

GWYNEDD METAL MINES SURVEY

Appendix 2

SITE GAZETTEER AND BIBLIOGRAPHY

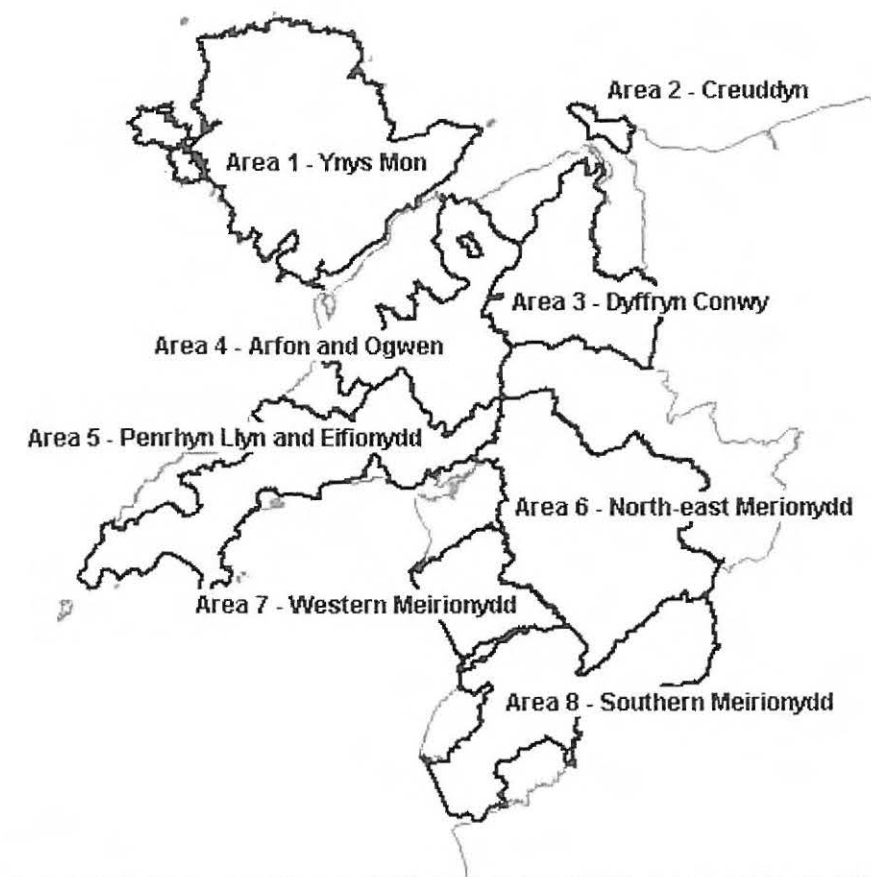
Rep. 2011
Part 1

Ymddiriedolaeth Archaeolegol Gwynedd

Gwynedd Archaeological Trust

Locations of mines in the Gwynedd Metal Mines Survey.

(Blank areas have no mines in the report).



APPENDIX 2

The following document contains site and bibliographic details for all the sites visited in the course of the present project. Each site is accompanied by a map, and the study area for each site is delineated by a black line. Existing areas of scheduling are delineated by a red line. Sites are grouped according to region, thus:

- 1 Anglesey (Ynys Môn)
- 2 Creuddyn
- 3 Dyffryn Conwy
- 4 Arfon and Ogwen
- 5 Penrhyn Llyn and Eifionydd
- 6 North-east Meirionnydd
- 7 Western Meirionnydd
- 8 Southern Meirionnydd

Within each region, sites are grouped in PRN order.

Variant names.

Historically, mine sites have gone under many different names in the Modern period as different companies have taken over and attempted to render Welsh names into something acceptable to English ears, or invented a pretentious title with no indication of where the site lay. The most important variants are noted here.

Aberdovey: see Melin Llyn Pair (PRN: 21140)
Arran: see Hafod y Porth (PRN: 20791)
Beddcoeddw: see Bedd y Coedwr (PRN: 20902)
Beddcoedwr: see Bedd y Coedwr (PRN: 20902)
Betws y Coed: see Cyffty (PRN: 932)
Bridge Works: see Llanberis (PRN: 21587)
British Gold Fields: see Gwynfynydd (PRN: 5517)
Bryncir: see Gilfach (PRN: 3342)
Bryndinas: see Tyddyn y Briddell (PRN: 21139)
Bryn Eisteddfod: see Parc: (PRN: 20698)
Bryn y Gefelïau: see Cae Mawr (PRN: 21544)
Bwlch Garw: see Vale of Conway (PRN: 20685)
Bwlch yr Haearn: see Llanrwst (PRN: 20695)
Bylchau Terfyn: see Hafod y Porth (PRN: 20791)
Cader Idris Consols: see Cyfanedd Fawr (PRN: 21772)
Cae Fali: see Catherine and Jane Consols (PRN: 20762)
Caethle: see Melin Llyn Pair (PRN: 21140)
Cambrian: see Taicynhaef (PRN: 20592)
Carnarvon Great Consols: see Allt Wen (PRN: 21525)
Castell Carndochan: see Carn Dochan (PRN: 21085)
Cilcennus: see Coed Cilcennus (PRN: 21116)
Cilstent: see Parc: (PRN: 20698)
Cowarch: see Cywarch (PRN: 21065)
Crib Ddu: see Llwyndu (PRN: 3794)
Cwmaelhir: see Llanberis (PRN: 21587)
Cwm Dyle: see Britannia (PRN: 20789)
Cwm Eisen: see Cwm Heisian West (PRN: 21770)
Cwm Heisian Isaf: see Cwm Heisian West (PRN: 21770)
Cwm Heisian Uchaf: see Cwm Heisian East (PRN: 20910)
Cwm Merch: see Cwm Erch (PRN: 3396)
Cyfanedd: see Cyfanedd Fawr (PRN: 21772)
Cyfannedd: see Cyfanedd Fawr (PRN: 21772)
d'Eresby Consols: see Gwaunllifon (PRN: 20686)

Dol Ithel: see Llanberis (PRN: 21587)
 Eagle: see New Pandora (PRN: 21012)
 East Cambrian: see Moel Ispri (PRN: 20873)
 Foel Ddu: see New Pandora (PRN: 21012)
 Foel Gwynfynydd: see Cwm Heisian East (PRN: 20910)
 Foel Ispri: see Moel Ispri (PRN: 20873)
 Ffridd Goch: see Ceunant Hyll (PRN: 21753)
 Ffridd Llechwedd: see Coed Mawr Pool (PRN: 21678)
 Geirionydd Mill: see Klondyke Mill (PRN: 4639)
 Great Cowarch: see Cywarch (PRN: 21065)
 Glaslyn: see Britannia (PRN: 20789)
 Goddard's: see Bwlch y Groes (PRN: 21546)
 Gorlan Farchog: see Gorlan (PRN: 20696)
 Gors: see Parc: (PRN: 20698)
 Great Carmel's Point: see Carmel Head (PRN: 21920)
 Great Mountain: see Benallt (PRN: Llandwrog) (PRN: 21529)
 Green Lake: see Britannia (PRN: 20789)
 Greffyn: see Aberllyn (PRN: 20698)
 Gwaith Mein: see Moelwyn (PRN: 20775)
 Gwaith Nant Peris: see Llanberis (PRN: 21578)
 Gwaith Pella': see Drws y Coed (PRN: 20535)
 Gwaith Uchaf: see Vale of Conway (PRN: 20685)
 Gwaith y Gors: see Parc: (PRN: 20698)
 Gwaith yr Wyddfa: see Clogwyn Goch (PRN: 20798)
 Gwyn: see Gwynfynydd (PRN: 5517)
 Imperial Mine: see Moel Ispri (PRN: 20873)
 Johnie: see Parc: (PRN: 20698)
 Llanengan: see Porth Neigwl (PRN: 4728)
 Llechowgryn: see Moel Llechowgryn (PRN: 21852)
 Lliwedd: see Cwm Erch (PRN: 3396)
 Llwyd: see Cwm Erch (PRN: 3396)
 Llywydd: see Cwm Erch (PRN: 3396)
 Marina: see Bedd y Coedwr (PRN: 20902)
 Mochowgryn: see Moel Llechowgryn (PRN: 21582)
 Moel Croesau: see Bwlch y Llu (PRN: 20944)
 Moel Esbie: see Moel Ispri (PRN: 20873)
 Morgan: see Gwynfynydd (PRN: 5517)
 Mount Morgan: see Gwynfynydd (PRN: 5517)
 Mynydd Daulyn: see Gilfin Ddu (PRN: 216490)
 Nant: see Nant Gadwen (PRN: 21520)
 Nantmor: see Cwm Bychan (PRN: 3792)
 Nanmor: see Cwm Bychan (PRN: 3792)
 Nant Bwlch yr Haiarn: see Allt Wen (PRN: 21525)
 Nant Ddu: see Moelwyn (PRN: 20775)
 Nant y Gadwen: see Nant Gadwen (PRN: 21520)
 New Pandora Lead Works: see Klondyke Mill (PRN: 4639)
 North Wales Consols: see Taicynhaef (PRN: 20592)
 Parys Mountain: see Mynydd Parys (PRN: 3558)
 Pencraig: see Cyffty (PRN: 932)
 Penrhyn: see Llandegai (PRN: 21626)
 Pen yr Allt: see Catherine and Jane Consols (PRN: 20762) and Cywarch (PRN: 21065)
 Prince Edward Mine: see Bwlch y Llu (PRN: 20944)
 Ralltwn: see Alltwn (PRN: 21525)
 Rhafna: see Hafna (PRN: 20688)
 Silurian: see Ystrad and Garreg fawr (PRN: 2064)
 Snowdon Mine: see Britannia (PRN: 20789) and Hafod y Porth (PRN: 20791)
 South d'Eresby: see Aberllyn (PRN: 206980)
 Sovereign: see Wnin (PRN: 21911)

Taldrws: see Carmel Head (PRN: 21920)
 Taldrwst: see Carmel Head (PRN: 21920)
 Tal y Sarn: see Simdde Dylluan (PRN: 20536)
 Tan'rallt: see Porth Neigwl (PRN: 4728)
 Tir Stent: see Cross Foxes (PRN: 20869)
 Tir Stint: see Cross Foxes (PRN: 20869)
 Ty'n Llwyn: see Wnin (PRN: 21911)
 Ty'n Twll: see Clementina (PRN: 21565)
 Ty'n y Fron: see Ty Gwyn (PRN: 21919)
 Vigra: see Figre (PRN: 20590)
 Welsh California: see Bryniau Poethion (PRN: 20717)
 Welsh Crown: see New Pandora (PRN: 21012)
 Welsh Crown Spelter: see New Pandora (PRN: 21012)
 West Snowdon: see Clogwyn Goch (PRN: 20798)
 White Cliff: see Allt Wen (PRN: 21525)
 Willoughby: see New Pandora (PRN: 21012)
 Willoughby Foxdale: see New Pandora (PRN: 21012)
 Wnion: see Wnin (PRN: 21911)

3558	MYNYDD PARYS BRONZE AGE MINES	Category A	NGR SH44209030C
County	YNYS MON	OS Map No. SH49SW	County Map No. AIII 14-15
Site type	COPPER MINE	Period	PREHISTORIC
Threat	MINING, RECREATIONAL	Land use	MINING, RECREATIONAL
		Site status	SSSI

Site description

General: a site which is now known to have been worked in the early Bronze Age. A full assessment of this site has been carried out in a companion to this document, q.v. The information is summarised here:

An inclined shaft at SH44049045 gives access to a series of levels, probably of late nineteenth century date but which have broken in on much older workings, in which hammer-stones have been found, and for which 14C dates are expected in the summer of 1998. Surface finds of hammer-stones are recorded at a number of other locations on the mountain; excavations carried out by Oliver Davies in 1937 and subsequently re-opened by Simon Timberlake in 1988 at SH443-906- revealed charcoal and a total of over fifty-four pebble hammer-stones. The charcoal has been 14C dated to within the Early Bronze Age, c. 2000-1500 Cal. BC.

Management

See separate report (Gwyn, 1998).

Bibliography

Bibliography GAT
 Gwyn DRh 1998 *Mynydd Parys Mines: Archaeological Assessment* passim

3564	MYNYDD PARYS MINES	Category	A	NGR	SH44209030C
County	YNYS MON	OS Map No.	SH49SW	County Map No.	AIII 14-15
Site type	COPPER MINE	Period	MEDIEVAL		
Threat	COLLAPSE	Land use	MINING, RECREATIONAL	Site status	SAM/SSS1

Site description

General: once the most productive copper mine in the world, a revival of a Bronze-Age site which probably saw use in the Roman period, possibly in the Middle Ages, certainly in the early Modern Period. The mines were revived in the 1760s and rapidly grew to enormous size. Four discrete areas have been scheduled as Ancient Monuments, namely the Mona Mine windmill of 1878 (A111A), the Pearl engine house of 1818-19 (A111B), the Hillside precipitation pits (A111C) and the Great Opencast (A111D). A full assessment of this site has been carried out in a companion volume to this document, and the information is summarised here:

The mines worked low-grade copper from mineralised country rock. Some sixteenth century working is recorded, and the mines were intensively worked from the 1760s until the early nineteenth century, thereafter on a progressively smaller scale until the 1880s, though precipitation of copper ore continued until 1958. Copper was extracted from an open-cast and later from underground, accessed by an extensive network of adits and shafts. Extensive use was made of precipitation pits. The ore was calcined on site, and an extensive smelter complex was established at Amlwch.

Management

See separate report (Gwyn 1998).

Bibliography

Bibliography GAT
 Gwyn DRh 1998 *Mynydd Parys Mines: Archaeological Assessment* passim

21918	PANT Y GASEG MINE		Category B	NGR SH41209450
County	YNYS MON	OS Map No. SH49SW		County Map No. AIII 1
Site type	COPPER MINE		Period PREHISTORIC	
Threat	FARMING	Land use ROUGH GRAZING		Site status

Site description

General: a small site on the northern coast of Anglesey, possibly Bronze Age in origin, and the scene of the discovery of the mineral dickite in the 1930s. The spectacular coastal location affords views over Porth Wen and the brickworks.

Geology: a copper lode trending east to west.

History: no recorded history of the site is known, and it is possible that the shaft represents prospecting by Amlwch miners as the Mynydd Parys workings were laying men off.

Working: a shaft, believed to be in the order of 10m deep, is situated at SH41209452. An adit has been opened in the sea-cliffs to the north, and may communicate with the foot of the shaft. Immediately to the east and the west of the shaft-head are shallow open workings, in one case leading to a tiny underground chamber, surrounded by tips in which fine and coarse material is mixed. The undulating nature of the tips suggests that spoil has been tipped by hand, rather than by barrow.

Processing: hammerstones have been discovered on this site. One is in the possession of David Wagstaffe, Pandy Parc, Llandyfrydog.

Power: there is no evidence for mechanical power on the site. It is likely that a hand-windlass operated the shaft.

Transport: rail-spikes have been discovered in the lower adit, suggesting the use of flat-bottom rail and a date in the 1870s or later.

Ancillary: the remains of a stone building were noted at SH41199451; this is orientated east to west, and measures 3.5m by 13m. It survives only to the first course, and appears to have been divided into three partitions, suggesting that it might have been a stable.

Domestic: no evidence.

Management

Further evaluation of the site to assess the potential for pre-Modern working.

Bibliography

Desc. text GAT

Foster-Smith JR 1977 *The Mines of Anglesey and Caernarvonshire* p 2

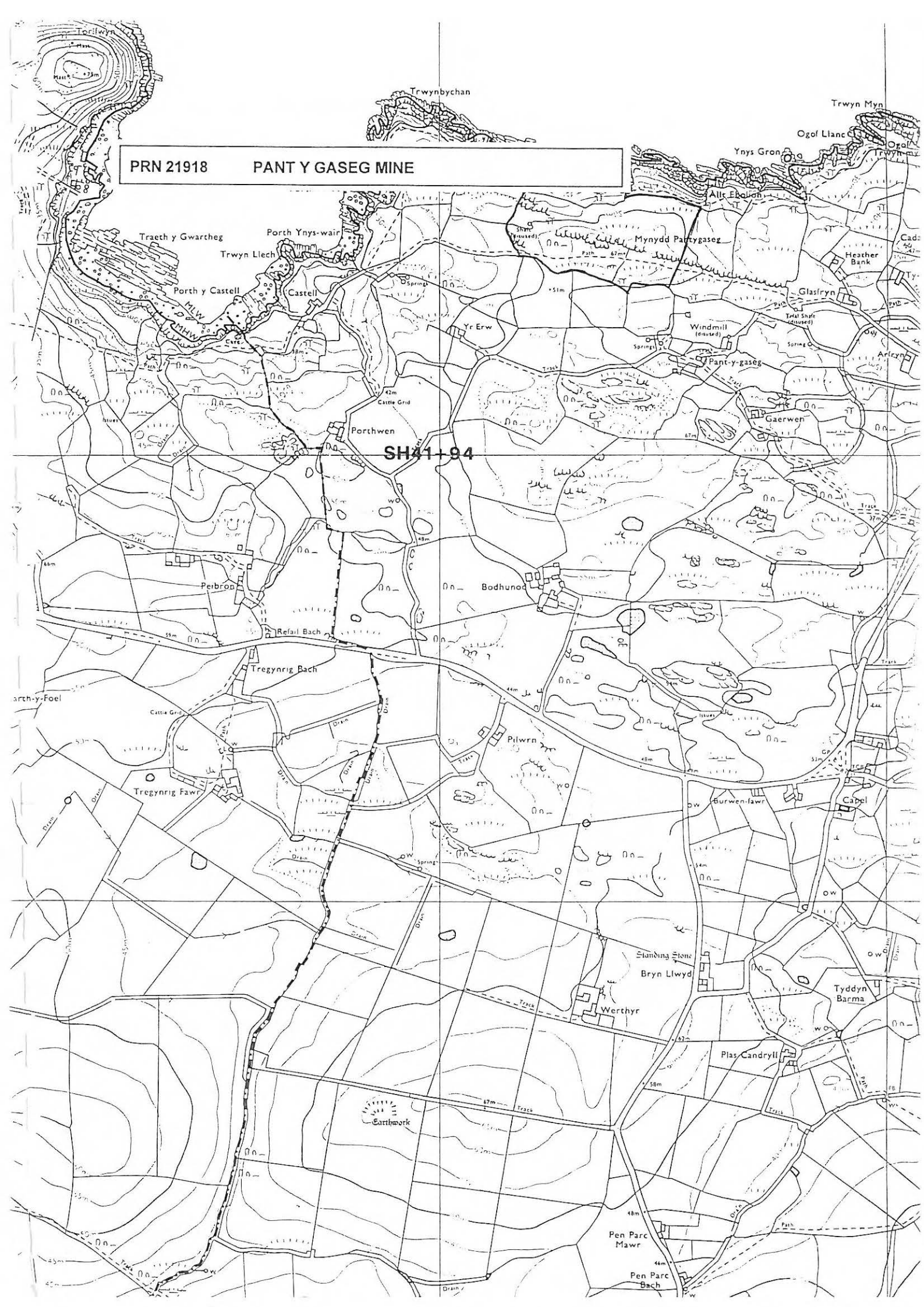
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PRN 21918

PANT Y GASEG MINE

SH41+94



21513	RHOS MYNACH MINE		Category C	NGR SH48309050
County	YNYS MON	OS Map No. SH49SW		County Map No. AIII 12
Site type	COPPER MINE		Period	POST MEDIEVAL
Threat	COLLAPSE	Land use	ROUGH GRAZING	Site status

Site description

General: a site in north-eastern Anglesey, not far from the Mynydd Parys mines.

Geology: worked a south-west to north-east-tending copper lode.

History: little is known of the history of this site, which seems to have been actively exploited in the nineteenth century and again in the twentieth, but in which there are possible signs of pre-Modern exploitation.

Workings: on the surface the mine appears as a ridge running south-west to north east. The older workings appear to be on the south-east side, the more recent on the north-west. An adit on the south-east leads to a stope at SH48169137. Two substantial shafts on the north-west side, at SH48159140 and SH48239145 are square-plan and appear to have been sunk with cages in mind. Traces of timber survive at the collars. The more westerly is flooded.

A shaft at the eastern extremity of the site at SH48359145 has collapsed and its site is heavily overgrown.

Processing: a substantial four-floor machine base survives at SH48129138, built out of reinforced concrete with stone fill. At the lowest level are the remains of a possible edge-runner.

At SH48299143 a trace of slag was observed. This is not of the glossy crucible type, and raises the possibility of pre-Modern exploitation.

Power: holding-down bolts on the crusher base suggest the location of a prime-mover, which may have powered the shafts also.

Transport: no evidence.

Ancillary: a ruined building, evident only as the first courses, is evident at SH48169135.

Domestic: no evidence.

Management

Further evaluation of the site to assess the potential for pre-Modern working.

Bibliography

Desc. text GAT

Foster-Smith JR 1977 *The Mines of Anglesey and Caernarvonshire* p 5

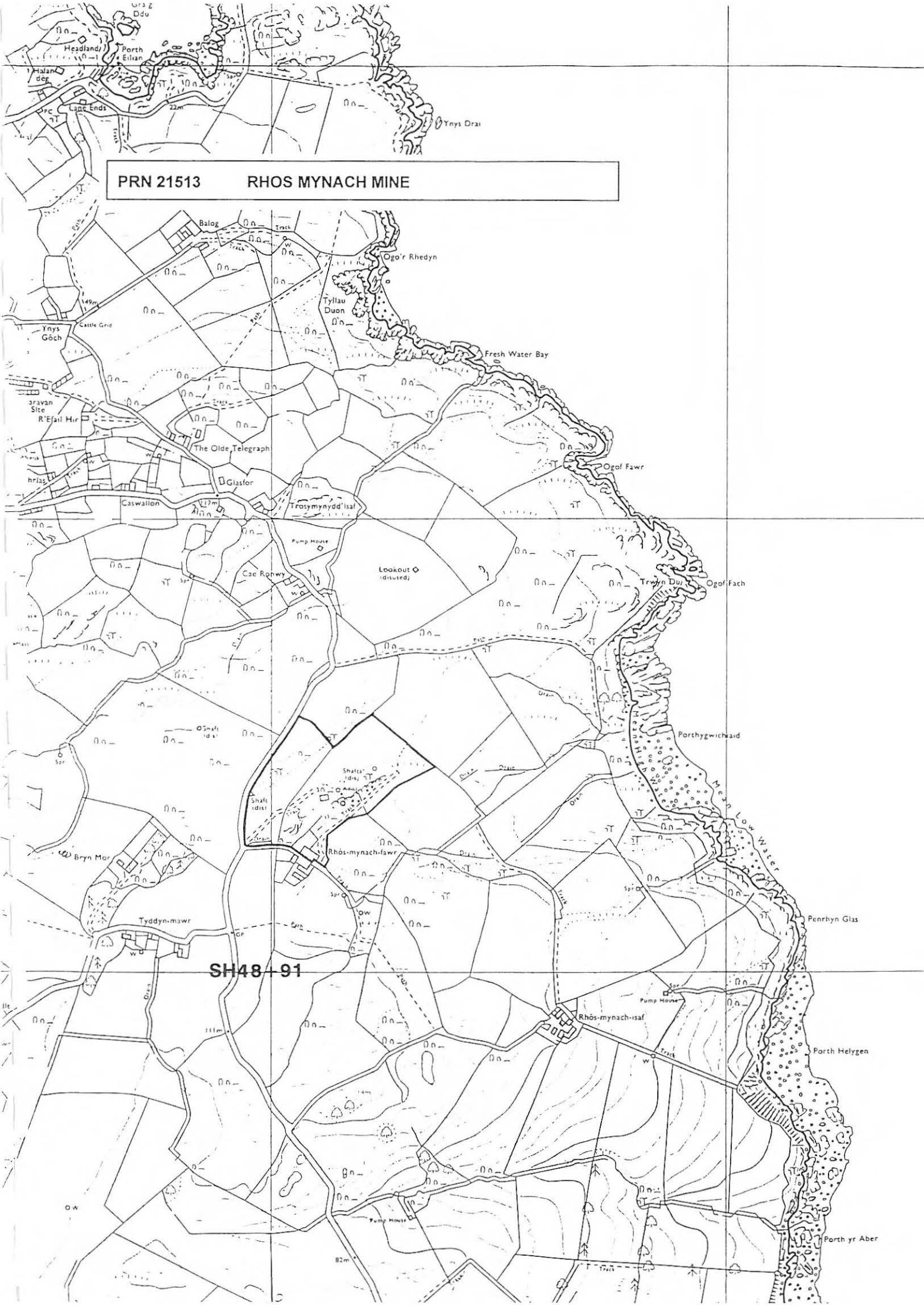
Plan LIRO

1716

PRN 21513

RHOS MYNACH MINE

SH48-91



21920	CARMEL HEAD MINE	Category	C	NGR	SH29609270
County	YNYS MON	OS Map No.	SH29SE	County Map No.	AI 12
Site type	COPPER MINE	Period	POST MEDIEVAL	Site status	NT
Threat	COLLAPSE	Land use	ROUGH GRAZING		

Site description

General: situated on a spectacular coastal location on the north of Anglesey, looking out towards Ynys y Moelrhoniaid and the lighthouse.

Geology: worked an east-west trending lode.

History: also known as Great Carmel's Point Mine, as Taldrws and as Taldrwst.

Workings: a collapsed stope is visible at SH29309277. Erratics found in a tiny opening at SH29489276, immediately east of the ancillary buildings, raise the possibility of pre-Modern working. There is no evidence of jumper-marks in this opening.

Processing: no evidence, other than the erratics referred to above.

Power: the most prominent feature of the site is the circular-plan stone chimney, with a brick cap, which stands approximately 10m high on a square-plan stone base at SH29599275. The engine-house immediately to the west is visible only as foundations, but the trace of a flat-rod system to a pump-shaft, now blocked, at SH29459277 is visible. No evidence was observed of the horse-whim mentioned by one authority.

Transport: there is no evidence of a quay. The site is served by a cart-track.

Ancillary: a range of stone buildings at SH29519276 was initially constructed as a one-storey structure, to which a first floor was added later. They are roofless and dilapidated.

Domestic: no evidence.

Management

Further evaluation of the site to assess the potential for pre-Modern working. Monitoring for collapse in the chimney; possible consolidation.

Bibliography

Reference GAT

Davidson A, Jones S 1996 *Anglesey Coastal Erosion Survey*

CARMEL HEAD MINE



21509	MORFA DU MINE		Category D	NGR SH43109000
County	YNYS MON	OS Map No.	SH49SW	County Map No. AIII 14
Site type	LEAD/ZINC MINE	Period	POST MEDIEVAL	
Threat	MINING, AGRICULTURE	Land use	IMPROVED PASTURE	
		Site status		

Site description

General: an outlier of Mynydd Parys, which attempted to work the deeper lodes to the north-west of the main workings. At work in the 1870s.

Management

See separate report (Gwyn, 1998).

Bibliography

Bibliography GAT
 Gwyn DRh 1998 *Mynydd Parys Mines: Archaeological Assessment* passim

1694	GREAT ORME BRONZE AGE MINE	Category A	NGR SH77078308
County	ABERCONWY	OS Map No. SH78SE	County Map No. CI 16
Site type	COPPER MINE	Period	PREHISTORIC
Threat	TOURISM	Land use	TOURISM
		Site status	SAM

Site description

General: now recognised as a major Bronze Age industrial site, and a component element in the historic landscape of the Great Orme (Gogarth), whose other Prehistoric features include the burial chamber at Lletty'r Filiast, the stone row at Hwylfa'r Ceirw and the Pen y Dinas hillfort. The mines are now a major tourist attraction, within easy reach of the resort of Llandudno.

Geology: the principle material is chalcopyrite but malachite, azurite, cuprite, tenorite and galena are also found, within Carboniferous limestone.

History: in 1831 and 1849 prospecting miners broke into workings described as being Roman or as belonging to the Old Welsh or Celtic period. Oliver Davies visited the site in 1938-9 and dated the hammer-stones he found to the Roman period on the basis of pottery and coins. Duncan James' researches in the 1970s established the existence of series of horizontal underground galleries up to 50m in length and vertical depths of 30m, containing hammer-stones, bone tools and charcoal, from which a radiocarbon dating suggesting mining in the Middle Bronze Age was obtained. In 1988 archaeological investigation by the Gwynedd Archaeological Trust took place in the vicinity of Vivian's shaft of the Llandudno Old Mine (PRN: 21503) at SH77088309.

Workings: open-cut infilled trenches as much as 15m in depth are visible near the Vivian shaft-head. Underground galleries centred around the Vivian shaft have been explored, and now constitute a major tourist attraction. Duncan James suggests (1990) that extensive Prehistoric stopes exist in the region of Siafft Uchaf (SH77058318) and underneath Bryniau Poethion.

Processing: a possible smelting site is currently in the process of excavation by the Gwynedd Archaeological Trust at Pen Trwyn (SH78108380). Ore-washing sites have been suggested at Ffynnon Galchog (SH77758365) and at Ffynnon Rhufeinig (SH76558386) by Susan Jones (1994); the latter site is discussed also by Emma Wager (1996). A radiocarbon date of 720-740/680-960 AD was obtained for waste material from Ffynnon Galchog (Lewis 1993).

Management

Further evaluation of this site to assess the potential and extent of pre-Modern working.

Bibliography

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Dutton LA 1991 Great Orme Excavation Management *Archaeology in Wales* pp 16-17

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Dutton LA 1990 Surface Remains of Early Mining on the Great Orme *Early Mining in Britain* pp 11-14

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Dutton LA 1994 Prehistoric Copper Mining on the Great Orme *Proceedings of the Prehistoric Society* pp 245-286

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James DL 1988 Prehistoric Copper Mining on the Great Orme's Head *Aspects of Ancient Mining and Metallurgy* pp 115-121

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Lewis A 1989 Great Orme Copper Mines *Archaeology in Wales* pp 42-3

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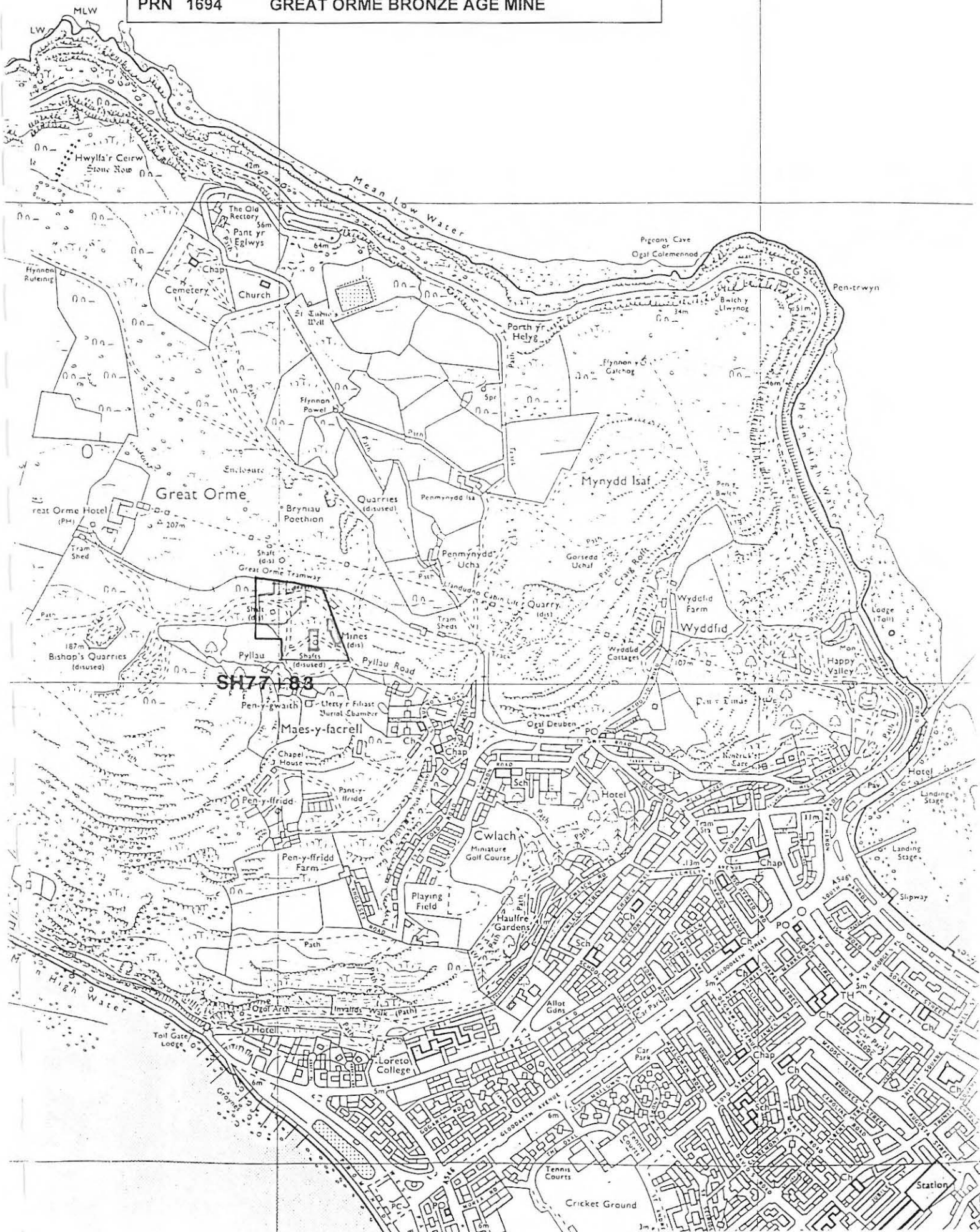
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Desc. text GAT

Smith D 1988 *The Great Orme Copper Mine*

PRN 1694 GREAT ORME BRONZE AGE MINE

PRN 1694 GREAT ORME BRONZE AGE MINE



21919	TY GWYN MINE		Category A	NGR SH77808280
County	ABERCONWY	OS Map No. SH78SE		County Map No. C1 16
Site type	COPPER MINE		Period	POST MEDIEVAL
Threat	SURFACE DEVELOPMENT	Land use	URBAN	Site status

Site description

General: nothing remains of this mine at the surface, but it preserves some remarkable nineteenth-century underground workings, beneath the streets of Llandudno, easily accessed through a manhole.

Geology: a lode courses north-west to south-east through dolomitised limestone.

History: operated from 1835 to 1856, and sometimes known as the Ty'n y Fron mine. After closure many of the surface features were rapidly destroyed by the construction of the resort buildings, but the building of a sub-station in 1965 revealed the ginging of a shaft. The mines were re-entered in 1986 by members of the Great Orme Exploration Society by digging down through 5m; a manhole now gives access to the site.

Workings: underground, accessed by a tramming adit, the mouth of which is blocked but which can be accessed by a manhole at SH78208275. The adit formerly connected with a shaft, no longer apparent from the surface, at SH77758292; another shaft is situated at SH78038278, and is served by a branch adit off the main tramming level, but is not accessible from the surface. Inclined drifts are believed to have been worked in the Happy Valley area and the Great Orme Exploration Society is currently negotiating for permission to enter them.

Processing: a set of stamps was erected at the adit mouth at SH78188271, the site of which has been obliterated by resort development.

Power: a 50" beam pumping engine was erected in 1836, and a compound beam engine (50" + 90") was added in 1842. A portable pumping and winding engine was offered for sale in 1856. The sites of the engine-houses have been obliterated by the construction of hotels. The pump rod is still apparent underground in the engine shaft, though the rising main has been removed.

Transport: wooden rails with iron straps survive in the main tramming adit. The gauge is slightly greater than 2'.

Ancillary: mine offices are recorded, but their sites are unknown.

Domestic: no evidence.

Management

Desk-top work to establish the dates of the features regarded as of outstanding archaeological importance.

Bibliography

Archive HRO

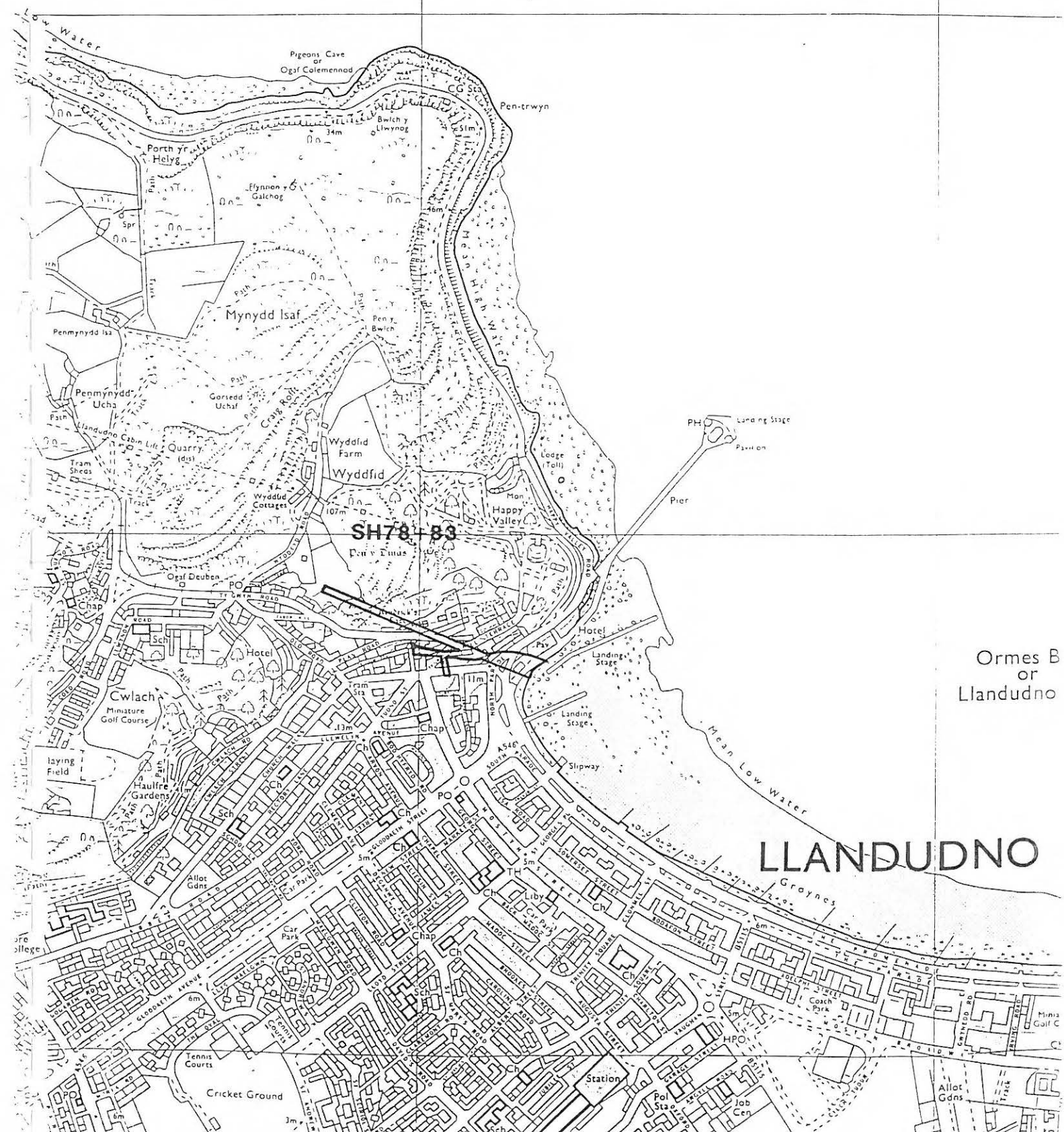
Papers relating to the Ty Gwyn Mine 789, 814

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Williams CJ 1995 *Great Orme Mines* passim

PRN 21919	TY GWYN MINE
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PRN 21919	TY GWYN MINE
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20717	BRYNIAU POETHION MINE	Category B	NGR SH77008820
County	ABERCONWY	OS Map No. SH78SE	County Map No. CI 16
Site type	COPPER MINE	Period	POST MEDIEVAL
Threat	RECREATIONAL	Land use	RECREATION
		Site status	

Site description

General: the "Welsh California", an area of intensive but short-lived underground extraction on part of the Llandudno Old Mine (PRN: 21503) sett. It is believed to have been accessed underground recently following the collapse of some of the workings.

Geology: copper lodes in dolomitised limestone.

History: copper was discovered within a yard and a half of the surface by William Jones and Joseph Jones in 1849, and the present pitted landscape of pits and spoil heaps came into being within a short space of time.

Workings: a series of shallow pits, all collapsed or infilled, and small spoil heaps running along the lodes, and overlying ridge and furrow ploughing.

Processing: no evidence; possibly ore was washed and dressed at the Old Mine.

Power: apparently unmechanised.

Transport: the site lies near the road across the Orme.

Ancillary: no evidence.

Domestic: no evidence.

Management

Contour-survey and underground exploration.

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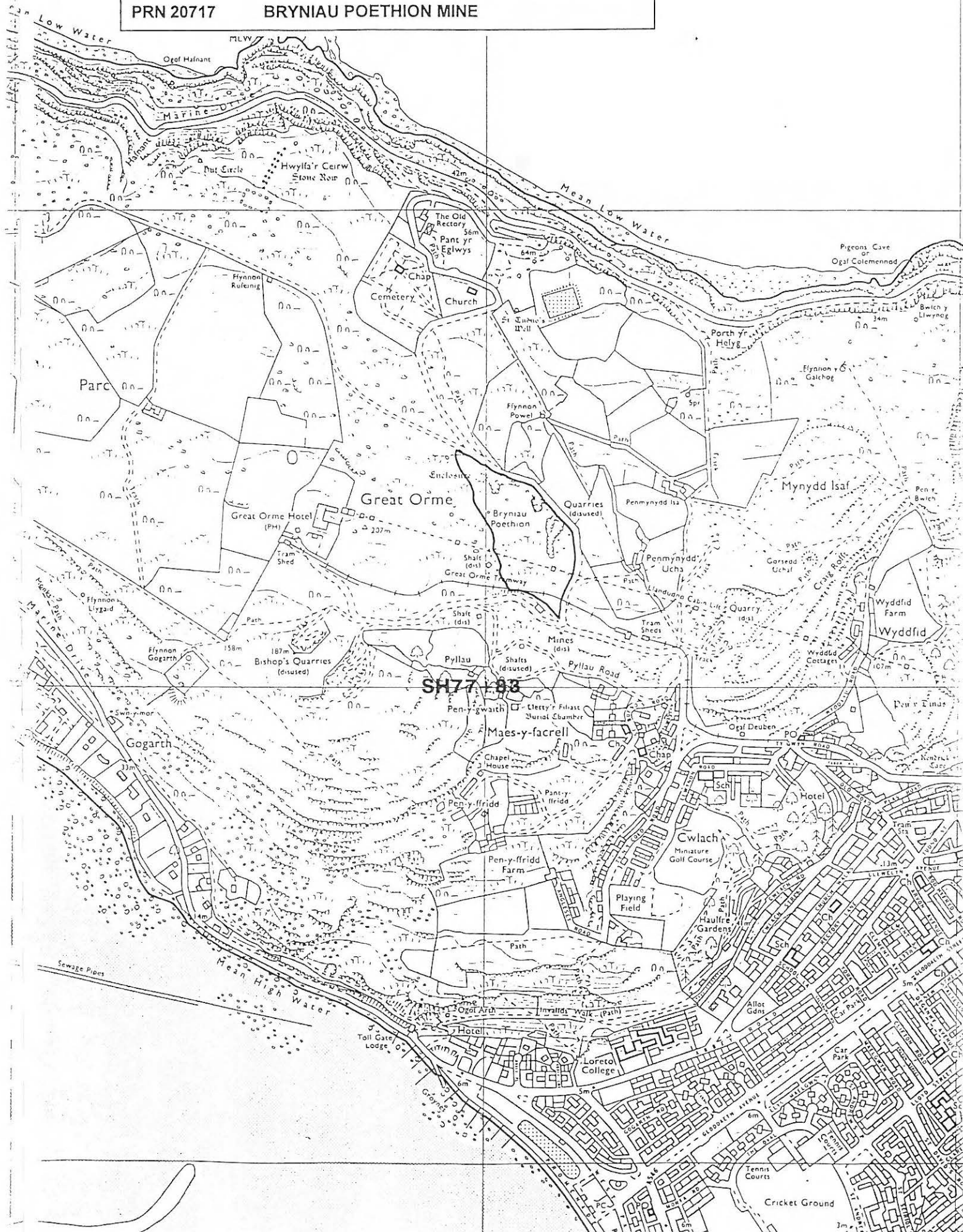
Archive CRO

1458

Desc. text GAT

Aris M 1996 *Historic Landscapes of the Great Orme* p 36, p 38, pp 82-7, p 90

BRYNIAU POETHION MINE



21503	LLANDUDNO OLD MINE	Category B	NGR SH77108310
County	ABERCONWY	OS Map No. SH78SE	County Map No. CI 16
Site type	COPPER MINE	Period	PREHISTORIC
Threat	RECREATIONAL USE	Land use	RECREATIONAL
			Site status

Site description

General: a site revived in the eighteenth century, adjacent to the Great Orme Bronze Age workings (PRN: 1694) and the Llandudno New Mine (PRN: 21504). Comparatively few surface features survive of this site. It has been suggested (by C.J. Williams) that the Penmorfa drainage adit may have inspired Lewis Carroll to write his children's classic, as it is situated adjacent to the summer residence of Dr Liddell, the Dean of Christ-Church, Oxford, father of Alice.

Geology: tenorite antive copper and some galena within Carboniferous limestone, heavily dolomitised in the vicinity of the veins; four main veins course north to south. The principle material is chalcopyrite but malachite, azurite, cuprite, tenorite and galena are also found.

History: revived in 1783. In 1801 Roe of Macclesfield was at work and operations continued until the mine was flooded in 1860. The site was the property of the Bishop of Bangor.

Workings: underground, accessed by shafts and levels. Vivian's shaft is at SH77088309 (PRN: 20710); until the early part of the twentieth century it continued to be accessible from the Penmorfa drainage level (adit at SH77098223), and went down a further 200'. It intersects Prehistoric workings (PRN: 1694). Other shafts are Siafft Uchaf at SH77058318, of which no remains are visible on the surface, but which can be accessed from underground workings, Owen's at SH76988315 (PRN: 20707), which remains open. Treweek's shaft at SH77008325 (PRN: 20705) and Roman's at SH77058330 (PRN: 206704) have been capped. There is considerable spoil in the area of the mine, but much has been disturbed by the construction of tourist facilities, such as the road, the tramway and the modern reception area serving the Bronze Age site.

The Penmorfa drainage level remains open, and has been gated, but is accessible to cavers and other interested parties. It is occasionally referred to as the Gogarth mine. It was excavated in 1938-9, revealing underneath a deposit of dark earth containing pottery and hammer-stones, a layer of periwinkles and limpet shells and three shards dated to the third century AD. A coin of Aurelian had previously been found inside the entrance. The washing pool nearby survives as a model yacht pond (SH77088214). The first edition of the 1" o.s. marks "copper pen" at this point.

Processing: a crusher was at work by 1835, but no archaeological evidence survives. A washing and dressing floor is mentioned in 1846.

Power: a "Tom and Jerry" water-bucket engine was installed at SH76328300 (PRN: 20716) immediately below Ffynnon Gogarth pre-1834 to power a pump at Siafft Uchaf by means of a lengthy system of flat rods; the site of the engine is visible immediately downslope from two small dams and an adit from which a leat extends. The flat-rod system was extended downslope to a water-pressure engine at SH76228290 by 1846, whose site is visible as an overgrown shaft-head. The flat-rod system is apparent as a linear feature at various points, identifiable as a series of shallow depressions or cuttings. A Cornish engine was installed at SH77128312 in 1835 to pump the Vivian shaft, to pump Siafft Uchaf by means of flat-rods, to wind from Treweek's and to crush; the foundations survive and cinders have been discovered. A second water-pressure engine was proposed for the underground workings in 1848, and may have been installed.

Transport: rails had been installed by 1846, but no surface remains are evident.

Ancillary: an assay office, a counting house, a magazine, coal sheds, a smithy and a brass foundry are noted in 1846. No trace of these remains.

Domestic: four "miner's cabins" are noted in 1846, of which no traces are believed to survive.

Management

This site is stable.

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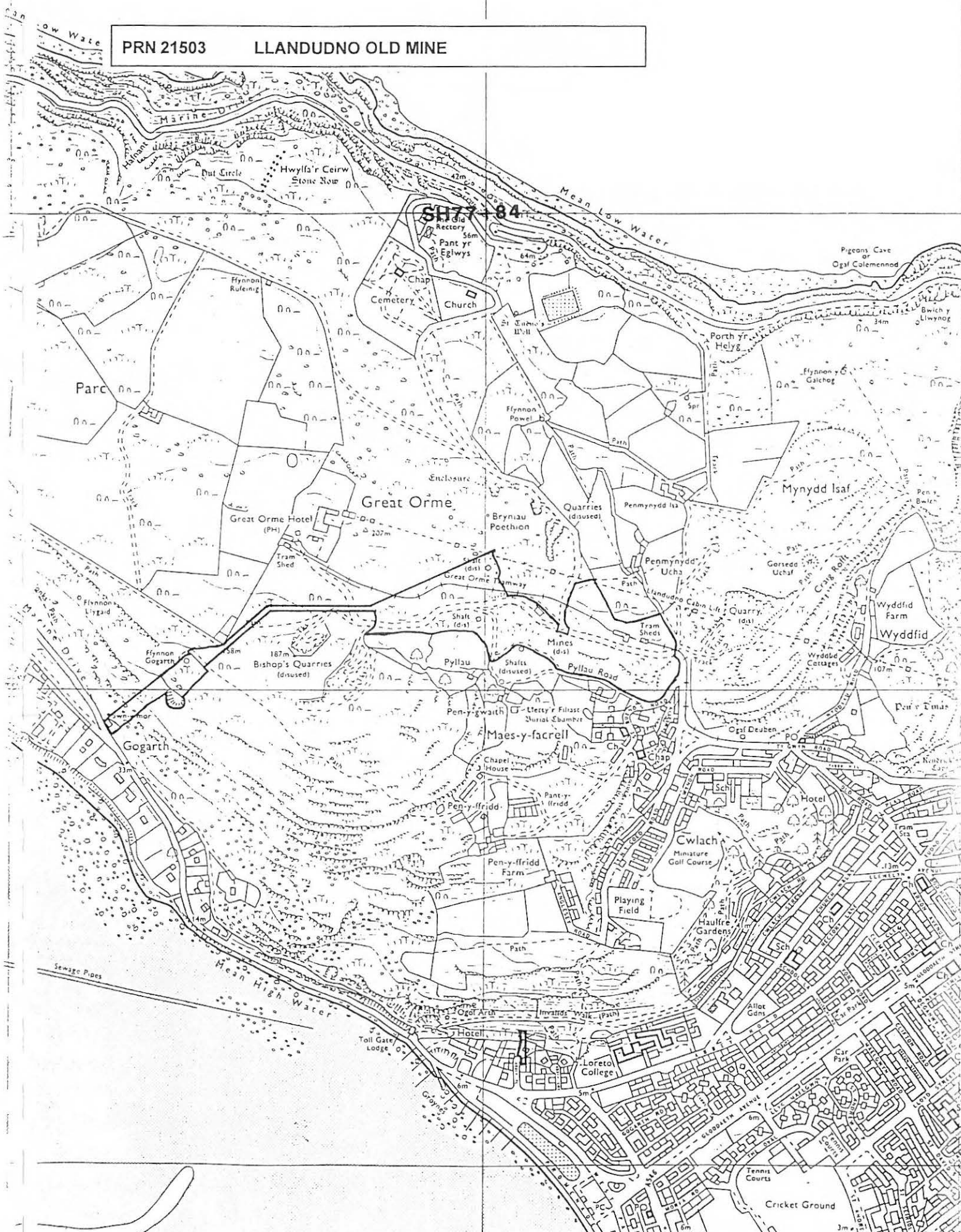
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PRN 21503

LLANDUDNO OLD MINE



21504	LLANDUDNO NEW MINE	Category B	NGR SH77108301
County	ABERCONWY	OS Map No. SH78SE	County Map No. CI 16
Site type	COPPER MINE	Period	POST MEDIEVAL
Threat	RECREATIONAL USE	Land use	RECREATION
		Site status	

Site description

General: a site worked in the early Modern period, near the Great Orme Bronze Age Mine (PRN: 1694), and adjacent to Llandudno Old Mine (PRN: 21503).

Geology: copper and some galena within Carboniferous limestone, heavily dolomitised in the vicinity of the veins; four main veins course north to south. The principle material is chalcopyrite but malachite, azurite, cuprite, tenorite and galena are also found.

History: at work from 1692 to 1864; the property of the Mostyn family.

Workings: underground, accessed by shafts. The main shaft, Pyllau (SH77048302) is open, and another was situated at SH77008290. An extensive drainage level, built in conjunction with the Old Mine (PRN: 21503), was laid with rails to allow ore to be trammed along its length.

Processing: Fenton refers to a mill, possibly a water mill, on the site. Slime pits appear to have been used, evident until the 1990s as a layer of organic matter; their site has been excavated to form the Great Orme Prehistoric Mines car-park.

Power: pumps on the Pyllau shaft installed in 1812 are believed to have been horse-worked; an "engine" was installed in 1824. It was proposed to install a water-pressure engine underground jointly with the Old Mine in 1848 and it is possible that it was put in.

Transport: no evidence.

Ancillary: no evidence.

Domestic: no evidence.

Management

This site is stable.

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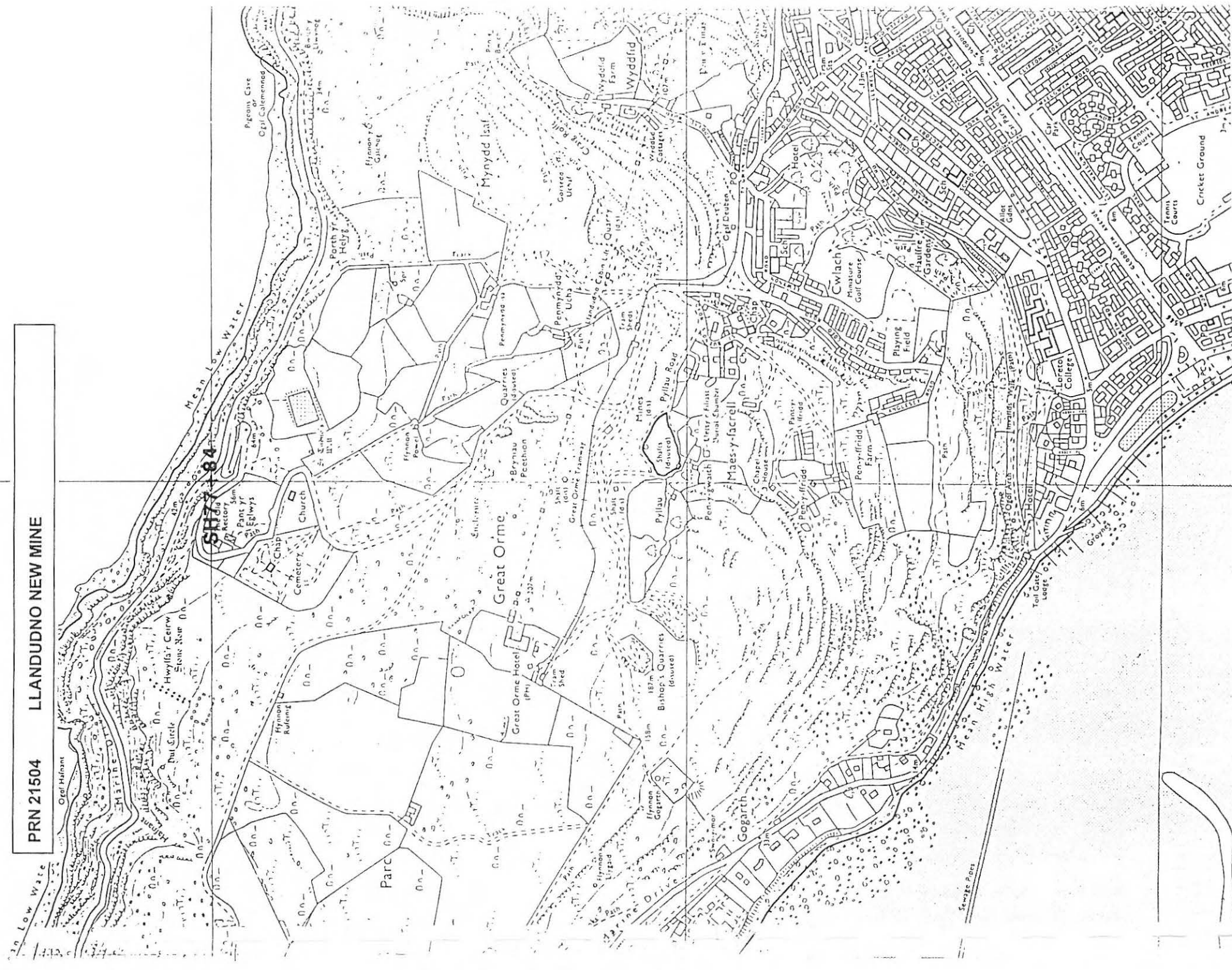
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PRN 21504	LLAUDNO NEW MINE
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PRN 21504	LLAUDNO NEW MINE
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21940	HAFNANT MINE		Category B	NGR SH76538426
County	ABERCONWY	OS Map No.	SH78SE	County Map No. CI 16
Site type	COPPER MINE	Period	PREHISTORIC	
Threat	CAVING	Land use	ROUGH GRAZING	
				Site status

Site description

General: a possible Prehistoric site on the Great Orme, overlooking Llandudno.

Geology: tenorite antive copper and some galena within Carboniferous limestone, heavily dolomitised in the vicinity of the veins; four main veins course north to south. The principle material is chalcopyrite but malachite, azurite, cuprite, tenorite and galena are also found.

History: a cluster of sites worked for copper ore in the last century, and in which there is a possibility of pre-modern mining.

Workings: centred around the Badger's Cave (SH76538426), a pipe vein worked for copper ore in the Modern period (witnessed by jumper-marks in the rock), but which also has evidence of pounded chalcopyrite. At SH76438415 is a shaft, capped temporarily, which appears to have been backfilled in the nineteenth century. There are other trials nearby at SH76458417 and SH76288413.

Processing: no evidence.

Power: apparently unmechanised.

Transport: no evidence.

Ancillary: no evidence.

Domestic: no evidence.

Management

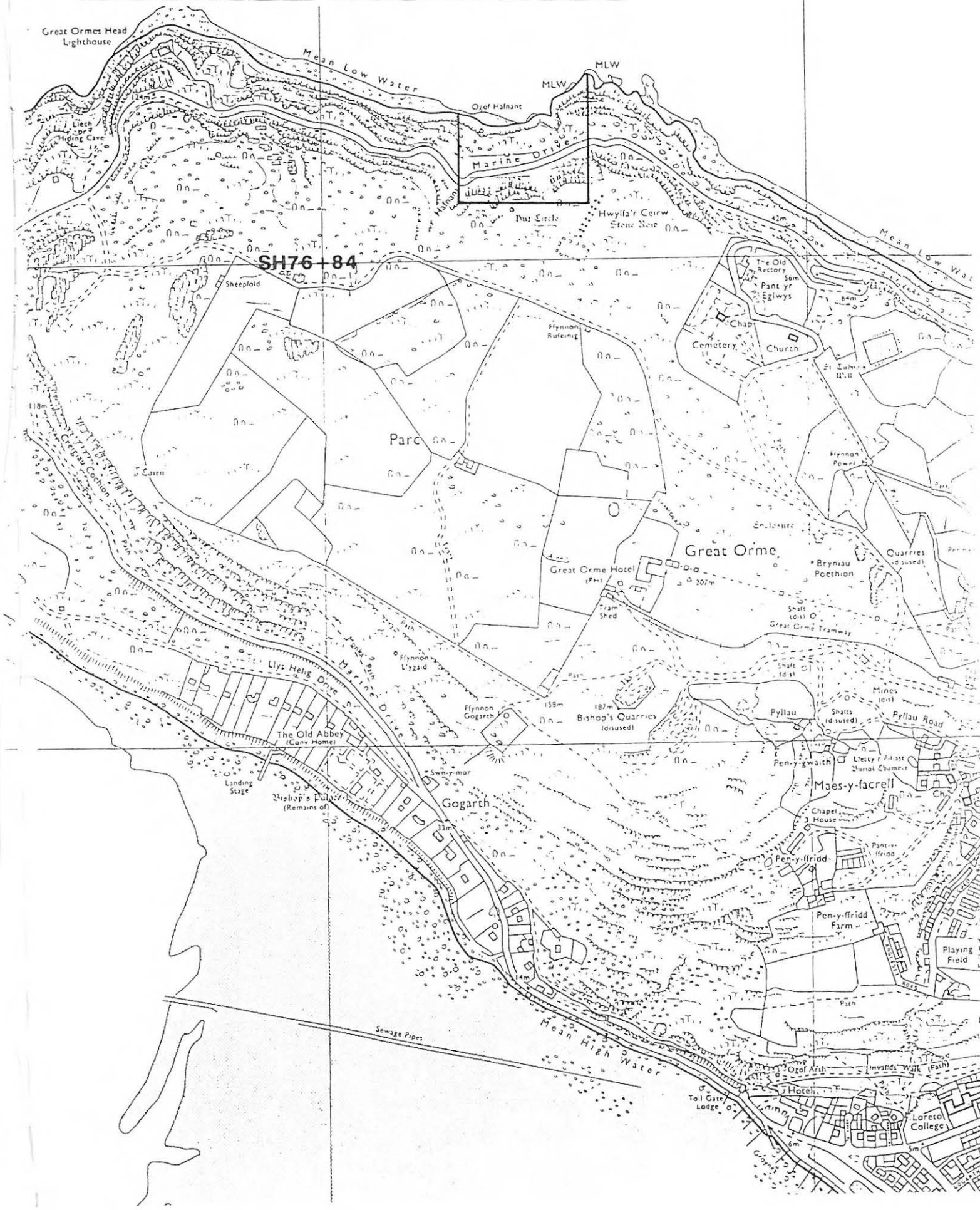
Further evaluation of the site to assess the potential for pre-Modern working.

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PRN 21940

HAFNANT MINE



21943	FIVE ENTRANCES MINE	Category B	NGR SH77398239
County	ABERCONWY	OS Map No. SH78SE	County Map No. CI 16
Site type	COPPER MINE	Period	PREHISTORIC
Threat	FOOTPATH	Land use	ROUGH GRAZING
			Site status

Site description

General: a small site, overlooking the town of Llandudno, on the lower slopes of the Great Orme. It appears to have been the location of nineteenth century trials but the discovery of hammerstones on the site and the presence of erratics makes Prehistoric mining on this site a possibility.

Geology: a copper-bearing lode in dolomitised limestone.

History: a short, constricted working; run-in shafts were noted at SH77378238 and SH77408240. Two entrances with damaged bat-gates are situated at SH77438252.

Processing: a hammer-stone was found at SH77378238 in 1994. Other erratic stones are to be found on the site.

Power: unmechanised.

Transport: footpath.

Ancillary: no evidence.

Domestic: no evidence.

Management

Further evaluation of the site to assess the potential for pre-Modern working.

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PRN 21943

FIVE ENTRANCES MINE

SH77188

4639	KLONDYKE MILL		Category A	NGR SH76506216
County	ABERCONWY	OS Map No. SH76SE		County Map No. CXVIII 4
Site type	LEAD MILL		Period	POST MEDIEVAL
Threat	COLLAPSE	Land use	GRAZING	Site status
				SAM

Site description

General: the Klondyke mill is the largest and most visually impressive building connected with metalliferous mining in Gwynedd, a Scheduled Ancient Monument. It is situated on the floor of the Crafnant valley in the Gwydur mining area, and forms part of a remarkable industrial landscape along with the Bryn Cenhadon lead mine (PRN: 21541) and the cavernous openings of the Clogwyn y Fwch slate quarry nearby. Its condition has deteriorated markedly over the last few years.

Geology: small lodes bearing galena, blende and iron pyrites in felspathic ash and slate of Bala age.

History: also known as the Geirionnydd Mill and the New Pandora Lead Works; it was constructed in 1900 by the Welsh Crown Spelter Company to process ore from the adjacent Klondyke Mine (PRN: 21013) and also the output of New Pandora Mine (PRN: 21012) two miles to the south, transported by narrow-gauge railway along the shores of Llyn Geirionnydd. The mill had a very short working life and was disused by 1907.

Working: the Klondyke mine (PRN: 21013) is a substantial brick-lined tunnel-mouth on the south-east side of the river, and does not fall into the Scheduled Area. It faces the mill building, and leads to undeveloped workings to the south-east.

Processing: the mill is a substantial and visually impressive three-storey stone-built structure which includes a ropeway terminal. It formerly housed a stone-breaker, Cornish rolls and possibly trommels, jigs and Wilfley tables. The walls mostly survive up to eaves height and the building is still partially roofed, though the condition of the roof is deteriorating significantly. There are extensive tailings to the north, which cover all but one of the six circular buddle pits. Further to the north are four extensive settling ponds contained by stone dams. The whole site covers a substantial area and forms one of the most prominent features of the Crafnant valley.

Power: derived from a pelton in the mill, whose base survives. The course of a pipeline from a concrete penstock at SH76716208 down the slope of the hill is evident.

Transport: ore reached the mill by a railway to a site uphill from the mill at SH76716208 and a Henderson ropeway from there to the mill, whose courses are clear. From the mill a substantially engineered road suitable for a traction engine leads to the Trefriw road.

Ancillary: there are traces of a possible smithing hearth within the building and the base for what may have been an office nearby.

Domestic: no evidence.

Management

Consolidation.

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PRN 4639

KLONDYKE MILL

TREFRIW

No 20 WARD

SH76-62

F HYCHWYN C

ABERCONWY DISTRICT

20688	HAFNA MINE		Category A	NGR SH781-601-
County	ABERCONWY	OS Map No.	SH76SE	County Map No. CXIX 5
Site type	LEAD MINE		Period	POST MEDIEVAL
Threat	VANDALISM, FORESTRY	Land use	FORESTRY	Site status NPS

Site description

General: the site is chiefly remarkable for its visually impressive and archaeologically outstanding mill complex. It is situated in the Gwydur mining area.

Geology: the main lode tends west-north-west to east-south-east, and bears galena with some pyrites and sphalerite in shales and felspathic ash of Bala age.

History: also known as Rhafna; at work from the late eighteenth century or early nineteenth. From 1889 to 1895 a French Company erected extensive buildings, but workings finally ceased in 1914/5.

Workings: accessed by shafts and adits. What seems latterly to have been the main haulage shaft is situated immediately upslope of the main mill complex at SH78036013; this is covered by a bat-grille. There is a trial adit immediately adjacent to the smelter.

The upper workings, known as High Hafna, have been partly destroyed by forestry vehicles; nevertheless the no 1 adit is visible, with some stoping visible immediately to the west, and the compressor shaft, protected by a bat-grille, is situated at SH77676023.

Processing: there is an early hand-dressing site at SH77686022, and an extensive mill-complex came to be constructed from the 1860s onwards at SH78076021. A crusher-house was installed in the 1860s, extended after 1878. Furnaces for smelting lead and blende were built from 1893 onwards.

The mill complex as it survives involves a gravity-assisted feed system built into the slope of a south-facing hill. At the top level is a shaft, from which loads were tipped into ore bins. The three successive floors were for sorting, for crushing and grading, and for separation. On this lowest floor the remains of a twentieth century flotation plant do not entirely obscure a nineteenth-century round buddle. Lower down again are thickener tanks.

Integral with this complex but to its south west is a tuyere furnace with adjacent blower. The hearth is marked by a surviving brick floor. From here a flue, whose course is no longer visible at the top, leads to a substantial chimney, built on a square-plan stone base, with brick corners, with a circular plan top.

A slime pit is situated downslope from the smelter.

The mill complex has been consolidated, and interpretative panels affixed. The area surrounding it has been partially landscaped.

Power: a waterwheel, steam and electricity were successively used at the mill. The site of the horizontal steam engine is clear, adjacent to the smelter blower and below the crusher floor. There is a small reservoir, possibly to cool a compressor or for ore-washing, immediately to the south of the compressor shaft.

Transport: inclines and vertical uphaulage through shafts were both used on the site. Near the summit of the mill complex is a concrete base, identified as the mount for an incline winch, but more likely to have been the base for a winch which uphauled the shaft at SH78036013. However, two inclines on two different but proximate alignments connected the upper and lower mill areas. One appears to have run on an embankment along the north-east side of the mill, which has been partly removed during landscaping. This is marked on the 1913 map. The other, already devoid of rails by 1889, lay slightly to the north.

An unusual feature is the very narrow-gauge railway on the floor of the smelter.

Transport: road access to the site is marked as early as 1889.

Ancillary: no evidence.

Domestic: no evidence.

Management

This site is stable.

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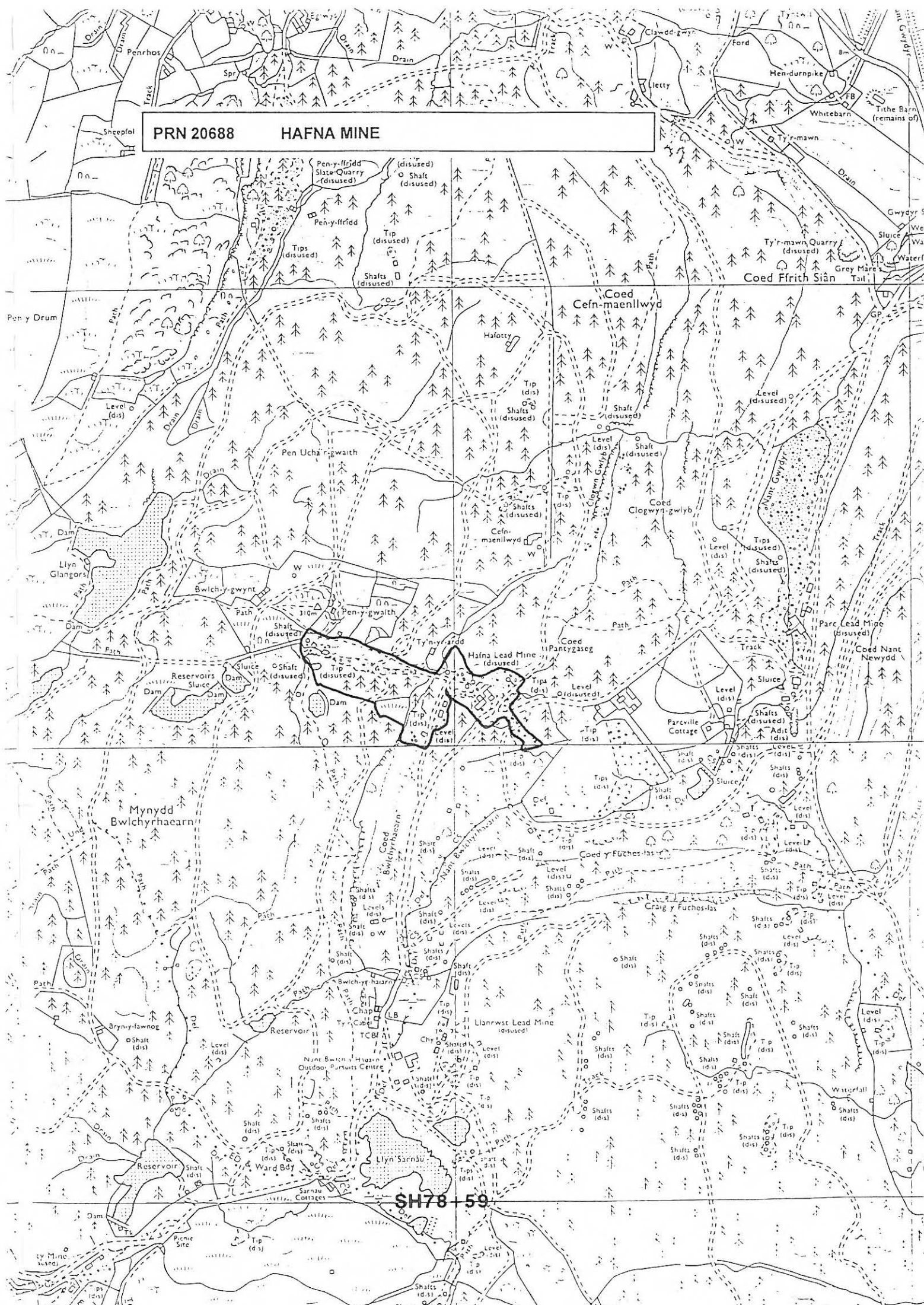
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PRN 20688

HAFNA MINE



932	CYFFTY MINE	Category B	NGR SH77155881C
County	ABERCONWY	OS Map No. SH75NE	County Map No. CXVIII 12
Site type	LEAD MINE	Period	POST MEDIEVAL
Threat	VANDALISM	Land use	PASTURE, FORESTRY, RECR. Site status NPS

Site description

General: the salient features of this site lie immediately alongside the Gwydir to Ty Hyll road in the Gwydir lead-mining area, and have been consolidated and interpreted. They form an excellent example of the surface features of a lead mine, though no machinery survives, and the magnificent beam-engine house was demolished in 1966.

Geology: worked the Principal lode which tends south-west to north-east, and which carries galena and blende.

History: also known as Betws y Coed mine and Pencraig Mine. Small scale working is marked from possibly the end of the eighteenth century and the site was developed as part of a dubious speculation in 1866-8. Extensively capitalised in 1877, it closed in 1881, operating again from 1900 to 1907 and 1918-1919.

Workings: underground, accessed by shaft and adit. The deep adit is situated at SH76975859. To the south of the conservation area at SH77175877 are old shafts visible as a depression filled with scrap and other rubbish, and to the north at SH77065885 is an adit by the road to Llyn Geirionydd, open but fenced off. The western (pumping) shaft falls within the conserved area at SH77085873, and a pedestrian bridge has been constructed over it. The spoil tips have been grassed over at the eastern end of the conservation area.

Processing: crushers and round buddles were installed in the nineteenth century and dressing plant in the twentieth. A crusher-house stands at SH77225888, with a water-wheel pit in its south wall. Nearby is a round buddle, and a further round buddle is situated at SH77135880.

Power: a substantial beam winding-engine and house were erected in 1878; the house was demolished by the army in 1966. Its site is now the car-park at the eastern end of the site. Three water-wheels were also used for crushing and pumping, transmitting power by means of flat-rods. The pits form part of the conservation area, but the wheels and the flat-rods do not survive.

The large eastern reservoir still holds water, though the extensive network of leats has been obscured by forestry and undergrowth. They are apparent on aerial photographs.

Transport: a short length of surface tramway was installed of which there is no evident trace. A roadway runs past the site.

Ancillary: a store, office magazine and forge are noted. These buildings have been conserved.

Domestic: no evidence.

Management

Monitoring for vandalism.

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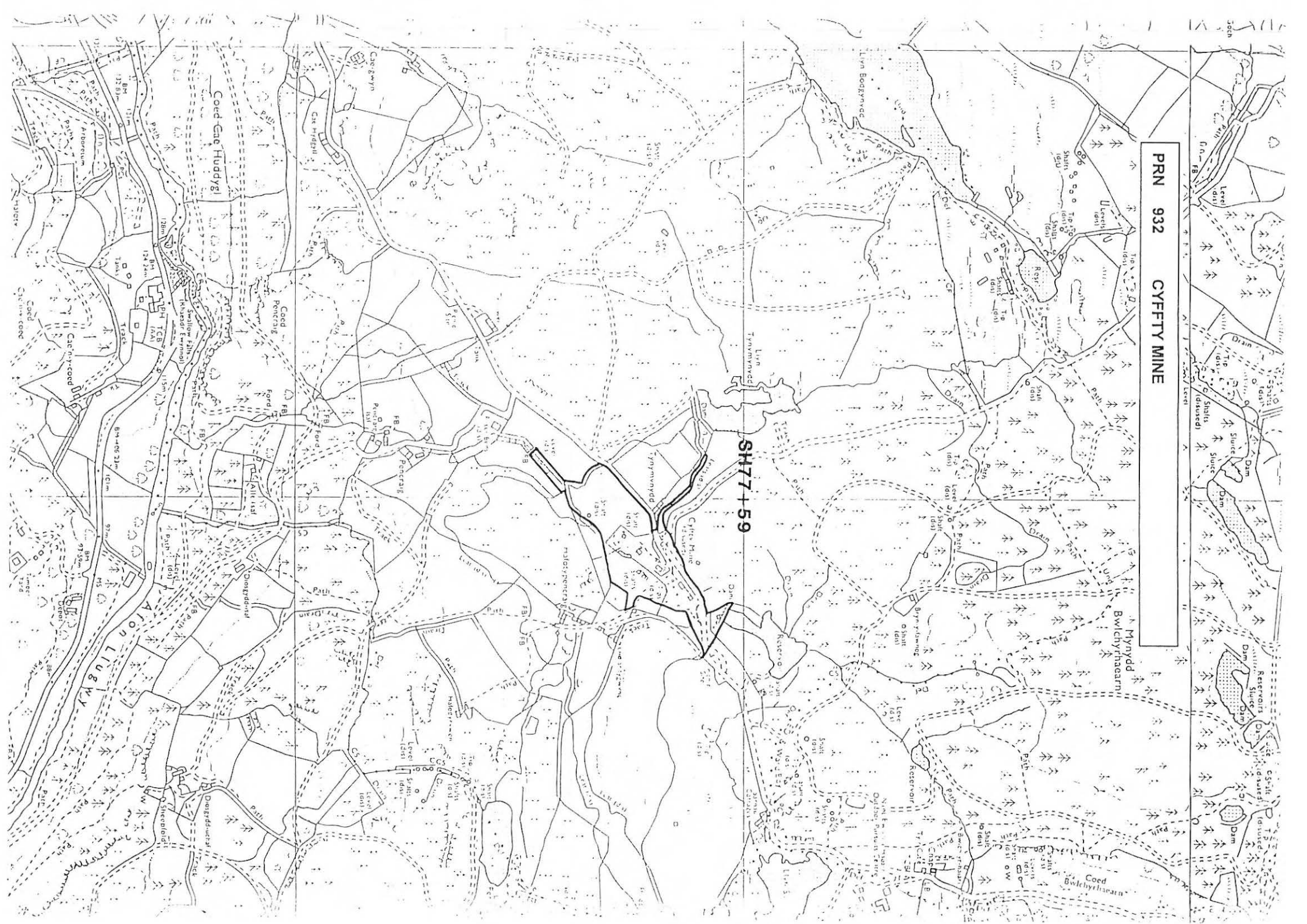
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Report GAT

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PRN 932 CYFFTY MINE

SH77+59



20685	VALE OF CONWAY MINE	Category B	NGR SH780-598-
County	ABERCONWY	OS Map No. SH75NE	County Map No. CXIX 5
Site type	LEAD MINE	Period	POST MEDIEVAL
Threat	VANDALISM, VEGETATION	Land use	FORESTRY, FOOTPATH
		Site status	NPS

Site description

General: a small site in the Gwydir lead-mining area, which was conserved by the Snowdonia National Park and interpretative panels affixed in 1990, when the forest trail was established; it affords an excellent example of a small lead mine of the mid- to late-nineteenth century. Measured surveys were carried out by the Gwynedd Archaeological Trust in 1990.

Geology: the mine worked three different lodes. The Ffrith lode tends north-north-east to south, the Bwlch Garw and the Agen, worked at Gwaith Uchaf, north to south.

History: also known as Bwlch Garw and incorporating an area of workings known as Gwaith Uchaf. Mining is recorded in 1806, but the Vale of Conway venture as such began in 1876, when the earlier smaller setts were united into one. Sporadic work went on until 1886 and the mine was incorporated in the Hafna sett from 1899.

Workings: underground, accessed by adits and shafts. The deep adit is situated at SH77935968 and the no 3 or Bwlch Garw adit at SH77895963; both are open and have revetted stone walls. The no 2 level appears to have collapsed, but its site is clear at SH77845962, with stoping immediately upslope, and no sign was observed of the no 1 or Gwaith Uchaf level. A shaft was observed at SH77965979 which is uncapped and potentially very dangerous. A shaft at SH77985990 has been capped with a bat-grill.

Processing: an ore bin has been consolidated at SH77925975; it seems likely that this stored ore from no 2 adit and that the ore was bucked in front of the bin and then carried on the level tramway from the deep adit to the processing area.

A crusher house, dating from 1876-7, survives at SH77995961; this was consolidated in 1990. There is a dressing-floor immediately downslope. A round buddle at SH78005985 and rectangular settling tanks at SH78015985, installed in 1876-7, have also been consolidated.

Power: a waterwheel was installed to drive the machinery in 1876-7; the pit forms an integral construction with the crusher house.

Transport: a tramway ran in the no 2 adit, and a longer surface system connected the adit with a yard area, of which no trace remains, immediately to the south-east of the mill. It appears that from here ore was barrowed into the crusher on a surviving embankment. A forestry road to the Gwaith Uchaf may follow the course of a footpath or mule-path.

Ancillary: a small roofless three-sided building survives at SH78015986

Domestic: a dilapidated and roofless cottage at SH78025994, a single-room structure, with an adjacent yard and annexe, has been consolidated.

Management

Monitoring for vegetation and for vandalism.

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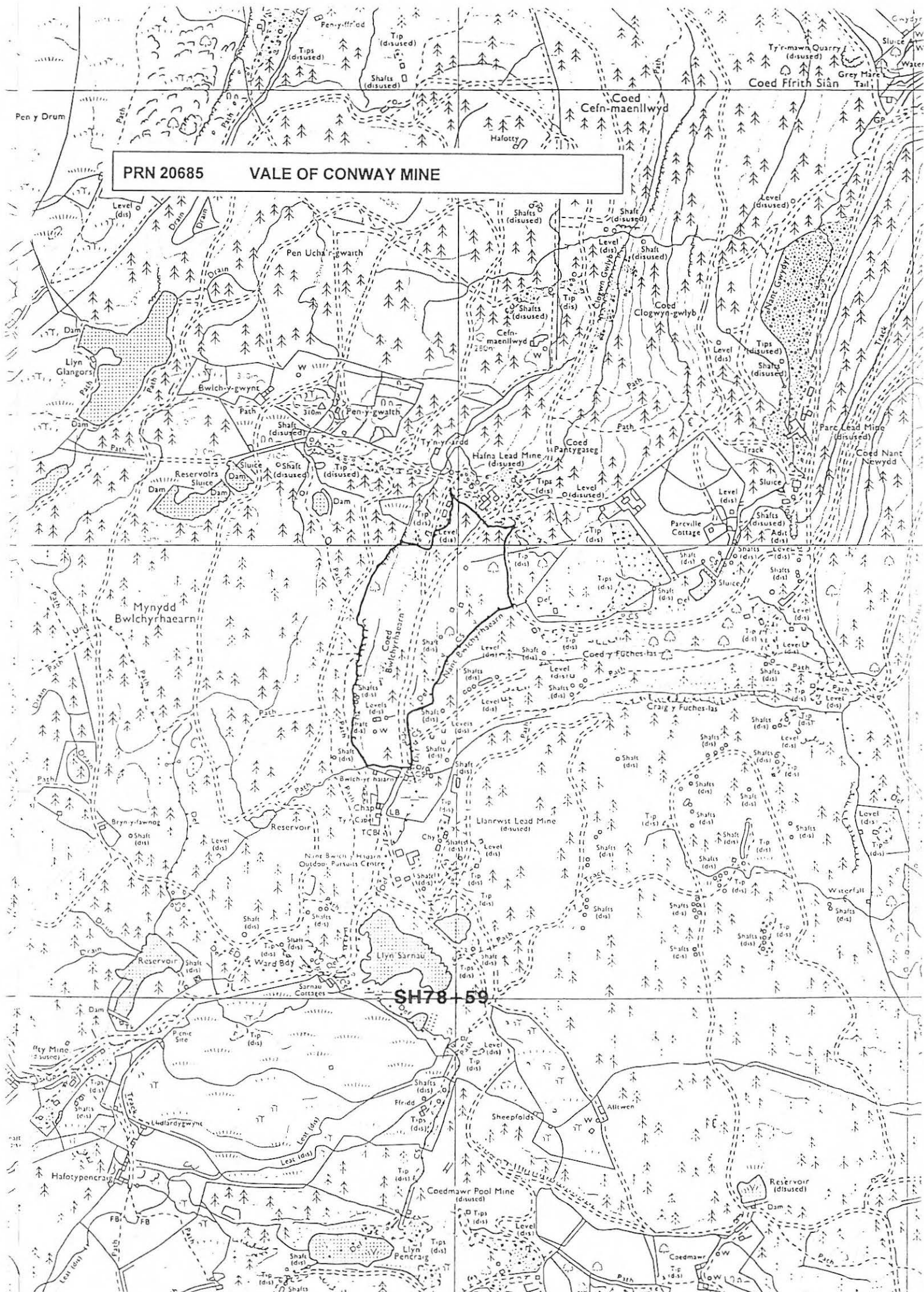
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20695	LLANRWST MINE	Category B	NGR SH780-593-
County	ABERCONWY	OS Map No. SH75NE	County Map No. CXIX 9
Site type	LEAD MINE	Period	POST MEDIEVAL
Threat	VANDALISM, FOOTPATHS	Land use	RECREATION
		Site status	NPS

Site description

General: a conserved site in the Gwydir lead mining area now used as an outdoor pursuits centre by Aberconwy County Council. The 20m-high engine-house chimney is a prominent feature.

Geology: lodes bear mainly galena, in sediments and felspathic ashes of Bala age.

History: also known as Bwlch yr Haeam. Possibly at work from the 1750s, certainly from 1806. Intensively worked from 1853 to 1884.

Working: underground, accessed by shafts and adits. The shafts (Doctor's shaft at SH78015931, Diagonal at SH77925924 and Endean's at SH77975936) have been capped with a bat-access. The shallow adit is apparent at SH78055934; a grill has been installed across its mouth. The spoil tips have been landscaped. The deep adit (not seen) emerges at SH77955970.

Processing: a crusher was erected in 1867 and dressing machinery in 1877, including jiggers, a Californian stamp and round and flat buddles and kilns. These have now been landscaped. The site of a crusher is evident to the north of the engine house at SH77975937.

Power: a 15' waterwheel was installed in the 1860s; the pit remains visible as a fenced depression at SH77895926. A horizontal steam engine was installed at SH77955933 in 1876, which operated a shaft and the crusher, and pumped by means of flatrods. The engine has been removed but the engine house, the boiler room, and what may be a store-room or possibly a small integral crusher, have been consolidated. The circular-plan chimney has also been consolidated. The site of the balance-bob at Endean's shaft has been consolidated, and the site of a horse-whim circle at this point has been landscaped. A small stone-built reservoir, now dry, is apparent at SH78005937.

Ancillary: a count house, smithy, stables and store are recorded. The site of the mine yard now forms the focal point for the outdoor pursuits centre. The roofless magazine survives at SH78055932, and a store, roofless and dilapidated, at SH78045929.

Domestic: a chapel, in re-use, stands at SH77835942, and there is a chapel-keeper's house adjacent.

Management

Monitoring for vandalism.

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LLANRWST MINE

SH78-59

20698	ABERLLYN MINE		Category B	NGR SH794-582-
County	ABERCONWY	OS Map No. SH75NE		County Map No. CXIX 9 13
Site type	LEAD/ZINC MINE		Period	POST MEDIEVAL
Threat	FORESTRY	Land use FORESTRY		Site status NPS

Site description

General: a Gwydir mine-site which lies on the western side of the Aberllyn gorge, below Llyn y Parc, which was the mine's main source of water. The area is under forestry plantation. It includes the substantial remains of an extensive mill, and low-key interpretation is proposed by Forest Enterprises. Part of the site forms an SSSI.

Geology: the mine worked two principal lodes, the hard and the soft, tending north-north-west to south-south-east, following the alignment of the gorge, through Ordovician shales and volcanic rock.

History: the Aberllyn mine sett latterly encompassed the South D'Eresby Mountain sett, the Pen yr Allt mine and the Greffyn Mine. It is first mentioned by name in 1838, and was capitalised from 1878. It was extensively developed by Brunner Mond between 1896 and 1905, and some work continued into the 1920s.

Working: underground, accessed by a great number of levels, referred to by a separate Aberllyn and Greffyn mine system of numbering. The Greffyn 1, 2, 2b and 2c levels are in forestry on the slopes above the mill. The Greffyn 3 level is at SH79535768, and its mouth survives, but has been sealed by an iron grille cemented into place. The Greffyn 4 level at SH79525775 (also known as the Brunner Mond haulage level) survives, and has also had a grille cemented into place over it. The Greffyn no 5 level at SH79605766 is open.

The Aberllyn levels are numbered 1 to 6 north to south along the Aberllyn gorge from SH79385812 to SH79465791. No 2 has been blocked off with a grille. The trace of a hand-processing area is visible outside no 3 at SH69475795. No trace was observed of nos 4 and 5. No 6 adit has a built up stone entrance with a rounded brick arch.

Processing: dressing floors, crushers, jiggers and buddles were constructed in the upper part of the Aberllyn gorge at SH79475790 in 1878. These are no longer visible.

A substantial gravity mill was built on a stepped hillside formation in 1899 at SH79575774, of which considerable remains survive. Above it is a primary ore bin fed from the contour tramway from the no 6 adit, which feeds secondary and tertiary bins through slides; these areas are now partially covered by a growth of deciduous trees. Below here, the top mill floor contains jig bases, the two intermediate floors, buddle pits, and the lowest floor jigs and buddles.

A calciner and settling tanks were constructed pre-1904. The spelter chimney was demolished in the 1920s, though a brick base was noted at SH79625768, with an arch in the eastern face.

Settling tanks survive on the northern limit of the processing area at SH79685782, very heavily overgrown with coniferous forestry.

Power: the site was dependent on water-power, abstracted from the Aberllyn stream by a sluice whose remains survive at SH79415818 and carried down the gorge in steel piping, some of which survives. A water-wheel was installed c. 1878 to drive a crusher and buddles, and two water-wheels were offered for sale in 1883.

Two peltons and a turbine at the mill site provided the power for the processing equipment. The site of a launder feeding them is evident in timber supports for a trough which formerly ran alongside the tramway from level 3 to the incline head. There appears to be a branch from it, also evident as a row of timber supports, downslope at SH79465791; this may have been to operate the 1878 mill or it may have been to provide a coolant to a compressor outside the Aberllyn 6 adit. All these have been damaged by recent tree-felling and may not survive long.

Transport: internal rails and an incline were laid in 1878. These appear to have run from the Aberllyn 3 adit along a level formation to an incline head at SH69475775. Both the incline and the contour railway have become the site of a forestry road. A contour railway, probably of later date, connected the Aberllyn no 6 level with ore-bins that fed the mill, and is visible as a contour feature.

The remains of a lorry- or cart-loading bay survive at SH69635770.

Ancillary: offices, smithy, fitting shop, assay office and a change house were erected by Brunner Mond. The concrete bases of the offices and fitting shops erected by Brunner Mond are visible at SH69525770. Part of the fitting shop walls

survives up to 4m high.

Domestic: the traces are visible of the mine manager's house demolished c. 1984 for reasons of safety. Aberllyn cottage, a crog-lofft in re-occupation, is situated at SH69365822.

Management

Future tree planting, felling and thinning should avoid disturbance to the surviving features of this mine.

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List GAT

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Plan CRO

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ABERLLYN MINE

SH79-58

Betws-y-Coed

BETWS-Y-COED

21501	TRECASTELL MINE	Category B	NGR SH76027460
County	ABERCONWY	OS Map No. SH77SE	County Map No. CVIII 4
Site type	LEAD MINE	Period	PREHISTORIC
Threat	FORESTRY	Land use	FORESTRY, AGRICULTURAL
		Site status	

Site description

General: a site which was once extremely productive, situated on the western slopes of the northern Conwy valley, but which was extensively landscaped after closure. It now has very few surviving remains.

Geology: five major lodes tend north-west to south-east within a rock type composed of mudstones interbedded with volcanic tuff.

History: documentary evidence records the discovery of edge-notched and partially-grooved hammer-stones of prehistoric date on this site, and it may also have been exploited in the thirteenth century. It was actively worked from 1753, and was very productive from 1894 to 1920. A further period of exploitation took place from 1950 to 1955.

Workings: accessed by shaft and adit. A circular wall at SH76017458, 6m in diameter, containing an area covered with chippings, may represent a shaft-head. Adit mouths are visible in the forestry at SH7600374443, SH7596574444 and SH7602774442. These may be eighteenth century. A shaft is visible at SH7600774427.

Processing: by 1920 the site was equipped with settling tanks, slime pits and buddles, and possibly a kiln. A flotation mill was installed in the last phase of operations. The only surviving archaeological feature associated with processing, however, is a remote square-plan chimney built of stone with brick corners and a brick cap, which survives in the forestry at SH75967446. It stands approximately 7 high. There is the trace of a flue leading up the slope to its base.

Power: waterwheels were used to pump, wind and drive machinery, and steam to wind. Electricity was generated on site. No trace remains of these features.

Transport: an aerial ropeway was installed in the early twentieth century; all that remains is the concrete base of the lower terminus in the lorry yard at SH76347444, by Melin Gwenddar.

Ancillary: an office, fitting shop and a dry are recorded. No trace survives of any of these.

Domestic: a row of six two-storey dwellings built of stone with brick window edgings and chimneys at SH75957458 may have been built to house miners. They remain in occupation.

Management

Further evaluation of the site to assess the potential for pre-Modern working. Monitoring and possible consolidation of the flue and the chimney.

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TRECASTELL MINE

SH76-74

21012	NEW PANDORA MINE		Category C	NGR SH767-603-
County	GWYNEDD	OS Map No. SH76SE		County Map No. CXVIII 8
Site type	LEAD MINE		Period	POST MEDIEVAL
Threat	AGRICULTURE	Land use PASTURE		Site status NPS

Site description

General: situated in rolling uplands on the edge of forestry in the Gwydir mining area.

Geology: worked four major lodes bearing galena and blende in the Grinllwm shales.

History: also known as Foel Ddu Mine, Eagle Mine, Mountain Mine, Welsh Crown Mine, Willoughby Mine and Willoughby Foxdale Mine. Possibly at work in the eighteenth century, certainly from 1843, and extensively developed by the Welsh Crown Spelter Co. from 1899 and by the Eagle Lead Company from 1920 to 1932.

Workings: accessed by shafts and levels, mostly blocked, filled in or collapsed. There is extensive stoping from SH76685995 to SH76756003 along the Champion lode. The engine-shaft is marked by a pile of spoil at SH76736025. The Pontifex drainage adit at SH76326040, on the banks of Llyn Geirionydd, remains open.

Processing: a crusher and buddles were installed in the late nineteenth century; no trace of these feature survives. An oil flotation mill of 1928 at SH76696026 appears to have been part-buried in the late 1980s.

Power: much of the power was derived from a catchment system drawing on Llyn Bodgynydd Bach to the south of the site, and traces of the leat system survive. A substantial waterwheel at SH76555986, whose pit survives, operated a flatrod system, of which no trace remains. No trace was observed of the steam winding-engine house, nor of the pelton at SH76326045. The water-power system is visible as contour traces or collapsed leat pillars.

The stone-built engine-house, which had a curved corrugated-iron roof, has been demolished.

Transport: the mine was served by a railway to the Klondyke mill (PRN: 4639); the formation survives as a footpath, crossing the road from Cyffty to Llyn Geirionydd at SH76545990, then climbing through the fields to the mine site. Elsewhere its formation includes some attractive embankments.

Ancillary: the magazine remains intact and roofed at SH76675992. Part of the survey and assay office, built of concrete poured between shuttering, survives at SH67716020. Other buildings, such as the compressor house and garage, are no longer apparent.

Domestic: no evidence.

Management

Photographic record: trial excavation of the concentration plant.

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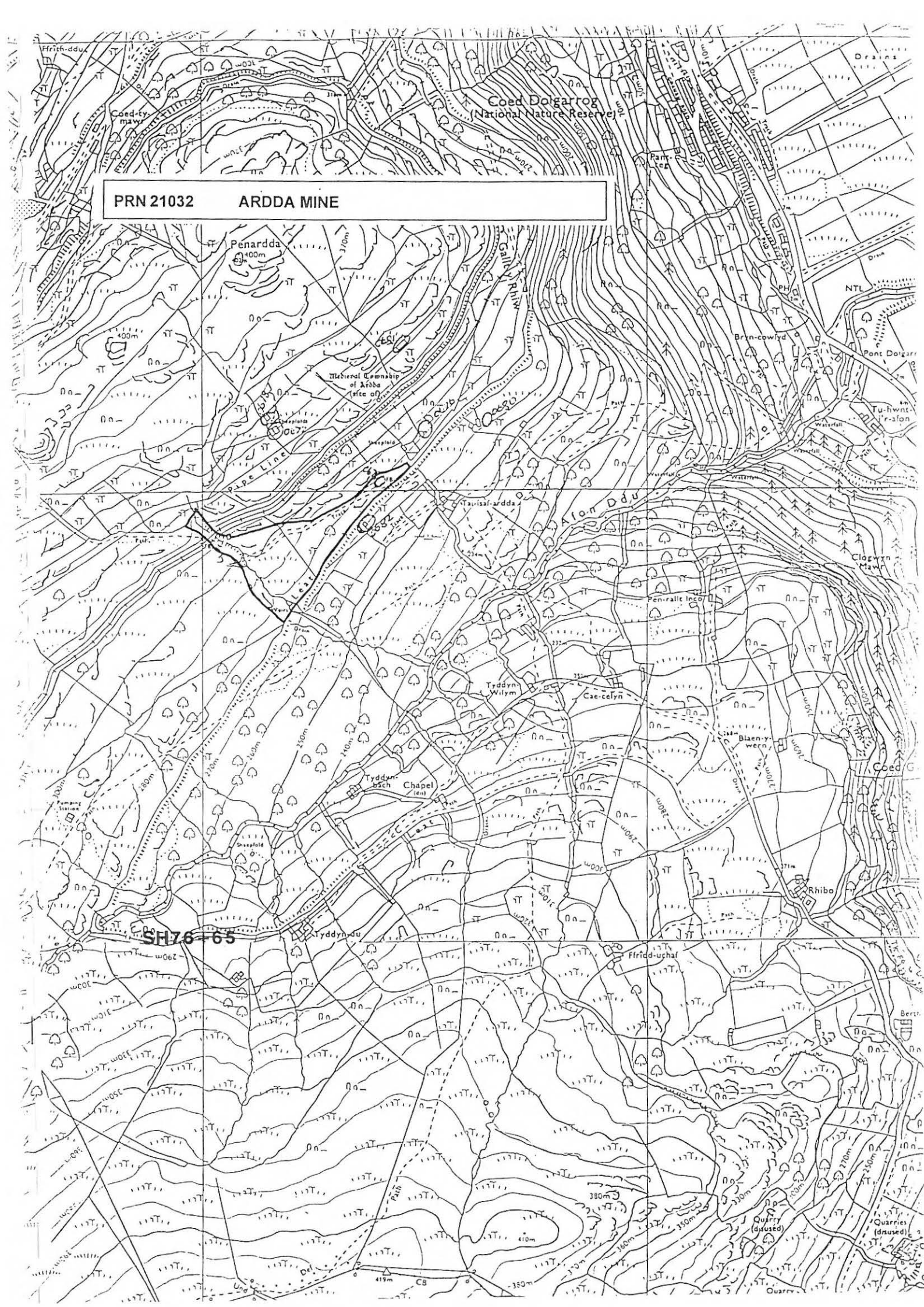
NEW PANDORA MINE

ABERCONWY DISTRICT

SH77-60

PRN 21032

ARDDA MINE



21033	CAE COCH MINE		Category C	NGR SH775-654-
County	ABERCONWY	OS Map No. SH76NE		County Map No. CXIII 12
Site type	PYRITES MINE		Period POST MEDIEVAL	
Threat	FORESTRY	Land use FORESTRY		Site status NPS

Site description

General: a site exploited from the seventeenth century to the twentieth, on the steep western slopes of the Conwy valley, now covered in forestry.

Geology: the mine worked a two-metre bed of quartzitic pyrites between the Dolgarrog Volcanic Formation and the Llanrhychwyn mudstones.

History: the scene of trials carried out by Sir John Wynn in 1607, and possibly active again by the 1790s in lease to Roe of Macclesfield. Worked from 1817 to 1895 by a succession of chemical manufacturers, and briefly by government agencies during the two world wars.

Workings: underground, accessed by the several adits - no. 1 at SH77456543, no. 2 at SH77536530, no. 3 at SH77606520 and no. 4 at SH77616519 - and worked in an open quarry at SH77456546.

Processing: a crushing mill was erected in 1917 at SH77726512, which survives as substantial stone foundations.

Power: a stone built transformer house with a monopitch corrugated iron roof survives at SH77716513.

Transport: an incline and tramways were installed in the 1850s, both to serve the mine and an adjacent stone quarry. The incline is a substantial formation, now becoming very overgrown. At its summit at SH77566513 a counterbalance drumhouse has been rebuilt to function as a return sheave for a power source near the incline foot. On the northern side of the drumhouse is another, smaller, return sheave, presumably also connected with the incline's operation. Some flat-bottom and T-section rail survives on site as do the remains of Hudson skips. The incline foot is by the main road at SH77926513, where there is a cabin which formerly housed the winding motor. From here a level tramway led to a wharf on the Conwy at SH78076519.

Other inclines within the site are much degraded.

An aerial ropeway installed in 1918 has left a horizontal cast-steel sheave at its summit at SH77526529; its lower terminus was a siding on the Conwy valley branch line.

Ancillary: the site of the magazine proved too heavily overgrown to be accessible. A smithy is recorded. A wooden shed half way up the incline retains its roof; an iron hand-powered gallows-crane stands outside.

Domestic: no evidence.

Management

Photographic record; management of the woodlands should avoid further damage to this site.

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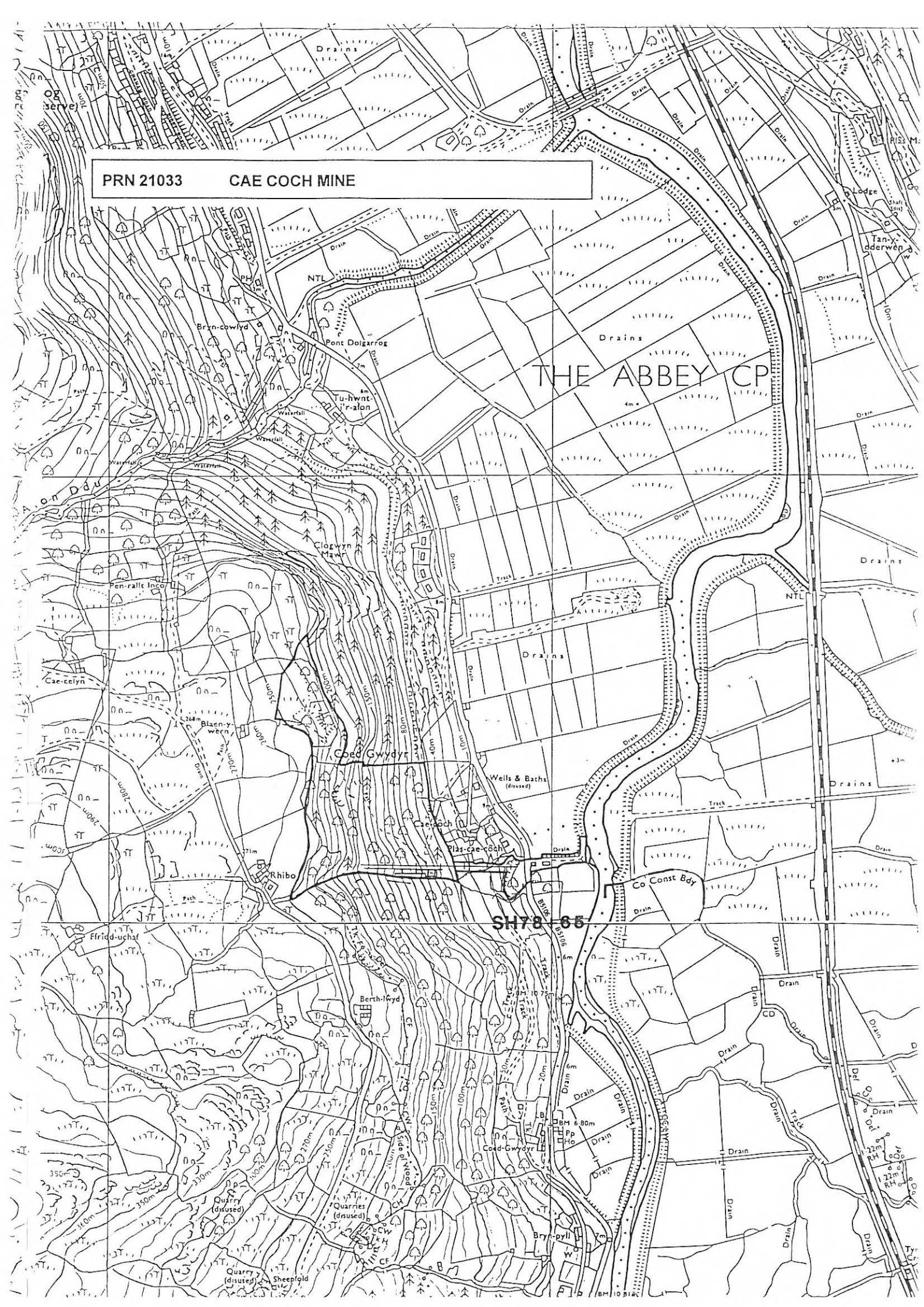
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PRN 21033

CAE COCH MINE

THE ABBEY CP

SH78 65



21554	CAE MAWR MINE		Category C	NGR SH75505743
County	ABERCONWY	OS Map No. SH75NE		County Map No. CXVIII 16
Site type	LEAD MINE		Period ROMAN	
Threat	FORESTRY	Land use FORESTRY		Site status

Site description

General: a tiny site in the Gwydir area, partly afforested but for which a Roman origin has been suggested. It is situated near to the Roman fort of Bryn y Gefeiliau, in which evidence of industrial processing has been identified.

Geology: worked a lead vein running north to south.

History: a Roman origin has been suggested for this site by Messrs Bennett and Vernon. There was prospecting here in the 1850s, in 1871 and in 1909.

Workings: some open stoping, but mainly underground, accessed by adit.

Processing: no evidence.

Power: unmechanised.

Transport: the minor road from Pont Ty Hyll to the Roman fort at Caer Llugwy passes the site.

Ancillary: no evidence.

Domestic: no evidence.

Management

Further evaluation of the site to assess the potential for pre-Modern working.

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CAE MAWR MINE

SH75-57

21678	COED MAWR POOL MINE	Category C	NGR SH78305840
County	ABERCONWY	OS Map No. SH75NE	County Map No. CXIX 9
Site type	LEAD MINE	Period	POST MEDIEVAL
Threat	COLLAPSE	Land use	FORESTRY
			Site status

Site description

General: a dispersed site, situated largely on Llyn Pencraig in the Gwydir forest uplands, but which includes a lower adit and processing site on the banks of the Llugwy. The main site is much overgrown and difficult of access, but includes a complex water-power system, involving at one time water-wheels, pressure engines and a pelton.

Geology: lodes bearing galena and blende in sediments and felspathic ash of Bala age.

History: the main site may have been the "Coedmor" from which lead was being raised long before 1697. It may have been at work in the 1750s, and was prospering after a revival in 1820s. From 1861 the mine was worked jointly with Ffridd Llechwedd Mine (PRN: 21596), with which it shared territory, and for convenience's sake the two are regarded here as one. Substantial investment from 1851 onwards led to the improvements in the water-power system, but persistent drainage problems led to the driving of the drainage level, completed in 1907. The final lessee company was dissolved in 1930.

Workings: ore was raised from shafts around the eastern half of Llyn Pencraig; they are no longer visible. The so-called "Roman rakes" to the south of Llyn Pencraig are much overgrown and disturbed by forestry. The lower adit mouth on the banks of the Llugwy at SH77205770 is open and spilling out water over ore-bearing rubble - the consequence of a flash flood?

Processing: hand-dressing areas are apparent on the north, south and east of the Lake. The lower adit mill building is situated at SH77185763 and the stone walls survive up to 4m high. A crusher, a stonebreaker and an elevator, all by Green's, together with a Record vanner, are recorded in 1908. Two Harz-type jigs, a Record vanner, a stonebreaker and Cornish rolls are recorded in 1927. The settling ponds immediately to the east are much overgrown.

Power: fragmentary remains of the 50' water-wheel pit on the north side of Llyn Pencraig at SH77985863 are apparent, as is the base for the flat-rod angle-bob which it operated, and there are substantial remains of a wheelpit which wound a shaft on the east side of the lake at SH78105840. The extensive water-catchment system to the north and south of Llyn Pencraig is partly intact, but there is no evidence for the water-pressure engines. The site of the pelton at the lower adit mill is clear; this drove a compressor as well as powering machinery. There was also an auxiliary steam engine, installed in 1905.

Transport: rail access to the lower adit mill is evident in the shape of two substantial stone-built bridge piers over the Llugwy by the mill, 5m high.

Ancillary: a circular plan magazine, roofless, survives at SH78095842. There are also the remains of an office at SH78185839.

Domestic: no evidence.

Management

Photographic record; future tree planting, felling and thinning should avoid disturbance to the surviving features of this mine.

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20681	BODGYNYDD MINE		Category D	NGR	SH764-596-
County	ABERCONWY	OS Map No.	SH75NE	County Map No.	CXVIII 12
Site type	LEAD MINE			Period	POST MEDIEVAL
Threat	VANDALISM	Land use	PUBLIC ACCESS, GRAZING	Site status	NPS

Site description

General: a small site on the western periphery of the Gwydir lead-mining area which preserves evidence of primitive techniques surviving into the nineteenth century.

Geology: this mine worked a east-north-east to west-south-west lead lode in the Gwydir mining area.

History: known to have been at work from 1849 to 1879, though there may have been earlier workings.

Workings: open workings and underground workings accessed by shafts between SH76365951 and SH76545960.

Processing: a hand-dressing area is recorded at SH76555959

Power: apparently unmechanised.

Transport: no evidence.

Ancillary: a store building is recorded; this survives, roofless and dilapidated at SH76455956.

Management

Monitoring for disturbance or vandalism.

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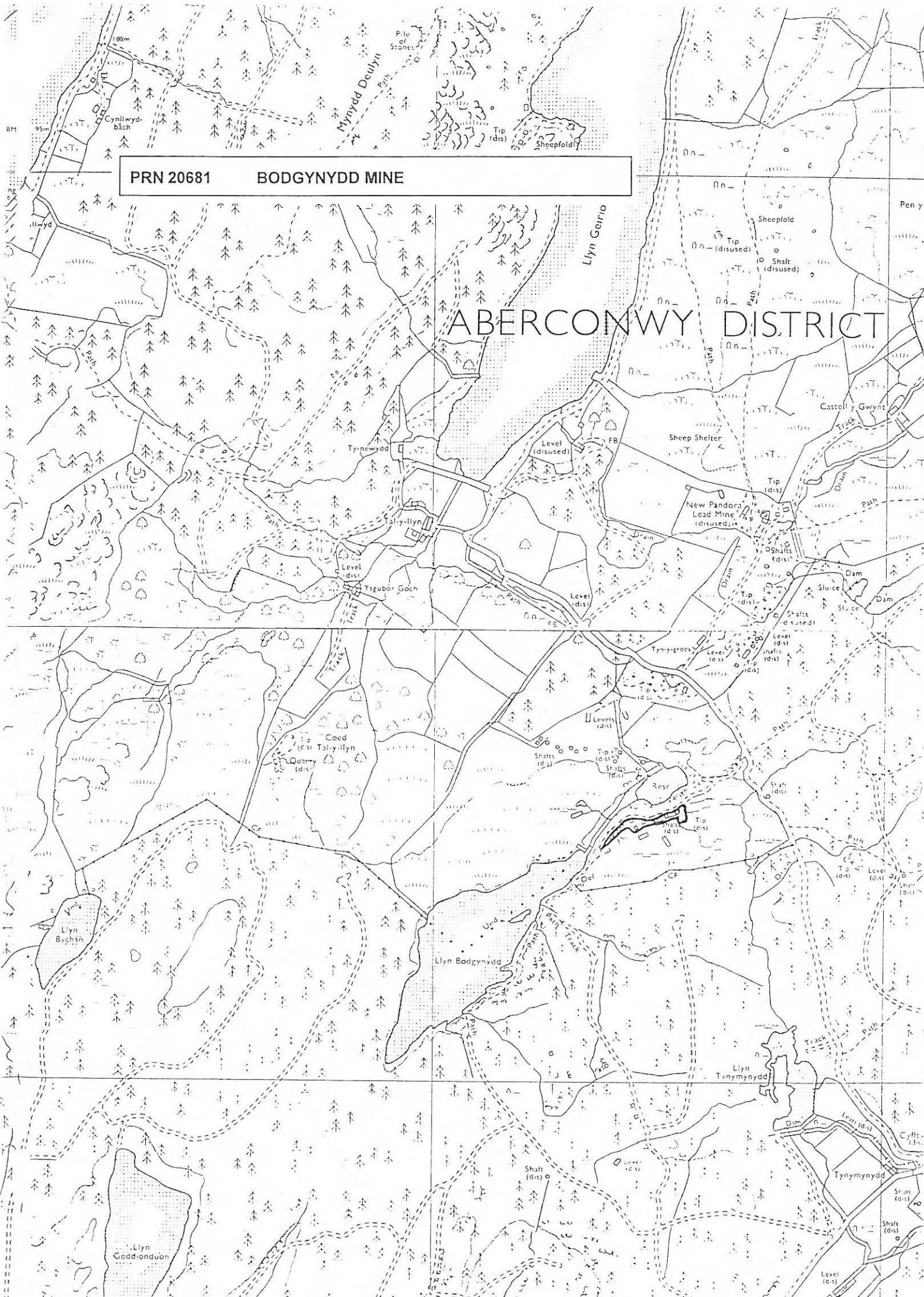
List GAT

ab Owain S, Crew P *SNP Industrial Record* no 754712

PRN 20681

BODGYNYDD MINE

ABERCONWY DISTRICT



20686	GWAUNLLIFON MINE		Category D	NGR SH789-594-
County	ABERCONWY	OS Map No. SH75NE		County Map No. CXIX 9
Site type	LEAD MINE		Period POST MEDIEVAL	
Threat	FORESTRY	Land use FORESTRY		Site status NPS

Site description

General: a site in the Gwydir forest which has now been fenced off but which appears not to have suffered any recent damage.

History: also known as D'Eresby Consols; worked from 1841 to 1881 in the Gwydir mining area.

Geology: worked north-south-trending lodes.

Workings: underground, accessed by adit.

Processing: the remains of primitive smelting sites were said to have been discovered by Victorian miners; no archaeological evidence for these sites has been uncovered.

Power: no evidence.

Transport: no evidence.

Ancillary: a roofless and dilapidated caban was observed near the southern perimeter of the site.

Domestic: no evidence

Management

Management of the woodlands should be carried out in such a way as to avoid damaging this site.

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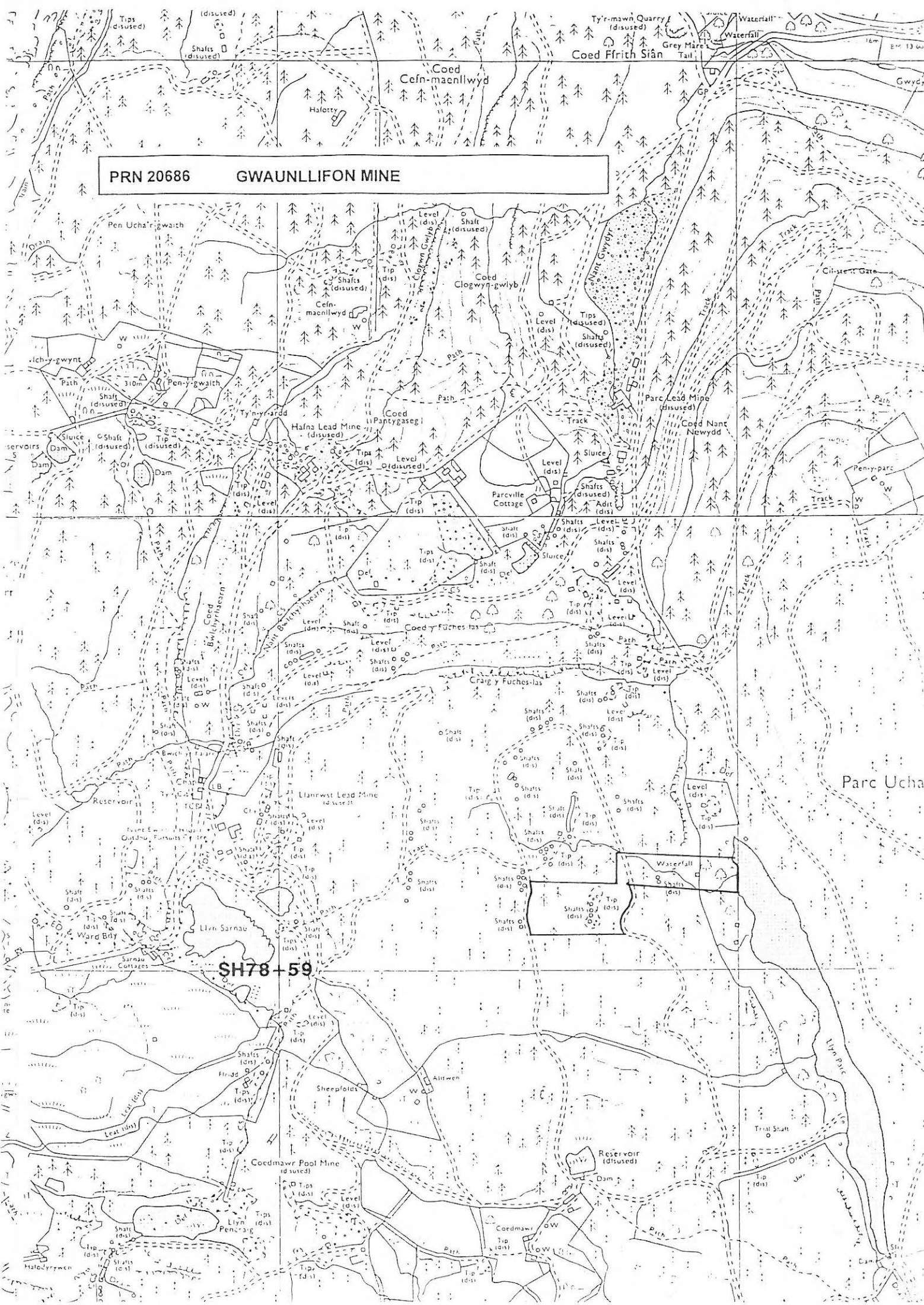
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PRN 20686

GWAUNLLIFON MINE



20689	PARC MINE		Category D	NGR SH787-602-
County	ABERCONWY	OS Map No.	SH76SE/75NE	County Map No. CXIX 5
Site type	LEAD MINE	Period	POST MEDIEVAL	
Threat	MINE TRAIL, COLLAPSE	Land use	GRAZING, FORESTRY	Site status NPS

Site description

General: situated in the Gwydir mining area, the last lead mine to work in Gwynedd; an extensive site, in operation as recently as 1963, but substantially affected by environmental reclamation work funded by the WDA, forming a contrast to the different conservation strategies implemented at Cyffty Mine (PRN: 932) and Llanrwst (PRN: 20695).

Geology: the four lodes contain galena and blende in sediments and felspathic ash of Bala age.

History: the sett included earlier setts known as (Gwaith y) Gors Mine, Johnie Mine, Bryn Eisteddfod Mine, Rhafna Mine and Cilstent Mine, and was also known as De Eresby Mine. It was worked in the early nineteenth century, and leased in 1877 by the D'Eresby Mountain Mining Company. Further development took place under Watende of Nigeria and Johannesburg Consols, until final closure in 1958, bringing to an end the history of Gwydir mining. The mill was used for experiments in automatic control in 1962-3. In 1978 a Welsh Development Agency regeneration scheme was set in motion and the site is now owned and managed by the Snowdonia National Park.

Workings: The regeneration programme has in places obscured, elsewhere obliterated, access to the workings. Keebone's cutting at SH78746005 is a prominent feature, over which a visitor walkway has been constructed. The shafts immediately to the south of the cutting, which lie over the adit, have been capped with bat grilles, as have others at SH78645988 and SH78425990. Levels are apparent, with a fan of waste downslope to the north, at SH78685973, and shafts at SH79795966, also with waste downslope. The tailings of the more modern workings on the northern part of the site have been regraded by burying the finer material and slimes under coarser materials, capping the whole with quarry waste and sowing with grasses.

Processing: a crusher was erected in 1859 and a lower mill pre-1888. This contained trommels, jigs and Wilfley tables. New plant was commissioned in 1940, and contained jaw crushers, trommels, jigs and James tables. A flotation plant was introduced in 1952. None of this is now apparent.

Power: two waterwheels drove the crusher and a pump, and use was made of steam plant. A compressor and electricity substation operated in the twentieth century. These may be represented by a breeze-block structure at SH72715986, measuring 7m by 7m in plan, with a flat roof. There is a concrete base to the east.

Transport: internal transport was by railway, on which horses and diesel locomotives were employed. A lorry road leaves the site to the north, joining on to the Gwydir to Ty Hyll road at SH78916093.

Ancillary: stores, a weighbridge, an office, a changing room, substantion, smithy and magazine are recorded. A fan-house was installed on the airshaft above 2 adit. Nothing was observed of these structures. A now-roofless single-storey two-room structure survives at SH78675982, built into the break of the slope. This has a chimney in each gable end. The stone walls stand up to 3.5m high at eaves height. There are lengths of piping, probably for compressed air, to the rear.

Domestic: no evidence.

Management

Management of the woodlands should be undertaken in such a way as to damage the surviving features of this site as little as possible.

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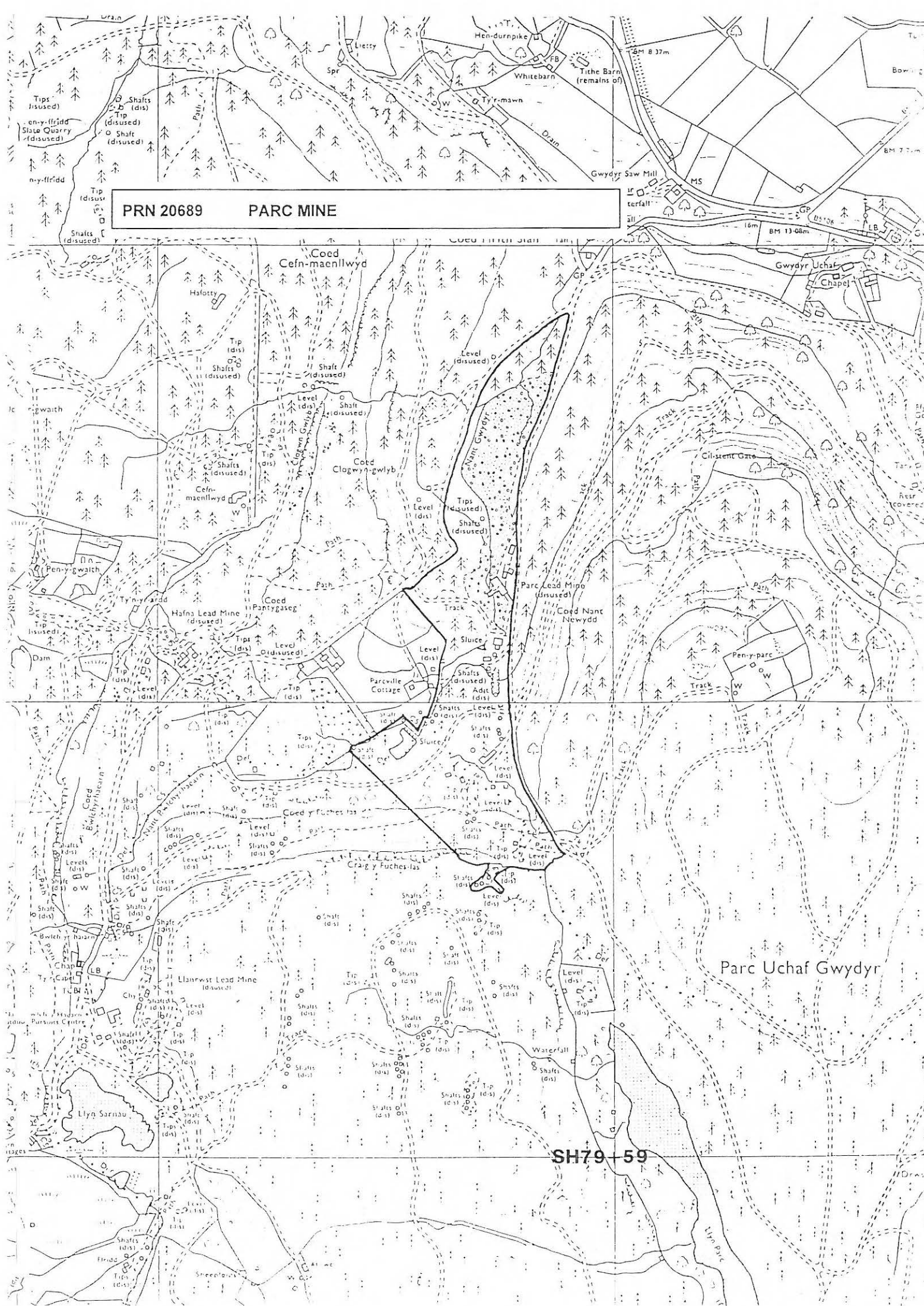
RCAHMW *NMR record cards* Parc Lead Mine

Plan CRO

1905 13

Plan CRO

1942 30



20696	GORLAN MINE		Category D	NGR SH775-593-
County	ABERCONWY	OS Map No. SH75NE		County Map No. CXVIII 12
Site type	LEAD MINE		Period POST MEDIEVAL	
Threat		Land use		Site status NPS

Site description

General: a small Gwydir site which preserves the remains of a stamp mill, and which constitutes part of the mining landscape dominated by Llanrwst Mine (PRN: 20695), with its tall engine-house chimney.

Geology: worked a west-south-west trending lode and the Tal y Llyn lode, which runs north-west to south-east.

History: also known as Gorlan Farchog Mine. Operational from 1828 to 1883, and briefly in 1911 and 1917.

Workings: accessed by shaft and adit. A collapsed adit is visible at SH77755920, and a series of shafts can be traced to the west of this point, though they have mostly been backfilled. A shaft remains open at SH77635912, but some dumping has taken place.

Processing: the stone walls of a stamp mill, measuring internally 6m by 4m, survive at SH77675907; a suggested reconstruction is shown in Bennett/Vernon 1989.

Power: a waterwheel pit is associated with the stamp mill; the water-course which fed it and the reservoir (SH77663907) can be traced.

Transport: the road from Ty Hyll to Gwydir passes near the site.

Ancillary: a smithy up to the first courses of stone in the forestry at SH77685921, and another at SH77775923, roofless and dilapidated.

Management

Management of the paths and woodlands should be undertaken in such a way as to damage the surviving features of this small site as little as possible.

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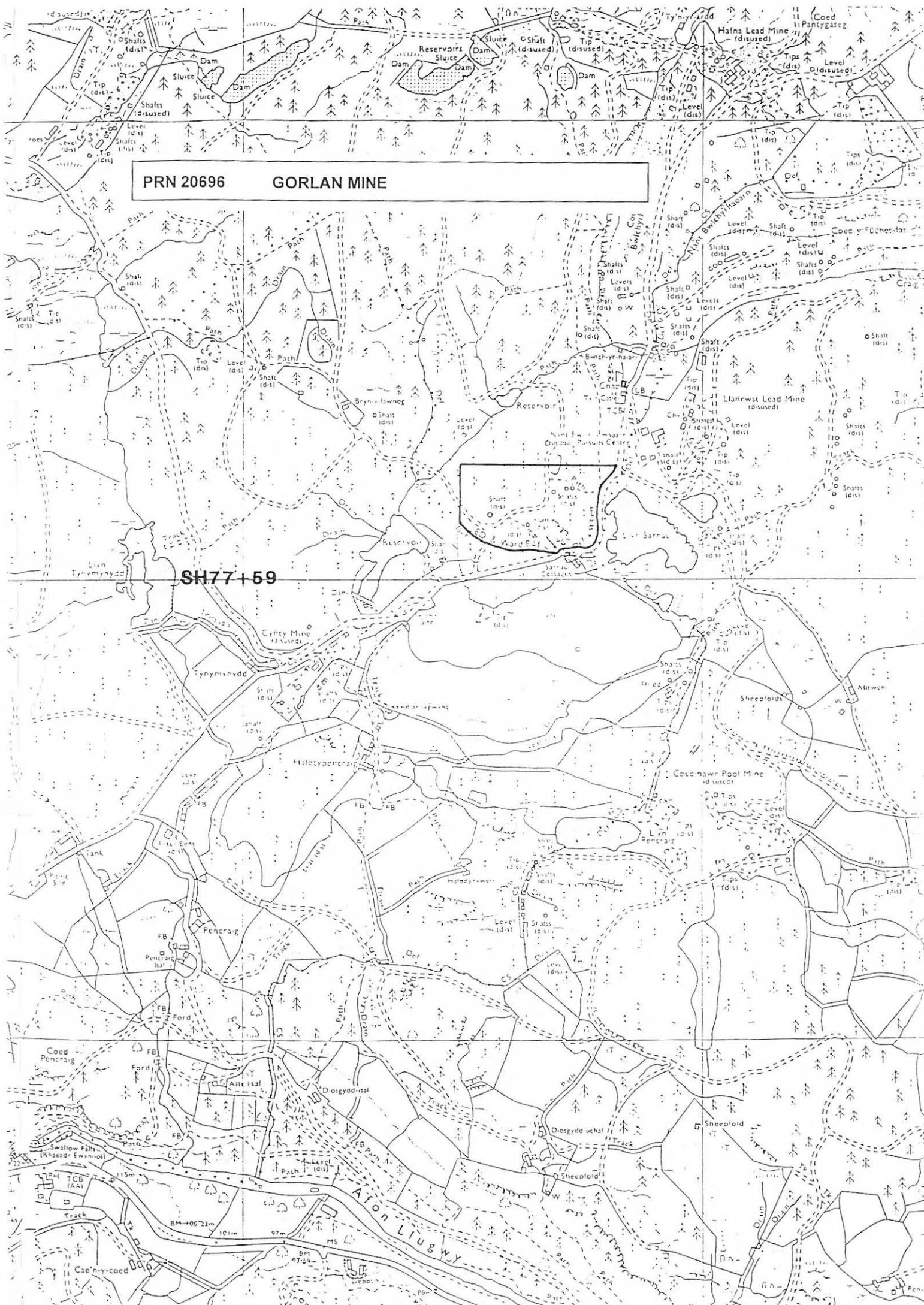
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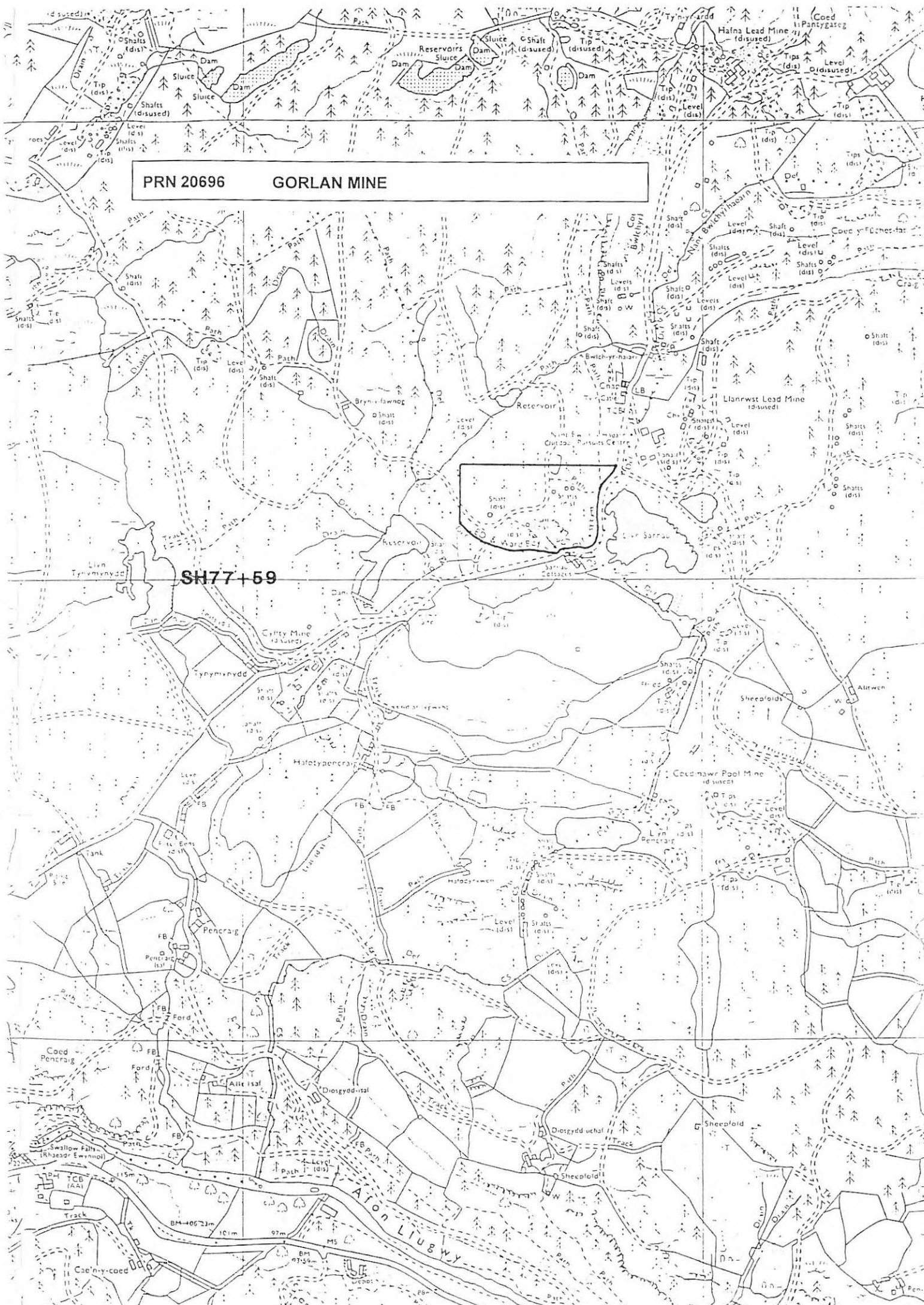
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ab Owain S, Crew P *SNP Industrial Record* no 754704



PRN 20696 GORLAN MINE

SH77+59



21013	KLONDYKE MINE		Category D	NGR SH765-622-
County	ABERCONWY	OS Map No. SH76SE		County Map No. CXVIII 4
Site type	LEAD MINE		Period	POST MEDIEVAL
Threat	COLLAPSE	Land use FORESTRY		Site status NPS

Site description

General: in the Gwydir mining area; of interest for its relationship with the Klondyke mill (PRN: 4639), immediately opposite the adit mouth on the far bank of the Nant Crafnant.

Geology: galena with some sphalerite and pyrite in slate of Ordovician age.

History: possibly co-eval with the Klondyke mill of 1900.

Workings: a large brick-lined adit immediately to the south-east of the mill.

Processing: see PRN: 4639.

Power: see PRN: 4639.

Ancillary: see PRN: 4639.

Domestic: see PRN: 4639.

Management

Monitoring of the main adit for collapse.

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Desc. text GAT

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List GAT

ab Owain S, Crew P *SNP Industrial Record* no 763710

PRN 21013

KLONDYKE MINE

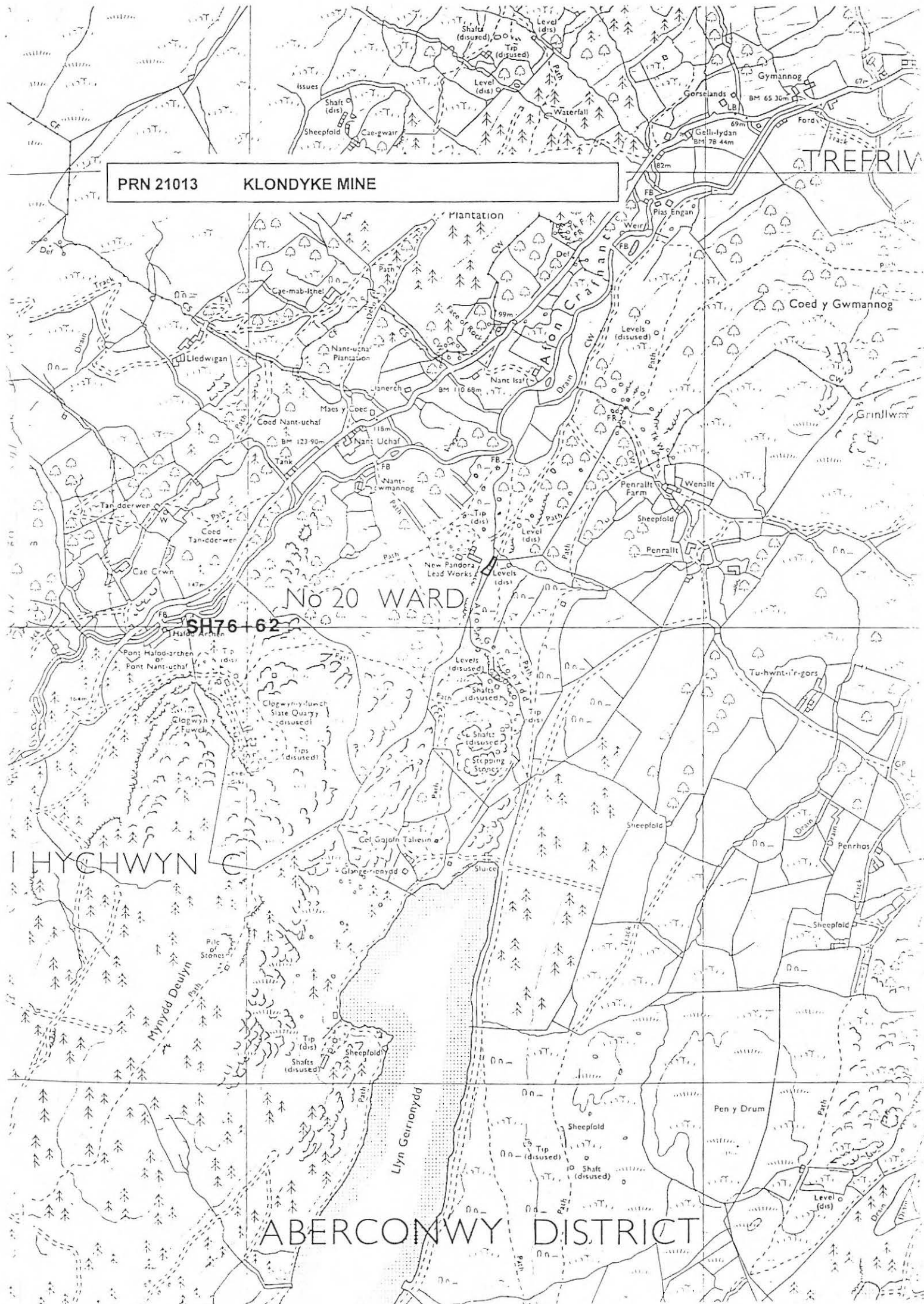
No 20 WARD

SH76-62

HYCHWYN C

ABERCONWY DISTRICT

TREFRIV



21109	FFRIDD RHEDYN MINE	Category	D	NGR	SH805-572-
County	ABERCONWY	OS Map No.	SH85NW	County Map No.	DXVI 10
Site type	LEAD MINE	Period	POST MEDIEVAL	Site status	NPS
Threat	FORESTRY	Land use	FORESTRY		

Site description

General: a small-scale mine, typical of operations in the early Modern period.

History: in the Conwy valley; possibly worked in the seventeenth century, certainly from the 1820s, and some work was done as late as 1907.

Geology: workings on the outcrop of a north-south trending lode.

Workings: open stopes and shafts are evident in thick woodland between SH80575742 and SH80655701; it is possible that there are deeper drainage adits at SH80615729 and SH81505690.

Processing: hand-dressing only is recorded, at a site now covered in dense woodland.

Power: apparently unmechanised.

Transport: no evidence.

Ancillary: the foundations of a stone building are visible at SH80655701; otherwise there is no evidence.

Domestic: no evidence.

Management

Further evaluation of the site to assess the potential for pre-Modern working.

Bibliography

Desc. text GAT

Bennett J, Vernon R 1992 *Mines of the Gwydyr Forest part 4* p 106

List GAT

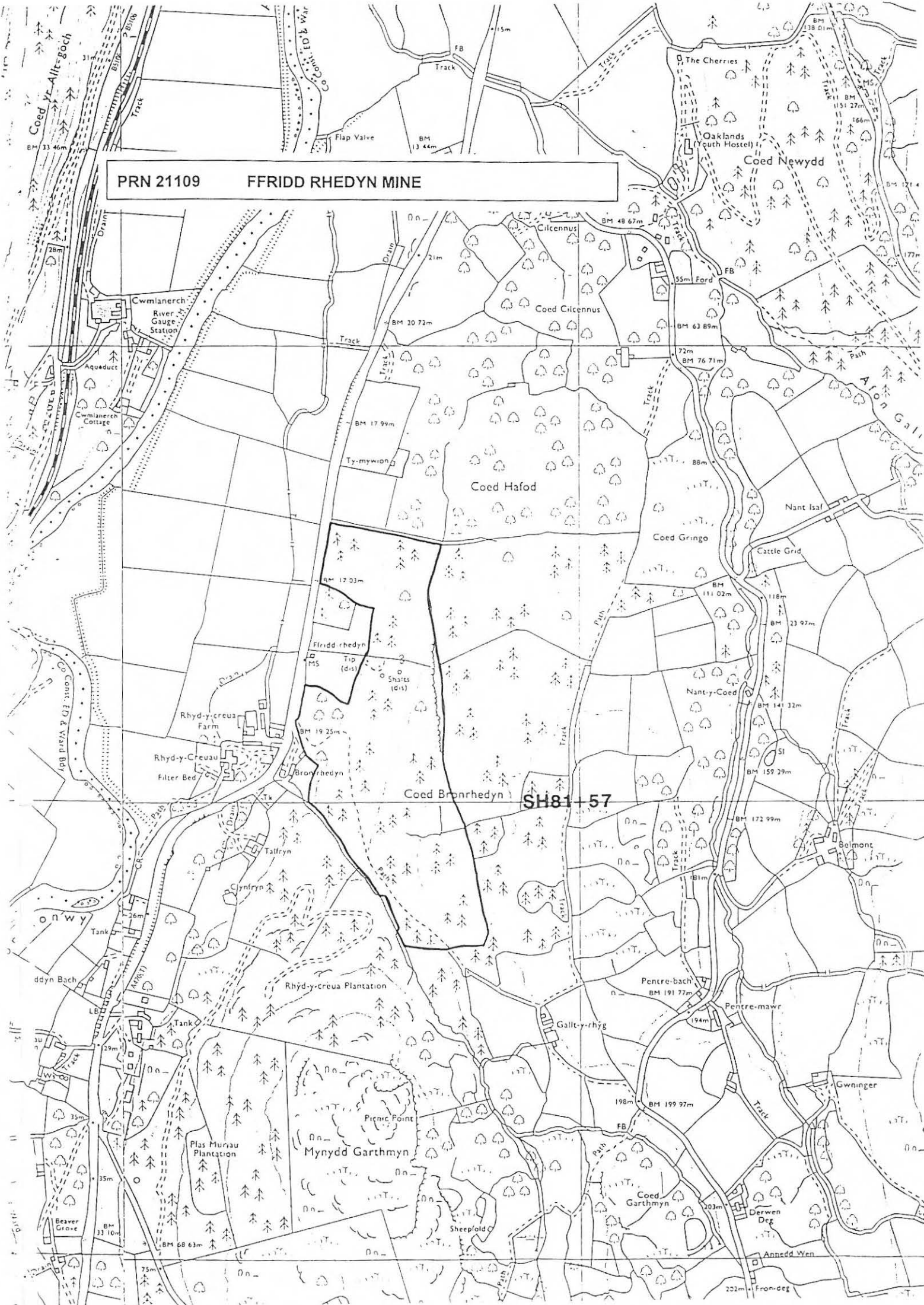
ab Owain S, Crew P *SNP Industrial Record* pp 22-25

Reference GAT

Gwyn DRh 1996 Early Mineral assaying in Dyffryn Conwy *Industrial Gwynedd*

PRN 21109

FFRIDD RHEDYN MINE



21116	COED CILCENNUS MINE	Category D	NGR SH809-582-
County	ABERCONWY	OS Map No. SH85NW	County Map No.
Site type	LEAD MINE	Period	POST MEDIEVAL
Threat	AGRICULTURAL RE-USE	Land use	DECIDUOUS WOODLAND
		Site status	NPS

Site description

General: a tiny site in the Conwy valley, which has been identified as the possible location of Sir John Wynn's first extraction of saleable ores in the early seventeenth century. A Roman palstave was discovered when a level was being driven in 1822.

Geology: worked a lode tending north-west to south-east.

History: possibly at work in the seventeenth century, certainly in 1822, and again in 1913-1922.

Workings: two adits and stoping were noted on an axis from SH80875826 to SH80935816. Water emerges from the lower adit.

Processing: a buddle was installed in 1822, of which no trace was observed.

Power: no evidence.

Transport: no evidence.

Ancillary: no evidence.

Domestic: no evidence.

Management

Further evaluation of the site to assess the potential for pre-Modern working.

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Desc. text

Bennett J, Vernon R 1992 *Mines of the Gwydyr Forest part 4* pp 102-106

List GAT

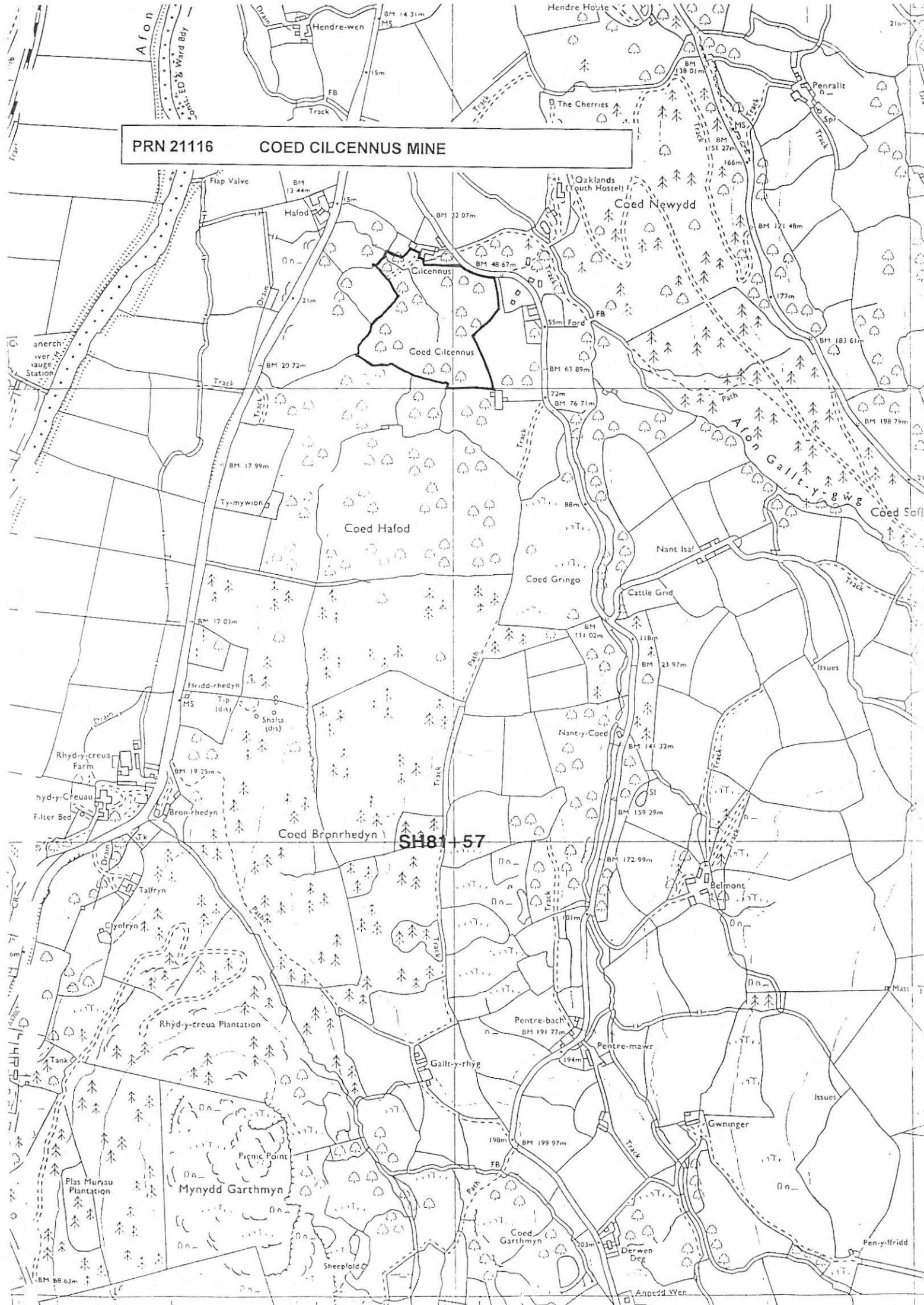
ab Owain S, Crew P *SNP Industrial Record* no 852708

Reference GAT

Gwyn DRh 1996 Early Mineral Assaying in Dyffryn Conwy *Industrial Gwynedd* pp 22-25

PRN 21116

COED CILCENNUS MINE



21541	BRYN CENHADON MINE	<i>Category</i> D	<i>NGR</i> SH76596177
<i>County</i>	ABERCONWY	<i>OS Map No.</i> SH76SE	<i>County Map No.</i> CXVIII 4
<i>Site type</i>	LEAD MINE	<i>Period</i>	POST MEDIEVAL
<i>Threat</i>	FOOTPATH	<i>Land use</i>	ROUGH PASTURE
			<i>Site status</i>

Site description

General: small-scale linear workings in the defile of the Afon Geirionydd in the Gwydir area, possibly typical of late-eighteenth century practice.

Geology: worked a narrow vein of galena.

History: possibly worked in the eighteenth century, certainly by 1820 and operated fitfully until 1878/9.

Workings: a series of shafts and stoped levels along the Geirionydd Gorge between SH76566173 and SH76516196.

Processing: no evidence.

Power: unmechanised.

Transport: accessed by a pathway possibly suitable for pack animals.

Ancillary: some heavily dilapidated structures survive on site, including a store and a store-smithy.

Management

Photographic record; monitoring for disturbance.

Bibliography

Desc. text GAT

Bennett J, Vernon R 1995 *Mines of the gwydyr Forest part 6* p 27

PRN 21541

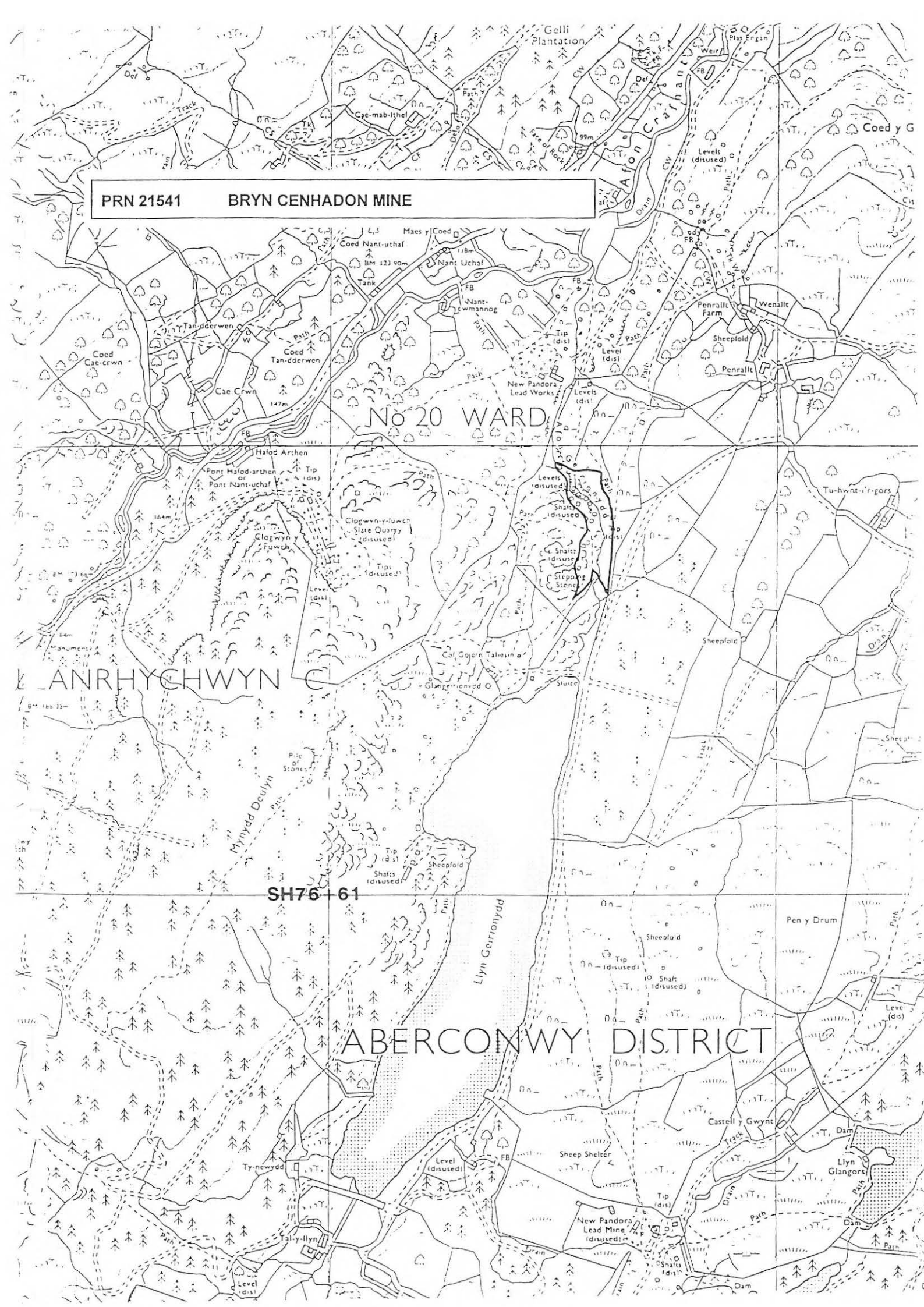
BRYN CENHADON MINE

No 20 WARD

ANRHYCHWYN C

SH76+61

ABERCONWY DISTRICT



21546	BWLCH Y GROES MINE	Category D	NGR SH76405970
County	ABERCONWY	OS Map No. SH75NE	County Map No. CXVIII 8
Site type	LEAD MINE	Period	POST MEDIEVAL
Threat	PUBLIC ACCESS	Land use	ROUGH GRAZING
			Site status

Site description

General: a small site in the Gwydir minnig area, adjacent to the Pandora Mine, which nevertheless preserves some hand-dressing areas and workings on the back of the vein.

Geology: worked the Gorlan lode, which tends east to west.

History: also known as Goddard's; one of the Ffridd Tallyllyn group, it was worked from 1876 to the 1880s, and possibly earlier.

Workings: underground, accessed by shafts, along a line from SH76225975 to SH76405971. These appear to be shallow workings along the back of the vein, and the site is in this respect reminiscent of much earlier working. There is an adit, known as the Loveridge level, at SH76345980, which appears to be open, and from which, unusually for Gwydir, a finger-tip extends.

Processing: there are a number of hand-processing shelters immediately adjacent to the workings.

Power: a water-wheel pumped the mine briefly, though there is now no evidence for its position.

Transport: the finger-tip suggests the use of railways.

Ancillary: no evidence.

Domestic: no evidence.

Management

Photographic record.

Bibliography

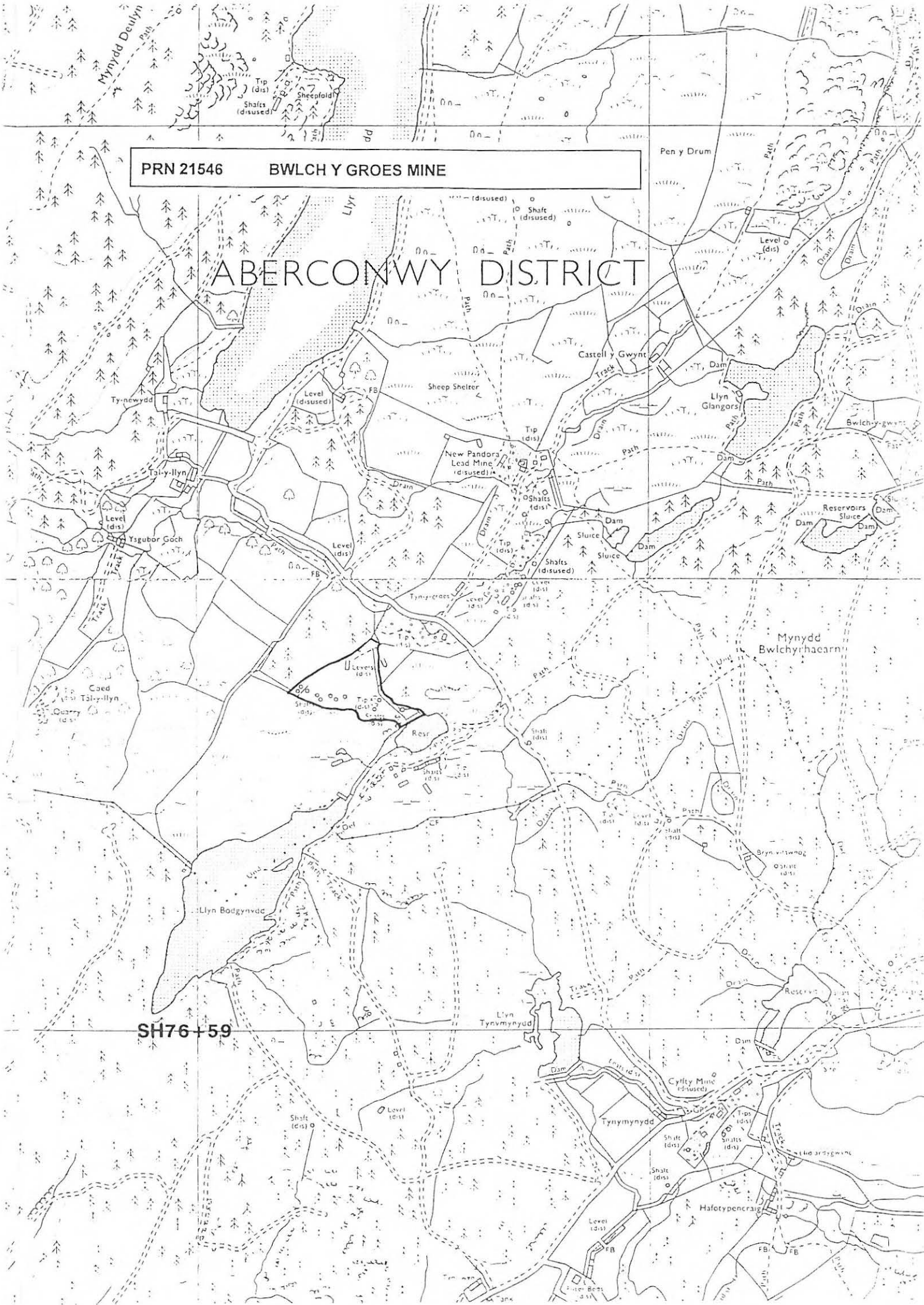
Desc. text GAT

Bennett J, Vernon R 1995 *Mines of the Gwydyr Forest part 6* p 37

PRN 21546

BWLCH Y GROES MINE

ABERCONWY DISTRICT



21565	CLEMENTINA MINE	Category D	NGR SH78706160
County	ABERCONWY	OS Map No. SH67SE	County Map No. CXIX 1
Site type	LEAD MINE	Period	POST MEDIEVAL
Threat	FORESTRY, COLLAPSE	Land use	FORESTRY
		Site status	

Site description

General: a Gwydir site which has been much damaged in recent years and is in process of being fenced off by Menter Coedwigaeth.

Geology: worked a lead vein.

History: in the Gwydir mining area; also known as Ty'n Twll, and referred to as such in 1763. Developed between 1853 and 1862, and as the Clementina mine from 1876 to 1881.

Workings: accessed by levels and shafts. A series of shafts on an axis SH78576158 to SH78576166 is still largely open, but the area is in process of being fenced off.

Processing: a crusher was installed in the Clementina period; the crusher house survives at SH78636166, roofless and extremely dilapidated, in danger of collapse.

Power: a water-wheel was installed at SH78726165 in the period 1853-1862, and a 60' water-wheel installed in a stope at SH78686168 in the Clementina period. It pumped shafts at SH78576166 and SH78726168 by means of flatrods. The flatrod channel is apparent in places and the upper balance-bob pit is evident. The remains of a wheelpit are evident alongside the crusher-house.

The stone walls for a dam are evident at SH78586157.

Transport: a water-balance may have been used for uphaulage.

Ancillary: a combined office and smithy survives as the lower courses only at SH78636162. The dry at SH78636161 is no longer visible.

Domestic: no evidence.

Management

Photographic record; measured survey of the crusher house and its associated wheelpit. Management of the woodlands should be undertaken in such a way as not to cause further damage to these structures.

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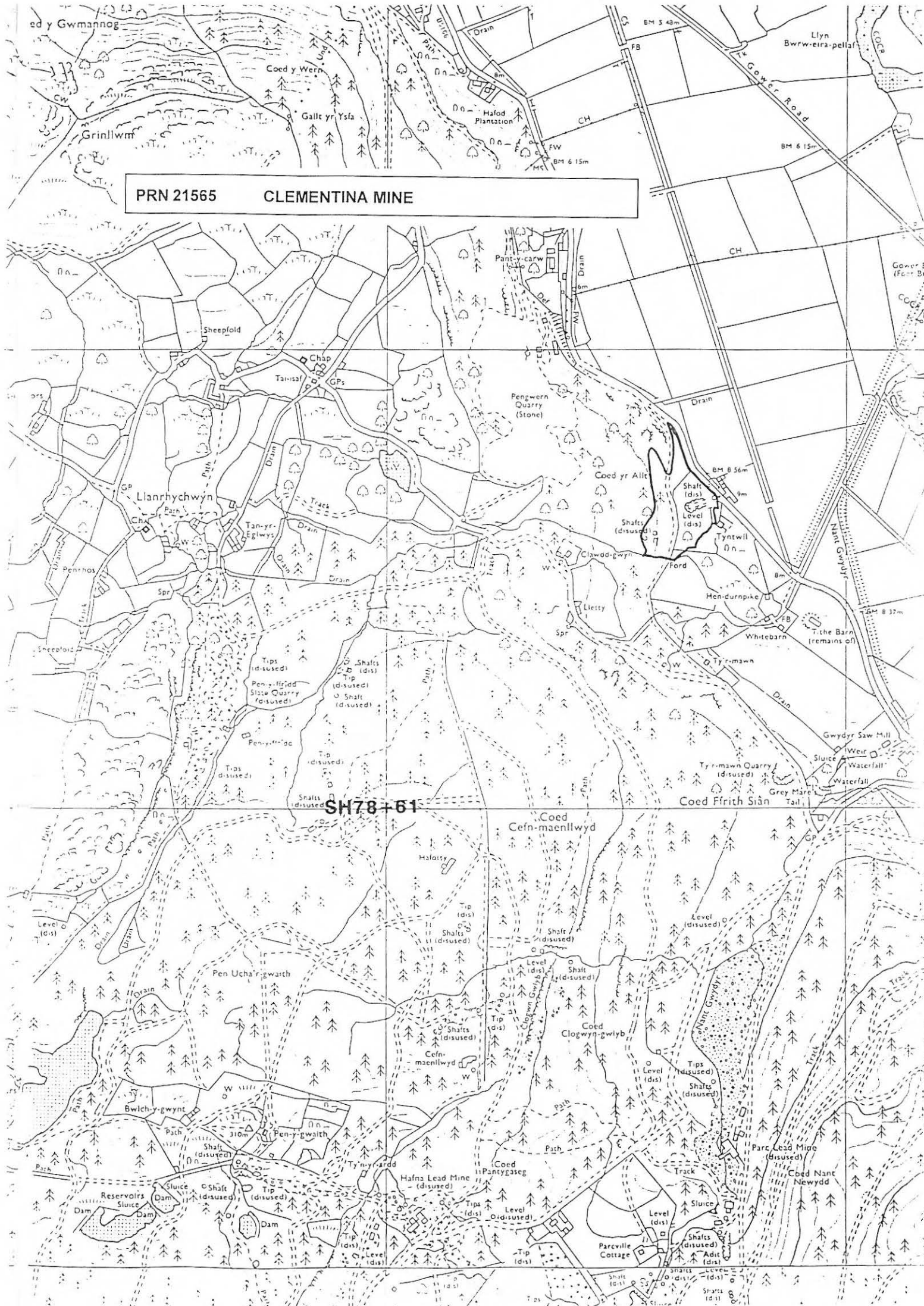
Desc. text GAT

Bennett J, Vernon R 1991 *Mines of the Gwydyr Forest part 3* p 47

Plan CRO

1885 9

CLEMENTINA MINE



21601	GAMFA FAWR MINE		Category D	NGR SH78705940
County	ABERCONWY	OS Map No.	SH75NE	County Map No. CXIX 9
Site type	LEAD MINE		Period	POST MEDIEVAL
Threat	FORESTRY	Land use	FORESTRY	Site status

Site description

General: a small site in the Gwydir mining area, threatened by forestry and by bulldozing, which has already obliterated a number of features, but which contains some hand-dressing areas.

Geology: worked the Fuchslas lode.

History: possibly worked in the seventeenth century, but first mentioned in records in 1831. In the 1860s a short-lived effort was made to develop it.

Workings: accessed by shaft, and stoped to the surface. These have now been obscured by forestry.

Processing: there are two points at which there is evidence of hand-dressing. One is at SH78705949, a quarter-circular stone wall, 1m high, at one end of which a bucking stone is visible. At one side of the stone is uncrushed ore, at the other side fines. The other is a rock outcrop at SH78715961, on one side of which fines are apparent, on the other uncrushed ore. The probability is that this was used as a bucking surface. The trunk buddle noted by John Bennett and Robert Vernon is no longer apparent, and may have been buried.

Power: unmechanised.

Transport: no evidence.

Ancillary: no evidence.

Management

Future tree planting, felling and thinning should avoid disturbance to the surviving features of this mine, in particular the hand-dressing areas.

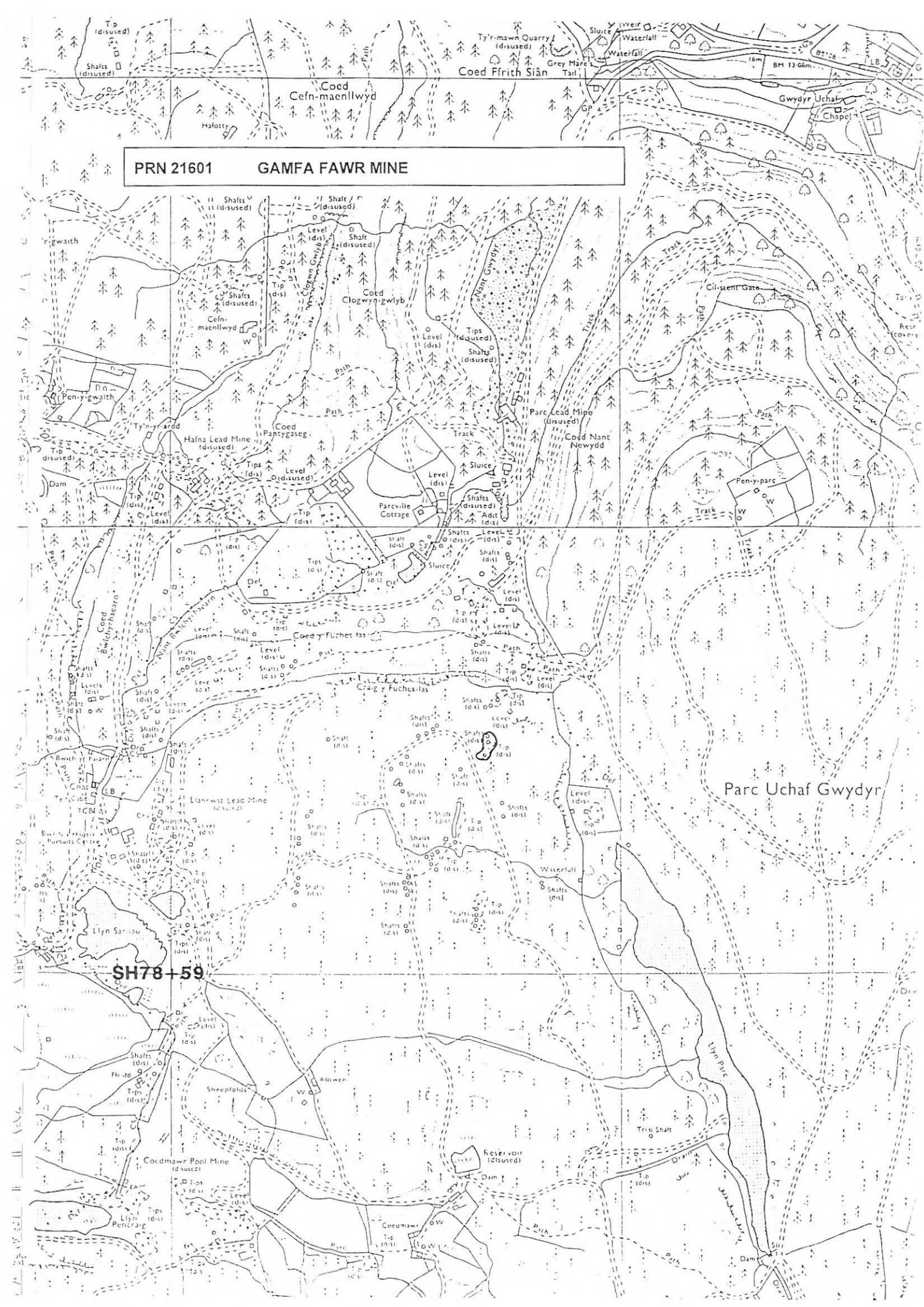
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Desc. text GAT

Bennett J, Vernon R 1991 *Mines of the Gwydyr Forest part 3* p 22

PRN 21601

GAMFA FAWR MINE



21649	GILFIN DDU MINE		Category D	NGR SH76206110
County	ABERCONWY	OS Map No. SH76SE		County Map No. CXVIII 8
Site type	LEAD MINE		Period	POST MEDIEVAL
Threat	FORESTRY	Land use	FORESTRY	Site status

Site description

General: in the Gwydir mining area, located on the western bank of Llyn Geirionydd.

Geology: the mine worked a north-north-east to south-south-west trending lode.

History: also known as Mynydd Daulyn; worked 1752-8 and 1838-1857.

Workings: a series of levels enter the slope of the mountain, with an extensive downslope fan of waste. The area around the mine is now forested.

Processing: no evidence.

Power: the site remained unmechanised.

Transport: a pathway round the lake leads to Glan Geirionydd (SH76436150).

Ancillary: a roofless and dilapidated three-bay structure survives at SH76196115.

Domestic: no evidence.

Management

Management of the woodlands should be undertaken in such a way as to damage the surviving features of this site as little as possible.

Bibliography

Desc. text GAT

Bennett J, Vernon R 1995 *Mines of the Gwydyr Forest Part 7* p 27

PRN 21649

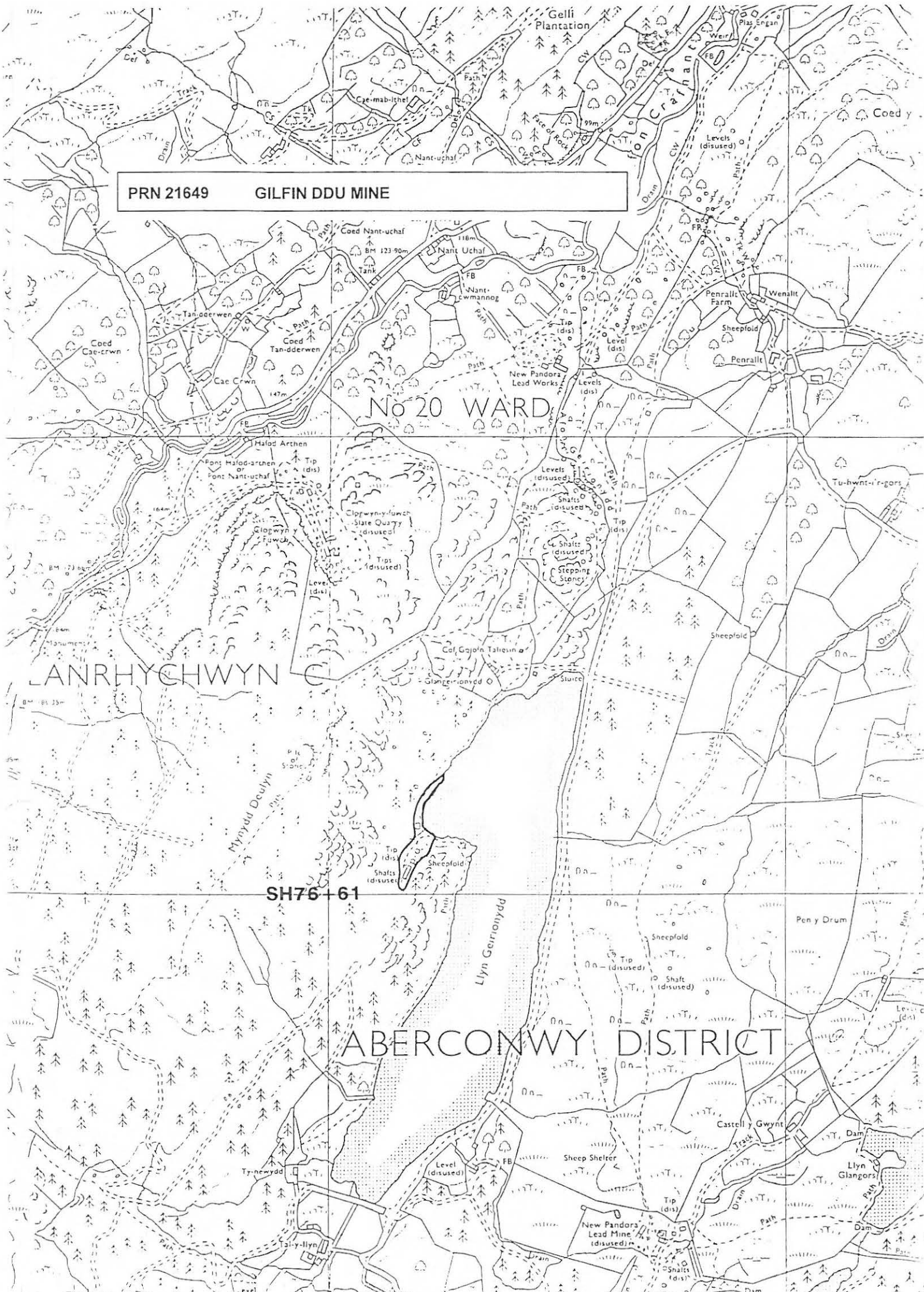
GILFIN DDU MINE

No 20 WARD

LANRHYCHWYN

SH76+61

ABERCONWY DISTRICT



21664	PANT YR EWIG MINE		Category D	NGR SH78106050
County	ABERCONWY	OS Map No. SH76SE		County Map No. CXIX 5
Site type	LEAD MINE		Period	POST MEDIEVAL
Threat	FORESTRY	Land use FORESTRY		Site status

Site description

General: one of the smaller sites in the Gwydir mining area, recently fenced off by Menter Coedwigaeth and inaccessible.

Geology: worked a lead vein trending east to west.

History: worked pre-1838 and last exploited in 1871.

Workings: accessed by adits and shafts.

Processing: hand-dressing points are recorded, and appear to be threatened by the growth of trees.

Power: unmechanised

Transport: no evidence.

Ancillary: no evidence

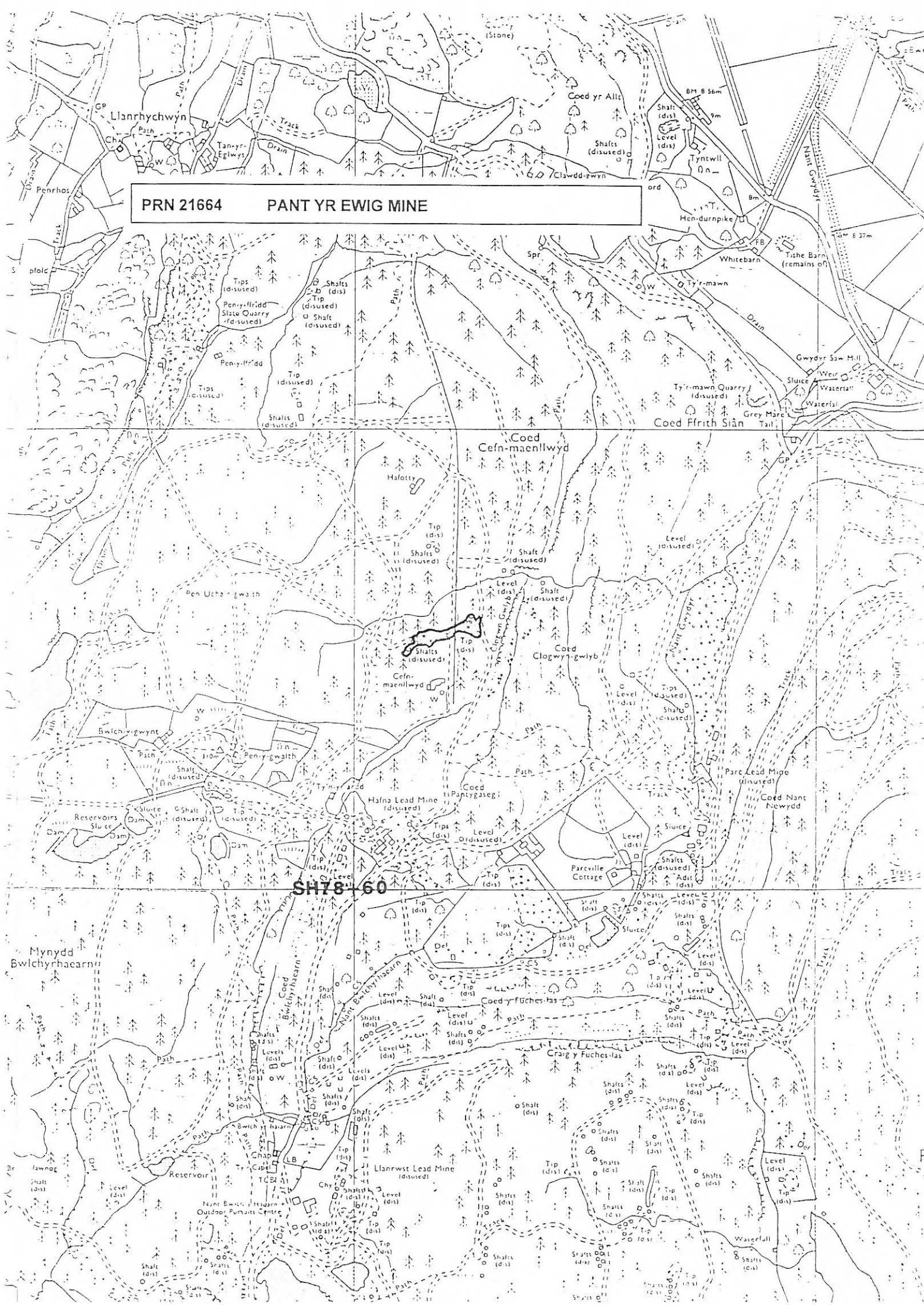
Management

Management of the woodlands should be undertaken in such a way as to damage the surviving features of this site as little as possible.

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Desc. text GAT

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PRN 21664 PANT YR EWIG MINE

SH78-60

21674	PENYRALLT MINE		Category D	NGR SH78705750
County	ABERCONWY	OS Map No. SH75NE		County Map No. CXIX 13
Site type	LEAD MINE		Period	POST MEDIEVAL
Threat	FORESTRY	Land use	FORESTRY	Site status

Site description

General: a small sett in the Gwydir mining area with an interesting hand-dressing area.

Geology: worked a north to south-tending lead lode.

History: already active by 1838, and developed as the Willoughby Lead Mining Company, later the South D'Eresby Mountain Lead Mining Company, and worked until 1898.

Workings: the No 1 adit is situated at SH78895766; further adits were noted at SH78965765 and SH79245764, and stoping between SH78945791 and SH78985768. A pump shaft remains open at SH78945781, with a machine base at the collar.

Processing: a number of hand-dressing sites were observed, including a bucking-stone at SH78865792, with an associated dry-stone wall and the possible remains of a roofed shelter. At SH78895765 the base of a platform was noted in boggy ground at the foot of a slope.

Power: a water-wheelpit was constructed in 1881 at SH78765752, which lines up with the engine shaft, but there is no evidence of flatrods having been installed nor even of a wheel being put in. A low dam is apparent at SH78855799.

Transport: a roadway leads past the site.

Ancillary: no evidence.

Domestic: Pen yr Allt Cottage remains in occupation at SH78985769.

Management

Future tree planting, felling and thinning should avoid disturbance to the surviving features of this mine.

Bibliography

Desc. text GAT

Bennett J, Vernon R 1992 *Mines of the Gwydyr Forest part 4* passim

PRN 21674

PENYRALLT MINE

SH78+57

Betws-y-Coed

BETWS-Y-COED C

21699	WHEAL GEORGE MINE		Category D	NGR SH78305850
County	ABERCONWY	OS Map No. SH75NE		County Map No. CXIX 9
Site type	LEAD MINE		Period	POST MEDIEVAL
Threat	AGRICULTURAL RE-USE	Land use	AGRICULTURAL	Site status

Site description

General: a small site in the Gwydir mining area, which nevertheless contains the remains of unusual kilns.

Geology: this site worked a shale which contained an unusually large amount of carbon.

History: promoted as the Wheal George Mine, a fraudulent speculation, in 1881.

Workings: accessed by an adit, no longer apparent, situated at SH78455850. There are also traces of lead workings on the Roman lode at SH78455835.

Processing: what may be settling pits and kilns were constructed in 1881, and graphite mill and a disintegrator were offered for sale in 1884. A building survives at SH78635848, stone-built and with a corrugated-iron roof, with a possible flue leading from it to the base of a chimney to the east. Foundations to the north of the flue, measuring 21m east to west, 17m north to south, may be the remains of settling pits or of a much larger structure.

Power: a steam engine was used on site, and it is possible that the building at SH78635848 was where it was situated. A substantial dam, stone-built, buttressed on the downslope side, survives at SH75675855. It has been reduced in height.

Transport: the trace of a contour tramway is visible above the road.

Ancillary: no evidence. Some buildings in agricultural use may have formed part of the mine, but their purpose is uncertain - possibly as offices or stores. They are situated at SH78625850. These are stone-built and roofed with corrugated iron.

Domestic: no evidence.

Management

Photographic record; measured survey of the putative kiln buildings.

Bibliography

Desc. text GAT

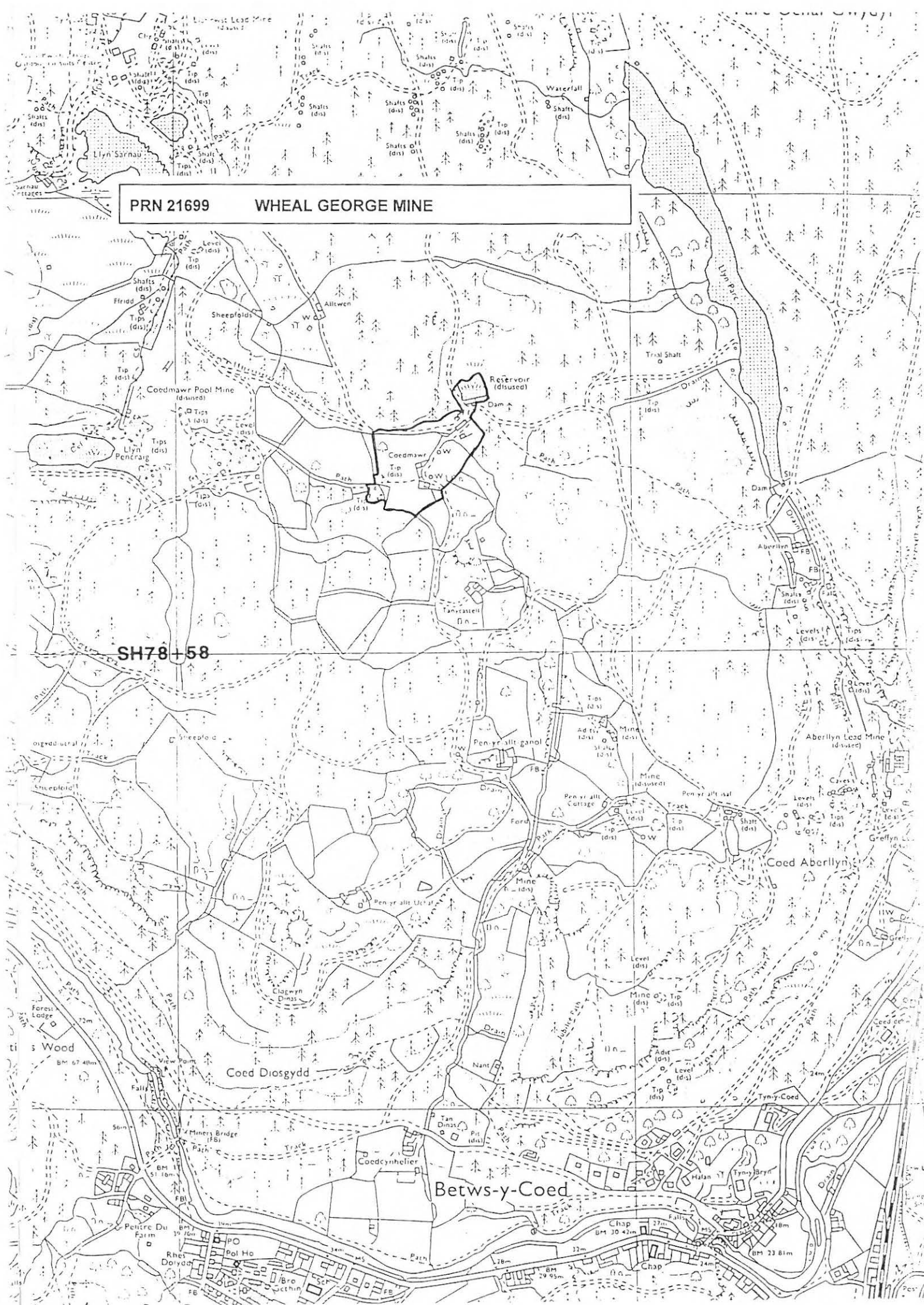
Bennett J, Vernon R 1992 *Mines of the Gwydyr Forest part 4* p 33-49

PRN 21699

WHEAL GEORGE MINE

SH78+58

Betws-y-Coed



20691	FFRIDD SIAN MINE		Category E	NGR SH787-608-
County	ABERCONWY	OS Map No. SH76SE		County Map No. CXIX 5
Site type	LEAD MINE		Period	POST MEDIEVAL
Threat	FORESTRY	Land use FORESTRY		Site status NPS

Site description

General: situated in the Gwydir mining area which has been completely obscured by forestry. It is associated with Rhaiadyrwst Mine (PRN: 21681).

Geology: the principal lode tends east to west and carries galena with some blende and pyrites in sediments and felspathic ashes of Bala age.

History: worked from 1841 to 1855.

Working: accessed by adit.

Processing: a mill is recorded.

Power: no evidence.

Transport: a tramway, ore chute and incline are noted.

Ancillary: no evidence.

Domestic: no evidence.

Management

Photographic record.

Bibliography

Desc. text GAT

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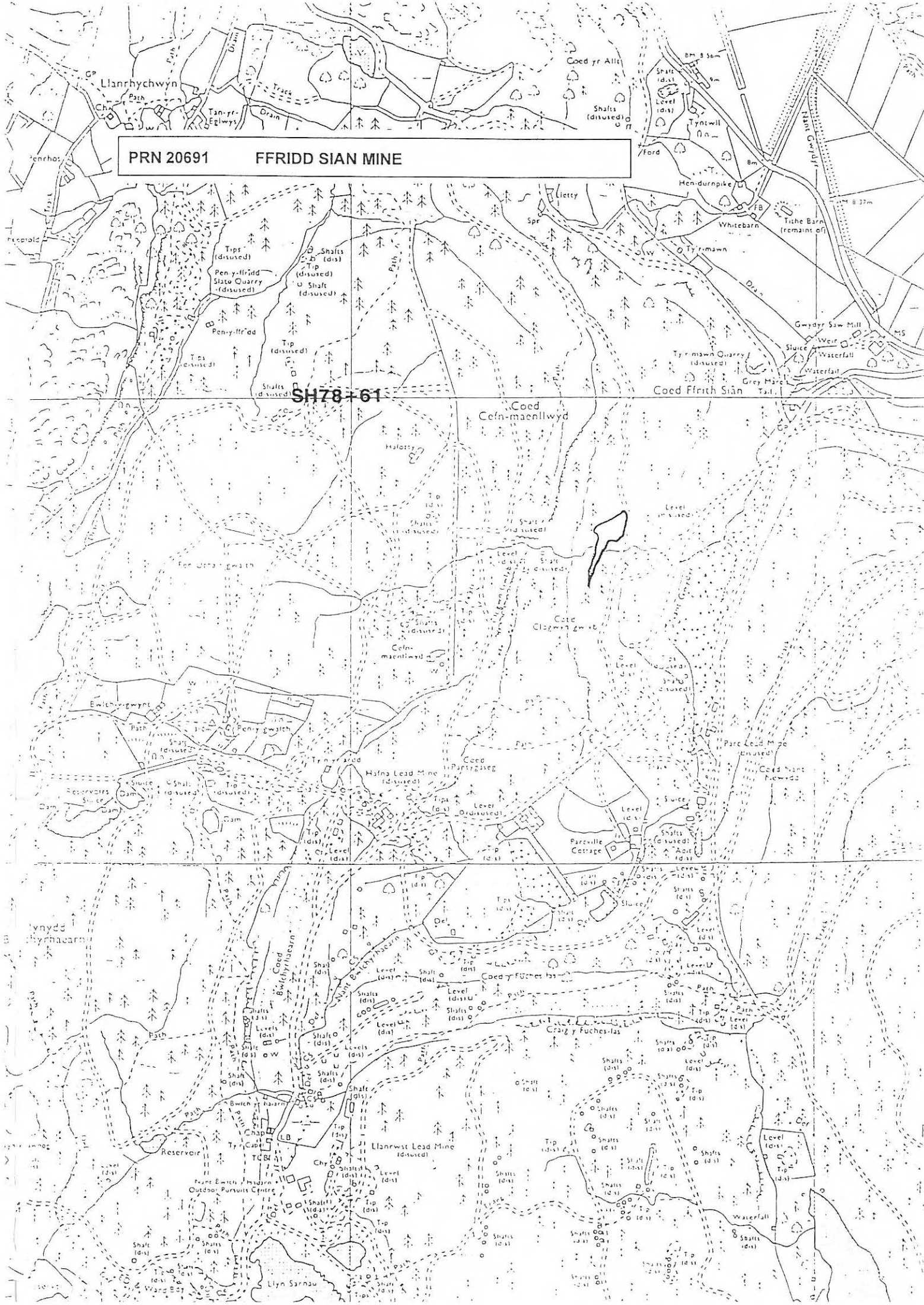
List GAT

ab Owain S, Crew P *SNP Industrial Record* no 763705

PRN 20691

FFRIDD SIÂN MINE

SH78+61



21499	TYDDYN WILYM MINE		Category E	NGR SH76056584
County	ABERCONWY	OS Map No.		County Map No. CXIII 12
Site type	SULPHUR MINE		Period	POST MEDIEVAL
Threat	WOODLAND	Land use	WOODLAND	Site status

Site description

General: a tiny trial in the Conwy valley, largely hidden by deciduous woodland.

Workings: underground, accessed by adit, which has now collapsed.

Processing: no evidence

Power: unmechanised.

Management

Photographic record.

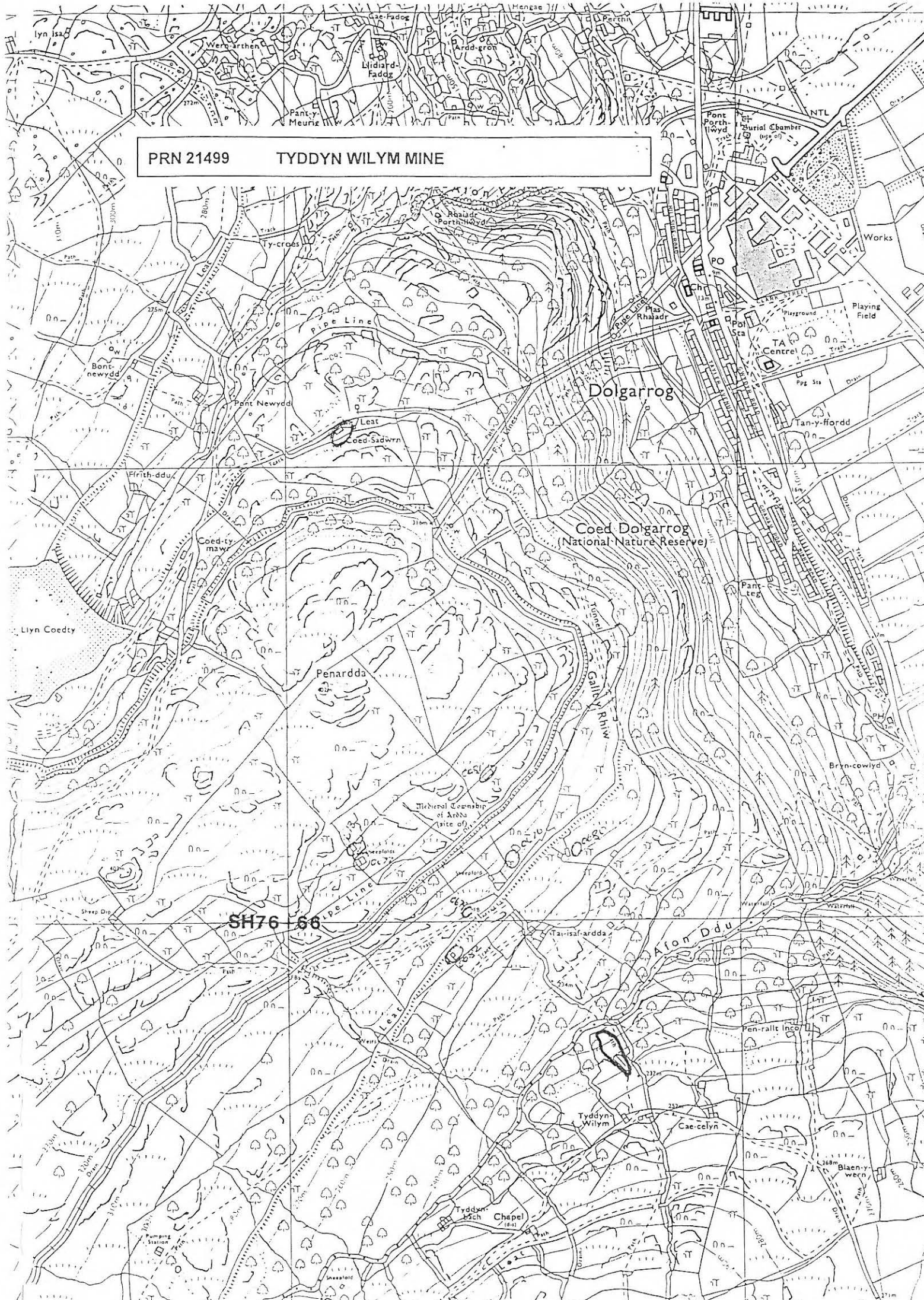
Bibliography

Desc. text

Bennett J, Vernon R 1997 *Mines of the Gwydyr Forest* p 12

PRN 21499

TYDDYN WILYM MINE



SH76 66

21525	ALLT WEN MINE		Category E	NGR SH78205920
County	ABERCONWY	OS Map No. SH75NE		County Map No. CXIX 9
Site type	LEAD MINE		Period POST MEDIEVAL	
Threat	FORESTRY, FOOTPATH	Land use FORESTRY, VANDALISM		Site status

Site description

General: one of the smaller Gwydir mines, situated near to the Llyn Sarnau car-park.

History: also known as Carnarvon Great Consols, Nant Bwlch yr Haiarn Mine, Ralltwen Mine and White Cliff Mine. At work from the 1820s to 1877.

Workings: accessed by a brick-lined adit at SH78035911.

Processing: a dressing floor with buddle pit is evident by the mouth of the adit.

Power: no evidence. A reservoir is noted on site in 1875.

Transport: no evidence; the road from Ty Hyll to Gwydir Castle passes near the site.

Ancillary: what may have been a magazine and store were noted on the site in 1875.

Management

Photographic record.

Bibliography

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 Desc. text GAT
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SH78+59

21681	RHAIADRWST MINE		Category	E	NGR	SH78406070
	County	ABERCONWY	OS Map No.	SH76SE	County Map No.	CXIX 5
	Site type	LEAD MINE		Period	POST MEDIEVAL	
	Threat	FORESTRY	Land use	FORESTRY	Site status	

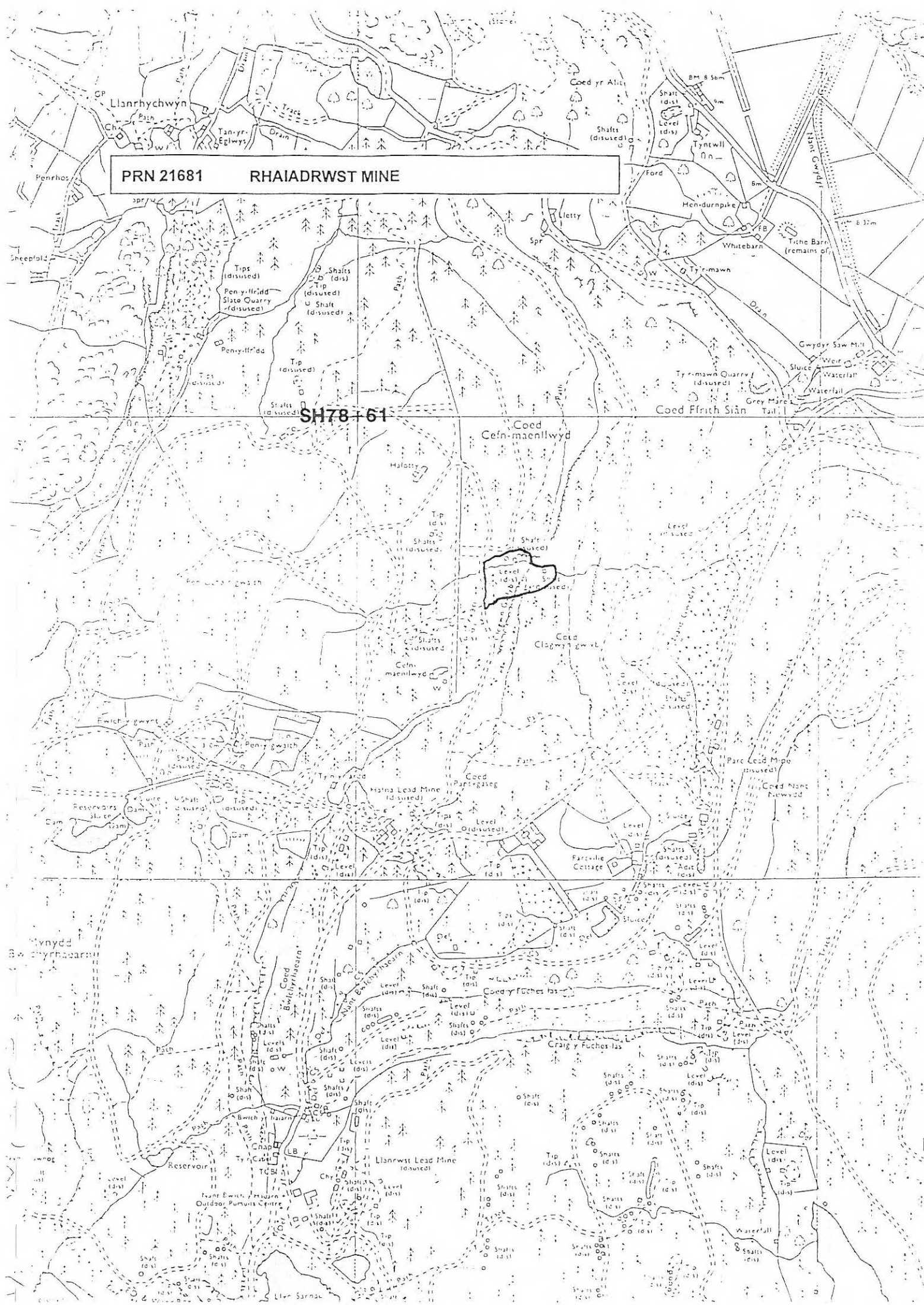
Site description

General: one of the Gwydir lead mines, associated with Fridd Sian Mine and Clogwyn Gwlyb Mine (PRN: 20691 and PRN: 21568)) and completely oblit

PRN 21681

RHAIADRWST MINE

SH78+61



3396	CWM ERCH MINE	Category A	NGR SH63405305
County	GWYNEDD	OS Map No. SH65SW	County Map No. CXXII 11
Site type	COPPER MINE	Period	POST MEDIEVAL
Threat	COLLAPSE	Land use	ROUGH GRAZING
		Site status	SAM/NCC

Site description

General: an outstanding example of a small and remote copper mine, situated on the southern slopes of Snowdon. Some machinery survives on site. Parts of the site, including the crusher houses, constitute a Scheduled Ancient Monument. Clearance and survey were carried out by the Snowdonia National Park in the 1980s.

Geology: a vein striking north-west in volcanic rocks of Ordovician age.

History: also known as Cwm Merch, Lliwedd, Llywydd and Llwyd. This site is said to have been worked in the seventeenth century, and was certainly in production in 1821, closing c. 1867.

Workings: underground, accessed by adits; extensive stoping is visible.

Processing: the remains of a crusher survive on site at SH63405301; a lower crusher was constructed at SH63425300 but apparently never used. Stamp-heads and rolls survive on site; it has been suggested that a multi-roller mill was installed, rare in Wales (Bick, 1988). Between the two mills is a hand-dressing floor with traces of a chute-head to the lower crusher.

Power: both the crushers have water-wheel pits. The shrouds of an iron water-wheel constructed by the Hawarden ironworks survive in the upper crusher, as do parts of a flywheel.

Transport: lengths of T-section rail survive in the main adit, which opens out onto a levelled area, where the stone-work for an ore-chute to the crusher survives in good condition; a road suitable for sledges or possibly wheeled carts survives from the mine to Hafod y Llan.

Ancillary: an office and a smithy are recorded; these probably correspond to ruined structures at SH63325304 and SH63295302.

Domestic: a barrack building survives at SH63305307; this is a three-room structure accessed by a central doorway with hearths in the gable walls.

Management

It is recommended that a measured survey be carried out of the domestic structure on this site.

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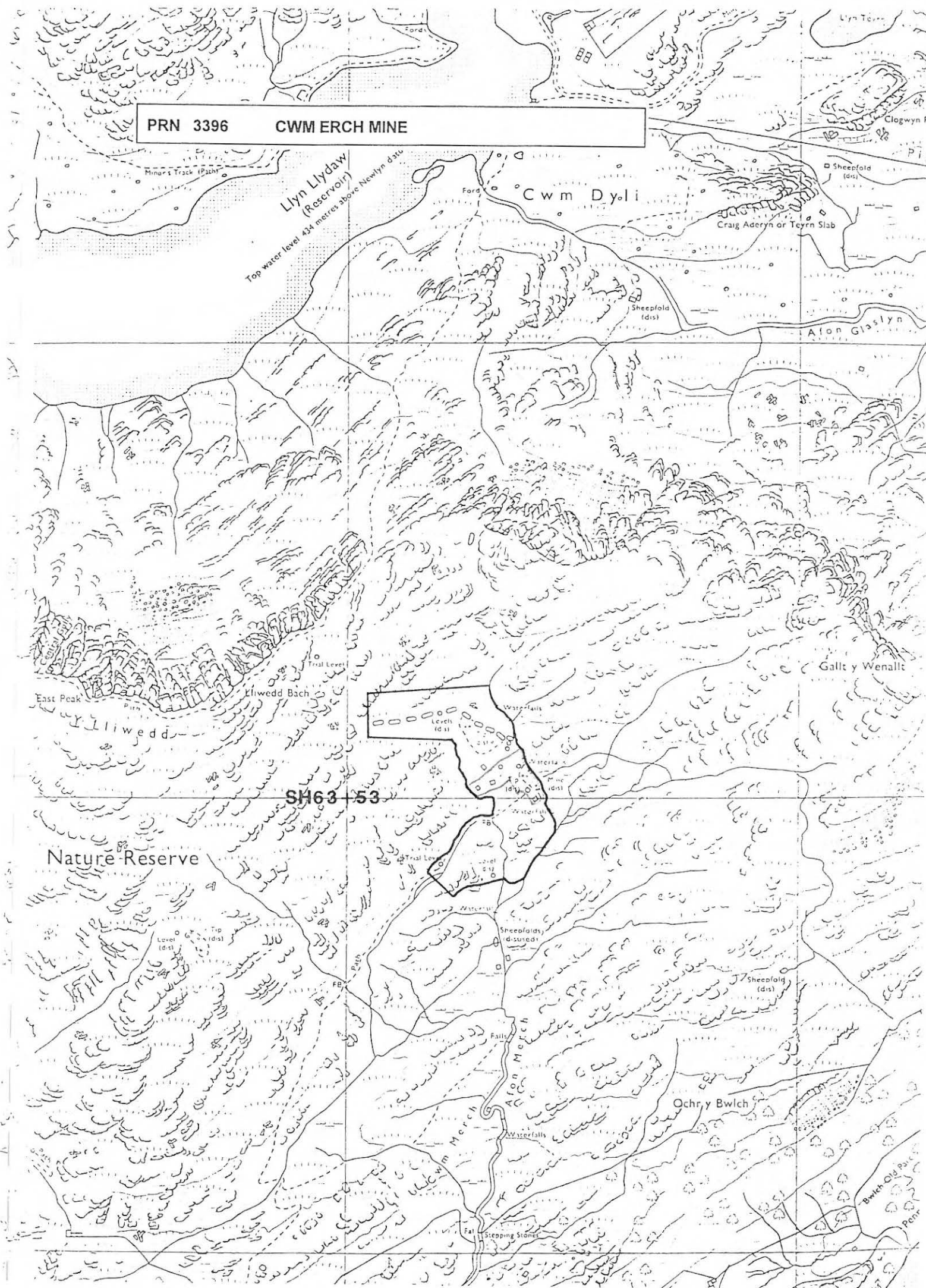
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PRN 3396

CWM ERCH MINE



3792	CWM BYCHAN MINE		Category A	NGR	SH60304760C
County	GWYNEDD	OS Map No.	SH64NW	County Map No.	CXXVIII 5
Site type	COPPER MINE			Period	POST MEDIEVAL
Threat	COLLAPSE, FOOTPATH	Land use	GRAZING	Site status	NT

Site description

General: situated near Beddgelert; a curious site, in which most of the features are typical of a barely-capitalised early nineteenth century operation but which contains partly intact an outstanding example of a 1920s ropeway system for transporting the ore. Consolidation work was carried out on the ropeway by the Snowdonia National Park on behalf of the National Trust in the 1980s.

Geology: a series of linked veins striking north-north-east in slates, grits and volcanic rocks of Ordovician age.

History: also known as Nantmor or Nanmor; at work by 1720. In 1925 the Nantmor Copper Co. Ltd was formed to work the mine, going into liquidation in 1929.

Workings: the main adit is situated at SH60334757, at the mouth of which is a hand-dressing shed, and extensive tips, supported by retaining walls. Other adits are situated at SH60254729, SH60494766 and SH60454770. An attempt has been made to make them difficult to enter by piling rocks against them, but none appears to be blocked. The site has the appearance of a late eighteenth or early nineteenth century unmechanised working to which a modern transport system gave access but where no other attempt has been made to modernise the site.

Processing: a concentration plant was erected near the lower terminus of the ropeway. Two circular buddle pits are evident, as are two rectangular depressions, and concrete tanks and bases. One of these appears to have been an engine mounting for the buddles.

Power: machine bases at the lower processing point appear to have supported electrical or internal combustion prime movers.

Transport: an aerial ropeway was installed in the 1920s. Parts of the lower mechanism survive and have been conserved, including an iron pulley on a vertical support. A short embankment built towards the river immediately to the south of this feature may have carried rails for the tensioning bogie.

The lower pylons for the ropeway have all been largely destroyed, though the concrete bases and some other fragments survive. A run of pylons at the top end of the ropeway survives, as does a horizontally mounted return sheave; these are situated between SH610214730 and SH60404757.

Ancillary: a smithy, roofless and dilapidated, was noted at SH60504765.

Domestic: no evidence.

Management

Desk-top work to establish the dates of the features regarded as of outstanding archaeological importance.

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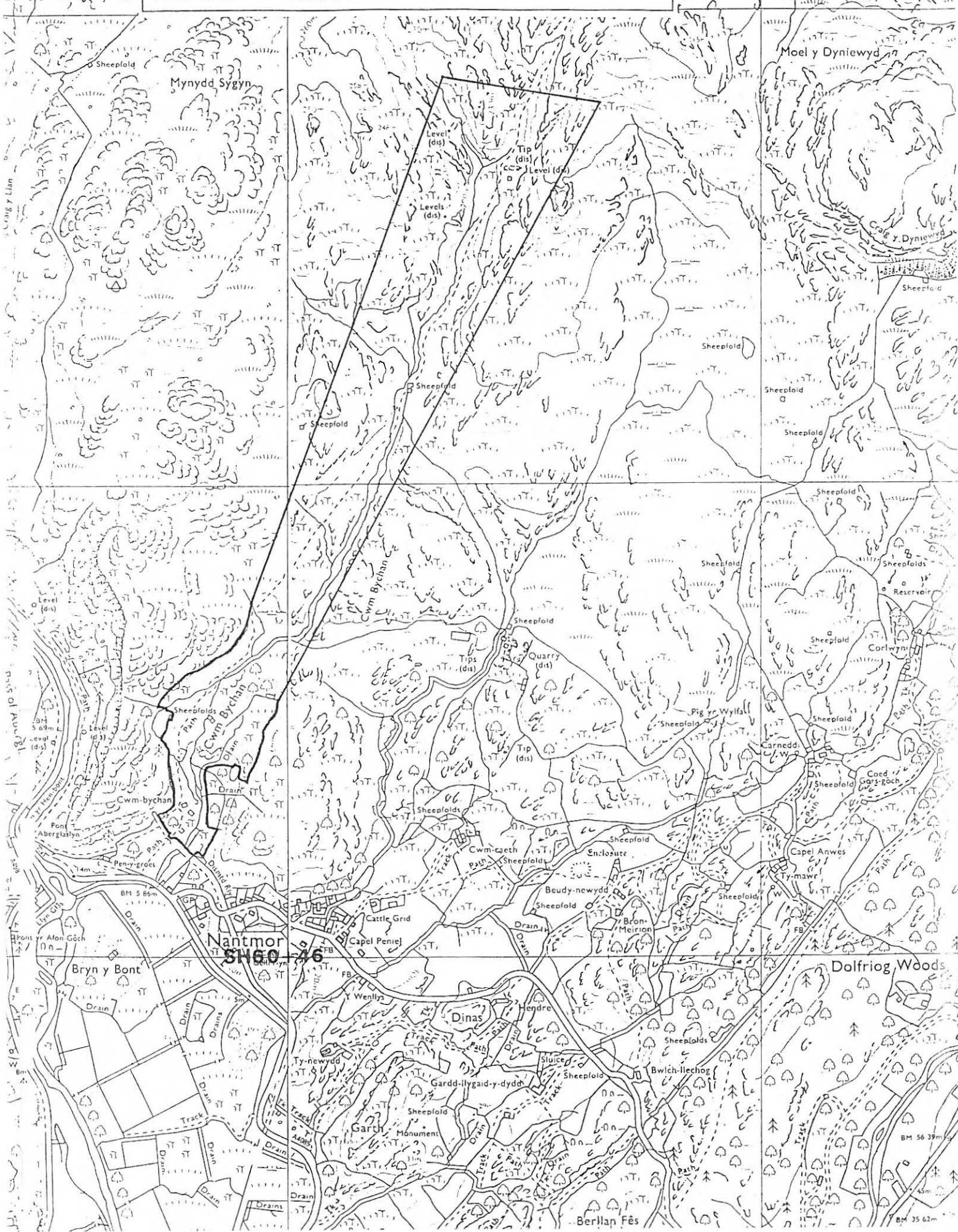
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CWM BYCHAN MINE



20535	DRWS Y COED MINE	Category	A	NGR	SH54605342C
County	GWYNEDD	OS Map No.	SH55SW	County Map No.	CXXI 11
Site type	COPPER MINE	Period	MEDIEVAL		
Threat	AGRICULTURAL RE-USE	Land use	AGRICULTURAL	Site status	SAM

Site description

General: an ancient site occupying the southern side of the narrow pass known as Drws y Coed at the eastern end of the Nantlle valley, and containing an abundance of features from the eighteenth century, possibly earlier, into the early twentieth. It is one of the outstanding mining landscapes of Gwynedd. The mill complex has been scheduled as an Ancient Monument, but its setting has been damaged by the construction of sheep-pens.

Geology: worked a series of east-west running lodes, some of which outcropped on the northern slopes of y Garn.

History: locally Gwaith Pella'; no evidence of Prehistoric working has yet emerged, but has been suggested by several authorities. It is reputed to have been visited by Edward I in 1284, and was extensively developed by 1760, when it belonged to the Vaynol estate, along with Clogwyn Goch and Llanberis. It was operated by a succession of lessees until c. 1911, when a German firm gave up. Processing of ore from Simdde Dylluan mine went on from 1917 to 1920, and operations continued into the 1920s.

Workings: underground, accessed by adits. There is an extensive area of adits on the southern slopes of the valley, centered on SH54405340, which constitutes an outstanding example of a later-eighteenth and early nineteenth century ore-extraction and hand-processing area. An adit remains open immediately to the south-east of the crusher, at SH54435345; the engine shaft at SH54645339 has been blocked. Further workings are evident higher up the hillside at SH54665300 and at SH54705308.

Processing: hand-dressing was extensively employed, and a number of hand-dressing shelters survive, such as at SH54405340. A structure at SH54415345 has been identified as an eighteenth-century stamp mill, and the field in which it stands is said to be known as "Clwt y Stamps". However, it is of unusual construction for a stamp battery. A mill constructed in the latter part of the nineteenth century was situated at SH54635341, and its remains (one gable wall and one longitudinal wall) are included in the scheduled area.

A further mill constructed nearby at SH54645342 in 1901 survives up to a maximum of 6m high, and is built out of rendered stone. Here ore was heated in retorts to remove sulphur and leached with sulphuric acid, copper ore being obtained by electrolytic deposition. A stone breaker, rolls and a Green's jig are recorded in the last phase of working, with a Wilfley table for the fines. This structure also falls into the Scheduled area; however, a substantial modern sheep-pen constructed out of breeze-blocks has been built immediately adjacent to this structure.

Power: an extensive water-power system encompassed Llyn y Dywarchen and a number of reservoirs on site, one at SH54755337C by the side of the road, which still contains water and is held back by a substantial stone dam, another at SH54505347C which is no longer evident, and operated the stamps and pumps by means of waterwheels. A wheelpit is evident near the putative stamp battery, and a water-wheel whose pit survives at SH54975363 pumped and wound a shaft at SH54975359.

A water-wheel contiguous with the nineteenth century mill drove machinery and operated a pump by means of flatrods. The wheel was 40' diameter and its pit partly survives, as does a substantial stone launder-pillar, which appears to have contained a rising main, now leaning over at an angle.

It has been suggested that a turbine powered the 1901 mill, but this seems unlikely, as the course of the pipeline to the mill area discharges into the reservoir by the road.

Transport: there is little evidence of surface railways, though an incline may have been installed at SH54645342, of which no trace remains. The present road from Pen y Groes to Rhyd Ddu passes immediately adjacent to the site, and the older road is believed to have passed further to the north. There are reasons for believing that the mine made use of boat transport across the two Nantlle lakes, and for a while in the nineteenth century the ore was transported on the Nantlle Railway.

Ancillary: a number of buildings at SH54575343, of which only the lowest courses survive, may have been offices.

Domestic: the neighbouring community of Drws y Coed (SH54105345) includes two rows of two-room dwellings, of which some remain inhabited but are mostly roofless and dilapidated. These constitute an outstanding example of an early nineteenth century mining community's buildings surviving largely undisturbed. Nearby are the foundations of

other buildings and some larger dwellings, still inhabited, one of which has been unsympathetically renovated. On the north side of the road is a chapel, built in 1896, with contiguous caretaker's house, both still in use, and a two-storey dwelling, possibly a manse or a manager's house.

The remains of the old Independent chapel, damaged by an rock-fall in 1892, survive at SH54645337. This may have been at one time the mine office. The Independent cause was established here in 1836, and it is possible that it was used for worship from that date.

Two semi-detached two-storey houses survive as farm outbuildings at SH54685348, and a long shed at SH54595354 may once have been miners' dwellings. There are also two single-storey dwellings, still inhabited, at SH54555356.

Management

Desk-top work to establish the dates of the features regarded as of outstanding archaeological importance.

Measured survey of selected examples of the buildings which constitute the village of Drws y Coed.

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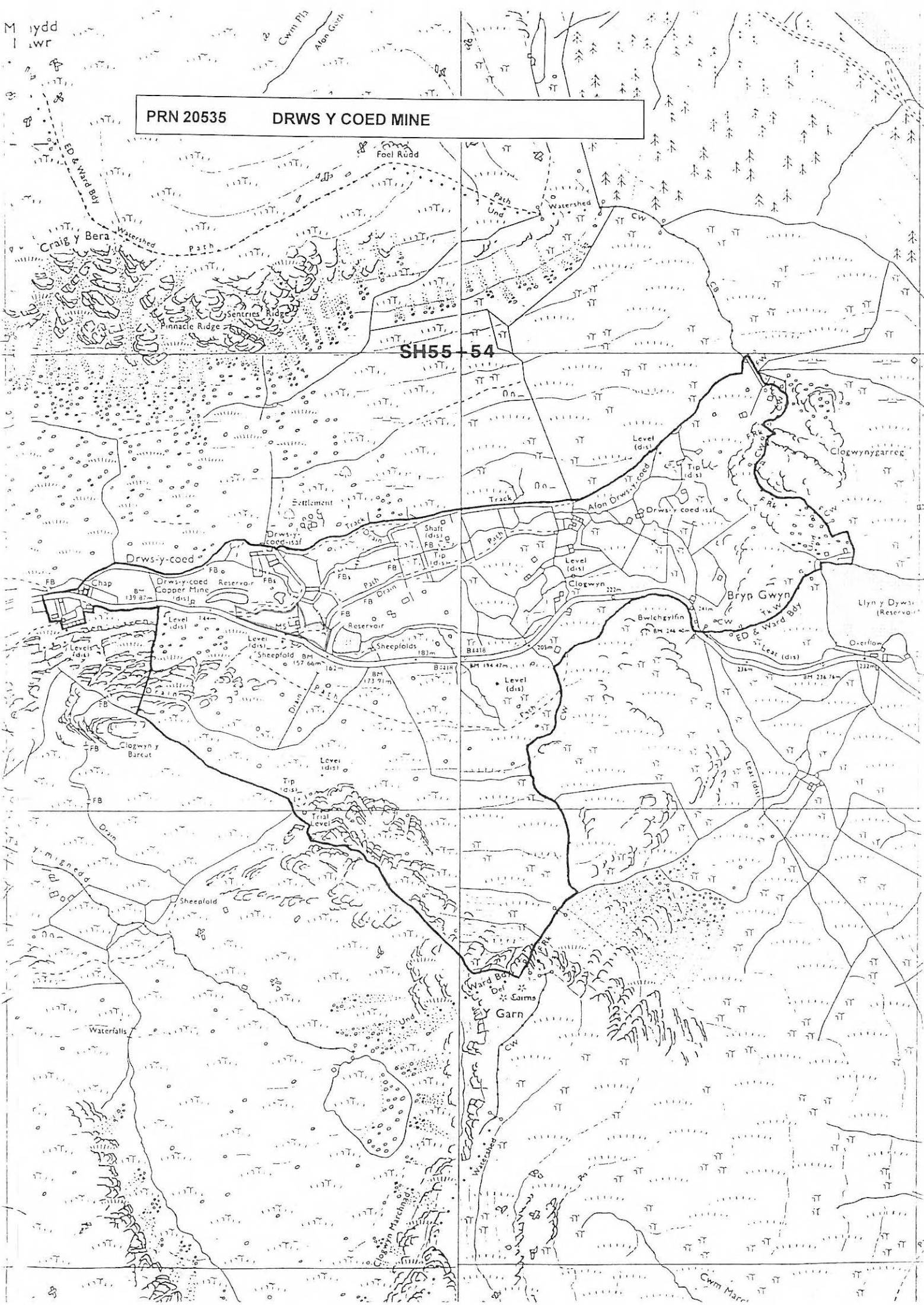
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M. Iydd
lwr

PRN 20535

DRWS Y COED MINE



21536	BRAICH YR OEN MINE	Category	A	NGR	SH61505150
County	GWYNEDD	OS Map No.	SH65SW	County Map No.	CXXII 14
Site type	COPPER MINE	Period	POST MEDIEVAL		
Threat	COLLAPSE	Land use	ROUGH PASTURE	Site status	

Site description

General: a lofty site on the slopes of an outlier of Snowdon, remarkable for its outstanding early nineteenth-century transport system which brought the ore down to the Hafod y Llan crushing house.

Geology: a copper vein in volcanic rocks of Ordovician age.

History: at work from 1825-6 to the 1880s.

Workings: partly underground, accessed by an adit at SH61615171; at one point (SH61555165) stoping has created an open working.

Processing: a hand-cobbing shed survives on the top level, surrounded by hand-dressing waste (SH61615171). Some material was crushed at Hafod y Llan mill (PRN: 21156).

Power: unmechanised.

Transport: the mine was served by railways, a sled-road and ore-chutes, in which more than one phase is evident. The road survives in good condition, as do the stone bases for the chutes. A plateway incline survives as a formation with stone sleeper blocks from SH61615171 to SH61655176, and the lengthy and steeply-graded railway from SH61885166 to the Hafod y Llan mill (SH62155201) is in excellent condition, though the rails and chairs have gone. This system, which would have been very labour-intensive, is an outstanding survivor of early nineteenth century mining transport technology.

Ancillary: no evidence.

Domestic: no evidence.

Management

Desk-top work to establish the dates of the features regarded as of outstanding archaeological importance.

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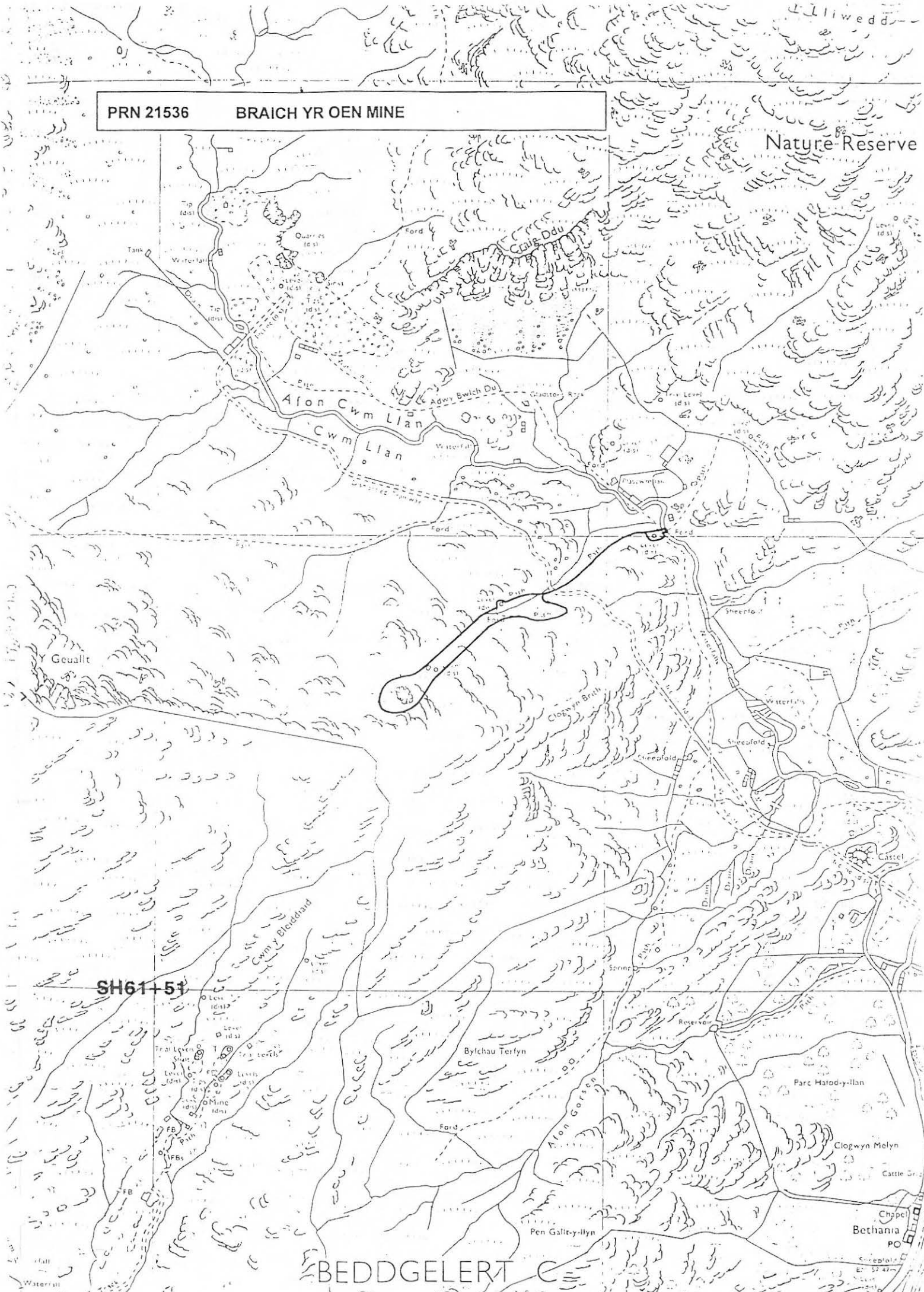
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BRAICH YR OEN MINE

Nature Reserve

SH61+51

BEDDGELERT C



3793	SYGUN MINE		Category B	NGR SH607-485-C
County	GWYNEDD	OS Map No. SH64NW		County Map No. CXXVIII 5
Site type	COPPER MINE		Period	POST MEDIEVAL
Threat	ADAPTIVE RE-USE	Land use	RECREATIONAL	Site status

Site description

General: a major tourist attraction, situated near the village of Beddgelert, in which a considerable number of features survive from its periods of operation and in which a number of others have been reconstructed. The stepped base for the Elmore concentration plant is a prominent feature, also found at Glasdir Mine (PRN: 20871).

Geology: a system of linked veins whose general strike is north-north-east, in slates, grits and volcanic rocks of Ordovician age.

History: possibly exploited in Prehistory, and allegedly at work in the sixteenth century (Foster-Smith 1977). At work by 1836, and associated with Alan Searell and later Charles Kneebone, an unscrupulous financier connected with a number of Gwydir mines. The site was extensively developed from 1898 in association with Alexander Stanley Elmore, but failed and the plant was dispersed in 1907. Re-opened as a tourist attraction in the 1980s, and owned and managed by Mr Phil Amies.

Workings: underground, accessed by adits. The lower part of the underground workings have been opened to the public, and access gained by the deep adit immediately to the north of the Elmore plant site.

Processing: the present owner's son has discovered what he believes to be hammer-stones on the higher levels of the mine, raising the possibility of Prehistoric working. An 1830s dressing floor on which stamps and a jigger were used is evident at SH50424893. Morgan Rees alleges (1975) that precipitation was tried here. Rollers, stamps and sieves are listed in 1858, and in 1898 an Elmore concentration plant was installed at SH50524880, whose base survives, together with a twenty-stamp battery and four Wilfley tables, the sites of which are not evident.

Power: water-power was used in the nineteenth century; the 1898 plant was powered by a steam engine and two gas engines. The boiler-room for the steam engine survives as the visitor reception, with the stump of the chimney surviving. Water-wheels have been installed on the site of the originals, at full- or half-size.

Transport: surface and underground rails served the mine. A substantial timber bridge to the top level of the Elmore plant survives only as a few timbers. The trace of an ore-chute is visible at one point. Narrow-gauge rails survive in the tourist adit, and wagons have been put on display from other extractive sites in the area.

Ancillary: an office and a smithy are recorded, possibly to be identified with:

Domestic: a row of four one-roomed dwellings, said also to have been used as a smithy and as a carpenter's shop, survives at SH50554884, in good condition and still roofed.

Management

This site is stable.

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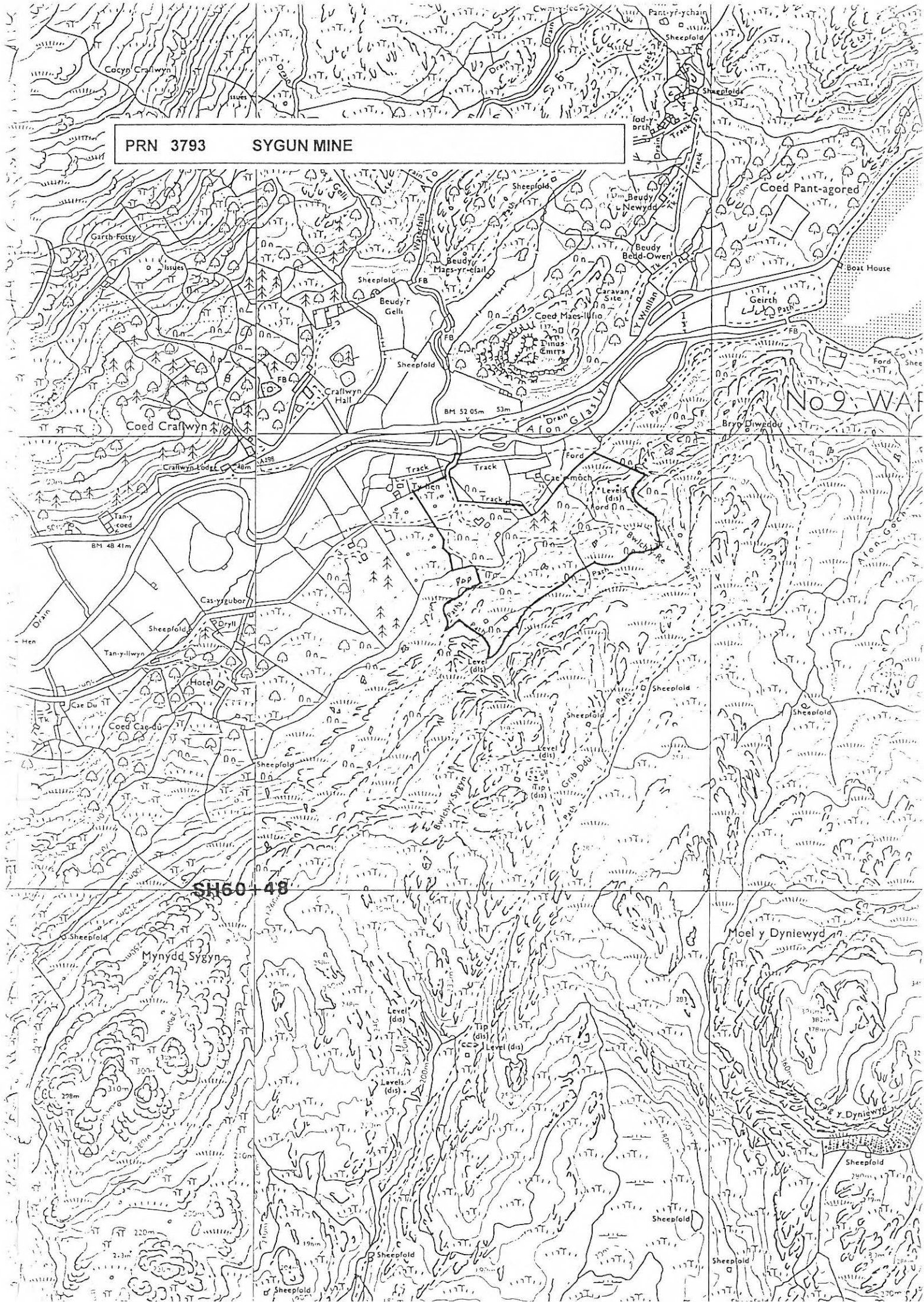
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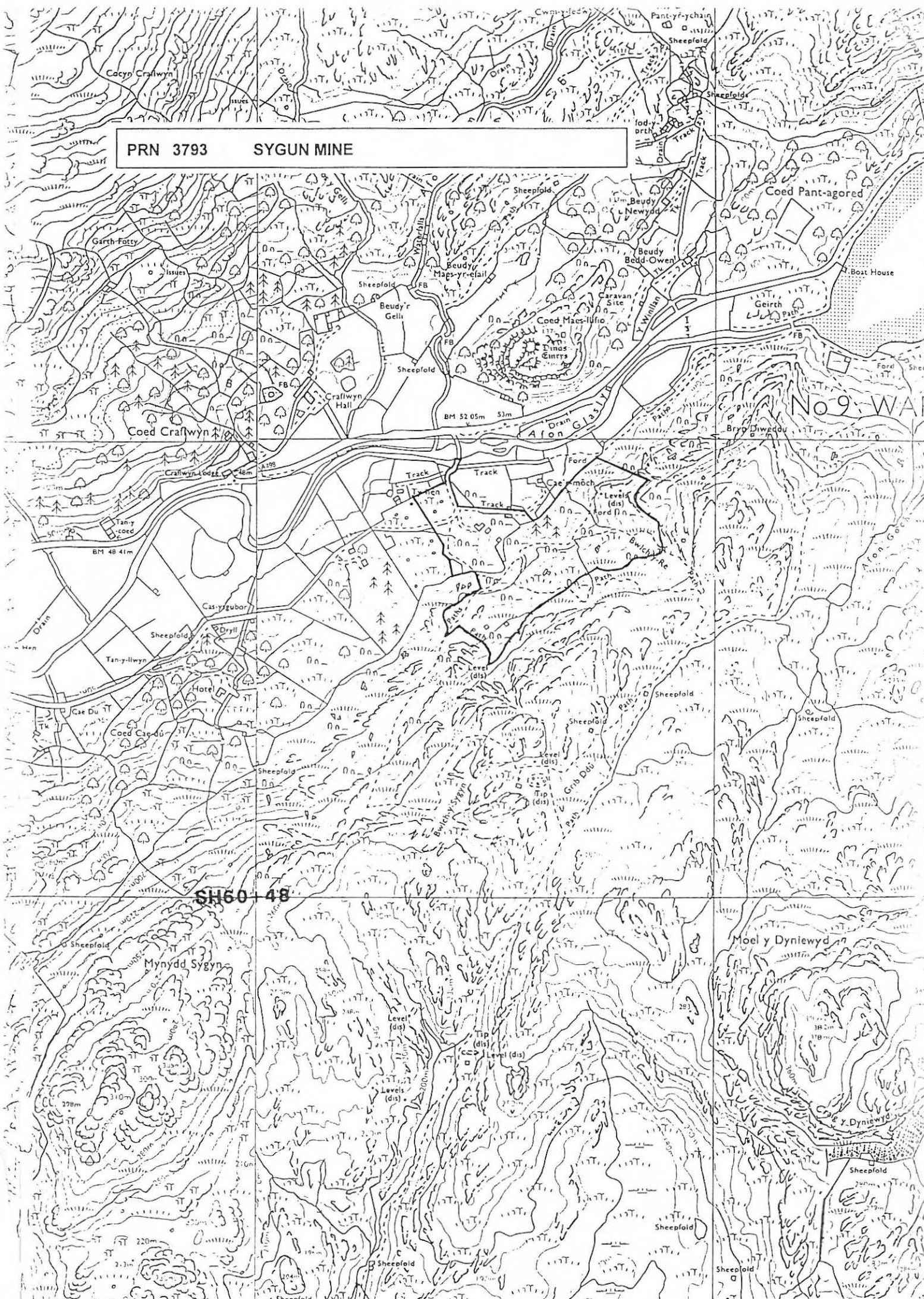
PRN 3793

SYGUN MINE



PRN 3793

SYGUN MINE



20789	BRITANNIA MINE	Category B	NGR SH618-548-
County	GWYNEDD	OS Map No. SH65SW	County Map No. \
Site type	COPPER MINE	Period	POST MEDIEVAL
Threat	FOOTPATH	Land use	WATER-COLLECTION, RECR. Site status NPS

Site description

General: a dispersed site in a spectacular mountain location, through which one of the most popular footpaths to the summit of Snowdon runs. The main mill building was consolidated by the Snowdonia National Park in the 1980s.

Geology: several veins strike north-west to south-east in rocks of Ordovician age, bearing pyrite, chalcopyrite, galena and malachite.

History: also known as Snowdon Mine, Glaslyn Mine, Green Lake Mine and Cwm Dyle Mine. Under lease from the late eighteenth century, and at work until 1811. It was revived in 1847 and worked with periods of closure until 1916; the focus of operations moved eastwards with the construction of a mill at SH62885448 in 1898.

Workings: some open workings, but mainly underground, accessed by adit. Extensive mining has been carried out on the cliffs overlooking Glaslyn at SH61605470C. Some stoping is evident on the surface.

Processing: a processing complex which included stamps, a crusher and "grinders" was established immediately downstream from Glaslyn at SH62015456 in 1847, augmented by two roller crushers in 1854; these survive as dilapidated structures with traces of embanked railways leading to them. Peat-fired smelting furnaces were used for a while in the early 1850s but have left no trace. New dressing floors with machinery supplied by Green's of Aberystwyth were installed in 1874, the site of which is probably marked by the revetted floors east of the crusher at SH62035455. These have partly collapsed.

The Britannia mill of 1898, which included dressing floors and a crusher, has been consolidated and stands up to eaves height. Parts of a jaw crusher have been placed on display outside. At SH62895455 a platform structure was noted, heavily dilapidated and with holding-down bolts in the ground. This may have been connected with the aerial ropeway (see Transport below).

Power: a water-wheel pit is evident in the 1847 complex. The 1898 mill is believed to have been powered by a pelton.

Transport: ore-chutes are recorded at Glaslyn in 1856, and traces of their stone pillars survive. The surface railway from their foot to the processing site at SH62015456 has been converted into a footpath, and the road from the Britannia mill to Pen y Pass remains in use by road vehicles. This route includes a stone causeway over Llyn Llydaw. An aerial ropeway installed in 1898 to supply ore to the Britannia mill has left little trace, though a linear feature to the west of the mill is clear. This is said to have been an incline but may have been an ore-chute. Immediately to the south-east of the mill are two round depressions, said to be for turntable hoists to load the ore into boats.

Ancillary: the mine offices form part of the Britannia mill complex and have been conserved. The roofless and dilapidated remains of older office buildings were noted at SH62065460. A possible smithy was noted at SH61665469 and a possible magazine at SH61855451.

Domestic: roofless and dilapidated miners' dwellings are situated at SH61785477 and at SH64155483.

Management

Monitoring of the main mill for collapse; possible consolidation.

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PRN 20789

BRITANNIA MINE

Cwm Beudy Mawr

Llyn Glas

The Parson's Nose

Cwm Uchaf

Ysgar

Craig Fach

Bwlch y Moch

C & ED Bdy

SH63 55

Glaslyn

Llyn Llydaw
(Reservoir)

Top water level 434 metres above Newlyn datum 1974

Valve House

Cwm Dy

Slanting Butress

West Peak

East Peak

Kliwedd Bach

Waterfalls

21156	HAFOD Y LLAN MILL	Category	B	NGR	SH62135205
County	GWYNEDD	OS Map No.	SH65SW	County Map No.	\
Site type	COPPER MILL	Period	POST MEDIEVAL		
Threat	FOOTPATH, COLLAPSE	Land use	ROUGH GRAZING	Site status	NPS

Site description

General: see under Hafod y Llan Mine (PRN: 21624).

Management

Consolidation of the mill building.

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21587	LLANBERIS MINE	Category B	NGR SH59705870
County	GWYNEDD	OS Map No. SH55NE	County Map No. CXVII 9
Site type	COPPER MINE	Period	PREHISTORIC
Threat	DEVELOPMENT OF PARK	Land use	ROUGH GRAZING, CAR-PARK
		Site status	

Site description

General: a site alongside the main road through the Llanberis Pass, which has been extensively worked in the eighteenth and nineteenth centuries, and may have been the site of prehistoric workings. Like Mynydd Parys (PRN: 3564) and possibly Dolfrwynog (PRN: 20911), it made use of the low-cost precipitation system as well as conventional mining. Much of the archaeology of this site has been destroyed by the changes in lake levels, but it remains an important component in an outstanding industrial landscape, which includes Dinorwic slate quarry on the opposite bank of Llyn Peris.

Geology: veins of pyrite and chalcopyrite, also containing a gangue of quartz and calcite, in slate and volcanic rocks of Ordovician age.

History: also known as Cwmaelhir and as Gwaith Nant Peris, and includes various workings going under separate names - the Bridge works or Llanberis mine at SH59895865, and the Dol Ithel mine, centred on the north adit, at SH59635895. Possibly Prehistoric in origin, the mine was certainly active by 1760, when it formed part of the Vaynol estate. It was in lease to Roe of Macclesfield from the 1790s, and remained in production until the 1870s.

Workings: underground, accessed by adits and shafts. The south adit at SH59895865 remains open. There are extensive adits in the area centred on SH59555880. The north (Dol Ithel) adit (PRN: 21589), which appears to have been the main focus of workings in the nineteenth century, has been obscured by the change of levels in Llyn Peris.

Processing: small hand-dressing sheds survive in the area centred on SH59555880 and a larger example at SH59475890. The mine made use of stamps at SH60075887, and Evans in 1798 describes the crushed ore being carried from here by water for "decantation" - possibly precipitation. A stone-crusher was at work in 1873. There is now no evidence for any of these features.

Power: a water-wheel on the east bank of the Afon Peris operated the stamps; the bridge at SH59975873 is still known as "Pont stamps". Cathrall in 1828 refers to the recent construction of an aqueduct across the valley floor to provide water for a wheel which operated pumps; these were in the Bridge works (SH59895865), but other levels are recorded as being drained by hand-windlass as late as the 1860s.

A portable steam engine was used to power the stone-crusher in 1873. These sites have been destroyed by the change in levels of Llyn Peris.

Transport: rails had been laid in the lowest adit by 1800, and ore-chutes were used to load boats which ferried the ore across Llyn Peris to the stockyard at Cwm y Glo. These are recorded in a painting of 1792 by John "Warwick" Smith. There are faint traces of these features in the area centred on SH59555880. A house in Llanberis was known as "Bing", suggesting that it was a copper bin at some stage, possibly when the road was extended there from Cwm y Glo in 1811. Boating was still practised by the mine in the period 1830-36. The present road through the mine-site was constructed in 1840, though there are traces of an earlier road along the margins of Llyn Peris.

Ancillary: the octagonal "offis gocyn" at the Dol Ithel site was a prominent feature, and was photographed in the 1870s, but has now vanished. This was situated to the east of the road.

Domestic: a single-storey dwelling at SH59705882, now in use as a climbing hut, may have been connected with the mine.

Management

Further evaluation of the site to assess the potential for pre-Modern working.

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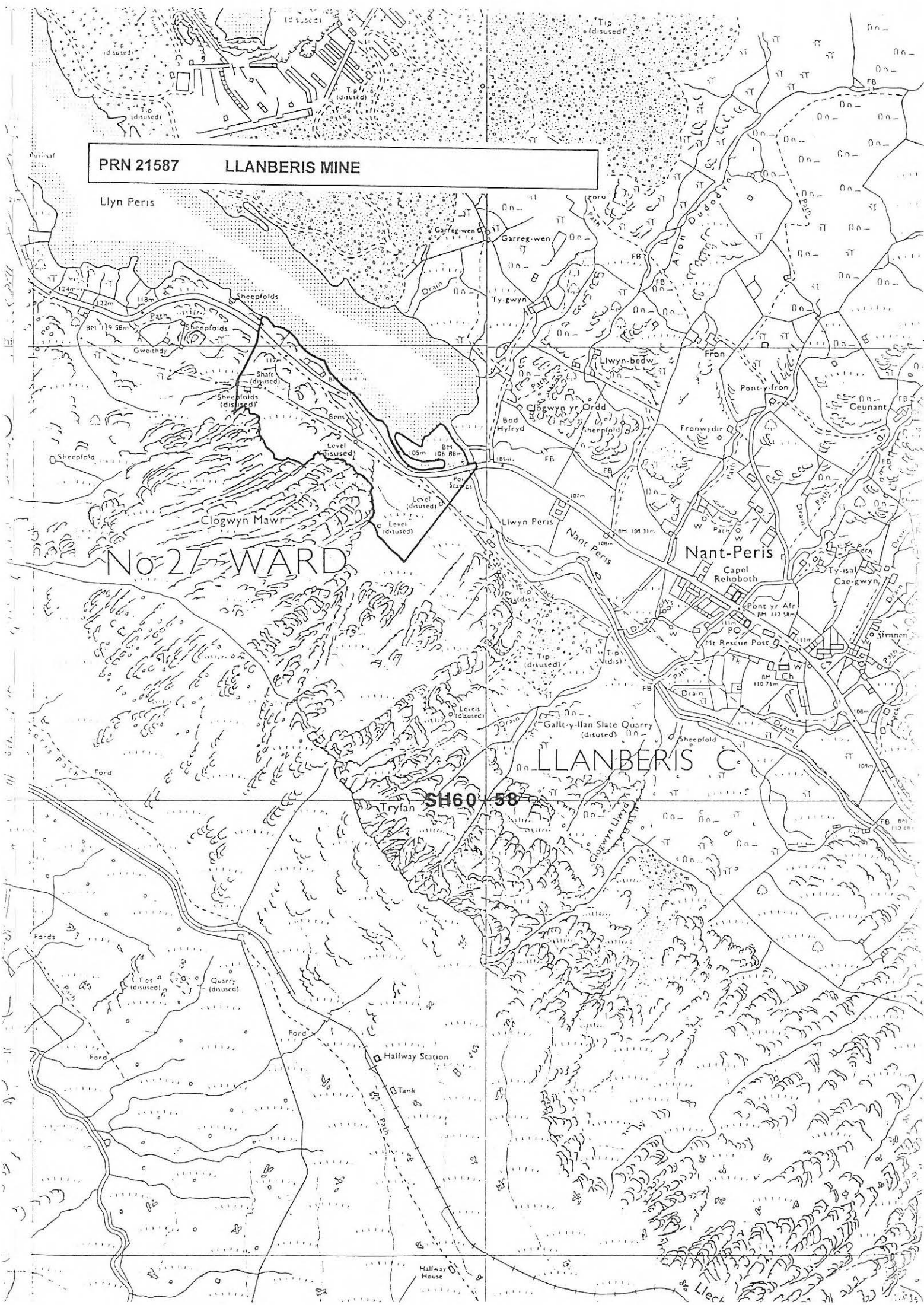
LLANBERIS MINE

Llyn Peris

No 27 WARD

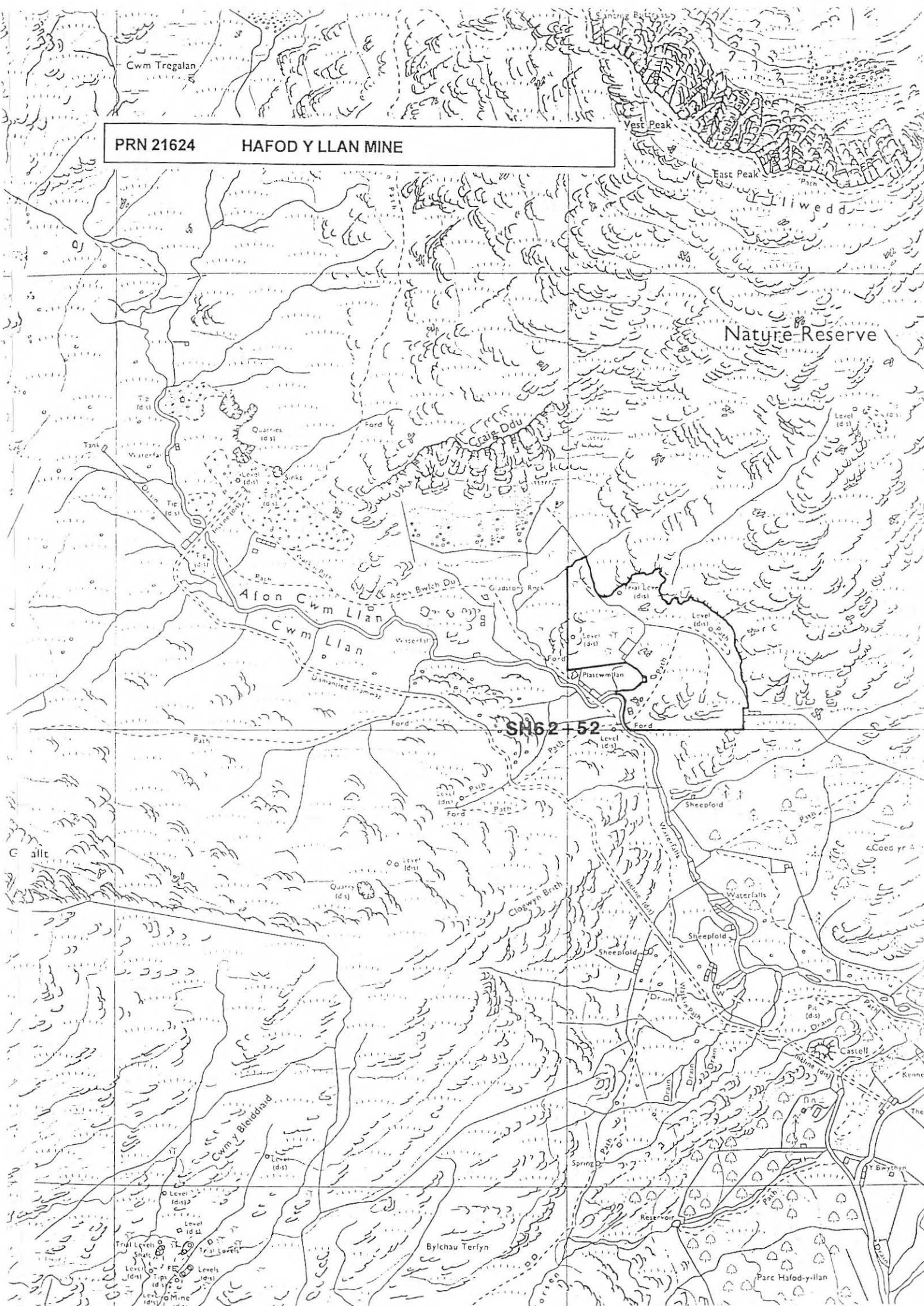
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LLANBERIS C



PRN 21624

HAFOD Y LLAN MINE



21624	HAFOD Y LLAN MINE	Category	B	NGR	SH62505200
County	GWYNEDD	OS Map No.	SH65SW	County Map No.	\
Site type	LEAD/COPPER MINE	Period	POST MEDIEVAL		
Threat	FOOTPATH	Land use	ROUGH GRAZING	Site status	

Site description

General: this site forms part of the mining landscape of Nant Gwynant, on the southern slopes of Snowdon, and was connected with the Braich yr Oen Mine (PRN: 21536) by its unique transport system. It had its own interesting and archaeologically significant transport network, encompassing railways and slides. The crusher house (PRN: 21156) is an important feature.

Geology: a copper vein in rocks of Ordovician age.

History: at work by 1825-6 and continued working into the 1860s.

Workings: underground, accessed by adits, some of which remain open.

Processing: a crusher was erected pre-1857, possibly in 1841, at SH62155201; it is roofless and heavily dilapidated. Immediately to the south-east is a possible hand-dressing area, on made-up ground supported by a retaining wall.

Power: a water-wheel was used to power the crusher; its pit survives against the north-west wall. One other water-wheel was used on site.

Transport: the mill was served by a railway from Braich yr Oen Mine (PRN: 21536), whose formation and stone sleepers (at approximately 4' gauge) survive. The course of a contour railway runs from the foot of an ore-chute at SH62315222 to the head of an ore-chute above the mill at SH62295207. The stonework for the ore-chutes remains, but the timbering has vanished.

Ancillary: a three-roomed roofless building at SH62095204 may have housed a smithy.

Domestic: no evidence.

Management

Photographic record.

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2064	YSTRAD AND GARREG FAWR MINE	Category C	NGR SH54405770
County	GWYNEDD	OS Map No. SH55NW	County Map No. CXVI 15
Site type	IRON MINE	Period	POST MEDIEVAL
Threat	COLLAPSE	Land use	ROUGH GRAZING, FARMYARD
		Site status	

Site description

General: a spectacular site on the east slopes of the Gwyrfaï valley between Caernarfon and Beddgelert, involving a series of rabbit-burrow openings on the hillside, and which includes substantial remains of late nineteenth and early twentieth century mining.

Geology: worked a band of ironstone tending north-east to south-west in the Lower Silurian formation.

History: these sites formed two separate workings, but lay immediately adjacent to each other and are treated here as one for convenience's sake. The lower mine, on the floor of the valley was known as Ystrad but also as the Silurian mine, the upper was known as Garreg Fawr. Garreg Fawr was worked pre-1887, and Ystrad was in lease to D.J. Williams from 1909. The Abandoned Mines Plans are dated 1920.

Working: both mines worked a series of levels on an axis SH54135756 to SH54695814 alongside the main haulage inclines, in which stoping is apparent. Stoping is also visible at SH51055743.

Processing: a calcining plant is recorded at Ystrad in 1919, and an Edgar Allen crusher second-hand from Clogau. No obvious remains are visible, but the likelihood is that the calcining plant was situated at SH53955750, and the site of the crusher is evident at SH57185764. A further crusher appears to have been situated at SH54265790, where a small stone-built tank was noted.

Power: a 15hp dynamo (AEG type 180) powered the calcining plant. Two 45hp gas engines are recorded, together with two generators, two scrubbers and an air receiver dynamo, all housed in a stone-built engine shed. A 25hp dynamo drove the crusher.

Transport: at Ystrad a counterbalanced incline ran from the upper extraction levels at SH54305777 to the crusher, when an aerial ropeway carried the material to the calcining plant and to the sidings from the North Wales Narrow Gauge Railway. The lower terminal of the ropeway is a substantial box-like stone-built structure at SH54005751, measuring 7m by 9m in plan, whose walls survive up to <4m high, and in which substantial holding-down bolts were noted in the top of the walls. Nearby is a machine base.

At Garreg Fawr a zig-zag pathway to the working levels is evident in 1889, later replaced by a counter-balance incline connecting the extraction levels to a processing level (SH54435799 to SH54265790). Alongside this feature are the stepped walls characteristic of a transporter incline, but the formation does not appear to be wide enough for double track. A sheave-base is apparent at its summit, and the bases for ore-chutes at its foot.

From SH54265790 is the trace of a further incline down to the valley floor, with drum supports at its summit built out of stone and concrete. This may not have been completed, since an embankment which runs from the NWNGR stops some yards short of its foot at SH53855781. The transport of material from Garreg Fawr was latterly carried out by a lengthy aerial ropeway which led over the col to Llanberis. The machine bases at SH54265790 may be connected with the motive power for the ropeway. At SH54305810 is a concrete base 8m by 3m in plan, 1.5m high, for changing the direction of the ropeway.

Ancillary: office buildings are recorded.

Domestic: no evidence.

Management

Aerial and ground photographic record; measured survey of the lower ropeway terminal.

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PRN 2064

YSTRAD AND GARREG FAWR MINE



3794	LLWYNDU MINE	Category C	NGR SH60604830
County	GWYNEDD	OS Map No. SH64NW	County Map No. CXXVIII 5
Site type	COPPER MINE	Period	POST MEDIEVAL
Threat	FOOTPATH	Land use	FOOTPATH, ROUGH GRAZING
		Site status	NT

Site description

General: situated on the highest point of a footpath system that links Beddgelert and Nanmor. The mine is not large, but contains a number of important features.

Geology: a system of linked veins whose general strike is north-north-east, in slates, grits and volcanic rocks of Ordovician age.

History: working is recorded from 1836 to 1844, though it is probable that there was earlier extraction.

Workings: underground workings in a knoll on a plateau, accessed by adits from the south at SH60604830C and a shaft on the east, at SH60624835. This is intact but has been covered by a metal grating.

Processing: a dressing house survives below the eastern workings at SH60734836, with a cobbing bench along the east gable wall. Outside the adit mouths and below the shaft are wind-break shelters for hand-cobbing. A calcining flue noted by Bick was not observed.

Power: a horse-gin raised ore and possibly pumped; this is apparent as a 5m radius circle at SH60654835, with a pivot stone in the centre.

Transport: ore-slides are noted from the shaft-head to the dressing house, of which only the stone supports survive. The paths which give access to the site have been rebuilt.

Domestic: a roofless and heavily dilapidated two-room dwelling was noted at SH60574824.

Ancillary: no evidence.

Management

Photographic record.

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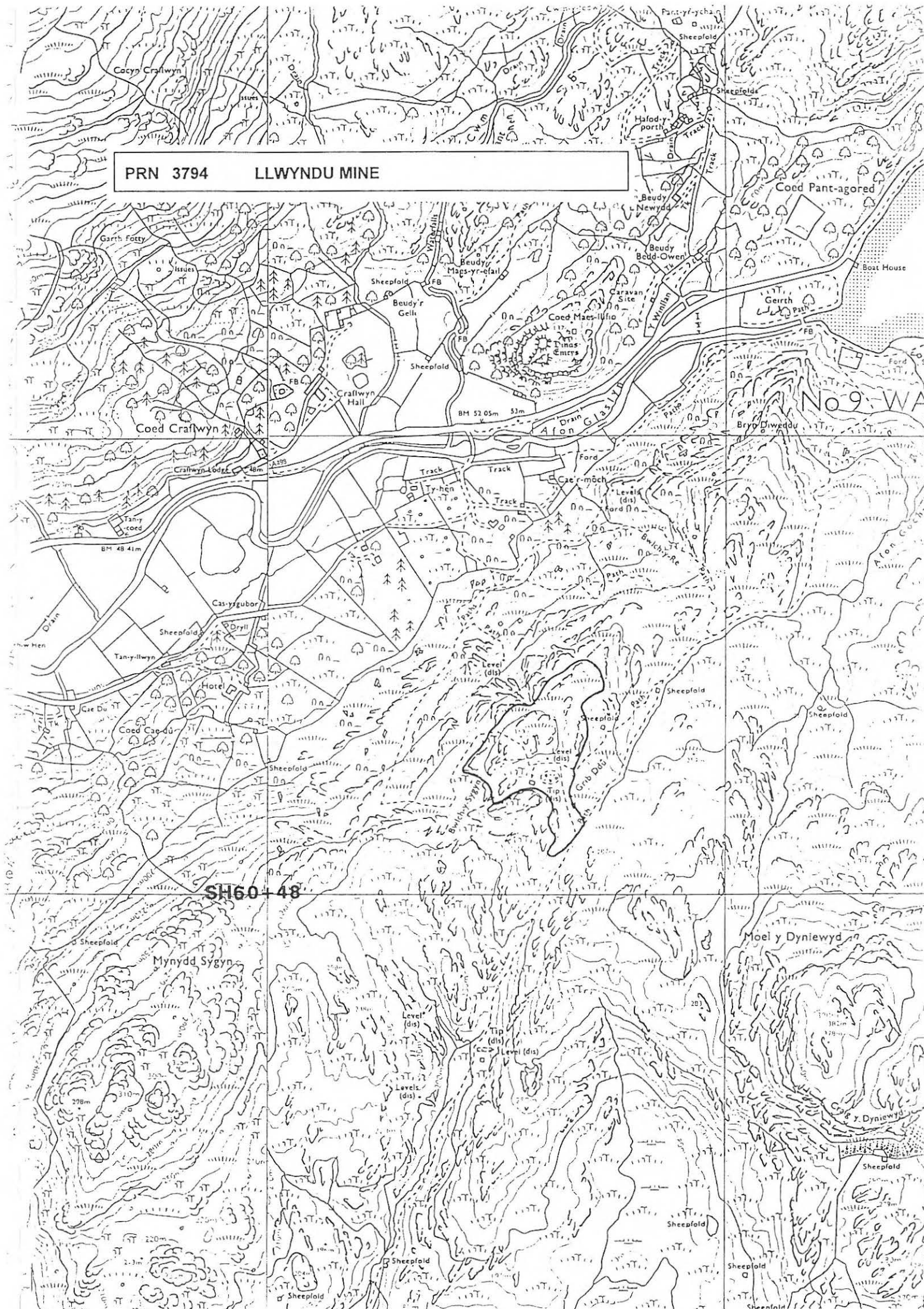
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PRN 3794

LLWYNDU MINE



20536	SIMDDE DYLLUAN MINE	Category	C	NGR	SH537-533-
County	GWYNEDD	OS Map No.	SH55SW	County Map No.	CXXI 10-11
Site type	COPPER MINE	Period	POST MEDIEVAL		
Threat	COLLAPSE	Land use	ROUGH GRAZING	Site status	

Site description

General: this site lies immediately south of the road from Pen y Groes to Rhyd Ddu in the Nantlle valley, and is adjacent to the Drws y Coed mine.

Geology: four veins striking east to west in slates and grits of Ordovician age.

History: also known as Tal y Sarn Mine. At work by the 1830s, and closed from 1914. It was revived from 1917 to 1920.

Workings: accessed by shafts and adit. The adits run west to east alongside the road from SH5355324 to SH54185341, and mostly remain open. The main shafts were Garnon's at SH53815330 and the New Shaft at SH53605328. The site of the former is visible, but the head has been blocked. No trace remains of the second.

Processing: a stone breaker, rolls, Green's jig and a Wilfley table were installed in the last phase of working in a corrugated-iron structure. All that remains of this is the stone-built foundations at SH53605329. This processed ore from Benallt Mine as well as from Simdde Dylluan.

Power: a water-wheel at SH53445333 pumped Garnon's shaft by means of flatrods, whose stone supports are visible in places, and a water-wheel at SH53505334 pumped by means of flatrods and may also have operated a crusher adjacent to the wheelpit. It has been suggested that they also supplied air to the miners (Williams 1997). These two wheelpits survive. A horse-whim hauled Garnon's, though its site (SH53825330) is now barely visible. The site of a hand-capstan is evident at SH538353390, as noted by David Bick.

Transport: the road from Pen y Groes to Rhyd Ddu runs past the site.

Domestic: for the village of Drws y Coed, see Drws y Coed Mine (PRN: 20535).

Ancillary: there was an office next to the processing plant at SH53605329.

Management

Photographic record.

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20791	HAFOD Y PORTH MINE	Category	C	NGR	SH611-506-
County	GWYNEDD	OS Map No.	SH65SW	County Map No.	CXXII 14
Site type	COPPER MINE	Period	POST MEDIEVAL		
Threat	COLLAPSE	Land use	ROUGH GRAZING	Site status	NT/NPS

Site description

General: a remote site near Beddgelert, chiefly remarkable for the substantial domestic building noted below.

Geology: copper and lead ores in volcanic rocks of Ordovician age.

History: also known as Arran and Snowdon Mine and as Bylchau Terfyn. At work from 1755. The plant was offered for sale in 1845, and the mine was revived in the period 1869 to 1873. The site was leased out as late as 1890.

Workings: underground, accessed by adits and shafts.

Processing: rollers, dressing floors and stamps are recorded. A crusher house survives, roofless and dilapidated, at SH61085073 and a two-chamber ore-bin in good condition immediately to the north.

Power: a 22' by 3' water-wheel was offered for sale in 1845. There are traces of a wheel-pit against the south-east wall of the crusher, and a substantial stone-built dam survives downstream from the crusher, implying an actual or intended hydraulic feature, possibly water-powered stamps.

Transport: rails were offered for sale in 1845. A well-built cart road connects the site with the turnpike at Dinas Emrys.

Ancillary: a circular-plan gunpowder house survives at SH61015064.

Domestic: a substantial four-unit two-storey dwelling, roofless and dilapidated, at SH60975054 may be the manager's residence, office, smithy, store-room shown on a plan of 1873. It is orientated north-east to south-west, and has an enclosed yard to the north-west and a garden to the south-east. A two unit roofless single storey structure at SH61035071 appears to correspond to the "miners barracks" shown in 1873, though part of this range may have been a smithy or a store.

Management

Photographic record; measured survey of the domestic buildings.

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PRN 20536

SIMDDE DYLLUAN MINE

Mynydd Mawr

Sheepfolds

Craig y Bera

Sentries Rid
Pinnacle Ridge

16 WARD

Drws-y-coed

Drws-y-coed Reservoir
Copper Mine

Simdde-dylluan
Copper Mine

Ward Bdy

SH53453

Tal-y-mignedd-uchaf

Cwm Tal-y-mignedd

Tal-y-mignedd

Tal-y-mignedd-uchaf

Sheepfold

Waterfall

Waterfalls

Waterfalls

Level (dis)

Drain

Cwm-y-nod

PRN 20791

HAFOD Y PORTH MINE

BEDDGELEERT C

SH61-50

Llyn Dinas

Coed Pant-agored

Nantgwynant

Yr Aran

Cwm yr Hyrddog

Cwm y Bloedladd

Gallt y Llyn

Craig y Llyn

Pen Gallt-y-llyn

Afon Goleen

Clogwyn Brith

Ford

Level (dss)

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20798	CLOGWYN GOCH MINE	Category	C	NGR	SH603-556-
County	GWYNEDD	OS Map No.	SH65NW	County Map No.	\
Site type	COPPER MINE	Period	POST MEDIEVAL		
Threat	COLLAPSE	Land use	ROUGH GRAZING	Site status	NPS

Site description

General: a remote site in a cwm on the northern slopes of Snowdon.

Geology: veins of pyrite and chalcopyrite, also containing a gangue of quartz and calcite, in slate and volcanic rocks of Ordovician age.

History: also known as West Snowdon Mine and as Gwaith yr Wyddfa. This site, which lay on the Vaynol estate, seems to have been discovered in 1805, and was in production by 1822. It was worked in conjunction with Llanberis mine, and was last leased in 1889.

Workings: adits were noted under the Clogwyn Goch at SH60455555, together with some extensive stoping; the tips reach down to the level of the contour path which joins the Llanberis path.

Processing: two substantial, though dilapidated, crusher-houses survive near the foot of the incline, at SH60255574 and at SH60335576. Along the route of the contour path several hand-cobbing areas are apparent.

Power: two dams are evident, and a water-wheel pit survives in the fabric of both crusher-houses.

Transport: a surface incline plane connects the contour path at SH60405560 with the crushing area. There is no clear evidence as to how the ore was brought down from the adits to this level, though there may have been chutes. The footpath which connects to the Llanberis path might have taken a cart in the nineteenth century.

Ancillary: a possible smithy was noted at SH60535593.

Domestic: the dilapidated remains of a barracks were noted contiguous with the smithy at SH60535593; a further possible barracks was noted at SH60485567, also dilapidated.

Management

Photographic record.

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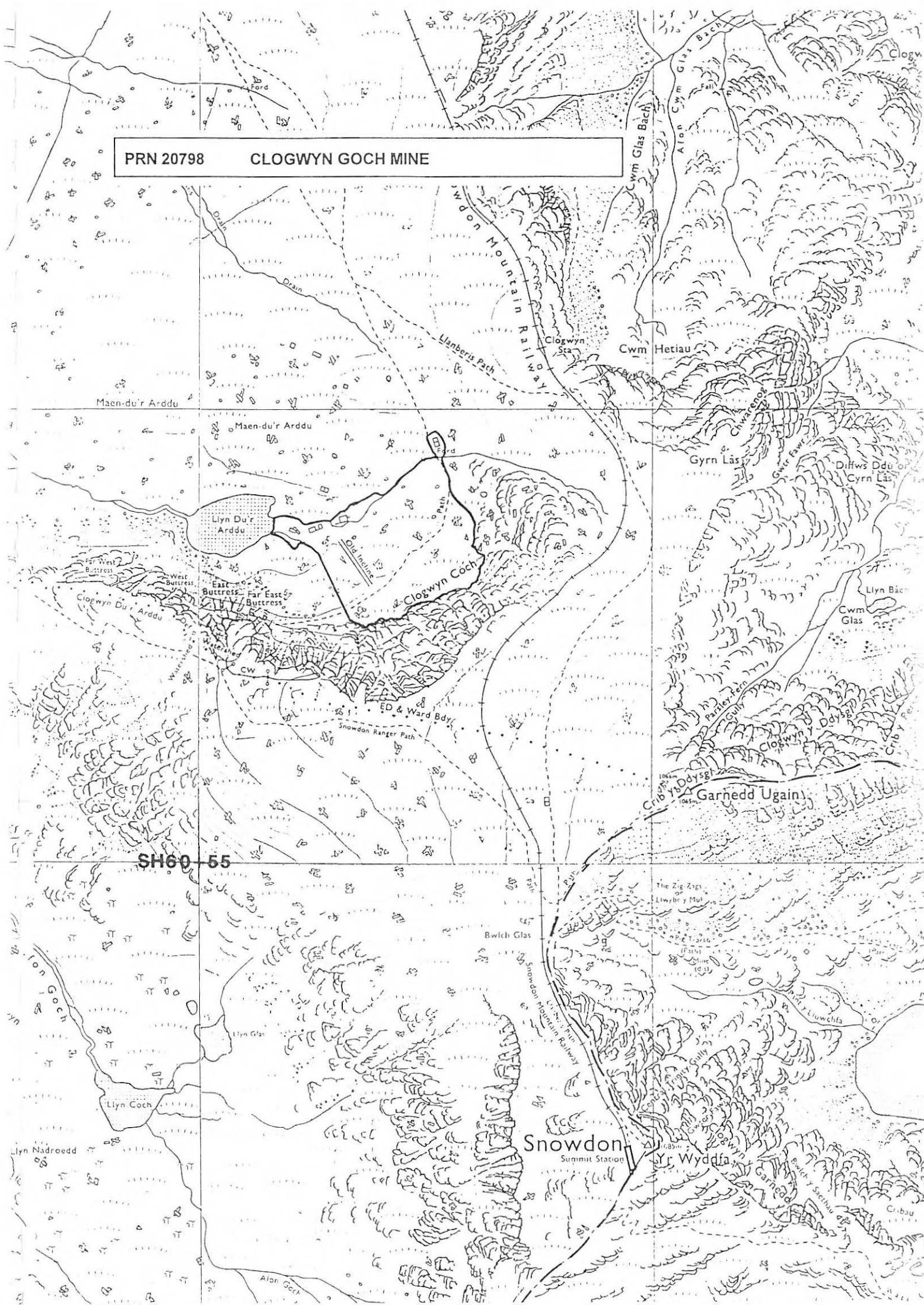
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PRN 20798

CLOGWYN GOCH MINE



20807	CEUNANT MINE		Category C	NGR	SH633-645-
County	GWYNEDD	OS Map No.	SH66SW	County Map No.	CXII 14
Site type	COPPER/ARSENIC MINE	Period	POST MEDIEVAL		
Threat	FOOTPATH	Land use	ROUGH GRAZING	Site status	NPS

Site description

General: a tiny site in the industrial landscape of Dyffryn Ogwen, but which contains arsenic flues, believed to be unique to Wales.

Geology: a lode runs north to south, visible as a quartz rib in the river to the north of the adit.

History: trials were carried out here in 1760, and further work was carried out c. 1837.

Workings: there is evidence for a blocked adit in the outside bend of the Afon Ogwen at SH63236461.

Processing: a series of radiating flues from a putative central furnace site at SH63276460 appear to mark the site of a plant for producing crude arsenic by sublimation. The flues are approximately 0.6m square and 12m long.

Power: no evidence, and probably unmechanised.

Transport: there is a possible trace of a bridge across the river by the adit mouth, and a barrow-way or footpath beyond.

Ancillary: no evidence.

Management

Trial excavation to establish position of furnace; photographic record and EDM survey of the arsenic flues.

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CEUNANT MINE

SH63/64

21529	BENALLT (LLANDWROG) MINE	Category	C	NGR	SH53605340
County	GWYNEDD	OS Map No.	SH55SW	County Map No.	CXXI 11
Site type	LEAD MINE	Period	POST MEDIEVAL		
Threat	COLLAPSE	Land use	ROUGH PASTURE	Site status	

Site description

General: a copper mine site in the Drws y Coed mining area in Dyffryn Nantlle, which continued working sporadically until 1931 but which has left very little trace.

Geology: two lodes tend south-east to north west in slate of Ordovician age. The ore is mixed chalcopyrite, galena and blende.

History: also known as Great Mountain Mine. In operation by 1845, and developed from 1870, before closing in 1874. There were attempted revivals from 1906 to 1931.

Workings: underground, accessed by adit. The deep adit is situated at SH53535344, no. 4 at SH53475355 and there are higher adits up the hillside to the north.

Processing: a crusher was installed at SH53085328 in 1870, and stamps in 1873. A building at SH53045325 housed patent German machinery supplied by Green's of Aberystwyth.

Power: a steam engine is alleged to have powered the crusher, despite the proximity of a water-supply. This may have been positioned on a revetted base to the north of the crusher. There may have been a wheel-pit immediately below and to the west of the crusher. The German machinery was powered by a water-wheel, whose pit survives in the eastern gable of the mill building.

Transport: rails were laid in the adits. A substantially engineered counterbalance incline built in 1870 ran from a now-demolished drumhouse at SH53595350 to the crusher, passing under the Nantlle to Rhyd Ddu road through a flattened-arch bridge. Vestigial remains, in the form of an anchorage and a landing plate, survive outside the No. 4 adit of a primitive aerial ropeway from the adit to the Simdde Dylluan crusher.

Ancillary: a rectangular building at SH53405356, roofless and dilapidated, may have been an office.

Management

Photographic record.

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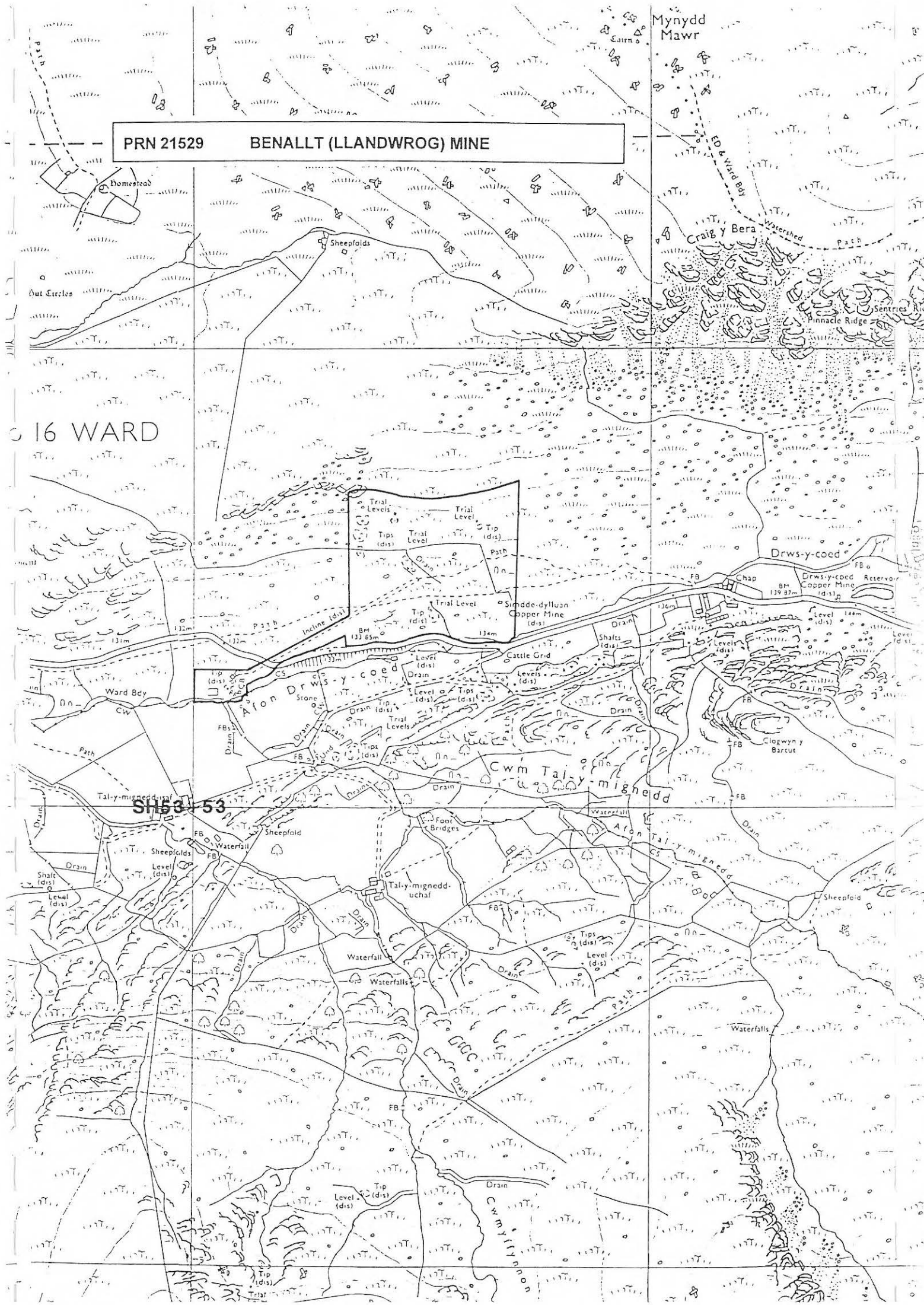
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PRN 21529

BENALLT (LLANDWROG) MINE



20527	BRYN Y FELIN MINE	Category	D	NGR	SH589-472-
County	GWYNEDD	OS Map No.	SH54NE	County Map No.	CXXVIII 9
Site type	COPPER MINE	Period	POST MEDIEVAL	Site status	NT
Threat	FORESTRY	Land use	FORESTRY		

Site description

General: a site near Beddgelert for which a Prehistoric origin has been suggested. It was probably active before the mid-sixteenth century, certainly active in the eighteenth century, at a time when it lay within easy reach of sea-transport.

Geology: a copper vein strikes north-east on rocks of Ordovician age.

History: at work in 1760, closed by 1808, revived in the 1830s and after spasmodic working was offered for sale in 1875. David Bick tentatively suggests that the small open workings may be Prehistoric.

Workings: some small scale open workings, and underground workings accessed by adit and shaft. One adit at SH58854708 has collapsed, but another at SH47904728 remains open, and is stoped to the hillside immediately to the west. Three shafts on an axis of SH58844710-SH58914724 remain open, and the most northerly is ginged. A low-level adit emerges at SH59014712; the cutting which leads to it is stone-walled in places.

Processing: stamps are recorded in 1760 and a crusher by 1802. A machine-house and a dressing house were included in the sale list of 1875, but have left no evident remains. Bick suggests that they were situated between the turnpike road and the river.

Power: a water-wheel powered the stamps in 1802, and a new Liverpool-made water-wheel was offered for sale in 1808; a water-course is evident running along the west bank of the Glaslyn from SH59154735 to 59144703, a substantial rock-cut leat, but there is no evident trace of the stamps or the crusher. A turbine was offered for sale in 1875; this may have been adjacent to the dressing house, but there are no evident remains, nor are there any remains of a water-course which could feed a turbine. The horse-whim circle noted by Bick was not observed.

Transport: it is possible that the low-level adit may have functioned as a tramming level, since the cutting which leads to it is sufficiently wide. A roadway leads to the site from the turnpike.

Ancillary: a circular plan powder magazine, now roofless, survives at SH59004721.

Domestic: the roofless and dilapidated two-storey dwelling at SH58954719 is probably the Brynfeelin farmhouse.

Management

Further evaluation of the site to assess the potential for pre-Modern working.

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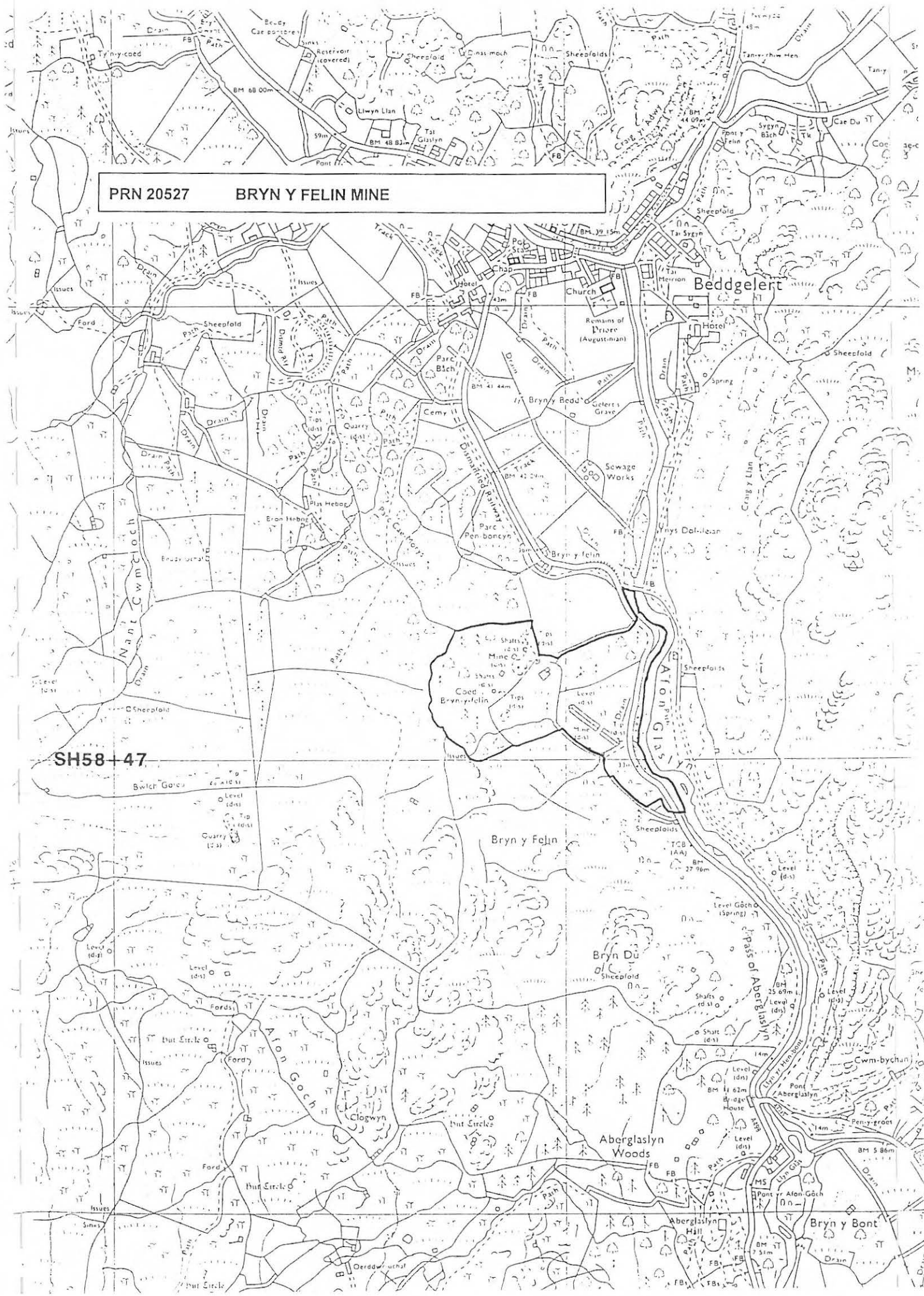
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PRN 20527

BRYN Y FELIN MINE

SH58+47



20542	TAL Y MIGNEDD MINE	Category	E	NGR	SH537-528-
County	GWYNEDD	OS Map No.	SH55SW	County Map No.	CXXI 10
Site type	COPPER MINE	Period	POST MEDIEVAL		
Threat		Land use	ROUGH GRAZING	Site status	

Site description

General: a site in Dyffryn Nantlle which has been obliterated by farming.

Geology: two lodes trending south-east to north -west in Ordovician (sic) slate; the ore is mixed chalcopyrite, galena and blende.

History: work was under way in 1880.

Workings: the entries have been blocked by the farmer.

Processing: no evidence.

Power: unmechanised

Transport: served by the present farm road and sled tracks.

Ancillary: no evidence.

Domestic: no evidence.

Management

Photographic record.

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PRN 20539

TAL Y MIGNEDD MINE

Mynydd Mawr

ED Ward Bdy

Craig y Bera

Watershed

Path

Pinnacle Ridge

Sentinel Ridge

Drws-y-coed

Drws-y-coed Reservoir

Drws-y-coed Copper Mine

Simde-dylluan Copper Mine

Castle Grid

Levels (dis)

Shales (dis)

Drain

FB

Ward Bdy

Path

Drain

Shales (dis)

Level (dis)

Tip (dis)

Drain

Waterfall

Waterfalls

Waterfalls

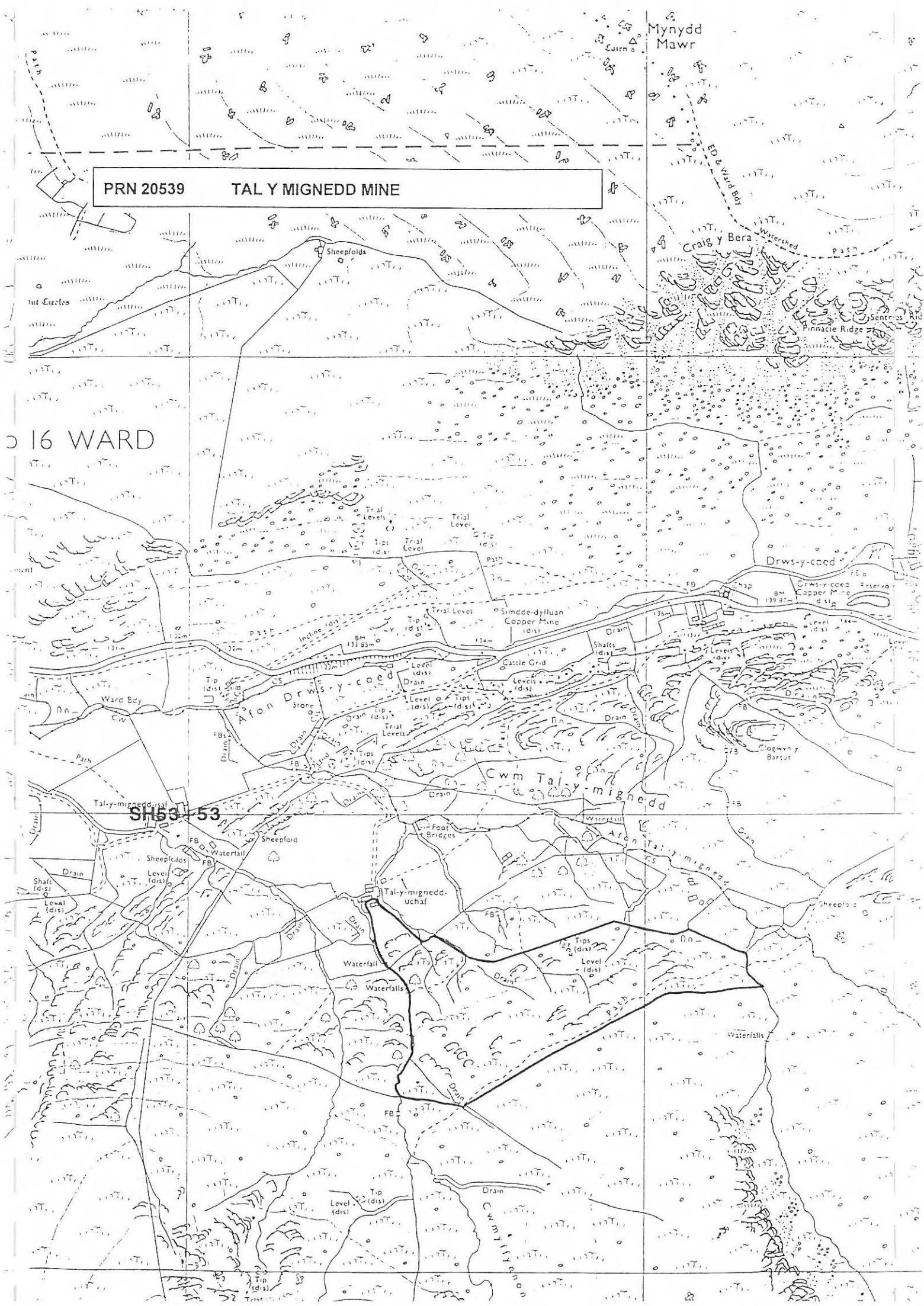
Waterfalls

Waterfalls

Waterfalls

16 WARD

SH53-53



20813	TAN Y GARTH MINE		Category E	NGR SH639-668-
County	GWYNEDD	OS Map No. SH66NW		County Map No. CXII 7
Site type	ARSENIC PYRITES MINE		Period POST MEDIEVAL	
Threat		Land use ROUGH GRAZING		Site status NPS

Site description

General: a small site overlooking Bethesda.

Geology: worked pyrite, mispickel, chalcopyrite and pyrhotite in grits of Cambrian age.

History: worked by Mr Barker in 1783, when sulphur was sent to Amlwch, and again in the following century.

Workings: accessed by four levels and two shafts.

Processing: no evidence.

Power: apparently unmechanised.

Transport: footpaths only.

Ancillary: no evidence.

Domestic: no evidence.

Management

Photographic record.

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Desc. text GAT

Foster-Smith JR 1977 *The Mines of Anglesey and Caernarvonshire* p 21

List GAT

ab Owain S, Crew P *SNP Industrial Record* no 662712

PRN 20813

TAN Y GARTH MINE

No 15 WARD

SH63-67

No 14 WARD

BETHESDA

21626	LLANDEGAI MINE	Category E	NGR SH59506990
County	GWYNEDD	OS Map No. SH57SE/56NE	County Map No. CVII 13
Site type	IRON MINE	Period	POST MEDIEVAL
Threat		Land use	COPPICE
			Site status

Site description

General: the site is now heavily overgrown, and demonstrates how a moderately large-scale operation, at work well into the twentieth century, can become overgrown and practically unrecognisable as an industrial site. It is situated at Llandygai, near Bangor.

Geology: the mine worked iron ore in Lenticular beds, between 4' and 12' wide.

History: also known as Penrhyn mine. In lease to the Silverman company, whose lease was forfeited in 1921.

Workings: underground; four levels accessed by a shaft and adits. These are no longer visible.

Processing: no evidence was observed.

Transport: a double-track incline is marked on the Abandonment Plan. This is no longer apparent.

Ancillary: no evidence.

Domestic: no evidence.

Management

Photographic record.

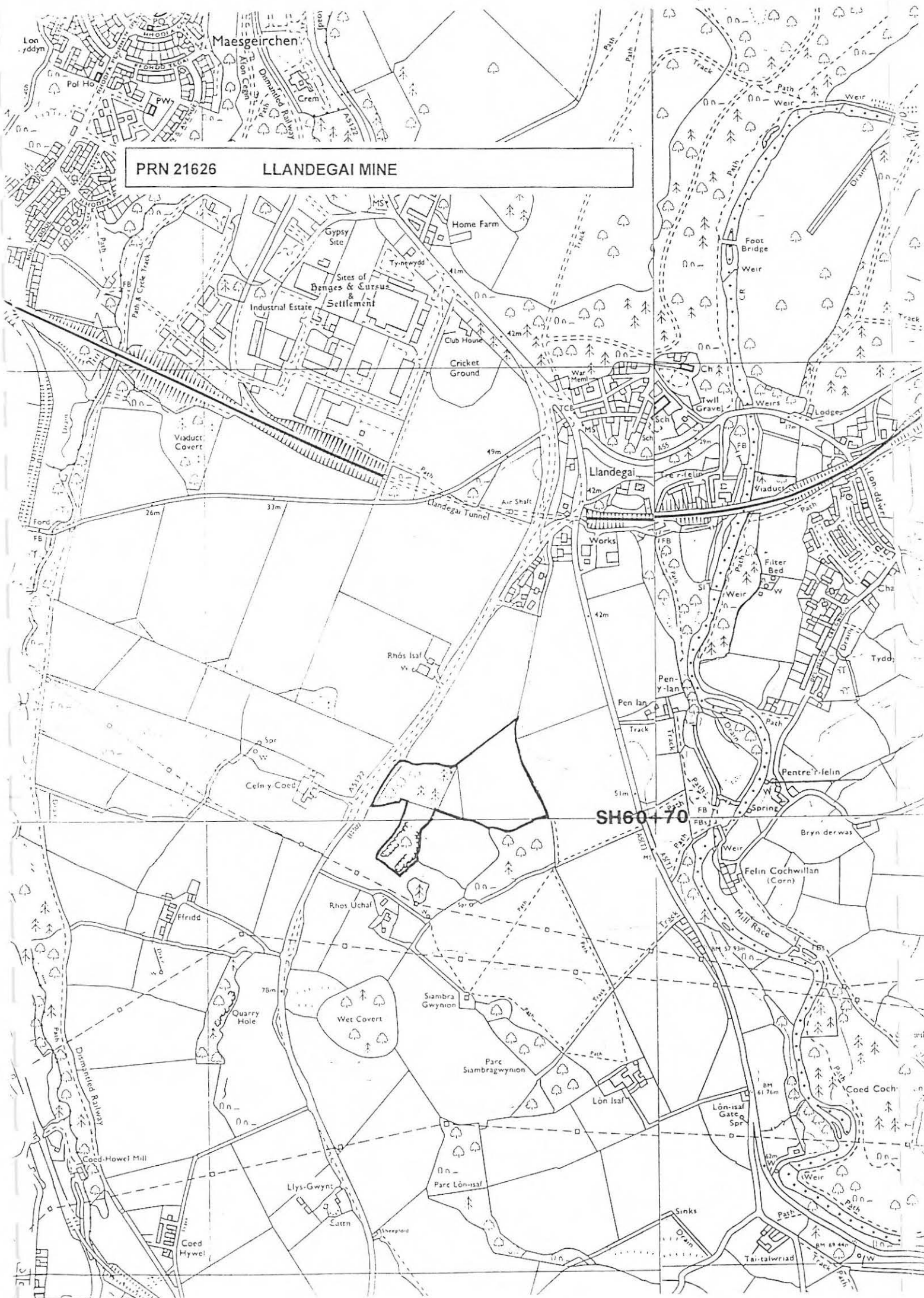
Bibliography

Plan CRO

1921 p 87

Reference

North FJ 1962 *Mining for Metals in Wales*



PRN 21626

LLANDEGAI MINE

SH60+70

