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# Afon Wen Wastewater Treatment Scheme

## Chwillog

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### Archaeological watching brief 2005

GAT Project No. 1854

Report No. 610

October 2005

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## Archaeological Watching Brief

Report No. 610

Prepared for The Symonds Group

October 2005

By

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# **Afon Wen Wastewater Treatment Scheme, Chwillog (G1854)**

## **ARCHAEOLOGICAL WATCHING BRIEF**

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## **Archaeological Watching Brief: Afon Wen Wastewater Treatment Scheme, Chwillog (G1854)**

### **SUMMARY**

*An archaeological watching brief was undertaken in advance of the construction of a wastewater treatment works near Afon Wen, Chwillog. No archaeological activity was identified or recorded within the watching brief area.*

### **1 INTRODUCTION**

Symonds Group Ltd asked Gwynedd Archaeological Trust to undertake an archaeological watching brief of a plot of land (centred on SH 4390 3735) to the south of Afon Wen, Chwillog, during the construction of a waste water treatment works (see fig 1). The construction work was conducted by William Hughes Ltd.

The results of the field survey in advance of the treatment works identified two features within the area that required inspection during the construction phase. The first was a north to south aligned scarp that ran along the eastern side of the study area (Feature 3; GAT Report No. 551). It was recorded as a field boundary, with soil build-up from ploughing, dating from at least the 18<sup>th</sup> century (*ibid.*). The second feature incorporated two slight linear hollows that ran across the study area (Feature 5; GAT Report No. 551). They appeared to correspond to boundaries on the 1889 map, which had disappeared by 1900. They were assumed to post-date the railway and were therefore of “minimal importance” (*ibid.*).

### **2 SPECIFICATION AND PROJECT DESIGN**

The basic requirement was for a watching brief of the proposed area, in order to assess the impact of the proposals on the archaeological features within the area concerned. The importance and condition of known archaeological remains were to be assessed, and areas of archaeological potential identified. Measures to mitigate the effects of the construction work on the archaeological resource were to be suggested.

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

- Watching brief
- Report

### **3 METHODS AND TECHNIQUES**

The watching brief was undertaken during June and July, 2005.

The aim of the watching brief was to monitor the construction of wastewater treatment works. The study area included the site of the treatment works and an associated water supply pipe. The treatment works covered an area c.33.0m x 24.0m (792m<sup>2</sup>) and included the excavation of two large trenches to incorporate a primary settlement tank and a final settlement tank as well as sundry inlet and outlet holes (Figure 1). A new access road to the treatment works was also excavated.

A subsequent report was completed that included the information from the watching brief and information derived from secondary sources.

## **5 ARCHAEOLOGICAL BACKGROUND**

**(Reproduced from GAT Report 551)**

### **4.1 Topographic description**

The study area site lies at an altitude of c. 10m OD on the southern coast of the Llŷn Peninsula. It is situated on the western bank of the river Afon Wen not far from its mouth. The study area is a long triangular field defined on the west by the embankment of a disused railway and on the east by a lane

running next to the river. The Afon Wen forms the boundary between the parishes of Llanarmon and Llanystumdwy, with Aber-erch reaching the river at the southern end of the study area. A waste water pipe will run into the study area from the former DCWW depot. This is the subject of a separate assessment report.

The geology of the area is mostly Ordovician sedimentary rocks with igneous intrusions, such as that forming the Penychain peninsula just south-west of the study area (Bassett and Davies 1977, 19). Grey slates and mudstones of the Tremadoc series underlie the study area, with most of the intrusive rocks in the area being rhyolites (Smith and George 1961, 28; Roberts 1979). This land to the east of the Penychain headland on the banks of the river is some of the better quality land in the area (Gresham 1973, 343).

## **4.2 Archaeological and historical background**

There is evidence of prehistoric activity in the area as four standing stones and three megalithic burial chambers are known from the parishes of Aber-erch, Llanarmon and Llanystumdwy (Bassett and Davies 1977, 35-36; RCAHMW 1960, 1964). No finds of this period are known from the immediate proximity of the study area, although a Bronze Age stone hammer and a Neolithic polished stone axe were found near Chwillog (PRN 2274, SH433 383; PRN 5761, SH430 380). Finds and sites dating from the Iron Age and Roman periods have not yet been discovered in the area but numerous hut groups from these periods are found elsewhere on the Llŷn Peninsula and it is likely that this area was also settled. The potential was demonstrated by the recent discovery near Pont Llwyn Gwyn of two circular banks, apparently hut circles of Romano-British or possibly earlier date (PRN 5732, SH42793688) (GAT Report 60).

The area was quite intensively settled in the medieval period, but although there is some documentary evidence of settlements little survives on the ground. The medieval townships of Pennarth (PRN 7345, SH429 376) and Chwillog (PRN 7349, SH435 383) were located to the north-west and north but the study area itself was probably located within the bond township of Penychen. This township became crown land soon after the Edwardian Conquest and Edward I spent a night there in 1284 on his way from Pwllheli to Caernarfon. He presumably stayed at the hall of the recently deceased lord of Penychen, Tudur ab Einion. To accommodate the king and his entourage the hall must have been substantial. Its site has not been conclusively located, but into the 19<sup>th</sup> century the name Llys Engan was associated with a ruinous cottage close to the sea between the Penychain headland and the mouth of the Afon Wen. Documentary records demonstrate that the demesne lands were situated on the coast on the best soil in the south-east corner of the township, so it is likely that the hall was also in this area. Unfortunately much of this land has been eroded into the sea and the site of the hall is almost certainly lost (Gresham 1973, 345). A mound called Tomen Pendorlan is located near the mouth of the Afon Wen (PRN 2270, SH44133706). This appears to be of natural origin, but may repay further investigation.

An archaeological assessment in advance of improvements to the A497 (GAT report 60) identified an area of earthworks to the south-east of Tyddyn Berth (PRN 5733, SH43753732), just the other side of the railway line from the study area. This is a large area of substantial earthworks, which appear too massive and too confused in plan to be connected with drainage. It is suggested that they may represent settlement remains, perhaps the main settlement of the township of Penychain. In 1590 there were 91 people living in 16 dwellings in Penychen, so this settlement could be relatively substantial (Gresham 1973, 348). A mill is mentioned at Penychen in the 1362 Extents, and Gresham sites this on the west bank of the Afon Wen, although it had decayed and disappeared by the 16<sup>th</sup> century and its location is now unknown (Gresham 1973, 345-6).

By 1784 the township belonged to Sir Thomas Wynn, the first Baron Newborough of Glynllifon, and the numerous small holdings were rationalised into larger farms; a single farm called Penychain included much of the original demesne land (Gresham 1973, 350), but not the study area (Glynllifon 8356).

There have been relatively few changes to the area since the 18<sup>th</sup> century and some of the early buildings survive along with the general layout of the fields and roads. The present A497 is approximately along the line of a route which would have been important since at least the 12<sup>th</sup> century and was turnpiked in 1803 by the Portin-Ilaen Turnpike Trust (Bassett and Davies 1977, 78, 164-166).

John Evans' 1795 map of North Wales (figure 2) shows the main road here along its present route, but does not show the lane up to Tyddyn Mawr, probably because it was too minor. The lane is shown on the tithe map in 1839 (figure 3). Minor improvements have taken place on the roads; between 1839 and 1889 the A497 seems to have been straightened, possibly when Afon Wen Terrace was built in the mid 19<sup>th</sup> century. In more recent times the southern end of the lane to Tyddyn Mawr has been altered so that it meets the main road at a right angle.

Plas y Nant, up river from the study area, (PRN 6340, SH43823792) is a grade II listed building dating from the 17<sup>th</sup> Century. Melin Ffridd-lwyd, marked on the first edition 25" OS map as a corn mill (figure 4), is shown on the 1839 tithe map, and is named on Evans' 1795 map (figure 2), giving it at least an 18<sup>th</sup> century origin. The mill was disused by 1917 (figure 6) and later incorporated in the former laundry buildings. Also on the tithe maps are Tyddyn Berth, Tyddyn Mawr, and the house next to the bridge, Pen-y-bont, then called Penbont Mawr. John Evans' map shows buildings that must be Tyddyn Berth and Tyddyn Mawr and marks the bridge.

The biggest change to the area was the arrival of the railways. A railway embankment runs down the western side of the study area. This is part of the Caernarvonshire Railway, which ran south from Caernarfon to join the Cambrian Railway along the south coast of the Llŷn at the mouth of the Afon Wen, where a station was built (NPRN 41469). This section of the Caernarvonshire Railway, built by 1860s the Cambrian Railways Company, was opened in September 1867 and the Cambrian Line was opened shortly after (Baughan 1991, 99). London and North Western Railways took over the Caernarvonshire line in 1871. After World War II the lines were busy as the Holiday Camp opened with at station at Penychain on the Cambrian Line. There was heavy traffic in summer on the Caernarvon Line as tourist excursions were run to Llanberis but passenger services ended in 1964 and the track was lifted in 1968 (Baughan 1991, 104-105).

## **5.2 Results of the Archaeological Watching Brief**

The archive is held by GAT under the project number (**G1854**).

The new access road to the treatment works and the office compound area had been completed prior to the instigation of the watching brief. The office compound was located across the northern linear hollow defining Feature 5 identified in the assessment report (GAT Report 551) and no evidence for this feature was subsequently visible. The watching brief began during the initial phase of construction of the new primary settlement tank, which was located between the two hollows defining Feature 5 (Plate 1). No archaeological evidence associated with these redundant field boundaries was identified. The excavation of the final settlement tank, several metres to the northeast of the primary tank, again revealed no further evidence for Feature 5 (Plate 4). In both instances, the scarp defining Feature 3 was located too far to the east to be affected by these deep excavations. (However, a portion of this feature was removed during the construction of the compound and the new access road.)

The route of the associated pipe trench, which traversed the field to the northwest of the treatment works, was monitored throughout the topsoil strip phase (Plates 5 & 6). The pipe trench measured c.5.0m in width and c.40.0m in length. The topsoil was shallow, c.0.30m in depth and was a similar gravelly till to that identified during the construction of the treatment works. No archaeological features were identified during this watching brief phase

## **6 CONCLUSION**

No further archaeological information was recovered during the watching brief phase to elaborate the information derived from the field survey (GAT Report No 551). Feature 3 had already been investigated further north as part of the A497 Road Improvement Scheme (GAT Report No 573). No further information was recovered from Feature 5. In both instances the features were identified as being post-medieval, probably field boundaries.

## **7 REFERENCES AND OTHER SOURCES CONSULTED**

### **7.1 Archival sources**

#### 7.1.1 From Caernarfon Record Office

Tithe maps of Llanarmon (1839), Aber-erch (1840), and Llanystumdwy (1839)  
Tithe schedules of Llanarmon (1841), Aber-erch (1844), and Llanystumdwy (1841)  
Map of Glynllifon estate land at Penychain, Glynllifon 8356

#### 7.1.2 From Bangor University Library

John Evans 2" map of North Wales (1795)

### 7.2 Unpublished Sources

Gwynedd Archaeological Trust, *A497 Abererch to Llanystumdwy road improvements: Archaeological assessment* (GAT Report 60).

Gwynedd Archaeological Trust, *A497 Abererch to Llanystumdwy road improvements: Archaeological assessment* (GAT Report 224).

Gwynedd Archaeological Trust, *Afon Wen Wastewater Treatment Works, Chwilog: Archaeological assessment* (GAT Report 551).

Gwynedd Archaeological Trust, *Wastewater Pipe for Afon Wen Wastewater Treatment Works, Chwilog: Archaeological assessment* (GAT Report 552).

### 7.3 Published Sources

#### 7.3.1 Ordnance Survey maps:

Caernarvonshire county series 25" ordnance survey XXXIII.14, XXXIII.15, XLI.2, XLI.3 (1889, 1900, 1917)

#### 7.3.2 Monographs

Bassett, TM and Davies, BL (eds.), 1977: *Atlas of Caernarvonshire*

Baughan, PE, 1991: *A Regional History of the Railways of Great Britain, Vol. 11, North and Mid Wales*

Gresham, CA, 1973: *Eifionydd*, 343-351

RCAHMW 1960: *An Inventory of the Ancient Monuments in Caernarvonshire, vol. II: Central*. Royal Commission on Ancient and Historical Monuments in Wales and Monmouthshire

RCAHMW 1964: *An Inventory of the Ancient Monuments in Caernarvonshire, vol. III: West*. Royal Commission on Ancient and Historical Monuments in Wales and Monmouthshire

Roberts, B, 1979: *The Geology of Snowdonia and Llŷn: an outline and field guide*.

Smith, B and George, TN, 1961: *British Regional Geology: North Wales*. British Geological Survey

### Figure List

Figure 1 Location of Study Area (Scale 1,5000)

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Plate 2 Primary Settlement Tank completed with odour control manhole exposed

Plate 3 Odour control manhole area excavated

Plate 4 Location of Final Settlement Tank Prior to excavation

Plate 5 Topsoil strip of water supply pipe route (looking southeast)

Plate 6 Topsoil strip of water supply pipe route (looking towards the A497)

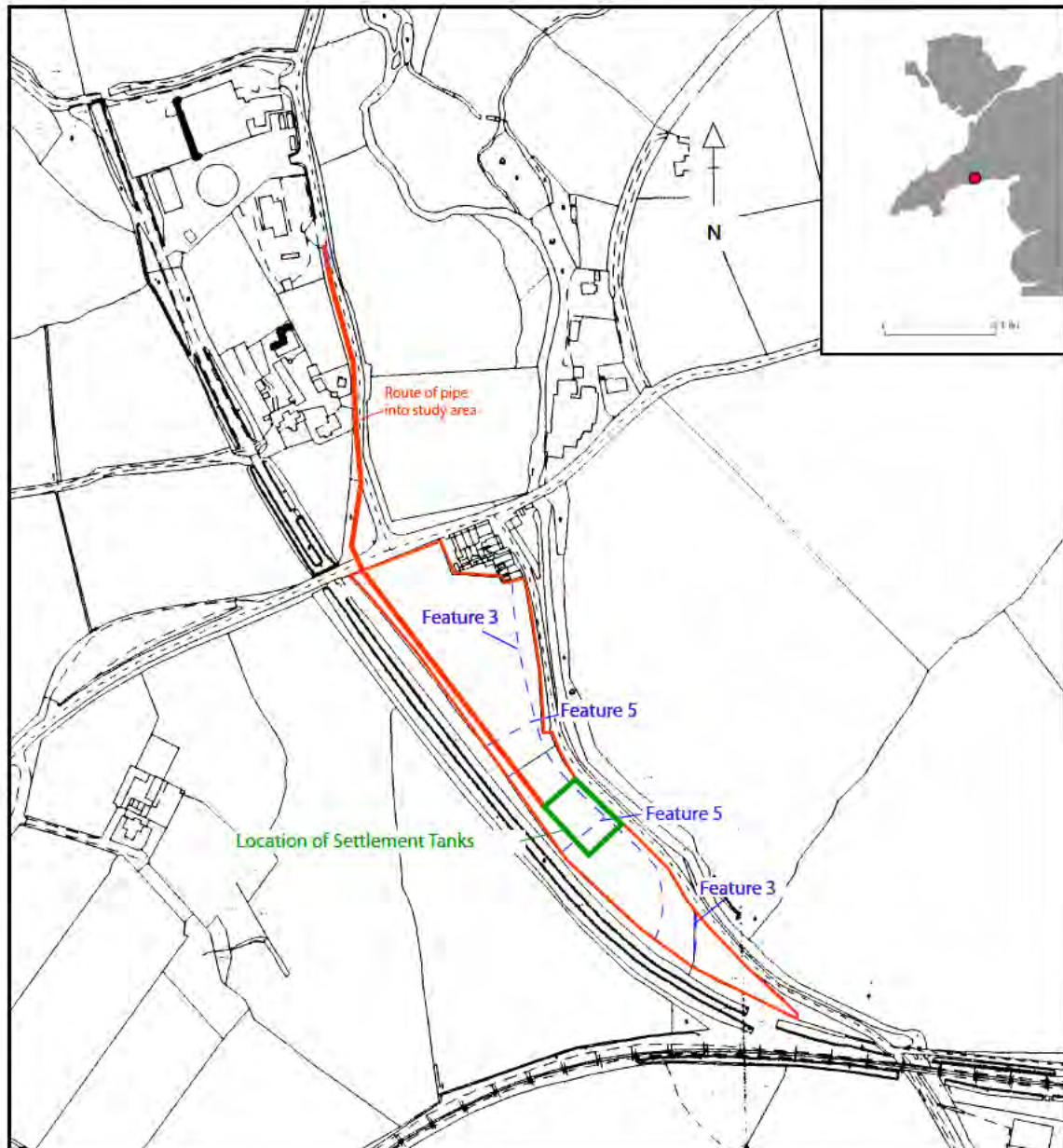


Figure 1: Location of Waste Water Treatment Works (scale 1:500)





Plate 1: Excavation of Primary Settlement Tank



Plate 2: Primary Settlement Tank Area Complete; Odour Control Manhole Area Exposed.



Plate 3: Odour Control Manhole Area Excavated



Plate 4: Location of Final Settlement Tank Prior to Excavation (Valve Chamber in Background)





Plate 5: Topsoil Strip of Water Supply Pipe Route  
(Looking Southeast Towards the Compound)



Plate 6: Topsoil Strip of Water Supply Pipe Route  
(Looking Northwest Towards the A497)



Plate 7: Removal of Suspected North-Facing Elevation



Plate 8: Section through Tramway





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