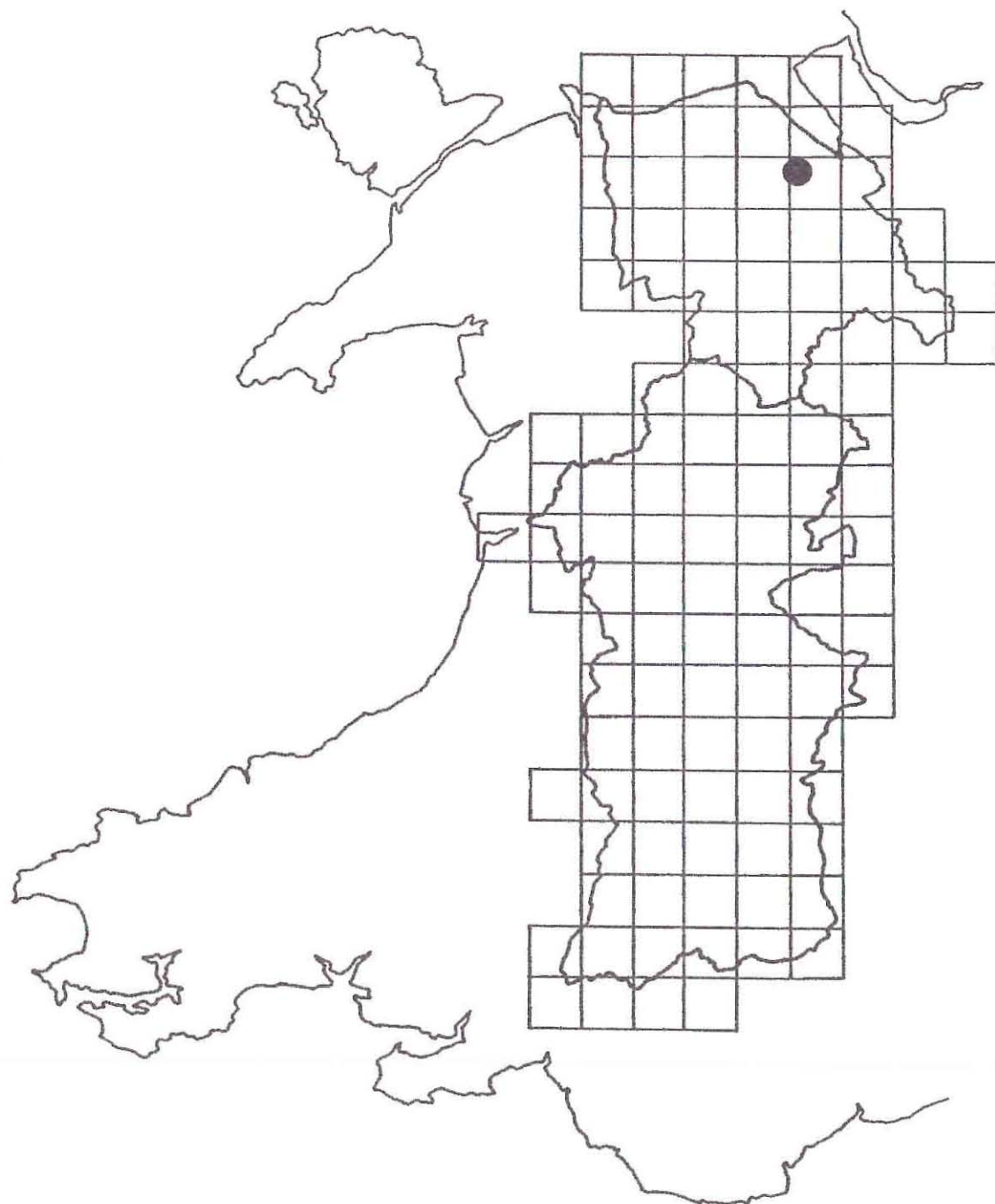


Ruby Quarry, Rhydymwyn, Flintshire

ARCHAEOLOGICAL ASSESSMENT

Revised Report



Ruby Quarry, Rhydymwyn, Flintshire

ARCHAEOLOGICAL ASSESSMENT
Revised Report

by **N.W.Jones**

June 1996

Report prepared for Smith Grant Partnership

The Clwyd-Powys Archaeological Trust

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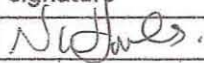
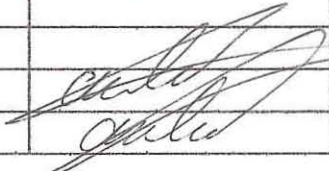
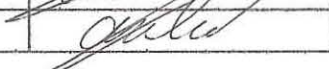
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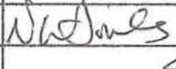
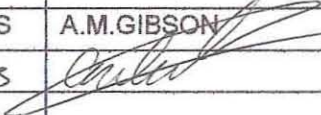
Report and status

CPAT Report Title	Ruby Quarry, Rhydymwyn, Flintshire Archaeological Assessment		
CPAT Project Name	RUBY QUARRY		
CPAT Project No	667	CPAT Report No	174
Confidential (yes/no)	Y	draft/final	FINAL

Internal control

	name	signature	date
prepared by	N.W. JONES		16/5/96
checked by	A.M. GIBSON		17/5/96
approved by	A.M. GIBSON		17/5/96

Revisions

no	date	made by	checked by	approved by
174.1	17/6/96	N.W. JONES	A.M. GIBSON	A.M. GIBSON
				

Internal memo

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SUMMARY

The Clwyd Powys Archaeological Trust Contracts Section was commissioned to undertake an archaeological assessment of Ruby Quarry, Rhydymwyn as part of an environmental study relating to a proposal to extend the quarry.

The assessment consisted of a desk top study and rapid field survey, the results from which have identified significant industrial archaeology relating to the Hendre Lead Mines and the former Ruby Brickworks. The former, whilst falling largely beyond the development area, is considered worthy of preservation and mitigation measures and possible further recording are recommended relating to both sets of remains.

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1 INTRODUCTION

1.1 The Contracts Section of the Clwyd Powys Archaeological Trust (hereafter CPAT) was commissioned by the Smith Grant Partnership in April 1996 to undertake an archaeological assessment of Ruby Quarry, Rhydymwyn as part of an environmental study relating to a proposal to extend the quarry.

1.2 The owners, D.P. Williams Holdings Ltd, applied for and have been granted permission by the then Clwyd County Council to recommence and extend the working under an Interim Development Order. Condition 31 of this agreement required that a desk top assessment be undertaken in order to identify and quantify the archaeological content of the area.

2 LOCATION, TOPOGRAPHY AND LAND-USE

2.1 Ruby Quarry (SJ 206677) is located on the north side of the A451 Mold to Denbigh road 1km north of the village of Rhydymwyn (Fig. 1).

2.2 The site is bounded to the west by the Nantfigillt stream and occupies an area of 12ha including the dormant quarry and an area to the north and north-east (Fig. 2).

2.3 The quarry entrance and part of the interior has already been cleared and levelled. The valley of the Nantfigillt stream is wooded with fairly dense undergrowth, and includes an area around the former lead mine. The fields to the north and north-east are pasture.

2.4 The underlying solid geology is composed of Millstone Grit of the Halkyn Formation, varying in thickness from 250-350m. (Campbell & Hains 1988, 17 and Map 1). This is overlain by glacial drift including fireclays, which have been exploited for

brickmaking at the Ruby Brickworks (Campbell & Hains 1988, 33 and Map 2).

3 HISTORIC BACKGROUND

3.1 The whole area surrounding Rhydymwyn has a close association with lead mining. The western boundary of the site bisects the area of the former Hendre Lead Mine and other lead workings are located within the vicinity with extensive underground workings.

3.2 Included within the quarry are the remains of the Ruby Brickworks which date from the late nineteenth century, and were associated with the original use of the quarry for the extraction of clay. The quarry was later used to extract shale.

4 DESK-TOP STUDY

4.1 The desk-top study included consultation of all readily available sources contained within the following repositories, including archive, documentary, cartographic and photographic sources: The County Sites and Monuments Record, CPAT, Welshpool; National Library of Wales, Aberystwyth; National Monuments Record, Royal Commission on Ancient and Historic Monuments (RCAHMW), Aberystwyth; County Record Office, Hawarden.

4.2 Cartographic Sources

4.2.1 The earliest map available for the study area was the Northop Tithe Map of 1839 (Fig. 3). The site encompasses all or part of the fields identified in the Tithe Apportionment as follows: 198, Nantfigillt wood; 199, a small arable field; 200, Rofft Fawr pasture; 201, wood; 202, Weirgloddynant pasture; 206, Coitia Glover arable field. The map provides no useful information relating to the site, except to indicate that at this time there was

no evidence for structures or other development.

4.2.2 The early editions of the Ordnance Survey 1:2,500 maps (Flintshire sheet 9.14) provide useful detail relating to the development of the site. The First Edition of 1872 (Fig. 4) shows the site before the development of the lead mine and brickworks, with much of the area occupied by Nant-figillt Wood.

4.2.3 By the Second Edition of 1899 (Fig. 5) both the lead and brickworks had been constructed. The latter comprised a range of large buildings, presumably for processing, together with what is assumed to be a single circular beehive kiln. The lead mine appears as a single shaft with three main buildings surrounding it, possibly including an early engine house.

4.2.4 Further developments are shown by the time of the Third Edition of 1912 (Fig. 6). This clearly identifies Hendre Mines as working from two main shafts, Olwyn Goch to the west and Taylor's to the east. Taylor's Shaft is shown with associated buildings, tramways and reservoirs, some of which extend within the site boundaries. The shaft was pumped by an engine house on the west side, with the boiler house and chimney to the south. The dressing floors appear to have been located on the west side of the stream. Detail of the brickworks include two beehive kilns, shown as small circles, a tramway leading from the quarry, various processing buildings and further tramways leading from the brickworks to the south.

4.3 Documentary Sources

4.3.1 A search of the County Sites and Monuments Record revealed no sites within the development area.

4.3.2 From the late nineteenth century the site was occupied by two industrial developments which coexisted well into this century.

4.3.3 The quarry itself has its origins as a clay pit for the Brickworks which developed sometime between 1872 and 1899, based on evidence from the Ordnance Survey (Figs 4 and 5). Little is known of the history of the brickworks, with the most useful detail being provided by the Ordnance Survey Third Edition of 1912 (Fig. 6). Power for the processing machinery was provided by a steam engine, which has now been removed and re-erected at Greenfield Valley Heritage Centre.

4.3.4 The exploitation of lead and silver in this area was undertaken by a series of mining companies during the latter nineteenth and twentieth centuries working the main Coed Hendre Vein, which runs east-west. The mining activity was associated variously with the Nant Figillt Mine, Hendre Mine and the South Hendre and Rhydymwyn Mining Company Ltd from 1890-1904 (Burt *et al.* 69). A prospectus for this company, presumably dated *c.* 1890, gives little information about the nature of the workings although the accompanying plan (Fig. 7) does show the site to be within the holdings concerned.

4.3.5 As the cartographic evidence suggest, the main workings were associated with two shafts, only one of which, Taylor's Shaft, is located within the site. The shaft was connected to the Halkyn Tunnel, a major drainage adit which had been started by the Grosvenor family in 1881 and was continued after 1875 by the Halkyn District Mines Drainage Company (Ebbs 1993, 29), to whom royalties were paid. The location of the tunnel has been included on Fig. 8 (information from Campbell & Hains 1988, Map 4). A report in the Flintshire Observer dated 19th December 1901 refers to negotiations for concessions in royalties to enable the mining company to put

down sufficiently powerful pumping equipment to deal with water below the drainage tunnel, although there is no mention of which shaft was involved.

4.3.6 During the First World War Taylor's Shaft was part of a scheme to dewater deep lead and zinc deposits (Williams 1980, 75) and in 1917 a red brick engine house was built to house electric motors pumping at the shaft. The scheme was almost completed when the Armistice was signed. The shaft is now capped.

4.3.7 In 1929 the site was incorporated into the Halkyn District United Mines who reopened and deepened the Olwyn Goch Shaft to 490ft to serve as the main access and down-cast ventilation shaft. Underground workings were connected by diesel railway along the Sea Level Tunnel, also known as the Milwr Tunnel, between the Pen-y-bryn and Olwyn Goch shafts.

5 FIELD SURVEY

5.1 A rapid field walked survey was undertaken for the whole of the development area with the aim of identifying and quantifying the archaeological remains. No surface evidence was seen for any features of archaeological significance in the areas beyond the north and east boundary of the present quarry. All of the features of interest relate to either the lead mine or brickworks and are located within the quarry and the area immediately to the south and south-west. Figure 8 shows the approximate location of the main surviving structures.

5.2 The Brickworks

5.2.1 The majority of the area occupied by the former brickworks has recently been levelled, such that there are only a few surviving structural remains. Of these, the most significant is a circular beehive kiln and adjacent chimney, which survive at the southern end of the site surrounded by trees and undergrowth. Both are in relatively good condition. The kiln has been recorded in detail by RCHAMW.

5.2.2 At the northern end of the brickworks the remains of a building survive with two identical chimneys built onto the exterior of the end wall. The building itself is largely demolished to the floor level, which survives.

5.2.3 Two other buildings associated with the brickworks survive more or less intact. The office, located at the entrance to the site, is derelict but otherwise intact. Opposite this is a brick building with possible inspection pits.

5.2.4 The only other significant survival is the loading bay for the tramway. This consists of brick revetment walls fronting the loading area with one bay surviving, located north and north-east of the office.

5.3 The Lead Mine

5.3.1 There are considerable surviving structural remains associated with Taylor's Shaft located on either side of the Nantfigillt stream. The majority of these, including the dressing plant, lie outside the development area. However, there are significant remains along and just within the western boundary, much of which are obscured by dense undergrowth. As a whole, the remains represent one of the more complete surviving examples of a lead mining site of the later 19th and early 20th centuries.

5.3.2 The main structure is the red brick engine house located on the western side of the shaft. The building is fairly well preserved, surviving to its full height, with much of the internal detail intact. This is presumably the structure built in 1917 to house the electric pumping equipment. The shaft itself is capped, although the method and safety of the capping could not be ascertained.

5.3.3 To the south of the engine house are the remains of a substantial boiler house. The red brick chimney still survives to its full height and bears a date stone inscribed 22nd July 1896. The boiler house is not associated with the existing engine house and must therefore relate to another structure. It is possible that an earlier pumping engine house existed, which was replaced by the present structure.

5.3.4 It seems likely that a winding engine existed, since there was a tramway leading from the shaft to the dressing area (see Fig. 6), indicating that ore was raised at the shaft. This may also have been powered by the boiler house. It is possible that the remains of a building surviving on the south side of the shaft, with the south wall standing to over 2m, are those of a winding engine house.

5.3.5 To the south of the boiler house, on the boundary of the development area, lie the remains of a substantial stone building with further stone work to the east standing up to 3m. A small pond or reservoir lies in dense undergrowth to the south-east (not located on Fig. 8).

5.3.6 To the north of the shaft the stream was originally confined within a brick-lined culvert, although at present the stream flows along a new course slightly further east. Along the east bank of the stream a substantial stone wall up to 3m high revets a sub-rectangular platform up to c. 40m long and 15m wide. At the north-east corner of the platform a low stone wall c. 16m long defines the eastern

side, with a second wall at right angles to it. Within this area lie the remains of a brick and concrete building measuring 6 x 6.1m with walls up to 1.2m high. The structure is of unknown function although the existence of fixing bolts and pipework suggest the existence of machinery.

5.3.7 Beyond the north-east corner of the platform lies a pond or reservoir, now much silted. This would appear to be artificial and may be a reservoir providing water for the boilers.

6 CONCLUSIONS AND RECOMMENDATIONS

6.1 The archaeological interest within the development area is associated with two distinct sets of industrial remains relating to a late nineteenth century brickworks and lead mine.

6.2 The structural remains associated with the Ruby Brickworks are generally in a poor state of preservation having been largely demolished and levelled. However, the surviving remains are of some archaeological significance.

6.4 Due to the anticipated sequence of working, *in situ* preservation of the beehive kiln and adjacent chimney is not possible. The quarry owners will however facilitate the dismantling, by others, of the structures and their reconstruction at some suitable location off-site.

6.4 Detailed recording of the remaining beehive kiln has already been undertaken by RCAHMS, but there has been no recording of the other structures on the site. Since it may be assumed that the development will lead to the destruction of the surviving structures, it would be appropriate for a detailed survey to be carried out to record the remaining structures relating to the brickworks. At the

very least, this should take the form of a full photographic record and written description of each structure, together with a measured plan accurately locating the relevant features.

6.5 The surviving structural remains associated with the lead mine are in part located beyond the western boundary of the development. The loss of those features within the development site would seriously damage the integrity of what is at present a fairly intact and important set of industrial remains and every effort should be made to ensure their preservation.

6.6 It is therefore recommended that these remains are clearly fenced off before any groundworks begin to ensure that no damage is done and the archaeologically sensitive areas are indicated in Fig. 2. Any future plans for this area must take into account the archaeological significance of the remains.

6.7 It is understood that the development plans will be amended to include for an adequate stand-off from Taylor's Shaft to avoid possible disturbance to the shaft, and the Halkyn Tunnel below. The quarry owners have indicated that the stand-off area will be extended to exclude the archaeologically sensitive area of the former lead mine from the proposed working area.

6.8 A further consideration relating to the lead mine is that of underground workings. The likely depth and extent of the workings is addressed in the Smith Grant Report on Water Resources.

6.9 The areas to the north and north-east of the present quarry appear to contain no surface evidence for any archaeological remains. The possibility of other lead workings is considered in the Smith Grant Report on Water Resources.

7 ACKNOWLEDGMENTS

Thanks are due to the following for their assistance: Mr Glyn Owen for assisting with the field survey; the staff at County Record Office, Hawarden; the staff at the National Library of Wales, Aberystwyth; Mr M. Parry, RCAHMW; Alex Grant, Smith-Grant Partnership; D.P. Williams Holdings Ltd.

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Tithe Map of Northop Parish, 1839 (County Record Office, Hawarden)

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Ordnance Survey Second Edition 1:2,500 (1899), Flintshire Sheet 9.14 (County Record Office, Hawarden)

Ordnance Survey Third Edition 1:2,500 (1912), Flintshire Sheet 9.14 (County Record Office, Hawarden)

Map of South Hendre and Rhydymwyn Lead
Mining Company (County Record Office,
Hawarden, D/DM/219/56-7)

APPENDIX 1

RUBY QUARRY, RHYDYMWYN, CLWYD

SPECIFICATION FOR AN ARCHAEOLOGICAL DESK-TOP ASSESSMENT BY CLWYD-POWYS ARCHAEOLOGICAL TRUST

1 Introduction

1.1 The proposed development of a block of land at Ruby Quarry, Hendre/Rhydymwyn involves the extension of the former quarry with the view of extracting 3,000,000 tonnes of shale from the site.

1.2 This area lies on the N side of the A541 Mold-Denbigh Road centering on NGR SJ206677 and occupies the site of the former Nant-figillt mine.

1.3 Clwyd County Council Mineral Planning Authority have imposed planning conditions on this development, No31 of which is specifically related to archaeology and states that:

A desk top assessment, of appropriate documentary and cartographic sources pertaining to the area shall be undertaken by a suitably qualified archaeological contractor, in order to identify and quantify the archaeological content of the area, if any. This work should be carried out at the developer's expense prior to the recommencement of mineral extraction according to a detailed specification to be agreed by the Mineral Planning Authority.

Reason: to enable sites of archaeological interest to be adequately investigated and recorded.

1.4 Accordingly, Smith-Grant Partnership, acting on behalf of the owner, D.P. Williams Holdings Ltd have

asked the Contracts section of the Clwyd-Powys Archaeological Trust (CPAT Contracts) to prepare a specification for the Archaeological Assessment and submit a competitive tender for the work.

2 Objectives

2.1 The objectives of the evaluation are:

2.1.1 to reveal by desk-based assessment, the nature, condition, significance and, where possible, the chronology of the archaeology within the area of the proposed development in so far as these aims are possible;

2.1.2 to prepare a report outlining the results of the assessment, to identify areas where desk-top assessment alone cannot provide sufficient information and make recommendations for further work or mitigatory measures;

2.1.3 to incorporate sufficient information on the archaeological resource for a reasonable decision to be taken regarding the archaeological provision for the area affected by the proposed development;

2.1.4 to identify and recommendations options for the management of the archaeological resource, including any further provision for that resource where it is considered necessary.

3 Methods

3.1 The assessment will be carried out according to the guidelines in the *IFA Standard and Guidance for Archaeological Desk-Based Studies* and will involve the examination of all the readily available primary and secondary records relating to this area, including documentary and cartographic sources. Archives and repositories will include the County Sites and Monuments Record, the County Record Office, The National Library of Wales, the National Monuments Record held at the Royal Commission on Ancient and Historical Monuments (Wales) at Aberystwyth, and the aerial photographic archive held by the Clwyd-Powys Archaeological Trust. It is understood that a walkover survey has already been carried out by Clwyd County Council and consequently there will be liaison between CPAT Contracts and Clwyd County Council Archaeology Service.

3.2 The assessment will be supported by a field visit to determine the state of the identified archaeology and the presence of other sites not identified from the documentary sources and to make a photographic record of the area.

3.3 Following the on-site work an illustrated and bound report will be prepared as requested in the Assessment Requirements (p2). This will be in A4 format and contain conventional sections on: Site location, Topography and Geology; Historic Background; Catalogue of sites identified with notes on their condition and significance, Conclusions and Recommendations and References, together with appropriate appendices

on archives, sources consulted and finds (if any).

3.5 The site archive will be prepared to specifications laid out in Appendix 3 in the Management of Archaeological Projects (English Heritage, 1991).

4 Resources and Programming

4.1 The assessment will be undertaken by a skilled and experienced archaeologist. Overall supervision will be by Dr A Gibson, a senior member of CPAT's staff who is also a member of the Institute of Field Archaeologists.

4.2 All report preparation will be completed by the same field archaeologist who conducted the assessment.

4.3 It is anticipated that the assessment and evaluation will take no more than five days in all and that the subsequent report would be prepared immediately thereafter, dependent on the client's instructions and the arrangement of a suitable timetable. The date of commencement, at the time of writing, has yet to be agreed with the client, and will be dependent on the state of the site and negotiated access. The archaeological curator will be informed of the detailed timetable and staffing levels when agreement has been reached with the client.

4.4 Requirements relating to Health and Safety regulations will be adhered to by CPAT and its staff.

4.5 CPAT is covered by appropriate Public and Employer's Liability insurance.

A.M. Gibson

5th March 1996

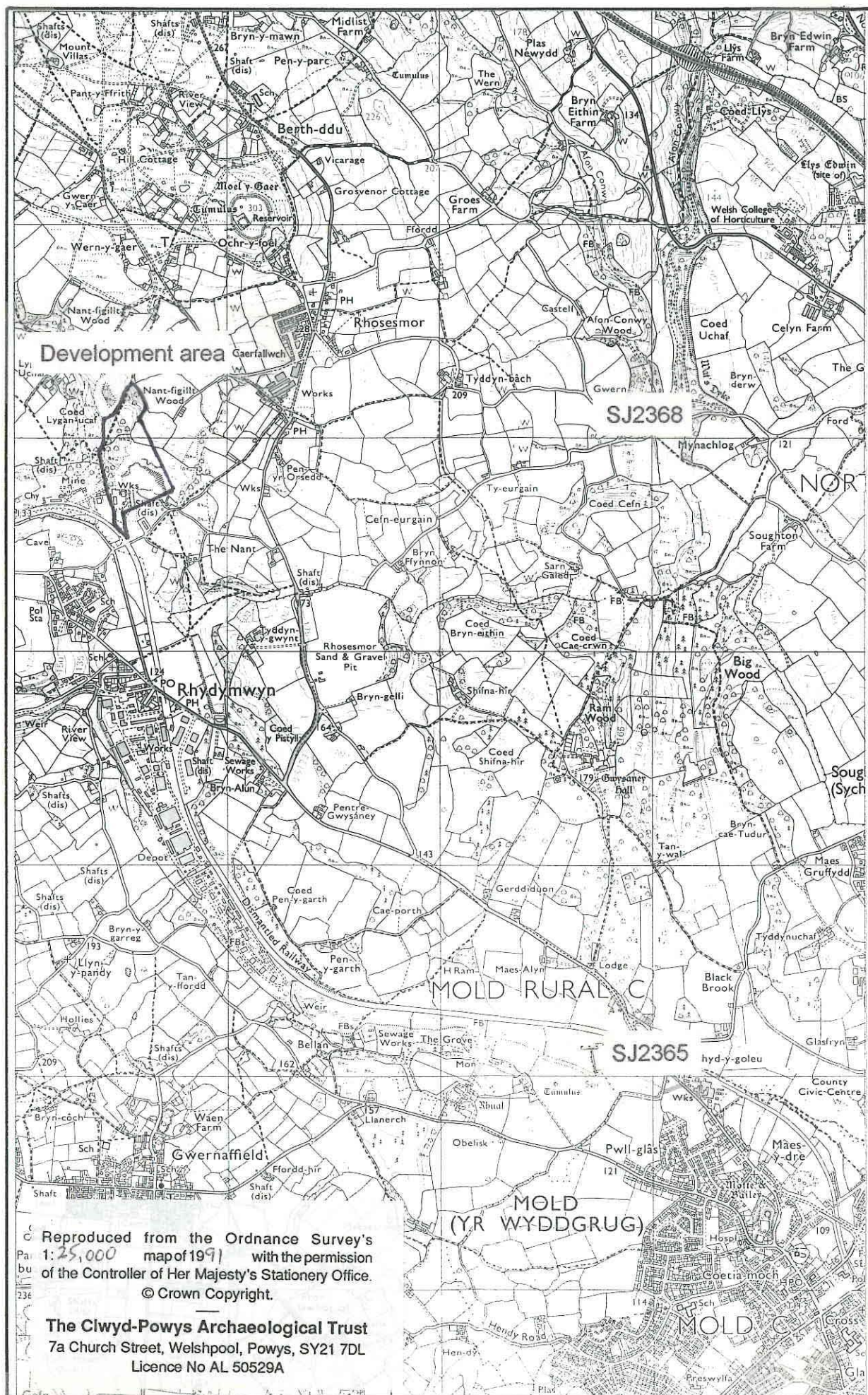


Fig. 1 Location, scale 1:25,000

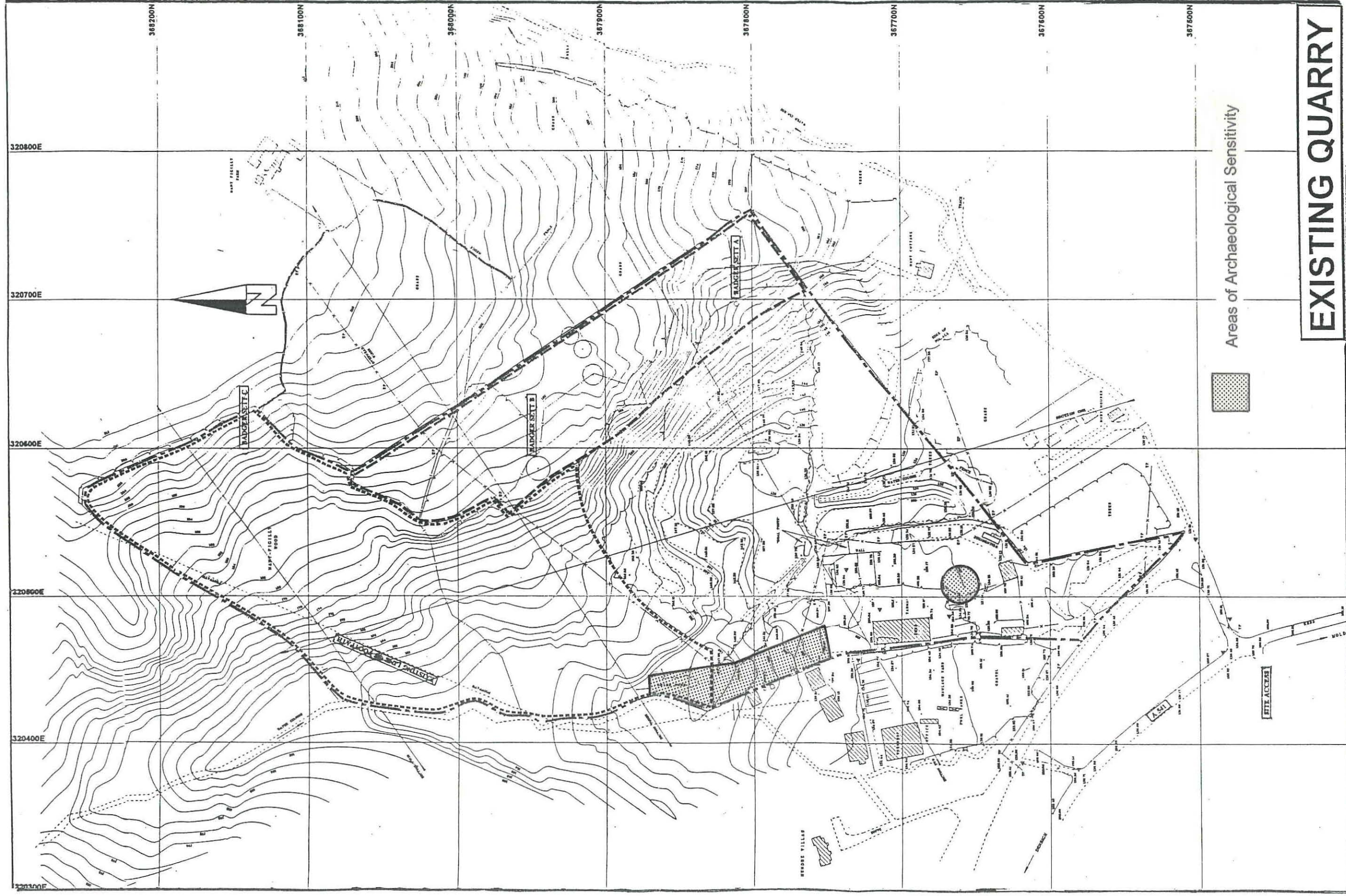


Fig. 2 Site plan, scale 1:2,500



Fig. 3 Extract from Northop Tithe Map 1839

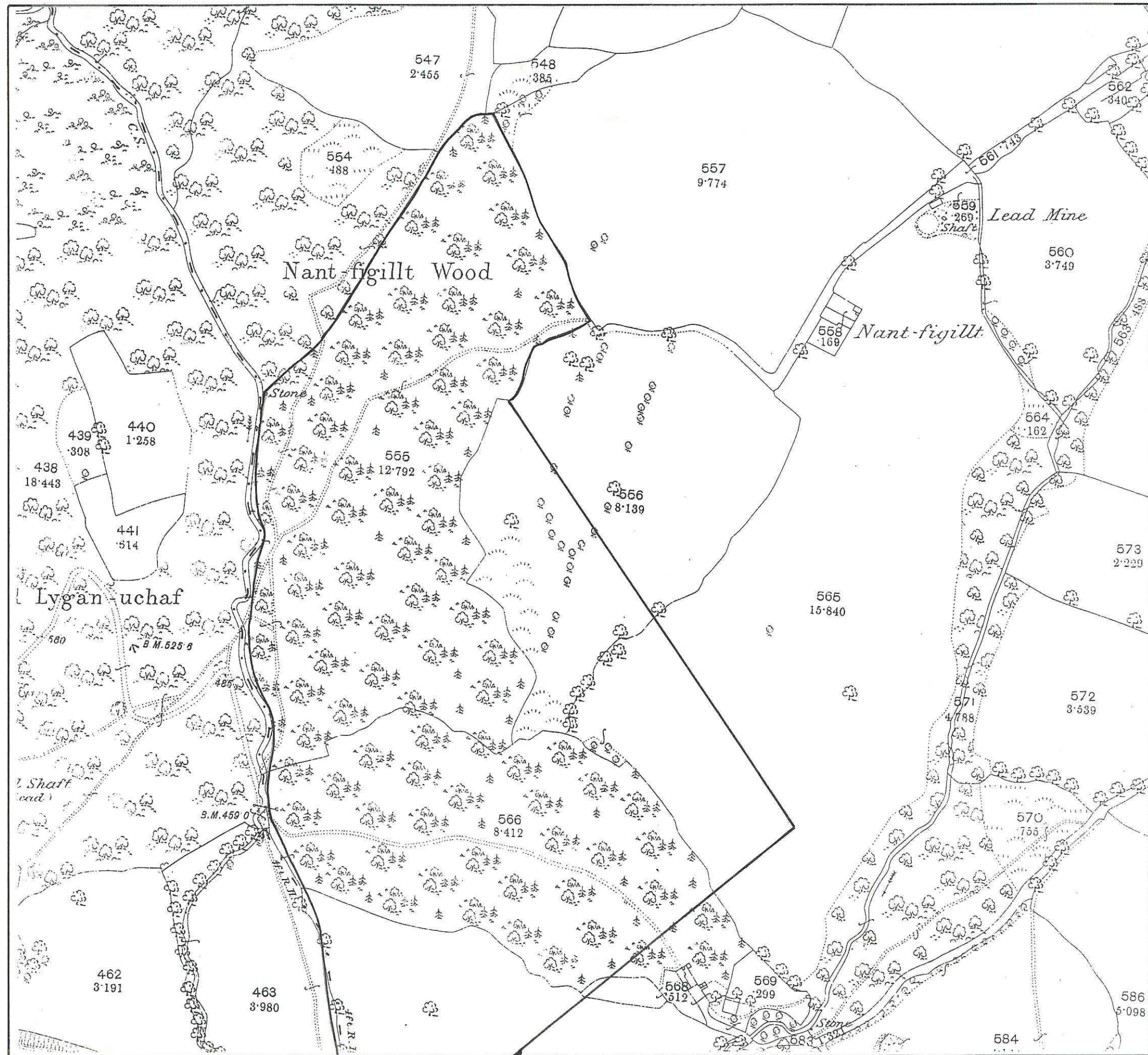


Fig 4 Extract from Ordnance Survey 1st Edition 1872

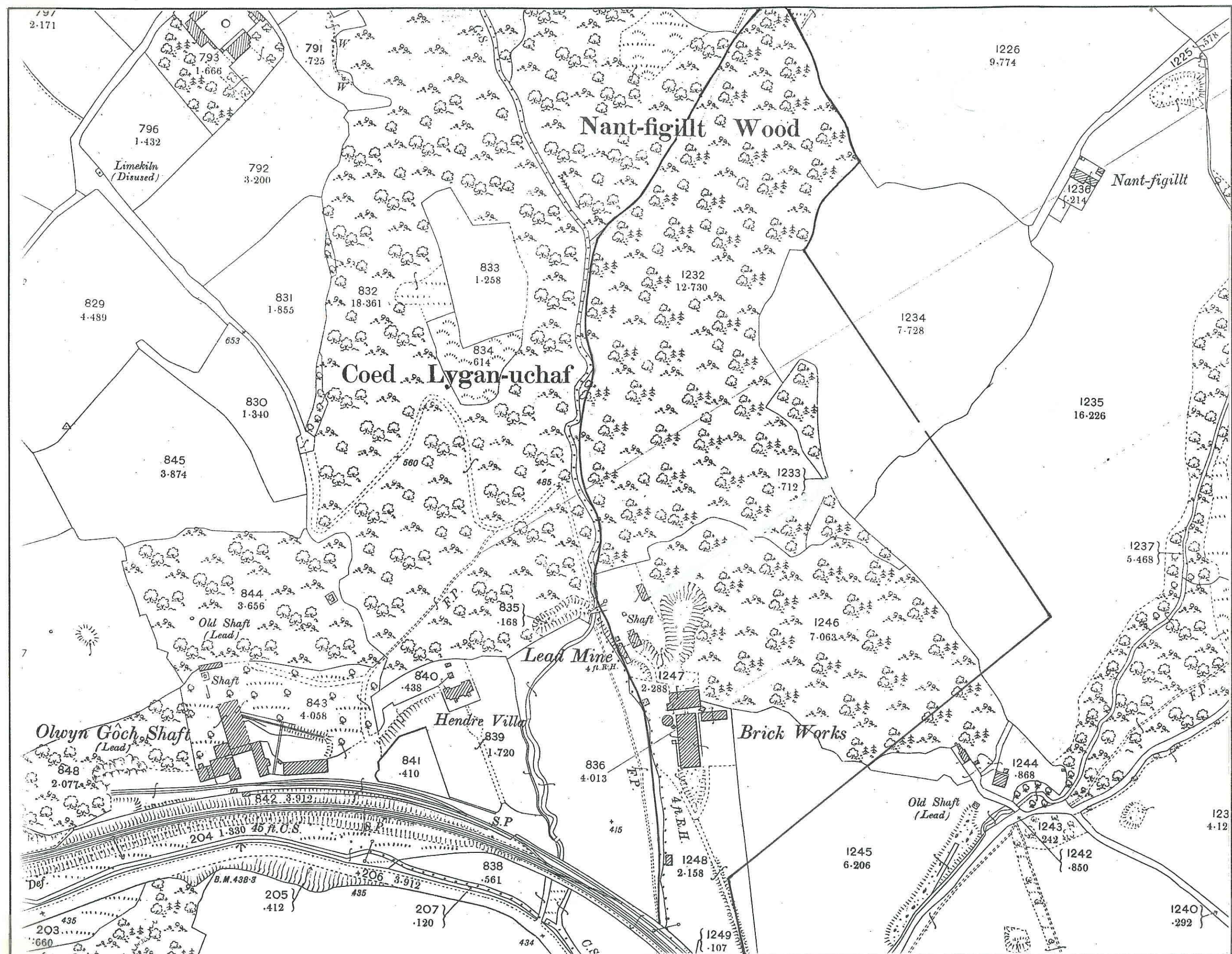


Fig. 5 Extract from Ordnance Survey 2nd Edition 1899

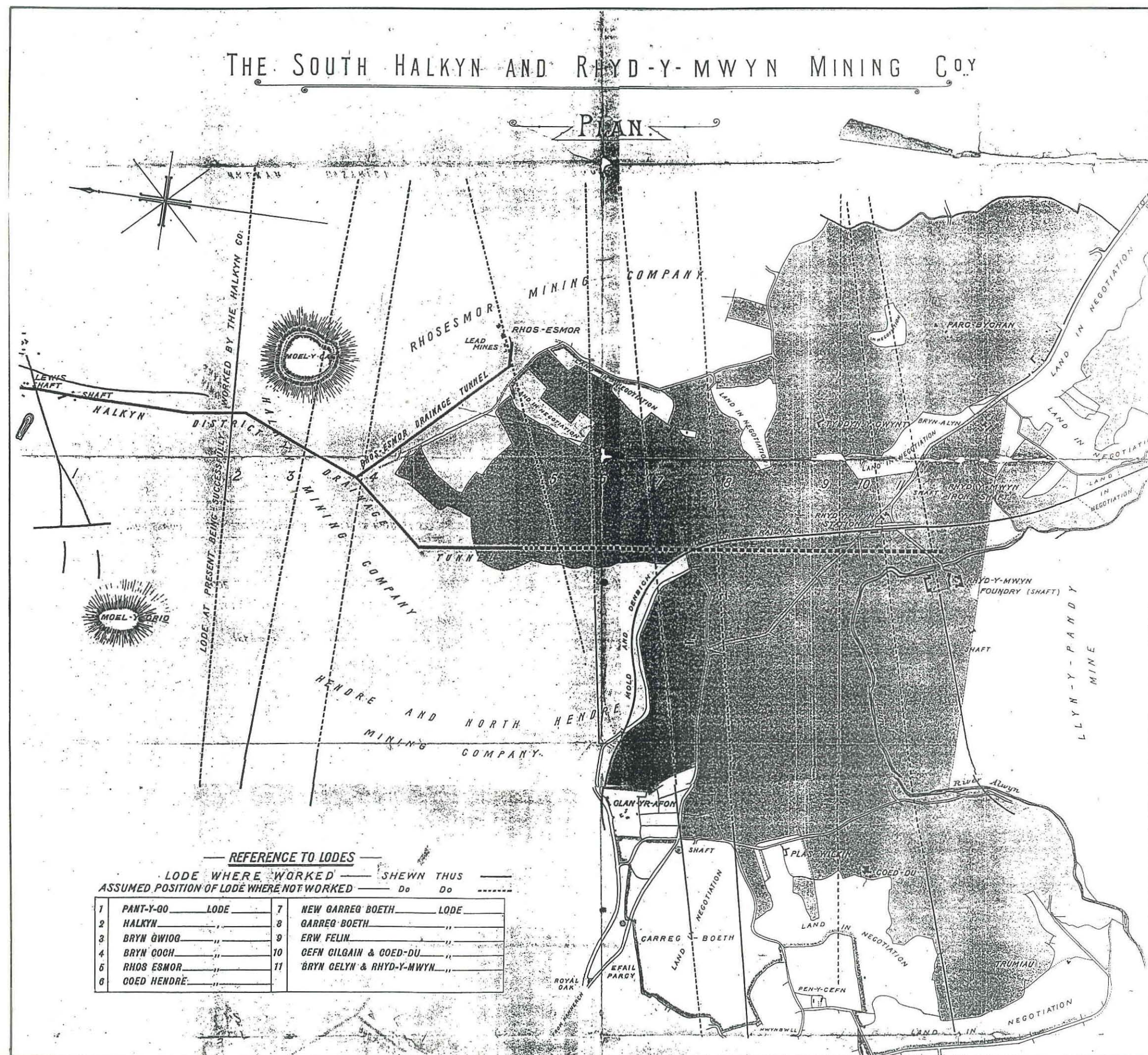


Fig. 7 Prospectus for South Hendre and Rhydymwyn Mine Company

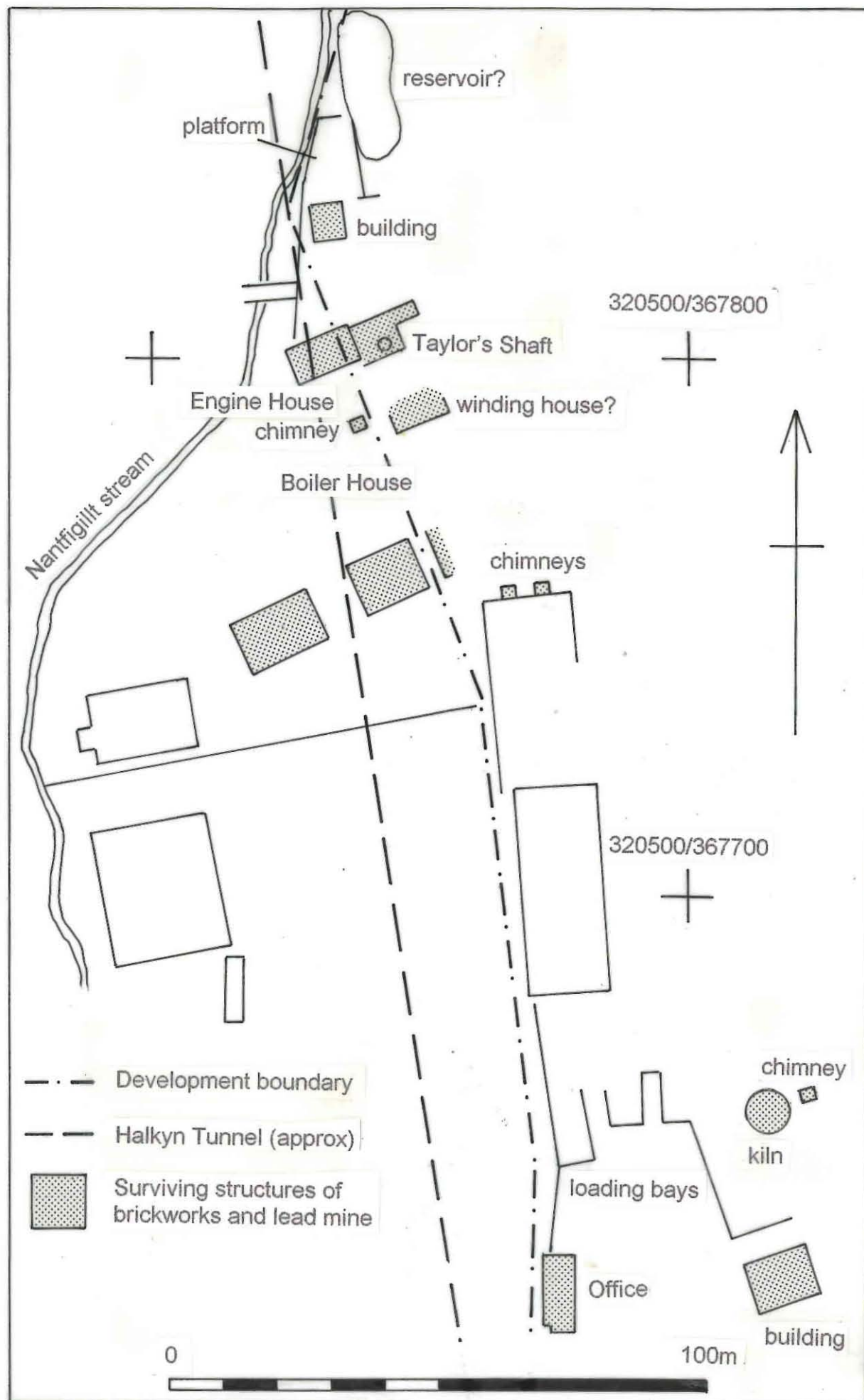


Fig. 8 Field Survey, scale 1:1,000