR SH80905820 COMMUNITY Bro Garmon PERIOD AND TYPE Post-Medieval, SHAFT, Sitetype ranking: 1 SUMMARY DESCRIPTION EVIDENCE

CONDITION INFORMATION CONDITION: None Recorded CONDITION RATING: None Recorded DESCRIPTION: None Recorded RELATED EVENT PRN: YEAR: STATUS None Recorded ASSOCIATED EVENTS GAT40413 Gwynedd Metal Mines Survey 1998 ASSOCIATED ARTEFACTS FIND: None recorded COLLECTION: None recorded DESCRIPTION: None recorded SOURCES Ap Owain, S. & Crew, P. , Snp Industrial Record, NO.852708 <1> Bennett, J. & Vernon, R. 1992 , Mines of the Gwydyr Forest Part 4, pp 102-106 <2> Gwyn, D. 1996 Early Mineral Assaying in Dyffryn Conwy, Industrial Gwynedd, pp 22-25 <3> Gwyn, D. 1998 , Gwynedd Metal Mines Survey, G1468.01, R291 <4>

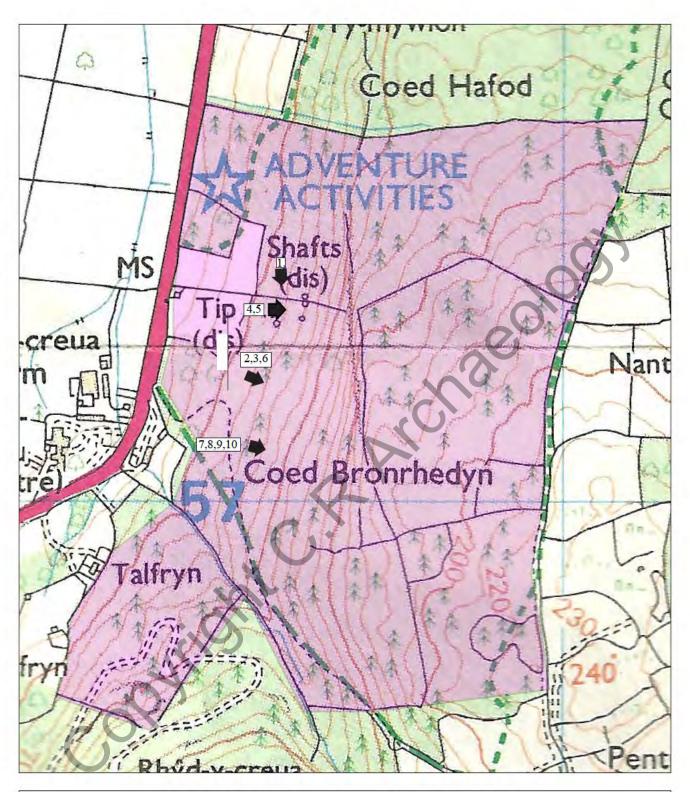
PRN 21581 NAME Cwm Llannerch Mine NGR SH79805750 COMMUNITY Bro Garmon PERIOD AND TYPE Post-Medieval, LEAD MINE, Sitetype ranking: 1 SUMMARY DESCRIPTION History: noted in 1821, and at work until 1873, encouraged by the discovery of lead ore during the construction of the branch line railway in 1865-7. Workings: accessed by adit. Processing: no evidence Power: apparently unmechanised Transport: no evidence Ancillary: no evidence EVIDENCE CONDITION INFORMATION CONDITION: None Recorded CONDITION RATING: None Recorded DESCRIPTION: None Recorded RELATED EVENT PRN: YEAR: STATUS None Recorded ASSOCIATED EVENTS GAT40413 Gwynedd Metal Mines Survey 1998 ASSOCIATED ARTEFACTS FIND: None recorded COLLECTION: None recorded DESCRIPTION: None recorded SOURCES Gwyn, D. 1998, Gwynedd Metal Mines Survey, G1468.01, R291 <1> Bennett, J. & Vernon, R. 1992, Mines of the Gwydyr Forest Part 4, p 63 <2>

PRN 4667 NAME Bronze Palstave, Findspot, Mines Nr. Cilcennus NGR SH80895823COMMUNITY Bro Garmon PERIOD AND TYPE Bronze Age, FINDSPOT, Sitetype ranking: 1 SUMMARY DESCRIPTION A bronze palstave found in 1822 at the head Mine Works adjoining Oaklands, immediately SE of Cilcennis Farmhouse, about 2.5m S of Llanrwst. Presented to the British Museum in 1868. <1> There are two lead mines in the vicinity.

<2> EVIDENCE CONDITION INFORMATION CONDITION: None Recorded CONDITION RATING: None Recorded DESCRIPTION: None Recorded RELATED EVENT PRN: YEAR: STATUS None Recorded ASSOCIATED EVENTS ASSOCIATED ARTEFACTS FIND: 1 Bronze Palstave COLLECTION: British Museum DESCRIPTION: SOURCES Davies, E. 1929, The Prehistoric and Roman Remains of Denbighshire, p341-2 <1> Ordnance Survey 1963, SH85NW 1, <2>

PRN 6838 NAME Cwmllanerch Medieval Township NGR SH79905780 COMMUNITY Betws-y-Coed PERIOD AND TYPE Medieval, TOWNSHIP, Sitetype ranking: 1 SUMMARY DESCRIPTION EVIDENCE CONDITION INFORMATION CONDITION: None Recorded CONDITION RATING: None Recorded DESCRIPTION: None Recorded RELATED EVENT PRN: YEAR: STATUS None Recorded ASSOCIATED EVENTS ASSOCIATED ARTEFACTS FIND: None recorded COLLECTION: None recorded DESCRIPTION: None recorded SOURCES Johnstone, N. 1997, Townships File, <1>

Key to Abbreviations and Terms GAT: Gwynedd Archaeological Trust; HER: Historic Environment Record; PRN: Primary Reference Number, each site is given a unique PRN; NAME: The common name given to the site; NGR: Ordnance Survey National Grid Reference; COMMUNITY: The community council in which the site is located; PERIOD: The period to which the site belongs; TYPE: Describes the site type; SITE TYPE RANKING: Indicates the preferred site type interpretation, Rank 1 being the highest; SUMMARY: A short, unreferenced site summary written by HER staff; DESCRIPTION: Detailed site notes compiled from various sources; EVIDENCE: The physical remains of a site, or the means by which a site has been identified; CONDITION INFORMATION: The condition of the site at the time of assessment; STATUS: The legal status of the site, e.g. Scheduled Ancient Monument; ASSOCIATED EVENTS: The details of an event or activity relating to the site, e.g. excavation; ASSOCIATED ARTEFACTS: Describes any finds associated with the site; SOURCES: The bibliographic references relating to the site her@heneb.co.ukPrinted 07.17.14 (10:07) - HTML file produced from GAT HER, GAT file number 416. Gwynedd Archaeological Trust, Craig Beuno, Garth Road, Bangor LL57 2RT. tel (01248) 352535, fax (01248) 370925, email , website www.heneb.co.uk Archaeological data, from the Regional Historic Environment Record, supplied by Gwynedd Archaeological Trust in partnership with Local Authorities, Cadw and the partners of ENDEX GAT, 2014.



Appendix B. Location and Direction of Photographic Plates (Contains Ordnance Survey data © Crown copyright 2014 Licence Number 100055289)