

THE CLWYD-POWYS ARCHAEOLOGICAL TRUST

Melin-y-Coed Pipeline, Llanrwst, Conwy

**ARCHAEOLOGICAL ASSESSMENT
REVISED REPORT**



CPAT Report No 708.1

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Report for Meica Process Ltd

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1 INTRODUCTION

- 1.1 The Field Services Section of the Clwyd-Powys Archaeological Trust (henceforward termed CPAT) was asked by Meica Process Ltd in March 2005 to provide a quotation for an archaeological assessment of the route of a proposed pipeline near Llanrwst in Conwy County Borough. The assessment was required by the Gwynedd Archaeological Planning Service (GAPS), based in Bangor, who provide archaeological advice to the local planning authority.
- 1.2 The CPAT quotation was accepted by Meica Process Ltd in early April 2005. Following discussions with Gwynedd Archaeological Planning Service, it was agreed that a written specification of works would be produced by CPAT, to be approved by GAPS and would stand in place of the normal curatorial brief.
- 1.3 The desk-top and field survey elements of the assessment were carried out in April 2005 and this report was written immediately thereafter.
- 1.4 Following the submission of CPAT's report to Meica Process Ltd on the assessment in May 2005 a minor amendment was introduced to the route of the proposed pipeline, and as a result of this revisions needed to be made to the report. The area subject to the revision lay towards the north-western end of the route and required further field survey, conducted in July 2005, within the recreational grounds of Ysgol Dyffryn Conwy and two pasture fields adjacent and south-east of the school.

2 LOCATION, TOPOGRAPHY AND GEOLOGY

- 2.1 The proposed pipeline is approximately 1.1km in length and runs south-east from the outskirts of Llanrwst (NGR: SH 80576126), within the north-western compounds of Ysgol Dyffryn Conwy, to its termination in the vicinity of the small settlement of Melin-y-Coed (NGR: SH 813606) in Conwy. The area that was examined consisted of a corridor, 60m in total width, centred on the defined route as shown in Fig. 1.
- 2.2 The north-western end of the route commences on the edge of the valley floor of the Afon Conwy at 20m OD, and then rises gently to a maximum of approximately 45m OD at its south-eastern end. With minor deviations, the route follows the course of the stream known as Nant y Goron, which is a small tributary of the Conwy.
- 2.3 Land-use in the majority of the archaeological study area is permanent pasture. Only at its north-western end does the nature of the route change in character, traversing across a school compound that includes grassed recreational grounds and road access lines. The vegetation cover of the area, where present, is mainly of grass, with some tree cover which mainly coincides with field boundaries.
- 2.4 The underlying geology consists of mudstones and siltstones belonging to the Wenlock Series of the Silurian period (British Geological Survey map, 1994). The soils of the locality are well-drained fine loamy or silty soils belonging to the Manod Association (Soil Survey of England and Wales map and legend, 1983).

3 METHODOLOGY

- 3.1 The initial phase of the assessment comprised a desk-based study of the readily available primary and secondary sources relating to the pipeline route. The repositories consulted include: the regional Historic Environment Record (HER), held by the Gwynedd Archaeological Trust in Bangor; the National Monuments Record (NMR), at the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW), in Aberystwyth; the National Library of Wales (NLW), also in Aberystwyth; and the Denbighshire County Record Office (CROR), in Ruthin. The NMR also provided aerial photography for study.
- 3.2 In the sections that follow the term *PRN* preceding a three or four digit number refers to the primary record number of that site in the regional Historic Environment Record.
- 3.3 Following the desk-based study, the route was examined by a walk-over survey. This entailed the systematic examination of the defined corridor at transect intervals of 30m, although this approach was often modified to fit in with the local field pattern. Detailed examination of domestic dwellings and commercial structures was not carried out, although brief records were made of the overall nature of any that appeared to have historic interest. Any sites that were encountered during the field survey were recorded on standard CPAT site visit forms, the data including: an accurate location using a hand-held global positioning system (GPS) receiver; a written description of character, function, condition, vulnerability, dating etc; and a sketch survey, where appropriate. Digital photography, to an appropriate resolution, has been taken of selected archaeological sites and locations.

4 ARCHAEOLOGICAL BACKGROUND

- 4.1 The earliest evidence for archaeological features and human activity in the vicinity of the proposed pipeline derives from the prehistoric period. Funerary practice in the Bronze Age is revealed by the Bronze Age cairn at Henblas, 2km north-east of the pipeline route, but, at present, there seems to be no evidence for corresponding settlement in the immediate locality, and this is likely to be revealed only through the identification of sub-surface deposits. That evidence of prehistoric settlement could be forthcoming in the future is suggested by the discovery of a perforated stone disc (PRN 2459) at Cae Groes in 1926, although this find has not been closely dated.
- 4.2 No direct evidence for Roman activity has yet been found in the immediate locality, but it is assumed that a road of this period passed down the western side of the Conwy valley, linking the forts at Caerhun and Bryn y Gefeiliau (Roberts 1996, 4).
- 4.3 The earliest known reference to the area around Llanrwst focuses on a battle fought here in AD 954 and recorded in *Brut y Tywysogion* (Soulsby 1983, 172-3). In the medieval period the area fell within the compass of the *cantref* of Rhos (Richards 1969, 319), and settlement of this period is amply demonstrated by a defensive site at Garreg Olau and the nearby Cistercian Abbey at Maenan, both approximately 4km to the north of Llanrwst (Roberts 1996, 4). By the 14th century there is evidence of the development of a borough at Llanrwst itself, but this was apparently destroyed during Owain Glyndŵr's attack on the town in the early 15th century (Soulsby 1983, 172).
- 4.4 By the early 17th century, the town was beginning to recover from its misfortunes, and it expanded, perhaps partially under the influence of the Wynn family of Gwydir, which lay on the opposite bank of the Conwy. Most of the historic buildings and farmsteads in the

locality (such as Cae Melwr) are likely to belong to these times, the so-called post-medieval period.

- 4.5 Some evidence of local industries, particularly milling, is apparent in the locality, probably as a result of the good availability of water. Melin-y-coed, near the south-east end of the pipeline is perhaps the nearest to the route, but it should be noted that there are some indications that a fulling mill was located in the area of Cae-Melwr (see paragraph 5.4, below).

5 RESULTS OF THE DESK-BASED STUDY

- 5.1 The information from the regional Historic Environment Record yielded only a single known site within the survey area, namely Pont Cae-Melwr, a bridge listed (as Grade II, PRN 3588) by Cadw: Welsh Historic Monuments, and thought to be late 18th-century in date. A number of other recorded sites are located in the vicinity, such as the listed house (PRN 3586) and farm buildings (PRN 3587) at Cae-Melwr, but all lie outside the proposal corridor. None of these known sites, as far as can be ascertained, will be directly affected by the proposed works.
- 5.2 Further information regarding Pont Cae-Melwr bridge was gained from a specification and agreement (CROR QSD/AB/1/315) for repairs to the turnpike road (Site 5), dated October 1781, and held in the Denbighshire County Record Office. This confirms the presence of the bridge at that date and describes a programme of improvements to the road, in an area up to 100yds either side of the bridge. The need for improvements at the time of the documentation suggests that a slightly earlier date should be attributed to the bridge than that presently considered.
- 5.3 The earliest cartographic source for the survey area is the Ordnance Surveyors' drawing (No 307), produced in 1818. Within the area of the pipeline, this only shows Ty (now Ty'r) Plant (Site 1), which is a house adjacent to the north-west end of the route, Cae Melwr (now Cae-Melwr) farm, and the route of the turnpike road, now the B5427.
- 5.4 A detailed picture of the local landholdings is provided by the 1839 Tithe Survey of Llanrwst (Fig 2), although the field names provided in the accompanying apportionment are not particularly informative regarding the possibility for any associated archaeological features. The only exception to this is the field which lies between the turnpike road and Nant y Goron and is named 'Cae'r Pandy', which translates to 'fulling mill field' (Site 2). Later mapping (see paragraph 5.5) shows a weir to the east of the field and a possible leat or artificial stream (Site 4) running in the direction of Cae-Melwr, perhaps suggesting that a fulling mill once existed there. Most of the fields seem to have formed part of either the Cae-Melwr or Coed-llydan-mawr farm holdings.
- 5.5 At the north-western end of the original proposed corridor, the first edition Ordnance Survey 1:10,560 map (Denbighshire 16NW; Fig 3) of 1880 depicts a group of buildings at Ty'r Plant, adjoining the turnpike road. The revised route now begins north-west of Ysgol Dyffryn Conwy from within an area that was shown in 1880 as pasture fields. The route then rejoins the original proposed corridor north of Bryn-afon house (Site 6), which can be seen opposite a second house next to Cae-Melwr bridge. As the route continues to the south-east the map depicts a foot bridge (Site 9) crossing the Nant y Goron stream. Further upstream, a weir (Site 3) is depicted with a possible leat leading in the direction of Cae-Melwr, while the route crosses the line of a boundary which had evidently been inserted following the production of the Tithe map. As the pipeline approaches its south-east end,

there seems to be evidence of a structure or enclosure (Site 7), near the stream at NGR SH 81246073.

- 5.6 The second edition Ordnance Survey map is less detailed than its predecessor, with the only added information being that the house adjacent to Cae Melwr bridge is named as Pont Cae-Melwr (Site 8). The third edition 1:2,500 map (Denbighshire 16.2; selected area reproduced as Fig 4) was produced in 1913, and shows largely the same sequence of buildings and structures as is described in the previous paragraph, with only the following two exceptions. The weir on Nant y Goron is now depicted as an aqueduct, although the reason for the change is not obvious and may be an error. Additionally, the structure or enclosure is resolved into two adjoining pentagonal features. Given the lack of any corroborative evidence it is possible that it represents either some type of sheepfold or a possible pond.
- 5.7 The Coed-llydan estate was auctioned in 1919, and the sale catalogue (CROR DD/PO/1729) gives some details regarding the eastern part of the assessment corridor, which fell within the fields attached to Coed-llydan-mawr farm. Although the fields are depicted on a plan and named, none of the names is archaeologically significant and the plan is a direct copy of the 1:2,500 Ordnance Survey map of 1913.
- 5.8 The aerial photography for the corridor was examined at the NMR, and had been taken between 1947 and 1973. No significant additional information was revealed except that in the period covered by the photography, development of an industrial complex adjacent to Pont Cae-Melwr house appears to have commenced, as had expansion of the cemetery on the opposite side of the B5427. A detailed assessment of the smaller features was not possible, partly due to tree cover, but the houses and farms noted all appear to have continued in use.

6 RESULTS OF THE FIELD SURVEY

- 6.1 The basic methodology of the field survey is briefly described in paragraph 3.2, above. No sites were revealed by the field survey that had not already been recognised from desk-based sources. Accordingly, the field survey focussed on the present condition of the identified sites and the assessment of their nature, function and potential importance.
- 6.2 A brief assessment of the field boundaries in the study area reveals that the predominant form is of hedges on low banks of earth or stone, although this pertains mainly to the land crossed by the central and south-eastern parts of the route, which remain unaffected by the urban spread of Llanrwst. One stone-walled boundary was noted (at NGR: SH 81126082, see photograph below), which is that noted in paragraph 5.5 as having been constructed between 1839 and 1880, but the proposed route passes through a gateway in its line and it should remain unaffected. No exceptional or atypical boundaries were observed.
- 6.3 At the north-west end of the original route, Ty'r Plant survives on the north-west side of the access road to the Bodnant Caravan Park. The revised pipeline will not follow the access road through this area and consequently there should be no effect on the dwelling. In addition the revised route will now bypass the modern, tarmac-surfaced, B5427 road, which is aligned along an antiquated turnpike road.



Plate 1 Stone wall crossed by the pipeline route in fields to the south-east of Bryn-Afon

- 6.4 Although Pont Cae-Melwr bridge will not be affected by pipeline works a brief descriptive and photographic record was made of the feature. The bridge is arched and stone-built, and its appearance suggests that it is probably the original structure which carried the turnpike road over the Nant y Goron stream.



Plate 2 Pont Cae-Melwr bridge (PRN 3588)

- 6.5 The route enters pasture fields to the north of Bryn-afon and runs south-eastwards, passing the footbridge mentioned above in paragraph 4.5, before crossing a tributary stream of the Nant y Goron. The route then passes through a gateway in a stone wall built

and 1880, as mentioned in paragraph 6.2. No trace of the weir depicted on the Ordnance Survey maps was recognised at the southern end of the wall.

- 6.6 The site of a possible sheepfold (site 7) was examined but no extant traces of the site were identified. There is still a possibility for sub-surface remains of the site to survive which may shed light on the origin and function of the site. All of this section, up to the south-eastern end of the pipeline, passes through pasture fields, with no visible archaeological features.

7 ARCHAEOLOGICAL SUMMARY

- 7.1 Each site of archaeological interest, identified during archaeological study, has been classified according to its perceived significance. The categories, with the exception of Category E, are based on those given in the Department of Environment, Transport and Regions' *Design Manual for Roads and Bridges* (DMRB) Volume 11 Section 3 Part 2 (1993). Category E is taken from the draft *Archaeology and the Trunk Road Programme in Wales: a Manual of Best Practice* prepared by Cadw: Welsh Historic Monuments (n.d.) which in other respects follows the DMRB volume.

Category A sites are those believed by CPAT to be of primary significance, either potentially of national importance or already designated by CADW: Welsh Historic Monuments as scheduled ancient monuments or listed buildings. It is presumed that sites in this category will be preserved and protected *in situ*.

Category B sites are sites of regional importance. These sites are not of sufficient importance to justify scheduling, but are nevertheless important in aiding the understanding and interpretation of the archaeology of the region. Preservation *in situ* is the preferred option for these sites, but if loss or damage is unavoidable, appropriate detailed recording should be undertaken.

Category C sites are sites of local importance. These sites are of lesser importance, but are nevertheless useful in aiding the understanding and interpretation of the archaeology of the local area. They are not normally of sufficient importance to justify preservation if threatened, but merit adequate recording in advance of loss or damage, or if portable they should be moved.

Category D sites are either sites of minor importance or those which are so badly damaged that too little now remains to justify their inclusion in a higher grade. Rapid recording should be sufficient, but as with Category C sites they should be moved if this is an appropriate strategy.

Category E sites are sites which have been identified, but whose importance cannot be assessed from fieldwork and desk-based study alone. An archaeological evaluation would be required to categorise such a site more accurately if the proposal was likely to affect it in any way.

- 7.2 The locations of the individual archaeological sites are shown on Figure 1. Tables summarising the archaeology of the study area according to its perceived importance are provided below.

7.2.1 Category A sites

Site No	Name	Type	Period	Condition	NGR
PRN 3588	Pont Cae-Melwr	Bridge	18th Century	Intact	SH 80816091

The house and buildings at Cae-Melwr are also statutorily designated as listed buildings, but these lie just outside the proposal corridor.

7.2.2 Category B sites

Site No	Name	Type	Period	Condition	NGR
Site 1	Ty'r Plant house	House	18th Century ?	Intact	SH 80556104
Site 6	Bryn-Afon house	House	19th century ?	Intact	SH 80806093
Site 8	Pont Cae-Melwr house	House	19th century ?	Intact	SH 80786091

7.2.3 Category C sites

Site No	Name	Type	Period	Condition	NGR
Site 4	Cae'r Pandy leat	Leat	Post-medieval ?	Damaged	SH 81116078 to SH 80856087
Site 5	Cae Melwr turnpike road	Road	18th century	Near intact ?	SH 80206130 to SH 81206010
Site 9	Bryn-Afon bridge	Footbridge	19th century ?	Intact	SH 80886092

7.2.4 Category D sites

Site No	Name	Type	Period	Condition	NGR
Site 3	Nant y Goron weir	Weir	Post-medieval ?	Destroyed	SH 81116078

7.2.5 Category E sites

Site No	Name	Type	Period	Condition	NGR
Site 2	Cae'r Pandy	Placename	Post-medieval ?	Unknown	SH 80956085
Site 7	Nant y Goron structure	Sheepfold ?	Post Medieval ?	Unknown	SH 81236073

8 IMPACT AND MITIGATION

8.1 Impacts

The potential impacts of the proposal on the archaeological resource of the corridor are considered in the table below.

Site No	Name	Type	Condition	Impact	Category
PRN 3588	Pont Cae-Melwr	Bridge	Intact	None	A
Site 1	Ty'r Plant house	House	Intact	None	B
Site 2	Cae'r Pandy	Placename	Unknown	None	E
Site 3	Nant y Goron weir	Weir	Destroyed	None	D
Site 4	Cae'r Pandy leat	Leat	Damaged	None	C
Site 5	Cae Melwr turnpike road	Road	Near intact ?	None	C
Site 6	Bryn-Afon house	House	Intact	None	B
Site 7	Nant y Goron structure	Sheepfold?	Unknown	Possible damage to any surviving sub-surface remains	E
Site 8	Pont Cae-Melwr house	House	Intact	None	B
Site 9	Bryn-Afon bridge	Footbridge	Intact	None	C

8.2 In addition to the sites recorded above, there is the potential for further unrecorded sites that may be disturbed or destroyed by the proposed pipeline. These sites consist of those which have not been previously recorded and only remain as sub-surface features, having no extant visible traces.

8.3 Mitigation

Consideration of the potential impact on the known archaeology suggests that the mitigation measures which follow provide an appropriate response to the proposals.

8.3.1 Terminology

The following standard archaeological terms are used below as recommended mitigation measures:

i) **Preservation in situ:** where it is considered to be the most suitable response it may be considered appropriate to preserve the site in its present form, condition and location.

ii) **Preservation by record:** where proposals will inevitably lead to the loss of a site sufficient recording should be undertaken to provide a full, accurate and permanent record of its nature, form, significance and dating. Preservation by record can take a number of forms, depending on the nature of the site in question, and may be achieved with or without excavation and could include any or all of the following: written record; drawn record; photographic record; artefactual record; survey; and environmental sampling.

iii) **Evaluation:** where insufficient information exists regarding a site for a decision to be made regarding its future management a programme of investigative work may be

proposed. Such investigation may include geophysical survey, topographical survey and trial excavation.

iv) **Watching brief:** a watching brief may be recommended to include archaeological monitoring of all relevant ground works, including topsoiling, in order to identify and record any previously unknown archaeological remains which may be revealed. Sufficient time must be allowed for adequate recording of any remains that are encountered.

8.3.2 General Mitigation

It has been noted in paragraph 8.2 that there is a potential for unrecorded, buried archaeological remains within the proposal area which may be subject to an impact from the proposal. Sites which fall into this category specifically include those without obvious surface traces, or artefact remains, such as prehistoric flint scatters. In order to provide some mitigation for the potential impact of the scheme in this regard, it is suggested that a watching brief be carried out during any significant ground disturbance. This should be targeted primarily on the process of topsoil stripping prior to the commencement of pipeline installation work, but might also be valid during the trenching process.

8.3.3 Site-specific Mitigation

The assessment has identified potential impacts on the following recorded sites and mitigation measures are suggested below.

Site No	Name	Type	Condition	Impact	Mitigation
PRN 3588	Pont Cae-Melwr	Bridge	Intact	None	None required
Site	Ty'r Plant house	House	Intact	None	None required
Site	Cae'r Pandy	Placename	Unknown	None	None required
Site	Nant y Goron weir	Weir	Destroyed	None	None required
Site	Cae'r Pandy leat	Leat	Damaged	None	None required
Site	Cae Melwr turnpike road	Road	Near intact ?	None	None required
Site	Bryn-Afon house	House	Intact	None	None required
Site	Nant y Goron structure	Sheepfold?	Unknown	Possible damage to any surviving sub-surface remains	Watching brief during topsoil stripping
Site	Pont Cae-Melwr house	House	Intact	None	None required
Site	Bryn-Afon bridge	Footbridge	Intact	None	None required

9 CONCLUSIONS

- 9.1 Only one site which is considered to be of national importance is situated within the archaeological study area, namely the listed bridge at Cae-Melwr. The pipeline traverses pasture fields to the north of the bridge which will, therefore, remain unaffected by the proposal. Additionally, there are two listed buildings which are nearby, but the nature of the proposal means that there will be no visual intrusion on their setting.
- 9.2 No sites are recommended for evaluation. A watching brief should be maintained during topsoil stripping in the recreational grounds of Ysgol Dyffryn Conwy and also through all the pasture fields beginning at the point south-east of the school boundary, north of Bryn-Afon and then eastwards to ensure that any possible sites which may exist, but for which no surface traces can be discerned, are provided with suitable mitigation. During this watching brief, specific attention should be paid to the location of the possible fold (Site 7), alongside the Nant y Goron.
- 9.3 The remaining archaeological sites in the pipeline corridor should not be affected by the installation works. If any disturbance is contemplated to one of these other sites during the progress of the work, then further mitigation will be needed.

10 ACKNOWLEDGEMENTS

- 10.1 The writer would like to thank the following for their assistance and co-operation: Ian Grant, Nigel Jones and Bob Silvester of the Field Services Section of CPAT; Dr D O'Malley, Meica Process Ltd for facilitating the work; Mr E Hughes, Cae-Melwr, for his permission to visit the route of the pipeline; Nina Steele, Historic Environment Record Officer, GAT; the staff of the National Monument Record, RCAHMW, Aberystwyth; the staff of the Denbighshire County Record Office, Ruthin; and the staff of the National Library of Wales, Aberystwyth.

11 REFERENCES

11.1 Published and Printed Sources

- Davies, E, 1929, *The Prehistoric and Roman Remains of Denbighshire*, Cardiff
- Richards, M, 1969, *Welsh Administrative and Territorial Units*, Cardiff, UWP
- Roberts, R, 1996, *Bryn Cowlyd to Gors Wen Link Main*, Bangor: GAT
- Soulsby, I, 1983 *The towns of medieval Wales*. Chichester, Sussex: Phillimore

11.2 Cartographic Sources

- 1818 Ordnance Surveyors' Drawing No 307
- 1839 Tithe survey: Llanrwst, Denbighshire
- 1880 First edition Ordnance Survey 1:10,560 map (Denbighshire 16NW)

- 1901 Second edition Ordnance Survey 1:10,560 map (Denbighshire 16NW)
- 1913 Third edition Ordnance Survey 1:2,500 map (Denbighshire 16.2)
- 1919 Sale catalogue of the Coed-llydan estate (CROR DD/PO/1729)
- 1983 Soil Survey of England and Wales map and legend (Sheet 2 - Wales, at 1:250,000 scale)
- 1994 British Geological Survey map of Wales (Solid edition, at 1:250,000 scale)

12.3 Aerial Photographic Sources

RAF Vertical APs:

CPE/UK 1996/No 2358, dated 13-04-1947

541/38/No 4117, dated 21-5-1948

541/178/No 4096, dated 8-10-1948

F21 82/889/No 124, dated 6-4-1954

F21 58/1452/No 220, dated 31-5-1954

F22 82/934/No 81, dated 1-6-1954

Ordnance Survey Vertical Aps:

72 369 No 209, dated 1-9-1972

72 370 No 270, dated 1-9-1972

73 174 No 236, n.d. (1973)

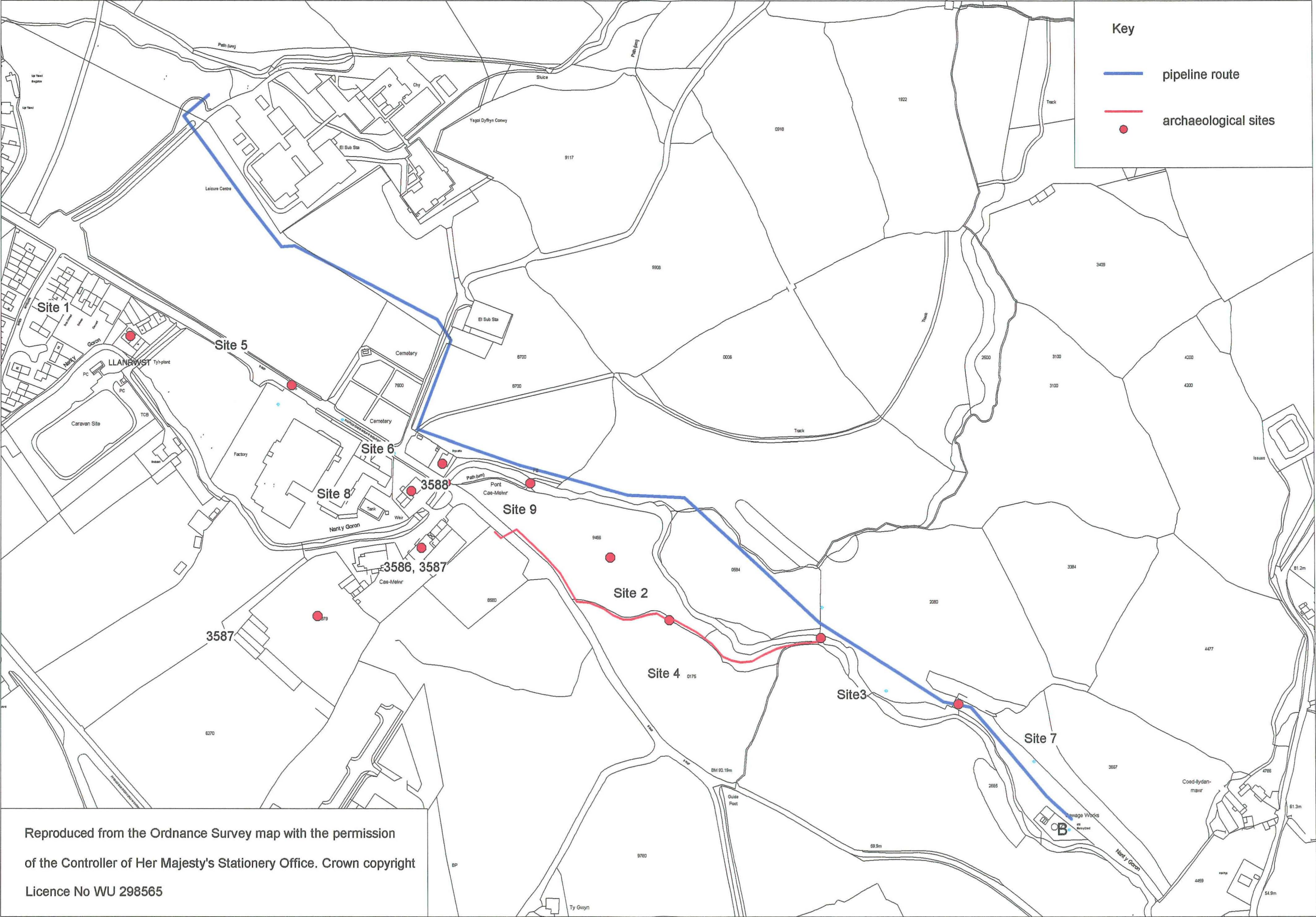


Fig. 1 Pipeline route and archaeological sites, scale 1:3,000

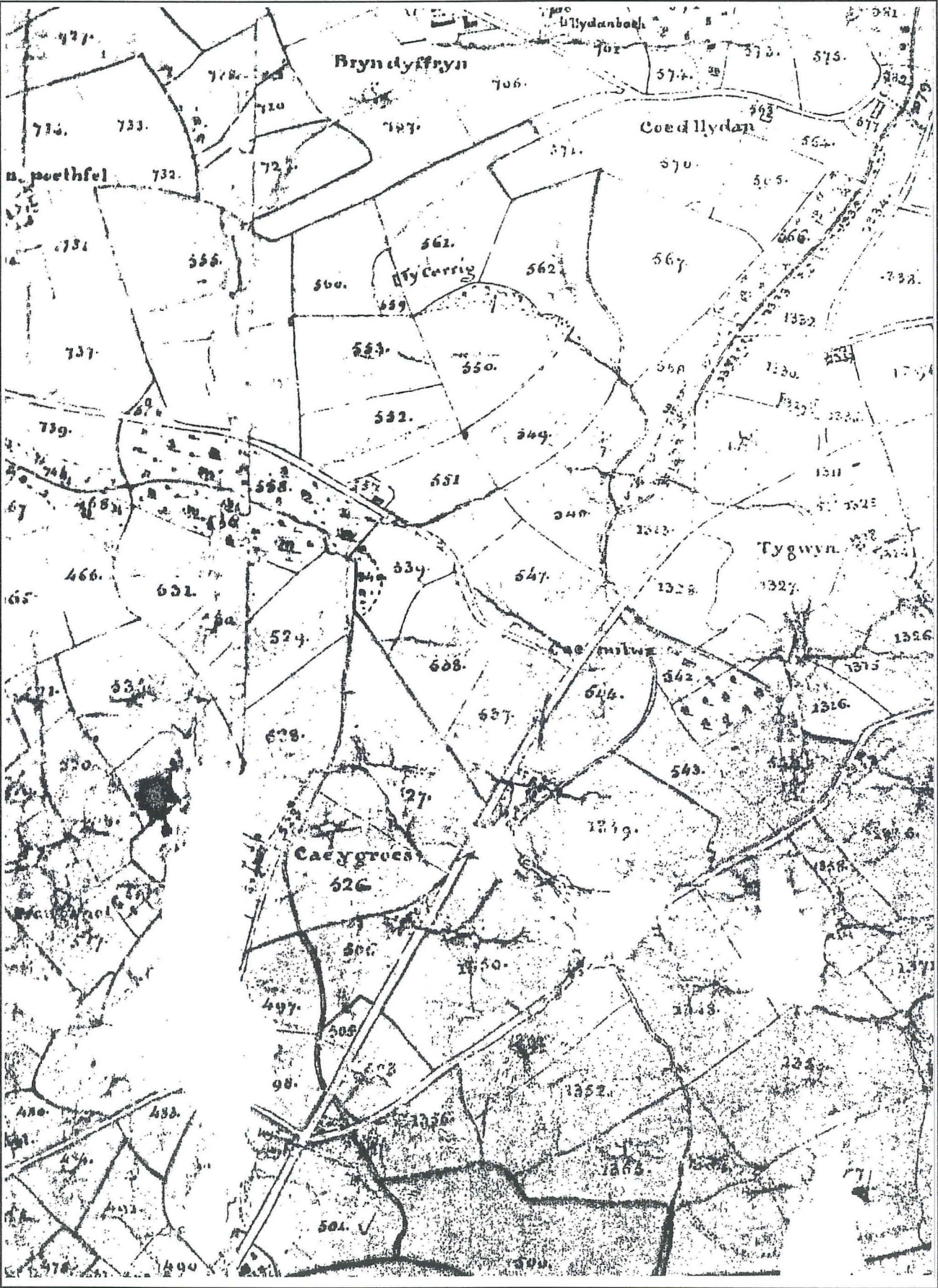


Fig. 2 Llanrwst Tithe map of 1839



Fig. 3 First edition Ordnance Survey 1:10,560 map of 1880 (Denbighshire 16NW)

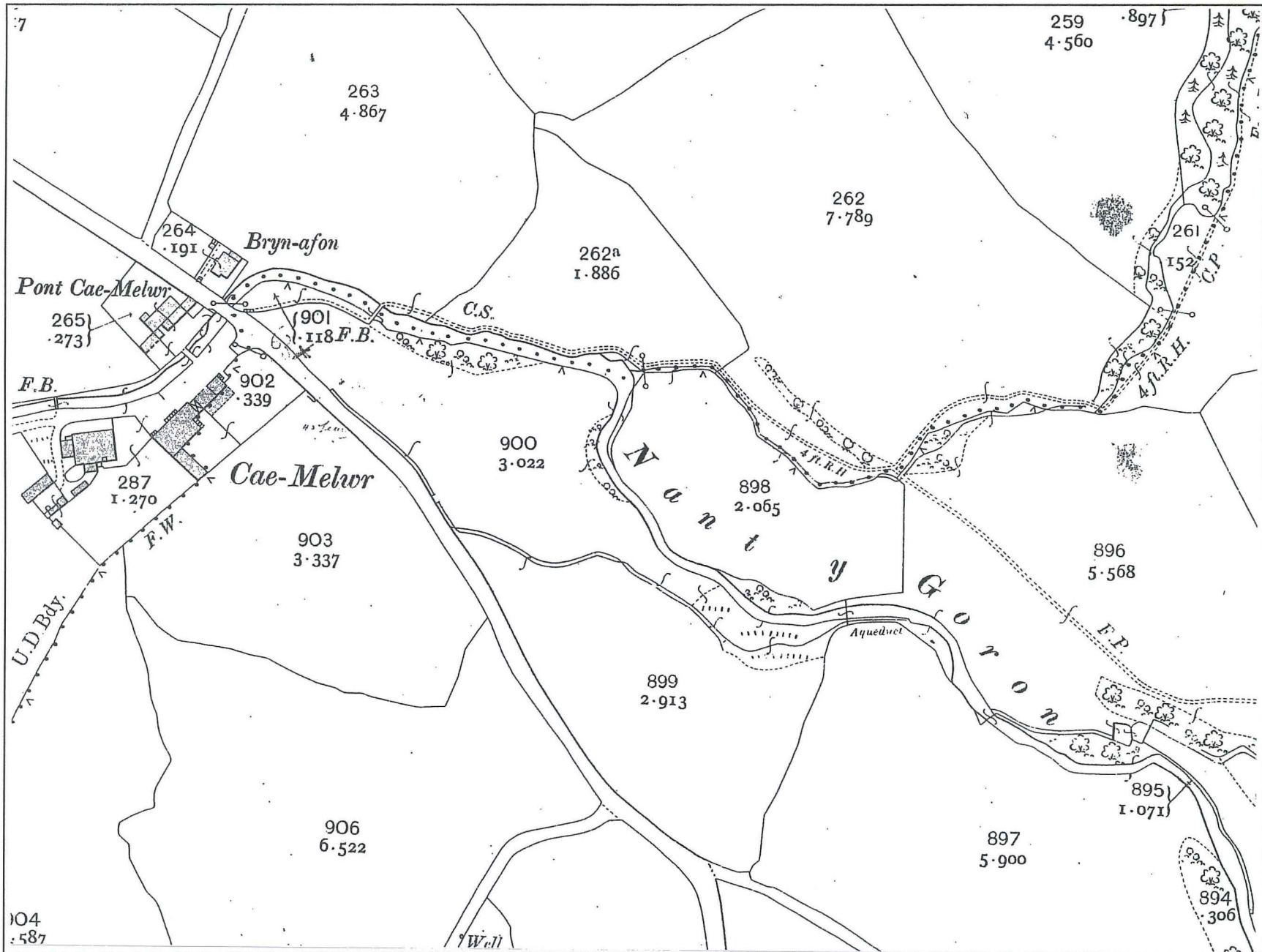


Fig. 4 Selected portion of Third edition Ordnance Survey 1:2,500 map of 1913 (Denbighshire 16.2)