# PWLLHELI TO LLANBEDROG SEWER

## ARCHAEOLOGICAL WATCHING BRIEF

Report No. 303

Ymddiriedolaeth Archaeolegol Gwynedd Gwynedd Archaeological Trust

EVENT PIN-40455

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#### 1. INTRODUCTION

An intermittent archaeological watching brief was carried out during the construction of a new sewer between Llanbedrog and Pwllheli. This was conducted in accordance with the project design prepared by Gwynedd Archaeological Trust for Dwr Cymru Welsh Water.

The route of the pipeline crosses large rectangular fields of improved pasture between Llanbedrog and Carreg y Defaid before following the line of a well-established track through coastal dunes to Pwllheli.

### 2. HISTORICAL BACKGROUND

The Gwynedd Sites and Monuments Record did not contain any sites which fell within the pipeline corridor, although a number of Prehistoric and later remains were shown in the vicinity of it.

Research in the library of UWB revealed that the line of the pipe closely follows the line of a horse-drawn tramway that formerly ran between Pwllheli and Lanbedrog.

The tramway was built by Solomon Andrews and Son Ltd. of Cardiff during the 1890s. Its initial function was to carry building materials from Carreg y Defaid quarry to the West End Promenade in Pwlhelli where in the region of 100 dwellings were being constructed. This phase of the tramway appears to have been laid along the top of the beach, above the high tide mark. This route however proved to be temporary; the North West Chronicle for 17<sup>th</sup> October 1896 reported that there was a great gale and that 'at the new West End portion of the town the gale appears to have made sad havoc, nearly the whole of Messers Solomon Andrews and Son's Tramway to Carreg-y-Defaid being dislodged or otherwise damaged.' The line appears to have been repaired while a new tramway was being constructed along the top of the sand dunes. The new tramway was in place by the end of 1896. It is not known exactly when the tramway was first opened to the public although early photographs suggest that there was some passenger traffic as early as 1894.

In September 1896 Solomon Andrews bought an estate in Lanbedrog which included a large house called Glyn-y-Weddw. This was converted into an art gallery, the gardens were opened to the public and the stables were converted into tearooms and a dance hall. The tramway was extended as far as Llanbedrog in order to bring tourists from the increasingly popular resort of Pwlhelli. The new line was constructed in the fields alongside the main Pwllhell to Lanbedrog road. Wooden ticket offices were set up at the termini. The line was by all accounts somewhat ramshackle. The 3ft, gauge track was made up of several different types of rail some of which was second hand. This was laid on sleepers cut from local wood. Derailments due to sand on the track were commonplace and winter storms often washed away parts of the line. Passing loops were provided in several places, the position of these and indeed, parts of the tramway seems to have varied over the years probably as a result of storm damage.

The rolling stock consisted of iron or wooden tipping wagons that worked from the quarry in the earlier days, open 'toast-rack' passenger cars and covered saloon cars. It is known that there were ten cars used on the line in 1897. Several other cars were purchased in later years.

The tramway continued to run until October 1927 when a great storm drove the sea inland at Pwllheli for three-quarters of a mile. This caused severe erosion. Some of the land over which the tramway had passed was washed away and part of Carreg y Defaid headland collapsed into the sea. Much of the remaining track was damaged or buried by sand. It was decided that the by this time old-fashioned tramway was not economical to repair and it was closed. The horses and some of the rails were sold off and the cars were either broken up for scrap or reused as stores or shelters in the Recreation Ground.

### 3. RESULTS OF THE WATCHING BRIEF

## 3.1 Initial assessment of the route of the pipeline

The entire 4.5 km route of the pipeline was walked before works commenced. Two areas of interest were identified at this point. There were located on a 1:10 000 map and the contractors were alerted to their presence.

The locations of the two sites are shown on Fig.1:

Site 1. A large rectangular platform in the field close to the south-western end of the pipeline. The pipeline was to run just to the south-east of this feature so disturbance was unlikely. Subsequent discussions with the landowners revealed that this feature was in fact an overgrown tennis court.

Site 4. An 80m long shallow cutting could be seen in the field next to the road to Carreg y Defaid. This feature represented one of the few visible remains of the Solomon Andrews tramway. A detailed watching brief was carried out in this area and the feature was avoided by the contractors.

## 3.2 General results of the watching brief

The eastern end of the pipeline closely followed a roughly metalled track running to the north of the sand dunes and the line of the tramway. The pipe was laid in short sections and no topsoil stripping was necessary. It was thus only possible to carry out a very intermittent watching brief. Nothing of interest was found, the subsoil consisting mainly of blown sand.

The south-western end of the pipeline between Big and Llanbedrog was topsoil stripped and a watching brief was carried out along the entirety of this section. The topsoil consisted of light brown sandy loam to a depth of between 20 and 50 cm. The brighter yellowish subsoil was however not uncovered along the entirety of the area of topsoil stripping. The detection of archaeological features cut into the subsoil at these points was therefore unlikely.

A further two sites were identified during this phase of the watching brief, a flint scatter (site 2) and a possible cairn (site 3). Additional details were also revealed around site 4.

3.3 Detailed Results

Site 1. Tennis courts

23 5083 13 5661

No further action was taken here as the site was not affected by the works.

Site 2. Flint scatter

Two pieces of flint were found about 10cm apart towards the bottom of the topsoil. One was an edge-trimmed flake ( $39 \times 18 \times 4.5$ mm) of Neolithic character (Fig. 3) and the other was a piece of waste core ( $32 \times 26 \times 11$ mm).

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The area around the findspot was hand cleaned but no further finds were recovered. The presence of the two flint fragments suggests that there was some flint working activity in the vicinity but as they were in the topsoil and no further flakes were found this remains unproven.

62167 Site 3. Possible Cairn 233719/33756

A 5m x 12m mound of rounded stones was identified at the edge of one of the fields between Carreg y Defaid and Crygan. The spread appeared to be roughly circular although one side was truncated by the recent field wall alongside the A499. After clearance of the topsoil the mound could be seen to stand about 0.4m above the rest of the field. The stones were mainly rounded cobbles c. 10cm in diameter. Some stones appeared to be heat shattered. Heat shattered cobbles are often found on prehistoric sites where stones were used as pot-boilers ie, heated and dropped into water filled vessels. Such stones are also typically found in burnt mounds (specialized Bronze Age sites thought to be associated with cooking). Burnt mound material invariably contains a large percentage of charcoal and this did not appear to be present here.

A 3.0 x 0.6m trench (Fig.4) was cut through the mound revealing topsoil mixed with stones to a depth of 20cm (Fig.5). Beneath this was yellowish orange sub-soil. Few pot-boilers were recovered and there were only scattered flecks of charcoal. This suggests that the stones either been collected and dumped in anticipation of further use or that there had been a gate close to this position and that the stones had been used to infill the muddy area that inevitably occurs in such positions. The small numbers of heat shattered stones could have been imported or produced by a bonfire. It should also be noted that earlier field boundaries and the line of the tramway have been destroyed by improvements to the A499 making interpretation difficult.

Site 4. The remains of the Tramway close to Carregy Defaid, 59614.

An 80m length of cutting had previously been identified in the initial assessment. This was avoided but topsoil stripping revealed further details in this area (Fig. 6). The line of the tramway was marked by a slightly raised 4 or 5m wide stony platform. This could be seen to run alongside the present lane leading to the seafront. Reference to the earlier edition OS maps and the drawings produced by Boyd (Fig. 7) show that the length of tramway that had been revealed was the north-eastern end of the second phase ie, the extension taking passengers from Carreg y Defaid to Llanbedrog. A small branch running into a cutting or small quarry scoop was also revealed. A well is marked on current OS maps in this position and the area was very wet suggesting the presence of a freshwater spring. It is not known if this was another small quarry or merely a passing place.

The stony bed of the tramway could be traced for 90m beyond the cutting before being lost under the modern A499 which appears to have removed any further traces of the portion of the tramway that ran alongside the road. A number of pieces of rail and assorted corroded fragments of ironwork were recovered from the line of the tramway. None were complete or *in situ*. In addition to this, several pieces of ironwork could be seen to make up parts of the adjacent fences. The majority of lengths of rail that were observed were standard bridge rail. Several lengths of a different type of rail with a more complex cross section were also recovered (Fig. 8). Two examples of this rail had rather flimsy 13 x 18cm pressed steel plates attached to what would appear to be their upper side. The function of these plates remains unclear. They appear to be too flimsy and in the wrong position to be shoes. It is however possible that rail was reused for another purpose. A photograph taken after the storm of 1927 (Plate 1) does however appear to show that this type of rail was used until the tramway was abandoned. Also of note was a chain comprised of two sets of links set at right angles to each other that was recovered from the hedge-row. Similar chains were used as traces (between the horse and tram) and an example can be seen on a photograph taken in the 1920s (Plate 2).

### 4. REFERENCES

Andrews, J.F. 1995. The Pwllheli and Llanbedrog Tramways.

Boyd, J.LC. 1981. Narrow Gauge Railways in North Caernaryonshire. Vol. 1 The West.

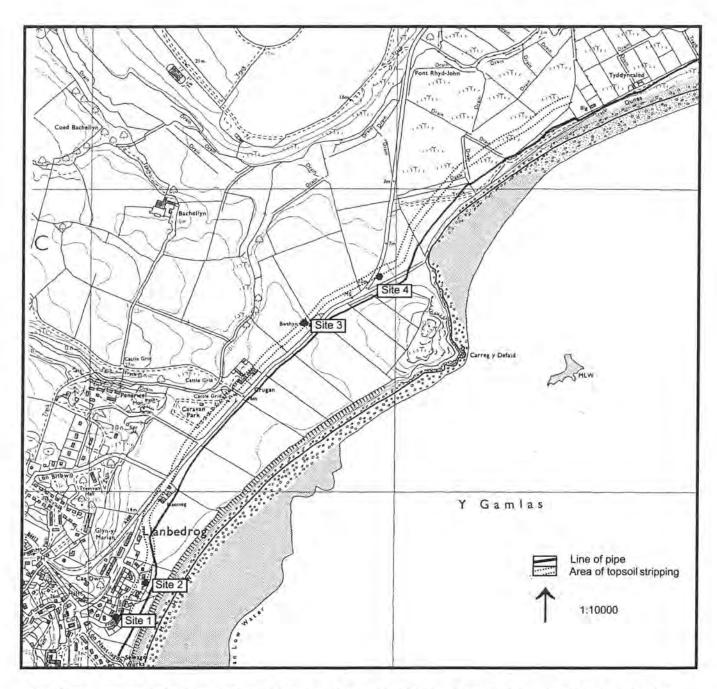


Fig. 1 The western half of the pipeline (Reproduced from the Ordnance Survey mapping with the permission of the Controller of Her Majesty's Stationery Office © Crown copyright AL517500001)



Fig. 2 The eastern half of the pipeline (Reproduced from the Ordnance Survey mapping with the permission of The Controller of Her Majesty's Stationery office © Crown copyright AL51750A0001)

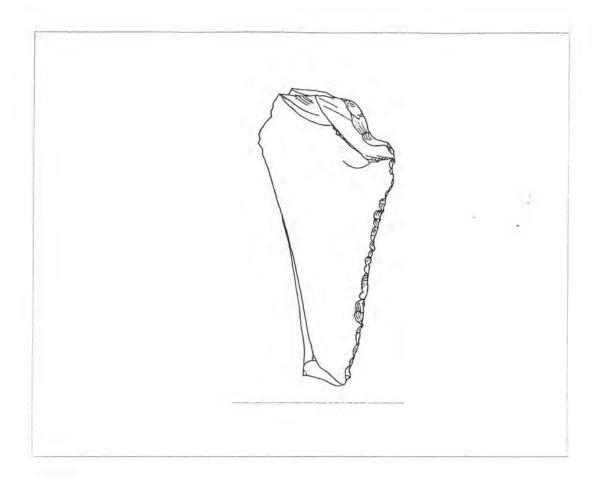


Fig. 3 Edge trimmed flint flake from site 2 (x2)

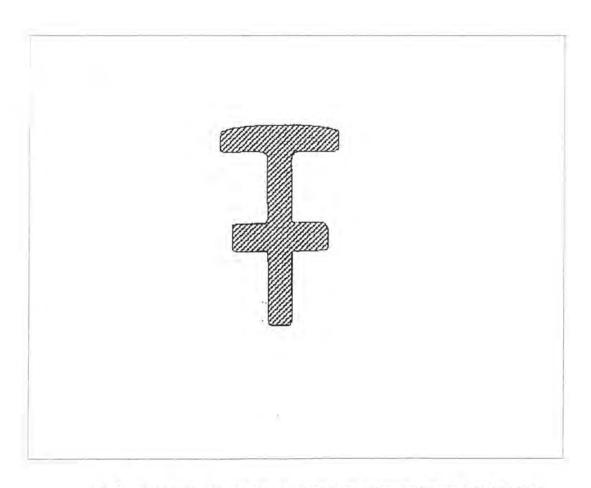


Fig. 8 Section through the rail recovered from close to Carreg y Defaid (1:1)

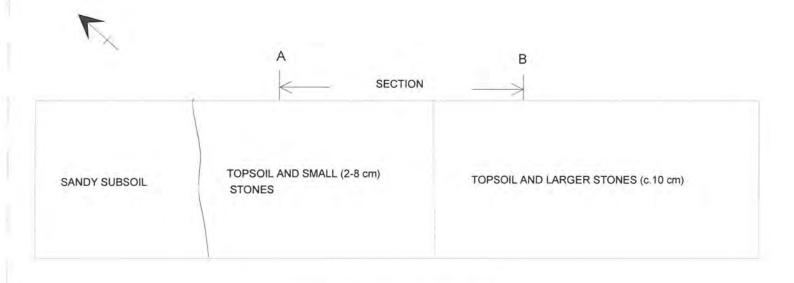


Fig 4. Trench through mound

1.0 m

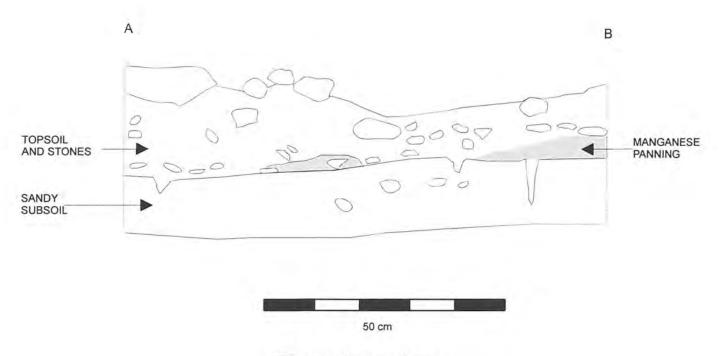


Fig. 5 Section through mound

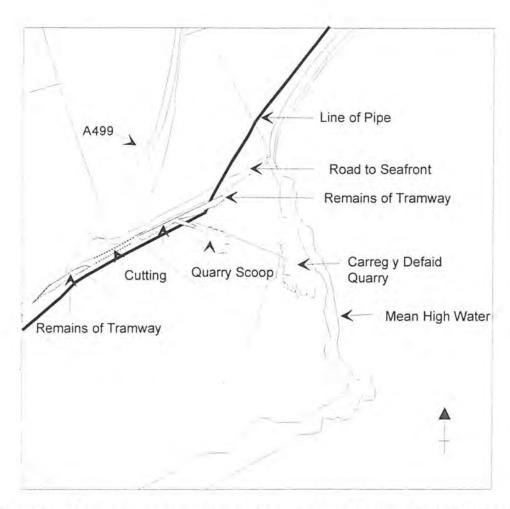


Fig. 6 Plan of the cutting and remains of the tramway at Carreg y Defaid (1:5000)

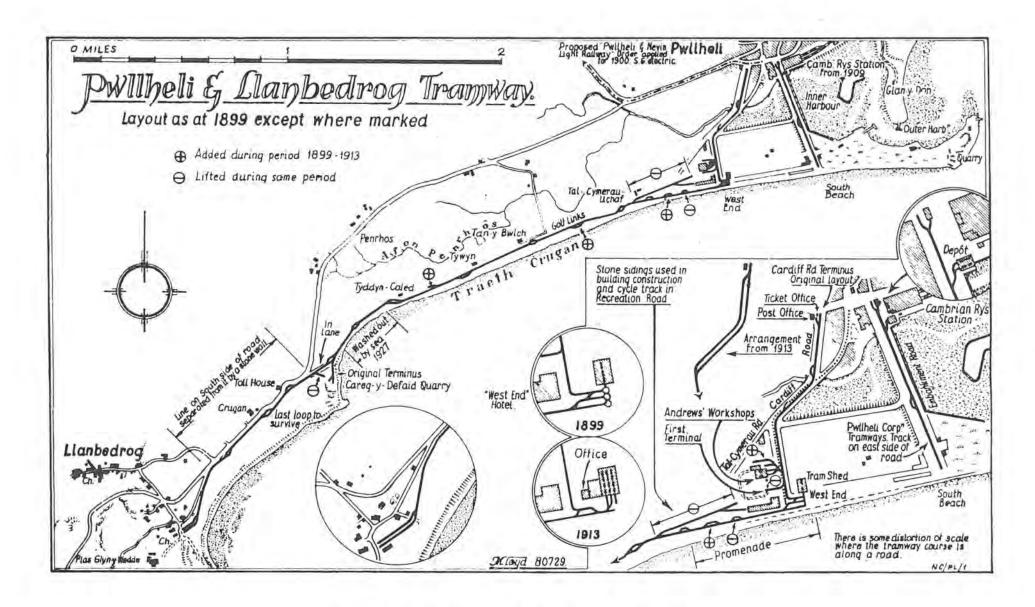


Fig. 7 The Pwllheli and Llanbedrog Tramway (Boyd 1990)

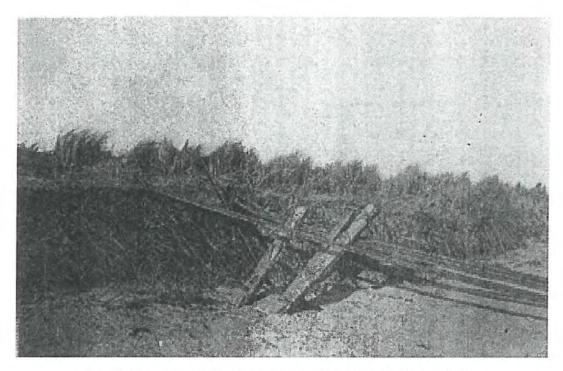


Plate 1 Storm damage to the tramway in 1927 (from Andrews, 1997)



Plate 2 1920s photograph of horse and toast-rack car showing chain traces (from Andrews, 1995)

