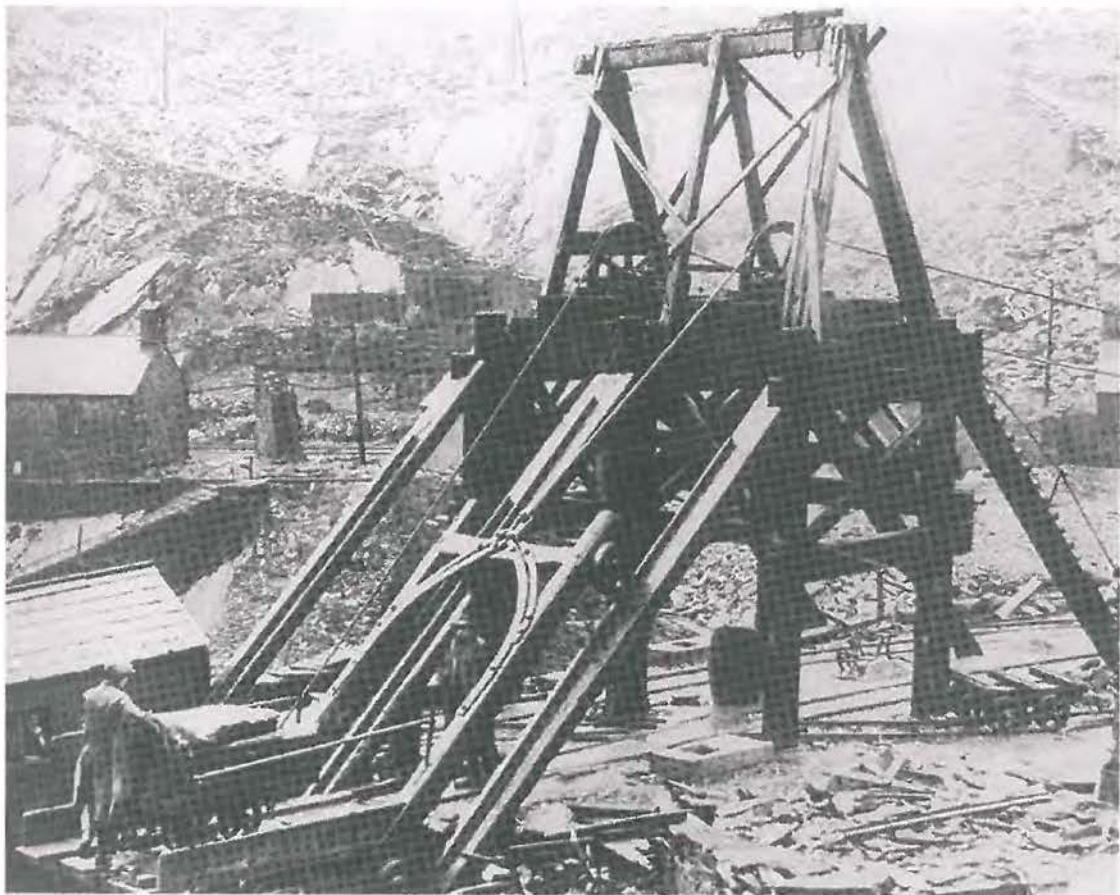


# Oakeley Slate Quarry

## Archaeological Assessment



Gwynedd Archaeological Trust

Report 341

## **Crynodeb gweithredol.**

Mae'r adroddiad canlynol yn cynnwys asesiad archaeolegol ar safle Chwarel yr Oakeley ym Mlaenau Ffestiniog, a ysgrifennwyd gan Ymddiriedolaeth Archaeolegol Gwynedd ar ran Bowman Planton plc.

Mae'r asesiad yn nodi cyfanswm o 195 safle o fewn ardal caniatad y chwarel. Mae 171 ohonynt yn ymwneud â'r tair chwarel a unwyd i greu Chwarel yr Oakeley yn y ganrif ddiwethaf. Mae saith yn gysylltiedig â Chwarel Glan y Pwll, saith yn ymwneud âg amaethyddiaeth cyn-ddiwydiannol yr ardal, pedair yn ymwneud â lein fach Ffestiniog, a chwech â thwf cynnar tref Blaenau Ffestiniog. Neilltuwyd pob un ohonynt i un o bump categori o bwysigrwydd hanesyddol. Mae'r adroddiad yn crybwyll eu bod yn corffori dirwedd hanesyddol fel rhan o dirwedd hanesyddol y fro.

Mae'r adroddiad yn cyflwyno opsiynau o leihau difrod i'r adnodd archaeolegol, gan gynnwys arolwg mesuriedig a ffotograffig, ac mae hefyd yn awgrymu dulliau o warchod y nodweddion pwysicaf er mwyn eu diogelu.

Mae'r adroddiad yn pwysleisio arwyddocâd y Chwarel fel safle diwydiannol, ei chyfraniad i economi gogledd-orllewin Cymru yn ystod y bedwaredd ganrif a'r bymtheg a'r ugeinfed ganrif, a'i phwysigrwydd fel un o'r elfennau a sefydlodd dref Blaenau Ffestiniog, y gymdeithas grefyddol, lengar a medrus a ddatblygodd i gartrefu'r gweithlu. Cydnabyddir Blaenau Ffestiniog bellach fel un o engreifftiau gorau o aneddiad diwydiannol Cymreig.

Mae'r adroddiad hefyd yn pwysleisio y cysylltiad cryf rhwng y chwarel a nifer o enwogion, megis Arglwydd Palmerston – Prif-weinidog a gwleidydd, a chyfranddalwr yn y Chwarel Isaf, Samuel Holland – tenant a rheolwr y Chwarel Uchaf, aelod senedd dros Sir Feirionydd, ac arloeswr addysg i ferched, a theulu Oakeley, tirfeddianwyr mawr a datblygwyr yr ardal.

## **Executive summary**

The following report contains an archaeological assessment of the Oakeley Quarry site in Blaenau Ffestiniog, written by the Gwynedd Archaeological Trust on behalf of Bowman Planton plc.

The assessment notes 195 sites within the quarry permission. 171 of these are connected with the three quarries which united to form the Oakeley Quarry in the last century, seven are connected with Glan y Pwll Quarry, seven are connected with pre-industrial agriculture of the area, four with the Ffestiniog Railway, and six with the early development of Blaenau Ffestiniog. Each one was assigned to one of five categories of historic significance. The report suggests that these constitute an historic landscape as an element of the historic landscape of the locality.

The report sets out the options to minimise damage to the archaeological resource, including measured survey and photographic record and suggests ways in which the most important features may be preserved.

The report emphasises the significance of the quarry as an industrial site, its role within the economy of north-west Wales in the nineteenth and twentieth centuries, and its importance as one of the elements which went to create the town of Blaenau Ffestiniog, the remarkable community which sprang into being to house the workforce. Blaenau Ffestiniog is now acknowledged as an outstanding example of a Welsh industrial settlement.

The report also emphasises the strong connection between the quarry and a number of famous individuals, including Lord Palmerston – Prime Minister and statesman, shareholder in the lower quarry, Samuel Holland – quarry tenant and manager, Member of Parliament for Merionethshire, pioneer of education for women, and the Oakeley family, a major landowning family who developed the region.

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## **OAKELEY SLATE QUARRY**

### **ARCHAEOLOGICAL ASSESSMENT**

#### **1. INTRODUCTION**

Alfred McAlpine Slate Penrhyn Ltd at Penrhyn Quarries has commissioned Gwynedd Archaeological Trust (Contracts Section) to carry out an archaeological assessment of all land within the quarry permission in the light of a Scoping Report carried out by Bowman Planton Associates to determine the range of environmental topics to be addressed in connection with a proposal to apply for planning permission for the site.

#### **2. ASSESSMENT BRIEF**

An initial report was requested from the Gwynedd Archaeological Trust assessing the importance of all the archaeological remains, ranging from the Prehistoric to the Industrial period.

The basic requirement was for a desk-top study and field-search of the quarry permission area. The importance and condition of known archaeological remains were to be assessed and new sites identified. Measures to mitigate possible damage to the archaeological resource were to be suggested.

Gwynedd Archaeological Trust's proposals for fulfilling these requirements were as follows:

- a) to identify and record the cultural heritage of the area
- b) to evaluate the importance of what was identified, both as a cultural landscape and as the individual items which make up that landscape
- c) to recommend ways in which damage to the cultural heritage could be minimised.

#### **3. METHODS AND TECHNIQUES**

##### **3.1 Desk-top study**

Consultation of the quarry archive and other written records was carried out in the Dolgellau Record Office of the Gwynedd Archives Service. The Gwynedd Archaeological Trust's Sites and Monuments Record was also consulted, as were the relevant volume of the Royal Commission on Ancient and Historic Monuments (Wales) Inventory, Alun Richards's *Gazeteer of the Welsh Slate Industry* and James Boyd's *Festiniog Railway*. Retrospective map analysis was carried out of maps in the quarry's archive at the Dolgellau Record Office, and aerial photographs of the site were studied in the offices at Oakeley Quarry.

Existing studies include the Gwynedd Archaeological Trust's Gwynedd Slate Quarrying Landscapes (1994), which identified Oakeley Quarry as one of the outstanding slate quarry landscapes of Gwynedd, and the Gwynedd Slate Quarries Report of 1995, which included a rapid landscape assessment of the Oakeley site in order to inform the scheduling process carried out by Cadw: Welsh Historic Monuments.

##### **3.2 Field Search**

Field visits were undertaken by Trust staff on 19, 20, 22 and 28 of October 1999. Conditions were good for field-walking on each of these days. Features identified were marked on the current 1/10,000 ordnance survey map, on the 25" Merionethshire surveys of 1889, 1900 and 1918, and on the map provided by Alfred McAlpine Ltd. The more important features were also photographed.

### 3.3 Consultation

Consultation was carried out with members of Fforwm Plas Tan y Bwlch, in particular with John Austen Lewis, Dafydd Price and Griff Jones, as well as with Einion ap Tomos and Steffan ab Owain of the Gwynedd Archives Service, Dr Gwynfor Pierce Jones and Dr Michael J.T. Lewis of the University of Hull. The assessment also benefited from past discussion with Rodney Weaver.

### 3.4 Statutory protection and description.

A row of dwellings known as Bythynod Harry Williams has been listed (Cadw ref: 44/H/35to37[1]).

### 3.5 Report

The features on the site were assessed and allocated to the categories listed below. These are intended to give an idea of the importance of the site, and specific recommendations for further evaluation or mitigatory measures. The criteria used for allocating sites to categories are based on those used by the Secretary of State when considering ancient monuments for scheduling. These are set out in Welsh Office Circular 60/96 Planning and Environment: Archaeology.

### 3.6 Categories

The following categories were used to define the importance of the archaeological resource:

#### *Category A - Sites of national importance.*

Scheduled Ancient Monuments, Listed Buildings and sites worthy of scheduling or listing *i.e.* those which would meet the criteria for scheduling (ancient monuments) or listing (buildings) or both.

Sites which are scheduled or listed have legal protection, and it is recommended that all *Category A* sites remain preserved and protected *in situ*.

#### *Category B - Sites of regional or county importance.*

Sites which would not fulfil the criteria for scheduling or listing, but which are nevertheless of particular importance within the region.

Preservation *in situ* is the preferred option for Category B sites, but if damage or destruction cannot be avoided, appropriate detailed recording might be an acceptable alternative.

#### *Category C - Sites of district or local importance.*

Sites which are not of sufficient importance to justify a recommendation for preservation if threatened.

Category C sites nevertheless merit adequate recording in advance of damage or destruction.

#### *Category D - Minor and damaged sites.*

Sites which are of minor importance or so badly damaged that too little remains to justify their inclusion in a higher category.

For Category D sites, rapid recording, either in advance or, or during, destruction should be sufficient.

#### *Category E - Sites needing further investigation.*

Sites whose importance is as yet undetermined and which will require further work before they can be allocated to categories A-D are temporarily placed in this category, with specific recommendations for further evaluation. By the end of the assessment there should be no sites remaining in this category.



### **3.7 Definition of Mitigatory Recommendations**

Where a feature of archaeological significance is affected, mitigation measures will be included in accordance with current policies as recommended in Circular 60/96 for rescue archaeology.

For the purposes of this report the mitigation and rescue archaeology proposals have been divided into various levels of recording, which can be summarised as:

#### **Level 1: Minimal recording**

- a. A photographic record of principal external views. The photographs to be dated and indexed. Negatives should be indexed and suitably stored for archive.
- b. A brief summary description, related to the photographic record as appropriate.

#### **Level 2: Basic recording**

- a. A photographic record of all principal elevations and selected features of particular interest. Photographs to be taken, as much as is possible, at right angles to the face of the feature and should include a scale. There should also be a few general photographs to set the site in context.

The photographs to be indexed as for Level 1 and related to a basic site plan which might be taken from a published OS map as appropriate.

- b. A simple description of the visible remains relating to the photographic record.

#### **Level 3: Basic recording with survey**

As Level 2 recording, but to include:

- c. A measured survey of the ground plan of the site or structure at an appropriate scale (1:200 for buildings or 1:500 for larger areas where individual buildings are of no great significance).

#### **Level 4: Full photographic record**

- a. A photographic record of all external and, if appropriate, internal elevations as well as any features of particular interest. The photographs should be taken, so far as is possible, at right angles to the face of the feature and should include a scale. They should be reproduced at a scale where, for example, individual stones may be identified. Steps should be taken to minimise distortion, (*e.g.* by use of a shift lens) and achieve a consistent scale. These photographs should be supplemented with general photographs showing the site in its setting and, if composite photographs are necessary to cover a large feature or elevation, then general shots of the feature should be included. The photographs to be indexed as for Level 1, and related to a site plan.

- b. A general description and a description of all the principal features.

- c. A measured survey of the ground plan of the building or site at an appropriate scale as for Level 3.

#### **Level 5: Full record**

This would normally include the full photographic record as described for Level 4, but would be supplemented by a measured survey surveyed to no more than a 1% error. The record may be supplemented by elevations and sections, where appropriate, drawn at a scale consistent with the plans.

Individual features should also be surveyed and drawn to scale. The full record would include a detailed description, including measurements wherever necessary.

**Preservation *in situ*:** it is recommended that features considered to be of national importance be preserved *in situ*.

**N.B. Recommendations within the gazetteer (4.4 below) would only take effect if the site referred to is to be disturbed.**

## 4. ARCHAEOLOGICAL FINDINGS

### 4.1 Location

Oakeley Quarry is situated on the north-western slopes above the town of Blaenau Ffestiniog, in the community (formerly civil parish) of Ffestiniog at grid ref: SH 692 472 within the county of Gwynedd. It is one of the major sites of the Ffestiniog slate district, extracting the rock from open and underground workings. Its tips dominate Blaenau Ffestiniog.

The town of Blaenau Ffestiniog is a horseshoe shaped settlement built on a natural shelf near the break of slope at the head of a valley.

### 4.2 Historical background.

#### 4.2.1 Pre-modern

There is very little evidence for human presence within the study area before the Industrial and Modern period.

Pre-industrial settlement consisted of a number of farms, with no nucleated settlement nearer than the village of Llan Ffestiniog four miles to the south-west. The farmhouses were mostly located near the break of slope, and were owned by a number of different landlords, all Welsh, but anglicised and some absentee. The farms which made up the present site were all owned by the Oakeley family of Maentwrog by the early nineteenth century, though one area was in dispute with a local farmer.

#### 4.2.2 Modern and Industrial period

Though there is evidence for slate quarrying on a limited scale at Ffestiniog from the sixteenth century, it is only in perhaps the 1760s, with the arrival of a group of men from Arfon, that the industry appears to have developed on any systematic basis. The focus of their activities was at the Diffwys gorge, to the east of the present town, and it was the sale of this quarry to a group of Englishmen from the Lake District in 1800 that attracted the attention of other capitalists from outside Wales.

Trials for slate may have been carried out on the site of the present quarry from the very early nineteenth century, if not the late eighteenth, but it was not until the arrival on the scene of Samuel Holland senior, a Liverpool merchant, and his son Samuel Holland II that quarrying began in any productive way.

Samuel Holland II (1803-1892) himself is a figure of considerable importance in the history of Wales, not only as a quarry tenant but as an educational pioneer and as a Member of Parliament from 1870 to 1885. Holland senior had taken a lease of the lower quarry from the Oakeley family on 25 March 1821, having been conducting workings there since 1819, and sent his son, then a boy of eighteen incapable of speaking a word of Welsh, to manage the site. In 1825 the lease passed from the Hollands to the Welsh Slate, Copper and Lead Mining Company (after 1838 known as the Welsh Slate Company), whose shareholders included George Homfrey, of the great South Wales iron dynasty, who became the manager, and Henry

Temple, Viscount Palmerston, the future Prime Minister. Palmerston was an active shareholder in the lower quarry, which he visited on many occasions, the last time in 1865, shortly before his death. The standard histories err in describing Nathan Meyer Rothschild, the international financier, as one of the shareholders in this venture, but he was undoubtedly involved in mineral trials in the uplands to the north of the quarry at one stage.

This company worked the quarry until 1883 when a disastrous fall in the underground workings led to protracted legal disputes with their neighbours. This particular site is known variously as the Lower Quarry, the Palmerston Quarry and as the Welsh Slate Company Quarry.

In 1826, after the Hollands had lost their interest in the lower quarry the previous year, they transferred their operations to an area known as Cesail, higher up the mountain, where they opened a series of open levels. Here they prospered and Samuel Holland II worked the quarry until the lease expired in 1877, when the Oakeley family began to be worked directly by the estate. This site is known variously as the Upper Quarry, Cesail or Chwarel Holland.

The area in between these two workings was leased in 1833 to Nathaniel Matthews and Sir Joseph Huddart, who set up the Rhiwbrydir Slate Company in 1840. This site is known variously as Gloddfa Ganol ('the middle quarry'), Matthew's or Rhiwbrydir. Their lease also expired in 1877, and the landlord W.E. Oakeley stepped in.

Output grew rapidly from the 1830s, and development was much aided from 1836 by the opening of the narrow-gauge Ffestiniog Railway in 1836, though initially only Holland was prepared to use the line. His quarry was the first to have a direct rail connection with the workings, in 1838, after two years of bringing the slates down on packhorses to the terminus at Rhiwbrydir.

In 1882 Oakeley established the Oakeley Slate Quarries Company Ltd, and from 1888 this also worked the Lower Quarry, after the resolution of the legal disputes as a consequence of the fall of 1883. Henceforth the three quarries were united in one, and became known as the Oakeley Quarry.

In May 1969 the deep mine closed, and October of the following year the entire undertaking closed down. In 1971 the Quarry was re-opened by the Ffestiniog Slate Company and in 1974 the Gloddfa Ganol Tourist Centre was opened by the Ffestiniog Mountain Tourist Centre. Narrow Gauge Enterprises Ltd also established a display of locomotives and rolling stock.

In 1997 the quarry was purchased by Alfred McAlpine Slate Products, which has concentrated exclusively on the winning of slates and has discontinued the tourist facilities.

From the 1880s until 1969 the combined quarries constituted the largest active slate mine in the world. The very earliest workings were purely surface extractions, but from perhaps the 1830s or early 1840s the slate came to be worked in underground chambers which extend a considerable distance to the west and south-west of the present workings. Some idea of their extent may be gauged from the fact that they required at one stage 50 miles of narrow-gauge railway to serve them and that they reached a depth of 1,400' below the surface workings.

The geological constraints of the Blaenau slate industry led to a distinctive form of technology, much of which was evolved on the Oakeley site. The most pressing need was for machinery capable of raising the rubble and the raw blocks from the underground workings. Water-balance inclines were in use at Samuel Holland's quarry in Blaenau Ffestiniog in the 1840s, where they were converted to steam in 1874.

Steam-powered inclines became vitally important. In 1854 Gloddfa Ganol was equipped with a portable or semi-portable engine working an incline in order to centralise waste tipping; this lasted until c. 1890-1891, when the engine was either replaced by a product of Caernarfon's DeWinton Ironworks or rebuilt by them, and the incline itself was rebuilt in the form in which it was to operate until closure in 1970 – six parallel



tracks working independently on a gradient of  $1\frac{1}{2}\%$ , each of which branched off to a different level in the mine, the longest rope being 890' long. The drums all ran on the one spindle, and the clutches were controlled from a massive girder stage above the incline head. A similar incline was installed on Bonc Goedan in the Lower Quarry.

When in 1906 the North Wales Power and Traction Company set up its a.c. plant at the foot of Snowdon, the Oakeley Quarry invested in five 200 h.p. Bruce Peebles BS90 motors, one of which went to the six-track steam incline, the rest to other inclines in the quarry, the existing linkages being used wherever possible. These machines gave excellent service until the quarry closed in 1970, despite being regularly started forty times a day.

For processing the slate, the quarries required powered mills from an early date. One is believed to have been established in the Lower Quarry in the 1830s. Others followed at Bonc Siafft in the Lower Quarry in the 1850s, and at in the Upper Quarry at around the same time. These appear to have used circular saw tables to process the raw blocks into smooth slabs, which were then split and trimmed by hand in external gwaliau, slate makers' shelters. From the 1860s, integrated mills in which all the processes were carried out under one roof were established, and this pattern remains the dominant one in the industry.

Tipping of the unusable rock (at least 90% of the rock extracted in a slate quarry) and trimming waste was a particular problem at Oakeley, as in many sites. The construction of Bont Fawr, a viaduct over the Afon Barlwyd near the hamlet of Rhiwbrydir, a spectacular feature which survived intact into the 1970s, was one means by which the problem of waste was solved, but the reconstruction of the quarry's exit incline system in the early years of the twentieth century enabled the creation of the huge *domen fawr* ('the big tip') which dominates the skyline around the quarry.

The opening of the quarries which constitute the modern-day site, though far from being the only significant quarries in the immediate area, gave an impetus to the establishment of the town of Blaenau, which reached a population of 11,435 in 1901, as well as to the narrow gauge Ffestiniog Railway, now enjoying a new lease of life as a tourist attraction.

The nearby Glan y Pwll slate quarry, also known as Nyth y Gigfran and Gloddfa Twm Ifan Jâms, had a much shorter and less glorious history. It was first opened by a miner from Ruthin called Thomas Evan James; inclines were built to the Ffestiniog Railway, and work began on a slab mill at Glandwr before boundary disputes brought its life to an end.

#### 4.3 Archaeology of the quarry area.

Existing surveys by the locally-based Fforwm Plas Tan y Bwlch and by other interested individuals have established the significance of the quarry's technical evolution. Courses pursued jointly by the University of Hull and the Snowdonia National Park Studies Centre at Plas Tan y Bwlch have studied the types of approach to slate quarrying carried out in Ffestiniog generally, and Oakeley forms part of an area defined as a landscape of outstanding historic interest in the recently-published *Register of Landscapes of Outstanding Historic Interest in Wales*, jointly produced by the Countryside Council for Wales, Cadw and ICOMOS UK (International Council on Monuments and Sites). The summary reads:

The foremost slate mining and quarrying landscape in Wales, sited in an elevated natural basin and its tributary valleys in south Snowdonia, containing an undisputed wealth of industrial archaeological remains comprising visually imposing and extensive slate quarry and mine workings, waste tips, associated buildings, transport systems and settlements dating from the late 18<sup>th</sup> to the early 20<sup>th</sup> centuries.

##### 4.3.1 Extraction points and tip runs.

Oakeley was observed to be typical of slate-quarry practice in the Ffestiniog district in that slate was extracted from underground chambers by means of both inclined and level tunnels. The surviving lefel fawr in the Upper Quarry exemplifies this method of gaining access to the rock.

The need to tip unworkable rock has led to the creation of what are perhaps the single most impressive features within the Blaenau slate industry, the enormous slate tips and their tipping cobs.

#### *4.3.2 Processing*

The archaeological and documentary record makes it clear that extensive use was made of steam-powered slate mills from the 1850s onwards. However, the recent demolition of two early mills – Melin Bonc Siafft and Melin Uchaf Holland – has left only the slightly later Melin Isaf Holland of these pioneering structures.

#### *4.3.3 Power*

As well as the intensively engineered approach implied by the extensive mill buildings at the quarry, the power systems used illustrate the progression from steam to the state of the art technology brought in by the North Wales Power and Traction Company. North Wales has been recognised as a world-leader in the field of electricity generation in the years 1900 to 1925, and Oakeley Quarry was one of the first two industrial sites (with Pen yr Orsedd in Dyffryn Nantlle) to make use of remotely-generated alternating current on a major scale. The transformer stations, especially that situated on Gloddfa Ganol, and the reinstated Bruce Peebles electric motor in the Gloddfa Ganol winding house recall these developments.

#### *4.3.4 Transport*

A number of the substantial internal and external incline systems were observed to survive largely intact. These include a number of uphaulage inclines, powered variously by water, steam and electricity. One of these is the site where steam was first successfully applied to incline winding, and another preserves its 1906 electrical machinery intact. The magnificent exit inclines built to connect the quarry with the Ffestiniog Railway, which form skyline features, are important features, as are the zig-zag paths to the town.

#### *4.3.5 Ancillary structures*

Oakeley Quarry was observed to contain a number of ancillary buildings typical of slate quarry practice, some of which remain in use. The 'offis gron', the panopticon office in the Upper Quarry is an important and unusual feature.

#### *4.3.6 Domestic structures*

A number of domestic structures survive in the quarry; the importance of those in Gloddfa Ganol, 'bythynod Harry Williams', has been recognised by listing. Other domestic structures are believed to have been buried.

#### *4.3.7. Celebratory features*

Three rock cannon have been identified within the Oakeley site and one other at Glan y Pwll quarry.

#### *4.3.8. Non-quarry features*

A number of features were observed which related to the agricultural economy of the area, including two sheepfolds, and others which are connected with the Ffestiniog Railway. Other features in this category are believed to have been buried.

#### *4.3.9. Historic landscape*

The archaeological and historical significance of the individual features within the Oakeley site, both industrial and non-industrial, is greatly enhanced by their spatial and chronological relationship with each other and within the broader historic landscape of Blaenau Ffestiniog. The surviving features exemplify the transition from a rural to a quarrying environment, and the technical innovativeness of the slate industry, especially in the way electricity superseded steam and water power. They also demonstrate the need to develop an efficient transport system to the coast, exemplified in the Ffestiniog Railway and the inclines into the quarry, and the acute pressure to build houses for the workforce, as seen both in the dwellings within the quarry and in the settlement at Blaenau Ffestiniog itself.

In terms of the historic landscape, the visual impact of the quarry itself as an industrial site constitutes an important element within the archaeological resource. Oakeley Quarry is a spectacular site; the scale of its workings and of its tips exemplify the development of the slate industry in the nineteenth century and the unique culture which it continues to sustain.

#### 4.4 Gazetteer of archaeological sites

Notes on the following:

- The features identified below are given according to their location within the Oakeley Quarry, calculated level by level for ease of reference, with the exception of Oakeley Quarry features which were not specific to a particular level (for instance dams and water courses), in which case they are noted separately, features associated with the Glan y Pwll Quarry, and non-quarry features.
- Buried features are those identified on maps as having existed at a certain place which have now been covered by tips. Their position can only be approximate. Their locations are given according to their original levels.
- Inclines are identified by their summit level, though wherever possible the level at its foot is also identified, as well as intermediate levels which it served. A distinction is made between an uphaulage incline (in which case the feature at its summit is separately noted as a 'winding house'), or a counterbalance (in which case the feature at its summit is noted separately as a 'drumhouse').
- Some sources regard the present mill level in Gloddfa Ganol as floor 6, others as floor 5. For the purposes of this document, this floor is taken to be floor 5, but the Upper Quarry section and the Gloddfa Ganol section are here distinguished as floors 5a and 5b respectively.
- *Threat* is defined as a category for each site on the basis of Drawing number 04/19A in the Bowman Planton Scoping Report, where proposed tipping areas and areas of proposed surface working are identified. No *Threat* category is assigned to features outside these areas.
- Buried sites are identified in the following gazetteer, though in some cases their location can only be described as approximate. These are assigned to *Category E* (see 3.6). There is only a *Threat* category for these sites if proposed surface quarrying is likely to require their removal. Further tipping is not considered a threat, though if at some future stage they were to be reworked, then a watching brief for buried features and subsequent recording should be implemented.
- The tips themselves are archaeological features. Should they be reworked in any way at any future stage, a watching brief and subsequent recording should be implemented as appropriate.
- Underground features do not form part of the present assessment. The underground workings are, however, likely to be of considerable archaeological significance, and may contain examples of early machinery, especially in levels made inaccessible by the fall of 1883.

##### *Oakeley Quarry floor 16*

#### **1. Weighbridge house/gwal *Category C*.**

NGR: SH 6870 4626

Description: A dilapidated and roofless structure.

*Recommendations: level 2 recording*

##### *Floor 15*

#### **2. Tramming level *Category C*.**

NGR: SH 6876 4636 – 6872 4639

Description: A 50m long tramming level on floor 16, leading to open workings.

*Recommendations: level 1 recording*

**3. Weighbridge house Category C.**

NGR: SH 6884 4627

Description: Roofless and dilapidated.

*Recommendations: level 2 recording*

**4. Shelter Category C.**

NGR: SH 6886 4627

Description: A stone-built 'beehive' shelter, 1.25m high.

*Recommendations: level 2 recording*

*Floor 14*

**5. Trammig level Category C.**

NGR: SH 6878 4639

Description: The entrance to a collapsed trammig level.

*Recommendations: level 1 recording*

**6. Weighbridge house Category C.**

NGR: SH 6885 4635C

Description: Roofless and dilapidated

*Recommendations: level 2 recording*

*Floor 13*

**7. Trammig level Category B.**

NGR: SH 6893 4645 – 6896 4643

Description: A rock-cut trammig level which opens out above Dinas.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: level 1 recording*

**8. Structure Category B.**

NGR: SH 6893 4645

Description: a circular structure known, with its neighbour, as 'Talwrn y Beirdd' (the poets' cockpit). Now roofless and dilapidated, it measures 3m across internally, and the walls survive to 1m high.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: level 3 recording*

**9. Structure Category B.**

NGR: SH 6892 4644

Description: a circular structure known, with its neighbour, as 'Talwrn y Beirdd' (the poets' cockpit). Now roofless and dilapidated, it measures 3m across internally, and the walls survive to 2m high.

*Threat: this feature is at risk from proposed surface working.*



*Recommendations: level 3 recording*

**10. Weighbridge house Category B.**

NGR: SH 6891 4645

Description: Situated on floor 13, roofless and dilapidated.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: level 3 recording*

**11. Drumhouse Category B.**

NGR: SH 6889 4643

Description: An early drumhouse on floor 13, 'remote' type, though the back wall may be a later addition. The remains of the drum show an unusual 'clasp' wheel construction. The structure is roofless but a considerable amount survives, including the brake mechanism.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: level 4 recording*

**12. Incline Category C.**

NGR: SH 6889 4643 – 6890 4661

Description: The course is much degraded.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: level 2 recording*

*Floor 12*

**13. Bridge Category C.**

NGR: SH 6889 4650

Description: The abutments of a bridge over incline (12) at floor 12. These have been built up in such a way as to suggest that the feature also served another function.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: level 2 recording*

**14. Weighbridge house Category C.**

NGR: SH 6892 4651

Description: The floor 12 weighbridge house, roofless and dilapidated.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: level 2 recording*

*Floor 11*

**15. Drumhouse Category D.**

NGR: SH 6888 4656

Description: The drumhouse of the incline (16) down from floor 11. One wall stands largely complete, the other is badly dilapidated

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: level 2 recording*

**16. Incline Category D.**

NGR: SH 6888 4646

Description: The crimp only survives.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: level 1 recording*

*Floor 10*

**17. Weighbridge house Category D.**

NGR: SH 6892 4660

Description: this feature was removed in 1999 by Fforwm Plas Tan y Bwlch, and the site has been buried.

*Recommendations: level 5 recording of features removed from site; re-assembly of components*

*Floor 9*

**18. Workshops Category E.**

NGR: SH 6897 4673

Description: The assumed location of a workshops, identified on a number of early maps, now buried. A smithy is marked here as late as 1901.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: watching brief, followed by appropriate recording*

**19. Drumhouse Category E.**

NGR: SH 6903 4673

Description: a buried feature which formerly operated an incline from floor 9 to floor 8; in existence by 1848.

*Recommendations: watching brief, followed by appropriate recording*

**20. Incline Category E.**

NGR: SH 6903 4673 - 6910 4672

Description: a buried feature which formerly ran from floor 9 to floor 8; in existence by 1848

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: watching brief, followed by appropriate recording*

**21. Drumhouse Category E.**

NGR: SH 6906 4680

Description: The assumed location of a drumhouse, operating an incline from Floor 9 to floor 7, by 1848, now buried.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: watching brief, followed by appropriate recording*

**22. Incline Category E.**

NGR: SH 6915 4672 – 6915 4689

Description: The assumed location of an incline from Floor 9 to floor 7 by 1848, now buried.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: watching brief, followed by appropriate recording*

**23. Shelter Category C.**

NGR: SH 6907 4655

Description: Dilapidated.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: level 2 recording.*

**24. Shelter Category C.**

NGR: SH 6906 4652

Description: Dilapidated.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: level 2 recording.*

*Floor 8*

**25. Drumhouse Category E.**

NGR: SH 6911 4671

Description: The possible location of an hypothetical early drumhouse, posited by Graham Isherwood, operating an incline (26) from floor 8 to floor 5a by 1848, now buried.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: watching brief, followed by appropriate recording*

**26. Incline Category E.**

NGR: SH 6915 4672 – 6925 4670

Description: The possible location of an hypothetical early incline, posited by Graham Isherwood, operational by 1848, from floor 8 to floor 5a, now buried.

*Threat: this feature is at risk from proposed surface working and tipping.*

*Recommendations: watching brief, followed by appropriate recording*

**27. Loco shed Category E.**

NGR: SH 6914 4673

Description: a buried feature; a structure is shown on this site in 1870, before locomotives were introduced.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: watching brief, followed by appropriate recording*

**28. Smithy/dwellings Category E.**

NGR: SH 6916 4670

Description: Marked as a smithy in 1901, though it may also have had a domestic purpose; this feature has been demolished and the area of the foundations covered with slate rubble.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: watching brief, followed by appropriate recording*

**29. Mill Category E.**

NGR: SH 6917 4678

Description: Melin Uchaf Holland, a feature probably constructed as a slab mill with external *gwaliau* for hand-trimming of slates. Recently demolished, the foundations may survive.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: watching brief, followed by appropriate recording*

**30. Mill engine house Category E.**

NGR: SH 6918 4676

Description: The engine house which formerly served Melin Uchaf Holland (29), in existence by 1870 to house a steam engine, more recently adapted to house an electric motor. Recently demolished, the foundations may survive.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: watching brief, followed by appropriate recording*

**31. Mill extension Category E.**

NGR: SH 6917 4674

Description: An extension to the south of Melin Uchaf Holland (29), constructed after 1870 but before 1888. The foundations may survive.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: watching brief, followed by appropriate recording*

**32. Dwelling Category E.**

NGR: SH 6919 4682

Description: A three-dwelling two-storey barracks and lunch house, marked in 1870, now demolished and the area of the foundations covered with slate rubble. Recently demolished, the foundations may survive.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: watching brief, followed by appropriate recording*

**33. Dwelling Category E.**

NGR: SH 6920 4682

Description: 'Barics Holland', a single-storey block marked on the quarry plan of 1870. Now demolished and the area of the foundations covered with slate rubble.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: watching brief, followed by appropriate recording*

**34. Office Category B.**

NGR: SH 6917 4682

Description: 'Offis gron', a panopticon office, built out of country rock, now roofless, and suffering some dilapidation.

*Threat: this feature is at risk from proposed surface working and from plant vibration.*

*Recommendations: level 4 recording*

**35. Dwelling Category E.**

NGR: SH 6914 4682

Description: A *crog-lofft* block marked in 1870, now demolished and the area of the foundations covered with slate rubble. The foundations may survive.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: watching brief, followed by appropriate recording*

**36. Weighbridge house Category D.**

NGR: SH 6914 4685

Description: A feature which has been demolished, though the foundations may survive

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: watching brief, followed by appropriate recording*

**37. Drumhouse Category D.**

NGR: SH 6925 4680

Description: A 'through' drumhouse for the incline which connected floor 8 with 5b. A fragment of wall survives.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: level 1 recording*

**38. Incline Category C.**

NGR: SH 6925 4680 – 6928 4688

Description: A counterbalance incline from floor 8 to floor 5b. In existence by 1889. to 5b

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: level 2 recording*

**39. Drumhouse Category A.**

NGR: SH 6924 4669

Description: A substantial 'through' type drumhouse which has been reconstructed by the addition of a back wall with a central window. There is also evidence for the installation of machinery, possibly a haulage engine, at some stage. The building is roofless and the north-west gable is listing at an angle. This building is in a spectacular location and is visible for miles.

*Threat: this feature is at risk from proposed tipping and from dilapidation.*



*Recommendations: preservation in situ.*

**40. Incline Category A.**

NGR: SH 6924 4669 – 6920 4660

Description: A counterbalance incline from floor 8 to floor 5a, in existence by 1848. The substantial retaining wall is an impressive feature.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: preservation in situ.*

**41. Structure Category A.**

NGR: SH 6925 4670

Description: A structure which may have included a powder magazine, situated at the crimp of the incline which leads from Melin Isaf Holland to Melin Isaf Holland. The 'dragon's comb' of offcuts used as capping stones makes this a distinctive feature.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: preservation in situ.*

**42. Privy Category C.**

NGR: SH 6913 4657

Description: A two-seater, two compartment privy, largely complete.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: level 2 recording*

**43. Structure Category E.**

NGR: SH 6910 4651

Description: A dilapidated stone-built structure of uncertain purpose.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: level 3 recording*

**44. Caban Category C.**

NGR: SH 6905 4646

Description: Roofless and dilapidated.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: level 2 recording*

**45. Rock cannon Category B.**

NGR: SH 6907 4640

Description: A rock cannon fired for the arrival of Princess Elizabeth in 1949, in which the explosive train was laid in rails turned on their side.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: level 2 recording*

**46. Rock cannon** *Category B.*

NGR: SH 6907 4637

Description: A 25-hole rock cannon, with channels.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: level 2 recording*

**47. Tipping cob** *Category A.*

NGR: SH 6904 4641

Description: A substantial tipping cob overlooking the town of Blaenau Ffestiniog.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: preservation in situ.*

*Floor 7*

No features observed.

*Floor 6*

**48. Structure** *Category D.*

NGR: SH 6919 4693

Description: Roofless and dilapidated.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: level 2 recording*

**49. Privy** *Category D.*

NGR: SH 6917 4692

Description: slab-roofed, partly buried by the tip.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: level 2 recording*

*Floor 5a*

**50. Level** *Category A*

NGR: SH 6915 4646

Description: The 'lefel fawr' cut by Samuel Holland in 1839-1840, and which was lit by gas in the 1870s. This feature has now been dammed near the entrance.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: preservation in situ.*

**51. Weighbridge house** *Category B*

NGR: SH 6915 4645

Description: This feature stands at the mouth of lefel fawr (50). It remains in use as a store.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: preservation in situ.*

**52. Structure Category E**

NGR: SH 6915 4677

Description: A structure which is marked in 1888, but of which there is now no visible trace.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: watching brief, followed by appropriate recording*

**53. Drumhouse Category E**

NGR: SH 6914 4648

Description: The drumhouse, probably dating from 1837-8, for the incline from floor 5a to the Ffestiniog Railway at Dinas; now buried.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: watching brief, followed by appropriate recording*

**54. Incline Category E**

NGR: SH 6914 4648

Description: The incline from floor 5a to the Ffestiniog Railway at Dinas; now buried by (68) y domen fawr.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: watching brief, followed by appropriate recording*

**55. Bridge Category E**

NGR: SH 6918 4648

Description: The bridge which carried the level railway from lefel fawr to the mill, across the incline to Dinas - now buried.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: watching brief, followed by appropriate recording*

**56. Steps Category B**

NGR: SH 6914 4647 – 6935 4648

Description: The zig-zag path from Lefel fawr to the Ysgoldy (188); now only visible as a slot in the retaining wall, otherwise entirely buried by y domen fawr (68).

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: level 2 recording*

**57. Slab mill Category E**

NGR: SH 6917 4647

Description: An early slab mill, water-powered; some of the walls may have been incorporated into a modern vehicle store.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: watching brief, followed by appropriate recording*

**58. Water-wheel pit Category B**

NGR: SH 6918 4647

Description: The pit for the water-wheel which formerly powered Holland's slab mill.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: level 4 recording*

**59. Stable Category D**

NGR: SH 6917 4646

Description: This feature only survives as a corner of the wall.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: level 2 recording*

**60. Retaining wall Category C**

NGR: SH 6917 4647

Description: A feature which stands several metres high, and supports the slab mill and the stables; owing to the recent dumping of fines by Redlands, its full visual effect is diminished

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: level 2 recording*

**61. Structure Category B**

NGR: SH 6916 4648

Description: A building which remains in use to house a compressor. Its (domestic) chimney is a prominent feature.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: level 3 recording*

**62. Dwelling Category B**

NGR: SH 6916 4650

Description: A feature which is not marked on a map of 1838 but is shown in 1870. Roofless and dilapidated.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: level 3 recording*

**63. Dwelling Category B**

NGR: SH 6916 4654

Description: 'Clogwyn Hall', a two-storey barracks dwelling and lunch house, near the mouth of Holland's main level (50), not marked in 1838 but shown on the OS map of 1889. Now roofless and suffering some dilapidation – the western gable and chimney are listing.

*Threat: this feature is at risk from proposed tipping and from dilapidation.*

*Recommendations: level 3 recording*

**64. Retaining wall Category B**

NGR: SH 6919 4660 – 6916 4645

Description: A substantial retaining wall which keeps the slate tip back from Melin Isaf Holland (65) and Clogwyn Hall (63).

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: level 2 recording*

**65. Mill Category A**

NGR: SH 6922 4658

Description: Melin Isaf Holland, a substantial mill of the 1860s, disused from the 1920s, but subsequently reroofed in part and rebuilt for use as a storage area and for a railway museum.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: preservation in situ.*

**66. Mill engine house Category B**

NGR: SH 6920 4658

Description: A small engine house for the engine which formerly powered Melin Isaf Holland (65); partly rebuilt as a caban. Steam was replaced by electricity in 1906.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: preservation in situ.*

**67. Mill engine house chimney Category A**

NGR: SH 6920 4658

Description: A square plan chimney, in which a list is evident.

*Threat: this feature is at risk from proposed tipping and from dilapidation.*

*Recommendations: monitoring for stability.*

*Floor 5b*

**68. Slate tip Category A**

NGR: SH 693- 464- C

Description: 'Domen fawr', the big tip, one of the most visually spectacular tips in the Welsh slate industry, dating from the early years of the twentieth century.

*Recommendations: preservation in situ.*

**69. Incline Category E**

NGR: SH 6930 4664 – 6928 4663

Description: A short incline to floor 5a, now buried.

*Threat: this feature is at risk from proposed tipping.*



*Recommendations: watching brief, followed by appropriate recording*

**70. Drumhouse Category D**

NGR: SH 6930 4664

Description: The two walls for a drumhouse survive at this point.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: level 2 recording*

**71. Incline Category A**

NGR: SH 6940 4678 – 6942 4645

Description: The main exit incline to Dinas on the Ffestiniog Railway, built c. 1905 – a substantial and impressive feature.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: preservation in situ.*

**72. Drumhouse Category A**

NGR: SH 6940 4678

Description: The drumhouse of the main exit incline to Dinas on the Ffestiniog Railway, built c. 1905, massively constructed of substantial slabs, visible for miles. The present spindle and drum are a recent addition.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: preservation in situ.*

**73. Weighbridge house Category B**

NGR: SH 6940 4679

Description: A weighbridge house, roofed and in good condition.

*Threat: this feature is at risk from proposed surface working and from plant vibration.*

*Recommendations: level 3 recording*

**74. Mill Category B**

NGR: SH 6935 4687

Description: A feature which partly consists of the 1897 slab mill and partly of a 1980s mill contiguous with it. The older part remains in use as a locker room and workshops. The roof is a complicated structure, involving half-hipped and catslide constructions.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: level 4 recording*

**75. Loco shed Category C**

NGR: SH 6937 4691

Description: A locomotive shed, orientated north to south. The locomotive doorway has been blocked up, and the building is in reuse as a messroom. The south peak is hung with slates.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: level 3 recording*

**76. Transformer house Category A**

NGR: SH 6933 4696

Description: The no. 1 transformer station of 1906, situated on the main level of Gloddfa Ganol. The building has until recently been in reuse as a shop. It remains in good condition, hung with patterned slates and carrying a date-plaque. The slate-rubble tower for the high-tension cables is a prominent feature.

*Threat: this feature is at risk from proposed surface working and from dilapidation of the tower caused by plant vibration.*

*Recommendations: preservation in situ; monitoring for effects of plant vibration.*

**77. Incline Category A**

NGR: SH 6935 4700 – 6940 4708

Description: Originally built as a counterbalance, this feature was reconstructed as an uphaulage incline in 1906 to raise blocks from Bonc Goedan.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: preservation in situ.*

**78. Winding house Category A**

NGR: SH 6935 4700

Description: An excellent example, in good condition, of a typical Blaenau Ffestiniog winding house, with its asymmetrical roof and stage over the crimp. It contains one of the original Bruce Peebles winding motors of 1906, restored to its situation after being initially removed.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: preservation in situ; monitoring for effects of plant vibration.*

**79. Stores Category D**

NGR: SH 6931 4700

Description: A feature which has latterly been reused as a restaurant. Largely demolished, it survives only as slate walls with sawn-end capping stones with a set of steps built into the structure at one point.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: level 2 recording*

**80. Office Category C**

NGR: SH 6927 4701

Description: A building situated on the main floor of Gloddfa Ganol; in existence by 1955. The roof is supported on steel trusses. This was latterly the museum.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: level 4 recording*

**81. Loco shed Category C**

NGR: SH 6922 4699

Description: Situated on the main floor of Gloddfa Ganol; a locomotive shed with a locomotive door in the east-facing gable and a catslide extension, possibly a caban for the crew, on the north side. The stone base

for a water tower stands by the locomotive door and the eastern peak is hung with slates. This building remains substantially intact. Latterly the Manod Museum.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: level 3 recording*

**82. Mill Category C**

NGR: SH 6932 4696

Description: In re-use as a lavatory block, the easternmost end, and only surviving part above foundation level, of the main mill on the main level at Gloddfa Ganol. This feature formerly extended to the west as far as SH 6919 4697 – some foundations are visible.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: level 4 recording*

**83. Winding house Category B**

NGR: SH 6918 4696

Description: A feature which was formerly integral with the substantial No 1 mill or 'Felin Fawr' and which housed the winding engine for the main incline. It was latterly Gloddfa Ganol Heritage museum, and survives substantially complete. The machinery has been removed, but the building is still roofed. The canopy roof over the crimp is apparent. A stone chimney forms part of the structure. This structure has been re-roofed and partly reconstructed.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: level 5 recording*

**84. Incline Category B**

NGR: SH 6913 4697 C

Description: The main uphaulage incline from floors DE, C, 1, 2, 3 and 4 to floor 5, formerly operating on six tracks. It is carried on a substantial stone embankment which partly survives, broken through by the quarry road.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: level 3 recording*

**85. Retaining wall Category B**

NGR: SH 6915 4697

Description: A substantial retaining wall supporting the main winding house.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: level 1 recording*

**86. Weighbridge house Category C**

NGR: SH 6908 4687

Description: Roofless and dilapidated.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: level 2 recording*

**87. Weighbridge house Category B**

NGR: SH 6922 4693

Description: A feature which is situated on the main level at Gloddfa Ganol. It remains in good condition, roofed with patterned slates on the northern pitch. The chimney is a prominent feature.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: level 4 recording*

**88. Caban Category C**

NGR: SH 6923 4692

Description: A mono-pitch roof structure, intact.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: level 3 recording*

**89. Dwelling Category A**

NGR: SH 6925 4691

Listed grade II (Cadw ref: 44/H/35to37[1]).

Description: 'Bythynod Harry Williams', a row of three single-storey lofted dwellings, with outhouses and privies to the rear, situated on the main level at Gloddfa Ganol. They are believed to date from the 1840s.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: preservation in situ; monitoring for effects of plant vibration.*

**90. Caban Category C**

NGR: SH 6927 4690

Description: A mono-pitch roof structure, intact.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: level 3 recording*

**91. Magazine Category E**

NGR: SH 6931 4685

Description: no longer visible, possibly buried.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: watching brief, followed by appropriate recording*

**92. Drumhouse Category E**

NGR: SH 6940 4690

Description: The assumed site of the drumhouse of an incline from floor 5b to floor 1, giving Gloddfa Ganol access to a further incline and thence to the Ffestiniog Railway. Now buried.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: watching brief, followed by appropriate recording*

**93. Incline Category E**

NGR: SH 6940 4690 – 6957 4685

Description: The assumed site of an incline from floor 5b to floor 1, giving Gloddfa Ganol access to a further incline and thence to the Ffestiniog Railway. Now buried.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: watching brief, followed by appropriate recording*

*Floor 4*

**94. Retaining wall Category C**

NGR: SH 6923 4697

Description: A substantial retaining wall, supporting the level railway running from the incline which connected the DE floor with floor 5b.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: level 1 recording*

**95. Bastion Category C**

NGR: SH 6898 4685

Description: A substantial bastion built of large slate blocks.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: level 1 recording*

*Floor 3*

**96. Retaining wall Category C**

NGR: SH 6910 4697

Description: A substantial retaining wall, supporting the level railway running from the DE to floor 5 incline.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: level 1 recording*

*Floor 2*

No features observed

*Floor 1*

**97. Trammings level Category E**

NGR: SH 6947 4684

Description: The assumed site of the mouth of a trammings level from the open workings of Gloddfa Ganol to the drumhouse (98) of an incline (99) above Rhiwbryfdir to the Ffestiniog Railway, assumed to have been constructed by 1842 and to have operated until 1872. Now buried. The site of the opening in the open workings is not known.

*Recommendations: watching brief, followed by appropriate recording*



**98. Drumhouse Category E**

NGR: SH 6984 4684

Description: The drumhouse of an incline (99) above Rhiwbryfdir to the Ffestiniog Railway, accessed by a tramming level from the open workings, assumed to have been constructed by 1842 and to have operated until 1872. Now buried.

*Recommendations: watching brief, followed by appropriate recording*

**99. Incline Category E**

NGR: SH 6948 4684 – 6960 4676

Description: an incline above Rhiwbryfdir to the Ffestiniog Railway, accessed by a tramming level from the open workings, assumed to have been constructed by 1842 and to have operated until 1872. Now buried.

*Recommendations: watching brief, followed by appropriate recording*

**100. Drumhouse Category E**

NGR: SH 6957 4685

Description: The drumhouse of Gloddfa Ganol's incline (101) above Rhiwbryfdir from floor 1 to the Ffestiniog Railway, accessed by a higher incline from floor 5b at Gloddfa Ganol, constructed 1870, now buried.

*Recommendations: watching brief, followed by appropriate recording*

**101. Incline Category E**

NGR: SH 6957 4605 – 6960 4681

Description: Gloddfa Ganol's incline above Rhiwbryfdir from floor 1 to the Ffestiniog Railway, accessed by a higher incline from floor 5b at Gloddfa Ganol, constructed 1870, now buried.

*Recommendations: watching brief, followed by appropriate recording*

*Bonc Goedan*

**102. Incline Category B**

NGR: SH 6927 4709

Description: The upper part of a water-balance incline from floor C to Bonc Goedan. Probably redundant after the construction of the main C steam incline. In existence by 1870, but possibly dating from 1854, when C bank began to be developed, or from 1856, when a boundary negotiation at this point was completed.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: level 3 recording*

**103. Winding house Category B**

NGR: SH 6928 4708

Description: The winding house for the water-balance incline from floor C to Bonc Goedan. Probably redundant after the construction of the main C steam incline. The winding house consists of four parallel walls of slate rubble. In existence by 1870, but possibly dating from 1854, when C bank began to be developed, or from 1856, when a boundary negotiation at this point was completed.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: level 4 recording*

**104. Landing stage Category B**

NGR: SH 6929 4708

Description: A landing stage for the water-balance incline, from floor C to Bonc Goedan. Probably redundant after the construction of the main C steam incline. In existence by 1870, but possibly dating from 1854, when C bank began to be developed.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: level 4 recording*

**105. Weighbridge house Category C**

NGR: SH 6930 4708

Description: Roofless and dilapidated – a weighbridge house which served the rail link between the floor C to Bonc Goedan water-balance and the processing areas in Bonc Goedan.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: level 2 recording*

**106. Incline Category D**

NGR: SH 6938 4712

Description: a substantial uphaulage incline from floor DE to Bonc Goedan (but despite this known as the C incline), which made the water-balance redundant. Part of the course has been turned into a road. Part of the embankment survives on floor B.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: level 1 recording*

**107. Winding house/workshops Category B**

NGR: SH 6938 4710

Description: The Bonc Goedan workshops and main winding house from the underground workings, which is orientated north to south; built after 1870, in existence by 1887. It is currently leased to Brian Jones Engineering and is in use. The roof is hipped at the northern end. Along the west longitudinal wall is the base of a slate-rubble chimney and traces of a flue or a mounting for a vertical boiler. Two timber baulks project from the northern gable and formerly formed part of the winding machinery base for the C incline to levels C, D and E in the sinc. There are also traces of flashing from the winding stage building along the northern gable wall.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: level 4 recording*

**108. Weighbridge house Category C**

NGR: SH 6944 6913

Description: A building which is situated immediately to the east of the Bonc Goedan winding house, built partly out of slate rubble and partly out of brick. The building remains intact and roofed. In existence pre-1887, and probably coeval with the C incline.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: level 3 recording*

**109. Workshops Category C**

NGR: SH 6942 4709

Description: Roofed, in reuse as stores.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: level 2 recording*

**110. Mill Category B**

NGR: SH 6952 4711 C

Description: Bonc Goedan mill, a structure orientated south-west to north east. It is re-use as a slate stacking area, and survives in good condition. The hipped roof remains, supported on 17 king-post trusses. At the south-western end is the site of the steam engine which formerly powered it, with the base of a square-plan chimney. This feature is not shown on the OS of 1889 but is shown in 1914.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: level 4 recording*

**111. Office Category B**

NGR: SH 6947 4708

Description: The Bonc Goedan office, a twentieth century feature which remains intact and in occupation, built out of slate rubble and slate roofed, with an ornamental verandah along the east wall.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: level 4 recording*

**112. Garages Category C**

NGR: SH 6946 4708

Description: A feature which appears to be coeval with the Bonc Goedan offices, variously stores and a garage.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: level 2 recording*

**113. Electricity substation Category B**

NGR: SH 6954 4726

Description: A feature which is situated on Bonc Goedan, a substantial pitched roof structure, largely intact, built out of coursed grey slate with some use of structural concrete. The machinery has been removed.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: level 4 recording*

**114. Electricity distribution hut Category B**

NGR: SH 6955 4725

Description: Adjacent to the Bonc Goedan substation, and similarly built out of coursed grey slate. It now houses fire hoses. One of the original electrical installations of 1906.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: level 4 recording*

**115. Incline Category E**

NGR: SH 6940 4708 – 6944 4714

Description: The presumed site of a now buried incline from Bonc Goedan to a lower level.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: watching brief, followed by appropriate recording*

**116. Drumhouse Category E**

NGR: SH 6940 4708

Description: The presumed site of the now buried drumhouse to (115).

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: watching brief, followed by appropriate recording*

**117. Workshops Category E**

NGR: SH 6949 4712

Description: The presumed site of a buried feature identified on early maps.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: watching brief, followed by appropriate recording*

**118. Office Category E**

NGR: SH 6948 4708

Description: The presumed site of a buried feature identified on early maps.

*Recommendations: watching brief, followed by appropriate recording*

**119. Drumhouse Category A**

NGR: SH 6966 4708

Description: The Spion Kop drumhouse, a substantial structure, dating from 1900, in a prominent location. It is roofless but the walls and part of the brake mechanism survive.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: preservation in situ.*

**120. Incline Category A**

NGR: SH 6966 4708 – 6961 4693

Description: The 'Sion Kop' incline, built, as its name suggests, in 1900, to connect Bonc Goedan with floor DE at Pen y Bont. It survives substantially intact, with some sleepers *in situ*.

*Recommendations: preservation in situ.*

**121. Path Category A**

NGR: SH 6965 4697 – 6966 4708

Description: from Bonc Goedan to floor DE at Pen y Bont. A feature which is now overgrown in places.

*Recommendations: preservation in situ.*

**122. Path Category A**

NGR: SH 6952 4700 – 6962 4686

Description: From Bonc Goedan to floor DE at Pen y Bont.

*Recommendations: preservation in situ.*

**123. Structure Category E**

NGR: SH 6956 4701

Description: A buried feature, possibly a magazine.

*Recommendations: watching brief, followed by appropriate recording*

*Floor B*

**124. Shaft Category C**

NGR: SH 6934 4716

Description: An air shaft on the 'lefel galed' on floor DE, built on a substantial slate rubble bastion.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: level 3 recording*

**125. Steps Category C**

NGR: SH 6934 4715

Description: Slate slab steps to give access to the air shaft.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: level 3 recording*

**126. Drumhouse Category E**

NGR: SH 6953 4704

Description: The drumhouse of a now-buried incline (127) which gave the Lower Quarry access to floor DE at Pen y Bont. In use by 1873, and later replaced by the 'Spion Kop' incline.

*Recommendations: watching brief, followed by appropriate recording*

**127. Incline Category E**

NGR: SH 6953 4704 – 6959 4689

Description: a now-buried incline which gave the Lower Quarry access to floor DE at Pen y Bont. In use by 1873, and later replaced by the 'Spion Kop' incline.

*Recommendations: watching brief, followed by appropriate recording*

*Floor C*

**128. Drumhouse Category E**

NGR: SH 6957 4704

Description: The drumhouse of a now-buried incline (129) which gave the Lower Quarry access to floor DE at Pen y Bont. Out of use by 1873; probably part of the original access to Rhiwbryfdir Quarry from the Ffestiniog Railway, dating from 1838.

*Recommendations: watching brief, followed by appropriate recording*

**129. Incline Category E**

NGR: SH 6957 4704 – 6960 4695

Description: a now-buried incline which gave the Lower Quarry access to floor DE, and ultimately to the Ffestiniog Railway at Pen y Bont. Out of use by 1873; probably part of the original access to Rhiwbryfdir Quarry from the Ffestiniog Railway, dating from 1838.

*Recommendations: watching brief, followed by appropriate recording*

*Floor DE*

**130. Drumhouse Category E**

NGR: SH 6960 4695

Description: The drumhouse of a now-buried incline (130) which gave the Lower Quarry access to an unnamed lower floor (above F floor) from floor DE at Pen y Bont. Out of use by 1873; probably part of the original access to Rhiwbryfdir Quarry from the Ffestiniog Railway, dating from 1838.

*Recommendations: watching brief, followed by appropriate recording*

**131. Incline Category E**

NGR: SH 6960 4695 – 6963 4689

Description: a now-buried incline which gave the Lower Quarry access to an unnamed lower floor (above F floor) from floor DE at Pen y Bont. Out of use by 1873; probably part of the original access to Rhiwbryfdir Quarry from the Ffestiniog Railway, dating from 1838.

*Recommendations: watching brief, followed by appropriate recording*

**132. Level Category C**

NGR: SH 6930 4727

Description: The sinc entrance to the 'lefel galed', which connected the working to Pen y Bont.

*Recommendations: level 1 recording*

**133. Incline Category D**

NGR: SH 6925 4720 – 6927 4718

Description: the course of the uphaulage incline from floor I, reaching daylight at floor G, is visible.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: level 1 recording*

**134. Winding house Category D**

NGR: SH 6927 4718

Description: The winding house for the incline from floor I, visible as a substantial slate-rubble structure on a bastion, extremely dilapidated.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: level 2 recording*

**135. Winding house Category D**

NGR: SH 6925 4715



Description: for an incline from floor F; only a fragment survives, and the incline appears to have been quarried away.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: level 2 recording*

**136. Tramming level Category B**

NGR: SH 6959 4685

Description: The Pen y Bont end of the 'lefel galed' (see 132), the Lower Quarry's main tramming level from Sinc Fawr, dating from 1854, if not earlier. The entrance is now largely blocked by rubble.

*Recommendations: level 3 recording*

**137. Tramming level Category B**

NGR: SH 6959 4688

Description: Possibly the original Pen y Bont entrance to the lefel galed; alongside the main WSCo tramming level mouth (136) is a smaller feature consisting of a slate wall set into the side of the tips, but in which there appears to be a timber lintel.

*Recommendations: level 3 recording*

**138. Loco shed Category C**

NGR: SH 6961 4690

Description: Situated at Pen y Bont; now roofless and dilapidated, though some roof timbers remain.

*Recommendations: level 2 recording*

**139. Caban Category C**

NGR: SH 6961 4686

Description: Situated at Pen y Bont, this feature is now roofless and dilapidated.

*Recommendations: level 2 recording*

**140. Weighbridge house Category B**

NGR: SH 6960 4686

Description: A weighbridge house at Pen y Bont, now roofless and dilapidated.

*Recommendations: level 3 recording*

**141. Incline Category B**

NGR: SH 6961 4687 – 6965 4682

Description: The course on an incline to floor F and to the Ffestiniog Railway. Some rails survive.

*Recommendations: level 4 recording*

**142. Drumhouse Category B**

NGR: SH 6961 4687

Description: The drumhouse for the incline from floor DE to floor F at Pen y Bont.

*Recommendations: level 4 recording*

**143. Bridge Category A**

NGR: SH 6964 4679

Description: The Welsh Slate Company's viaduct of 1857; originally constructed as a Brunel-type fantail viaduct with wooden superstructure on slate pillars, it was several times rebuilt, and finally demolished in 1970.

*Recommendations: level 4 recording*

**144. Retaining wall Category A**

NGR: SH 6962 4683

Description: The retaining wall alongside the incline.

*Recommendations: level 2 recording*

*Intermediate floor*

**145. Drumhouse Category E**

NGR: SH 6963 4689

Description: The presumed site of the drumhouse of a now-buried incline (146) which gave the Lower Quarry access to the Ffestiniog Railway from the intermediate floor at Pen y Bont. Out of use by 1873; probably part of the original access to Rhiwbryfdir Quarry from the Ffestiniog Railway, dating from 1838.

*Recommendations: watching brief, followed by appropriate recording*

**146. Incline Category E**

NGR: SH 6963 4689 – 6964 4690

Description: A now-buried incline which gave the Lower Quarry access to the Ffestiniog Railway from the intermediate floor at Pen y Bont. Out of use by 1873; probably part of the original access to Rhiwbryfdir Quarry from the Ffestiniog Railway, dating from 1838.

*Recommendations: watching brief, followed by appropriate recording*

*Floor F*

**147. Yard Category B**

NGR: SH 6966 4687

Description: 'Ceil London', the transfer yard where slates were loaded from the quarry wagons into those of the London and North Western Railway, and its successors. The yard is one made up ground with retaining walls reached up to 4m height. Some phased development is evident but no other features survive. This feature is believed to have been in use from c. 1880 to 1940.

*Recommendations: level 3 recording*

**148. Bridge Category B**

NGR: SH 6966 4686

Description: A timber bridge on slate rubble abutments over the lefel dwr (floor G [151]), which gave the quarry railway access to Ceil London; intact.

*Recommendations: level 3 recording*

**149. Bridge Category B**

NGR: SH 6965 4682

Description: Slate rubble abutments for a railway bridge over the incline.

*Recommendations: level 3 recording*

*Floor G*

**150. Tramming level Category E**

NGR: SH 6925 4721

Description: 'The arches', twin brick-built arches, now buried under recent working, at the point where incline 133 reached daylight.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: watching brief, followed by appropriate recording*

**151. Drainage level Category B**

NGR: SH 6965 4689

Description: The mouth of the 'lefel dwr', the main drainage level of the quarry, at Pen y Bont. This still carries water. The level mouth consists of a slate-rubble arch, and the channel is enclosed between slate rubble retaining walls.

*Recommendations: level 2 recording*

*Bonc Siaffi*

**152. Shaft Category B**

NGR: SH 6920 4733

Description: The head of a vertical water-balance shaft, dating from the 1850s, 242' deep, operational until 1922. This feature survives.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: level 2 recording*

*Twr Babel*

**153. Incline Category D**

NGR: SH 6890 4716 C

Description: The Twr Babell incline for second level tipping. Only the top part survives; the rest has been quarried away.

*Threat: this feature is at risk from proposed surface working.*

*Recommendations: level 4 recording*

**154. Winding house Category B**

NGR: SH 6888 4722

Description: The Twr Babel winding house.

*Threat: this feature is at risk from proposed surface working and tipping.*

*Recommendations: level 4 recording*

*Ffridd*

**155. Incline Category D**

NGR: SH 6912 4739 C

Description: The Ffridd incline, a mechanical uphaulage incline carried on a slate rubble embankment; for second-level tipping. The embankment is a substantial feature, and has been cut in two by a modern quarry road.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: level 2 recording*

**156. Winding house Category B**

NGR: SH 6910 4749

Description: The winding house of the Ffridd incline, a substantial feature which spans the tracks, and includes a winding drum stage, a boiler house and an engine house. The square plan brick chimney survives. The whole structure is in poor condition, and includes a number of broken lintels.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: level 4 recording*

**157. Gwal Category D**

NGR: SH 6927 4759

Description: A small slate-makers' shelter, suggesting secondary processing of the tips.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: level 2 recording*

*Features associated with Oakeley Quarry that are not specific to a particular level*

**158. Rock cannon Category B**

NGR: SH 6896 4638

Description: One of the two Carreg Flaen Llym rock-cannon, identified as having 42 holes, with channels.

*Recommendations: level 2 recording*

**159. Rock cannon Category B**

NGR: SH 6896 4640

Description: One of the two Carreg Flaen Llym rock-cannon; this feature has no channels.

*Recommendations: level 3 recording*

**160. Reservoir Category B**

NGR: SH 6890 4635 C

Description: The upper Craig Flaen Llym reservoir, contained by a dam at both the north and south. The northern dam retains the sluice mechanism. This was constructed post-1838.

*Recommendations: level 3 recording*

**161. Reservoir Category B**

NGR: SH 6888 4642 C

Description: The lower Carreg Flaen Llym reservoir, contained by a dam to the north. This was constructed post-1838.

*Recommendations: level 3 recording*

**162. Reservoir Category C**

NGR: SH 6862 4686

Description: The upper Tan yr Allt reservoir, now dry, but the substantial stone-built dam with its battered walls and buttresses survives.

*Recommendations: level 2 recording*

**163. Water-wheel pit Category E**

NGR: SH 6889 4689

Description: A water-wheel pit dating from early in Holland's occupation of the Upper Quarry, which formerly pumped the back vein. Now buried.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: watching brief, followed by appropriate recording*

**164. Reservoir Category E**

NGR: SH 6886 4686

Description: The lower Tan yr Allt reservoir, now buried.

*Recommendations: watching brief, followed by appropriate recording*

**165. Penstock Category C**

NGR: SH 6859 4728

Description: The 'secston goch', a brick-built penstock.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: level 2 recording*

**166. Leat Category C**

NGR: SH 6841 4714 – 6908 4734

Description: 'Ffos Guto Mynydd', a water-course which continues to channel water. It is lined in places with slate slab revetments. This appears to be part of the original hydraulic system which served the Lower Quarry and is marked in 1838.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: level 2 recording*

**167. Reservoir Category B**

NGR: SH 6910 4735 C

Description: Llyn Newydd, a feature which formerly supplied 5 and 6, and which continues to hold water. The upper face of the reservoir is faced with squared stone blocks, with earth-fill on the downslope side, enclosing a clay core. It is not marked on a map of 1838, and may be coeval with the installation of the mill on Bonc Siafft and with the water-balance shaft in the 1850s.

*Threat: this feature is at risk from proposed surface workings.*

*Recommendations: level 3 recording*

**168. Reservoir Category B**

NGR: SH 6907 4671

Description: A small reservoir near floor 9 built into the slope of the hill and impounded by a small stone dam.

*Threat: this feature is at risk from proposed surface workings.*

*Recommendations: level 2 recording*

**169. Rock cannon Category B**

NGR: SH 6909 4665

Description: A rock cannon which has 63 holes and channels connecting them.

*Threat: this feature is at risk from proposed surface workings.*

*Recommendations: level 3 recording*

**170. Shelter Category D**

NGR: SH 6909 4663

Description: A small shelter adjacent to the rock cannon.

*Threat: this feature is at risk from proposed surface workings.*

*Recommendations: level 2 recording*

**171. Road Category D**

NGR: SH 6964 4739

Description: The present road entrance to the quarry marks the site of Holland's rerouted road to the Upper Quarry, in existence by 1838.

*Recommendations: level 1 recording*

*Glan y Pwll Quarry*

**172. Barracks Category B**

NGR: SH 6893 4622

Description: Roofless and dilapidated.

*Recommendations: level 3 recording*

**173. Drumhouse Category C**

NGR: SH 6891 4615

Description: Dilapidated.

*Recommendations: level 2 recording*

**174. Incline Category C**

NGR: SH 6891 4615 - 6897 4610

Description: Carried on a timber trestle, of which little remains.

*Recommendations: level 1 recording*

**175. Drumhouse Category C**

NGR: SH 6897 4610

Description: Built c. 1867, now dilapidated.



*Recommendations: level 2 recording*

**176. Incline Category C**

NGR: SH 6897 4610 – 6915 4600.

Description: Built c. 1867, carried on a stone embankment; the course is dilapidated but remains an impressive feature.

*Recommendations: level 2 recording*

**177. Rock cannon Category B**

NGR: SH 6890 4610

Description: One of the two rock cannon in Glan y Pwll Quarry.

*Recommendations: level 3 recording*

**178. Rock cannon Category B**

NGR: SH 6889 4609

Description: One of the two rock cannon in Glan y Pwll Quarry.

*Recommendations: level 3 recording*

*Non-quarry features*

**179. Dwelling Category E**

NGR: SH 6870 4690

Description: The farmhouse at Tan yr Allt, a farm which predates the quarry, now buried.

*Recommendations: watching brief, followed by appropriate recording*

**180. Barn Category E**

NGR: SH 6874 4689

Description: The Tan yr Allt barn, now buried.

*Recommendations: watching brief, followed by appropriate recording*

**181. Sheepfold Category C**

NGR: SH 6860 4707

Description: A sheepfold connected with Tan yr Allt farm.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: level 2 recording*

**182. Sheepfold Category C**

NGR: SH 6903 4745

Description: A substantial two-cell sheepfold, built out of country rock. In existence by 1838.

*Threat: this feature is at risk from proposed tipping.*

*Recommendations: level 2 recording*

**183. Dwelling Category E**

NGR: SH 6961 4678

Description: 'Ivy Cottage', one of the houses at Rhiwbryfdir, now buried.

*Recommendations: watching brief, followed by appropriate recording*

**184. Dwellings Category E**

NGR: SH 6960 4674

Description: Rhiwbryfdir farmhouse, a farm which predates the quarry, now buried, Dol Clipiau, and the original Blaenau Ffestiniog post office, Rhiw Fawr, manager of the Welsh Slate.

*Recommendations: watching brief, followed by appropriate recording*

**185. Smithy Category E**

NGR: SH 6961 4676

Description: The Ffestiniog Railway's smithy, now buried. This feature is marked on a map of 1838.

*Recommendations: watching brief, followed by appropriate recording*

**186. Dwellings Category E**

NGR: SH 6959 4672

Description: Houses, buried by 1901, are marked at this stage on a map of 1873. They may have been connected with Rhiwbryfdir farm or have housed quarry families.

*Recommendations: watching brief, followed by appropriate recording*

**187. Dwelling Category E**

NGR: SH 6953 4663

Description: Mynachlog, a pre-industrial dwelling, a site covered by the domen fawr (68) in the early twentieth century.

*Recommendations: watching brief, followed by appropriate recording*

**188. Dwelling Category E**

NGR: SH 6935 4648

Description: Ysgoldy, a dwelling associated with a schoolhouse maintained by the Calvinistic Methodists on a site which was covered by the domen fawr (68) in the early twentieth century.

*Recommendations: watching brief, followed by appropriate recording*

**189. Dwelling Category E**

NGR: SH 6937 4650

Description: Tre'r Ddol, two rows of early nineteenth century dwellings around a field, now buried by the domen fawr (68).

*Recommendations: watching brief, followed by appropriate recording*

**190. Dwelling Category E**

NGR: SH 6939 4647

Description: Pen y Groes, home of Ifan Ffestin Jones the singer, and a row of early dwellings now buried by the domen fawr (68). There was formerly a bakehouse on or near this site.

*Recommendations: watching brief, followed by appropriate recording*

**191. Dwelling Category E**

NGR: SH 6940 4645

Description: Dinas, and its outhouses, including Samuel Holland's coach-house, home of the Upper Quarry managers, on a site which was covered by the domen fawr (68) in the early twentieth century.

*Recommendations: watching brief, followed by appropriate recording*

**192. Barn Category E**

NGR: SH 6936 4637

Description: A barn is marked on this site on a map of 1831, on a site which was covered by the domen fawr (68) in the early twentieth century. This may also be the site of the otherwise unlocated dwelling Ty'n Twll.

*Recommendations: watching brief, followed by appropriate recording*

**193. Locomotive shed Category C**

NGR: SH 6936 4636

Description: The remains of a locomotive shed on the Ffestiniog Railway, probably dating from the introduction of steam in 1863.

*Recommendations: level 4 recording*

**194. Station Category E**

NGR: SH 6936 4637

Description: Dinas station, now buried, the original upper passenger terminus of the Ffestiniog Railway, in use from 1865, and marshalling point for wagons to and from the Upper Quarry.

*Recommendations: watching brief, followed by appropriate recording*

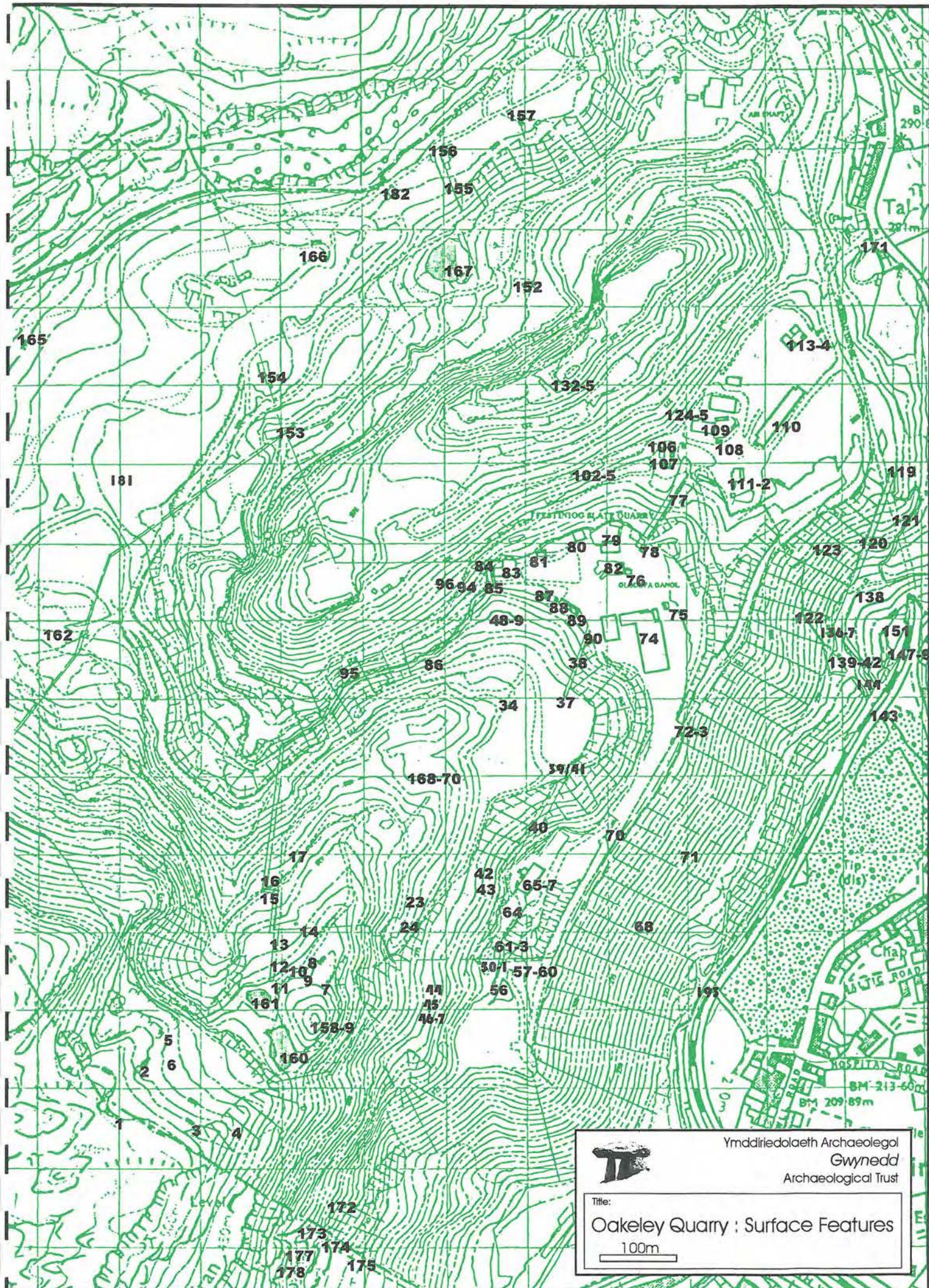
**195. Railway Category E**

NGR: SH 6936 4637

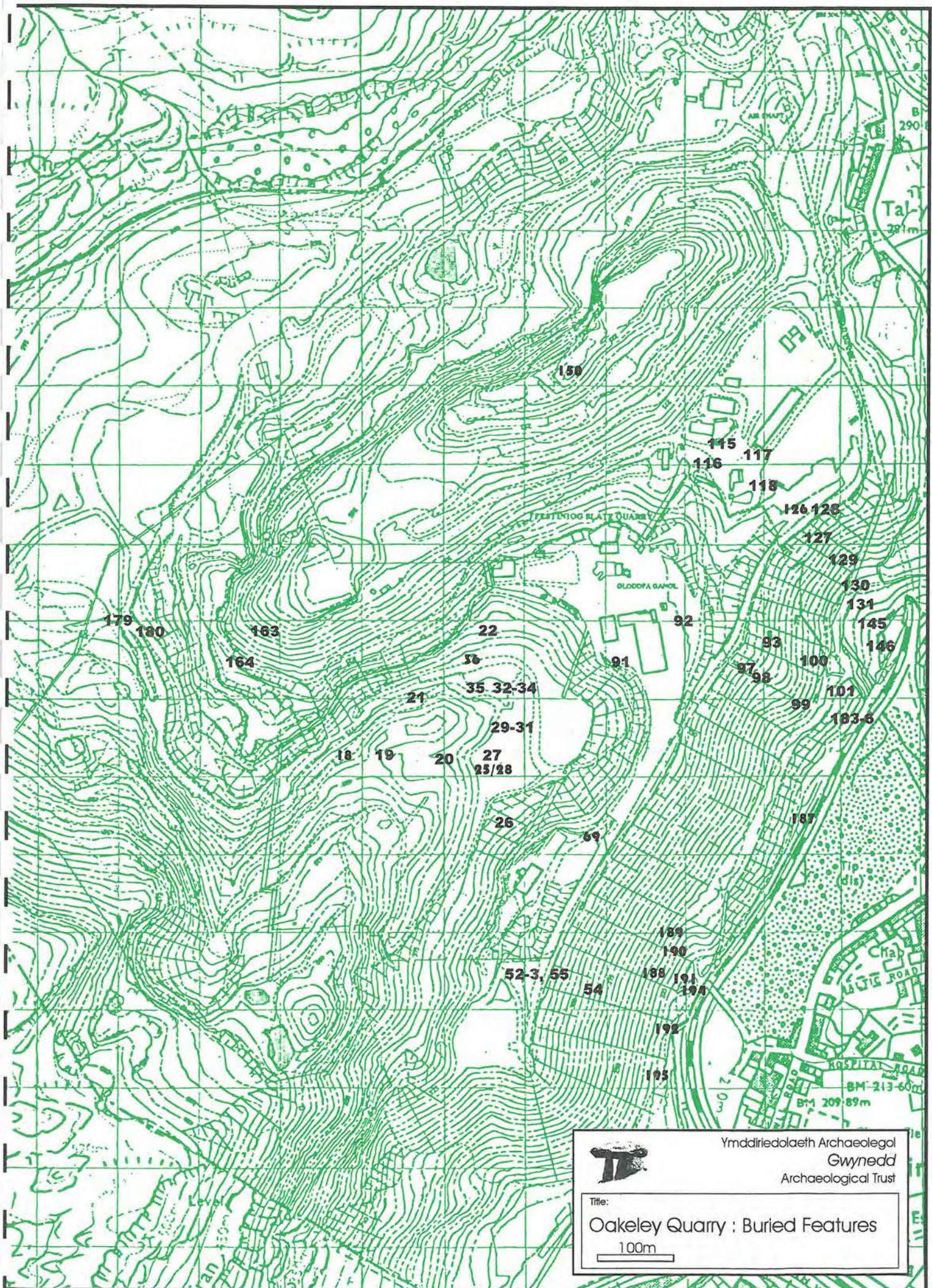
Description: The original course of the Ffestiniog Railway, dating from 1836, as well as part of the reversing triangle of 1881, here falls within the quarry boundary, and is part-buried.

*Recommendations: level 3 recording*









Ymddiriedolaeth Archaeolegol  
Gwynedd  
Archaeological Trust

Title:

Oakeley Quarry : Buried Features

100m



## 5.0 RECOMMENDATIONS

Recommendations are made for each individual feature, as set out in 4.4. In addition, and in view of the features assigned to *Category A* in certain areas of the quarry and the presence of listed buildings, as well as the significance of the quarry within an identified outstanding historic landscape, it is recommended that future surface working and tipping avoid these areas. These are the present slate processing area and the area around the lower Holland mill, 'Felin Isaf Holland', on floors 5a and 5b.

Other areas which are not included in the proposed tipping and surface working areas are also assigned to Category A, and it is recommended that these be preserved *in situ*.



## 6.0 SUMMARY

An archaeological assessment has been carried out on the land within the confines of Oakeley Slate Quarry. The assessment consisted of a desktop study of relevant archival and bibliographical sources, consultation with former quarrymen and others, and a walkover where all features within the quarry area were noted and assigned to a category of archaeological significance. Recommendations were made for each feature depending on its nature and category.

20 features were allocated to Category A. These are considered to be of national importance.

53 were allocated to category B. It is recommended that these sites be fully recorded (at least to level 3 as defined in the report) if they are to be disturbed.

62 sites are considered of local importance or below (categories C and D) and it is recommended that these be recorded at a basic level (usually level 1 or 2) if they are to be disturbed.

59 possible buried features are also identified.

All features form part of the industrial archaeology of the Oakeley and Glan y Pwll Quarries, apart from 17, which are connected with the pre-industrial agriculture of the area, with the early development of the town of Blaenau Ffestiniog and with the Ffestiniog Railway.

## 7.0 BIBLIOGRAPHY

### 7.1 Manuscript sources:

#### *Dolgellau Record Office*

Oakeley Quarry Collection (Z/DAF). The following documents were consulted:

2292	Plan of Ffestiniog Railway, showing quarry, 1831
2293	Plan of Ffestiniog Railway, showing quarry, 1831; identical to preceding
2309	Plan of workings, 1870, corrected to 1874
2317	Plan of steam-powered transporter incline, possibly for K trwnc, 1874
2321	Plans of proposed pumping shaft for Lower Quarry, 1875
2360	Plans of pumping machinery etc
2391	Plan of proposed uncovering, 1895
2435	Plan of water-balance incline, DE to G floor, 1906
2448	Plan of schematic traffic routes of Lower Quarry
2452	Plan of Glan y Pwll Quarry, 1919
2473	Plan of compressed air routes, 1938
2498	Plan of Glan y Pwll Quarry
2560	Plan of Lower Quarry, n.d.
2569	Plan of Oakeley estate.

#### *Caernarfon Record Office*

#### Ffestiniog Railway collection

50050 (old)	Plan of quarries, existing works, proposed works and boundaries, 1838.
P96 (old)	Deposited plans of Bala and Ffestiniog Railway.

#### *University of Wales, Bangor, Bangor Mss*

1112	Pay sheet counterfoils, Oakeley Quarry, 1880
1113	Wage sheets, Oakeley Quarry, 1884
1521-2	Production records, Oakeley Quarry, 1880-8.

### 7.2 Ordnance survey maps:

1/10,000

25" Merionethshire IV 9 and 10 (survey of 1889, published 1890, revision of 1900, published 1901 and of 1918)

### 7.3 Photographs:

Photographs of Oakeley Quarry survive as Dolgellau Record Office ZS/45. The following were used to interpret archaeological remains:

97	Office ground, pre-1888
100	Incline on floor 8, looking up to floor 13, c. 1870
101	Incline of floor 8, looking down to floor 5, c. 1870
167	The k-trwnc, as rebuilt
149	Tripod cranes in an open quarry.

#### 7.4 Unpublished sources:

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#### 7.5 Published sources:

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#### 8.0 ACKNOWLEDGEMENTS

Thanks are due to the staff of Alfred McAlpine Slate Products, especially Elfed Williams, Site Manager and Peredur Hughes, Production Manager. This study was greatly aided by the assistance of members of Fforwm Plas Tan y Bwlch, in particular Griff Jones and Dafydd Price. Thanks are also due to other Fforwm members, John Austen Lewis 'y secston goch' and Steffan ab Owain.

