

# Sewage Disposal Improvements, Bagillt, Flintshire

ARCHAEOLOGICAL WATCHING BRIEF



**CPAT Report No 352**

**Sewage Disposal Improvements,  
Bagillt, Flintshire**  
**ARCHAEOLOGICAL WATCHING BRIEF**

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March 2000

Report for Dwr Cymru/Welsh Water

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## CPAT Report Record

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## 1 INTRODUCTION

- 1.1 In August 1998 the Contracts Section of the Clwyd-Powys Archaeological Trust (henceforth CPAT Contracts) was asked by Dwr Cymru/Welsh Water to submit a quotation for a contracted watching brief during the initial stages of top soiling and construction trench excavation associated with the Bagillt Sewage Disposal Improvement Scheme (Scheme 3F378/RAR/CAPH).
- 1.2 A brief (CWAT 313) for the work was prepared by the Curatorial Section of the Clwyd-Powys Archaeological Trust, in their role as archaeological advisors to Dwr Cymru/Welsh Water. Information held on the County Sites and Monuments Record indicated that the pipeline passed through or was immediately adjacent to recorded archaeological features at two locations, and the watching brief was restricted to these key areas (Fig. 1). At the eastern end of the scheme, in the vicinity of the proposed new Bagillt East Pumping Station, was the site of the former Cambrian Brewery (PRN 104034), now occupied by a scrapyards, while on the opposite side of Station Road the brief identified the site of the Bagillt Smelt Works (PRN 37756). At the western end of the pipeline, the scheme was thought to impact upon features related to Greenfield Quay (PRN 34216) and Greenfield Quay Flushing Pond (PRN 34273). However, following consultations with the client and the curator, it was agreed that as no archaeological levels would be disturbed in the vicinity of the former a watching brief would be unnecessary in that area. The remainder of the scheme followed the A458 and was assumed to have minimal archaeological impact.

## 2 LOCATION, TOPOGRAPHY AND GEOLOGY

- 2.1 The pipeline runs between the Greenfield Sewage Treatment Works at SJ 19817790 and the Bagillt East Sewage Treatment Works at SJ 22237539 passing through the Greenfield Business Park and along the northern edge of the A458 (Fig. 1).
- 2.2 The area within which the pipeline is located is low-lying flat land (5-8m OD) reclaimed from salt-marsh during the late 18th and early 19th centuries. To the south and south-west, the area is overlooked by the lower slopes of Halkyn Mountain and Holywell Common.
- 2.3 Soils are generally coarse silts or sands of the Wisbech association (Rudeforth *et al.* 1984).

## 3 HISTORICAL BACKGROUND

- 3.1 The modern coastline area between Flint and Greenfield is largely derived from a series of reclamation works dating to the period between c. 1740 and 1850 during the course of which embankments were built adjacent to the foreshore. The earliest of these appears to have been constructed for the Flint leadworks as depicted in a plan of 1737 (Jones 1998). The reclaimed land provided locations for heavy industry during the 19th century, amongst which were a number of lead smelting works at Bagillt and a variety of industries in the Greenfield Valley, together with associated wharves along the Dee Estuary. The functions of these wharves were to a great extent superseded by the construction of the Chester and Holyhead Railway between 1849 and 1851 when the railway reached Holyhead (Jones 1998).

## 4 THE WATCHING BRIEF (fig. 2)

- 4.1 Although CPAT were initially approached to undertake the work in 1998, the scheme was delayed due to negotiations regarding access. The watching brief was eventually carried out over five days in the period between 19th November and 10th December 1999 in the vicinity of Station Road, Pentre Bagillt. A full written and photographic record was maintained throughout.
- 4.2 At the junction of Station Road with the A548 the pipeline trench cut through a stone-lined and capped culvert, 1.0m wide x 0.9m deep, the base of which rested on a dark-stained apparently natural sand, which contained small pebbles and shells, at a depth of 1.50m. This may have been part of a culverted stream with an outflow on the north-east side of the railway. Thereafter, the trench followed a line on the eastern side of Station Road at a depth of c. 1.8m which generally coincided with the

level of natural sands and silts, that in places appeared to contain thin seams of coal. Above this, excavated material varied from redeposited stiff clays to gritty coal and/or coke dust. Finds recovered from it included clay pipe stems, 19th-century pottery, floor tiles, metallic fragments, slag fragments and fragments of galena, none of which were retained.

- 4.3 Several structural features were observed along this section, including short lengths of brick walling (Fig. 2, A and B) which cut across the trench and the remains of a stone wall 0.60m high x 0.50m wide which rested directly on natural sand at (Fig. 2, C). The nature of the excavation and pipelaying operations precluded detailed recording.
- 4.4 Although not observed during the watching brief, a short section of a tramway was revealed in the base of the trench at SJ 21257598. CPAT were notified of the find at a later date (K. Kucharski pers comm.), after the trench had been backfilled, and consequently there was no opportunity to undertake any recording. It would appear that the tramway is that depicted on the Ordnance Survey 2nd edition 25" of 1899 (fig. 3) which was associated with the Dee Bank Leadworks. The observed section is located on the north side of the main Bagillt to Holywell road, now the A458.

## 5 CONCLUSIONS

- 5.1 The watching brief revealed only a limited number of archaeological features, none of which are thought to relate to either the Cambrian Brewery or the Bagillt Smelt Works. The structural features identified along the eastern side of Station Road may be associated with former buildings of likely 19th-century date depicted on the 1st and 2nd edition Ordnance Surveys of 1871 and 1899 (figs 3 & 4). As these wall sections were sealed beneath redeposited material it suggests that the area was levelled following the demolition of the buildings at some time after 1899.
- 5.2 The construction of the pipeline appears to have had only a limited impact on the archaeological resource, resulting in some damage to buried structures along the eastern side of Station Road. It would seem likely that further buried archaeology may survive relatively undisturbed within the general area. It appears the pipeline did not result in significant damage to the tramway associated with the Dee Bank Leadworks and there is therefore good reason to suppose that further archaeological deposits survive at that location.

## 6 ACKNOWLEDGEMENTS

CPAT Contracts wishes to thank the following: Mr Stuart Lucas and Mr Danny Evans, Galliford; Mr Aled Hughes, William Hughes Construction; Karina Kucharski, for information relating to the tramway. We also acknowledge Earth Tech Engineering Ltd for their permission to reproduce their Land Plan No 20 drawing (Document No A/G1783/XO223)

## 7 REFERENCES

Jones, N W, 1998. *Dee Estuary Historic Landscape: An Initial Study*. CPAT Report No 266.  
Rudeforth, , CC, Hartnup, R, Lea, JW, Thompson, TRE, & Wright, PC, 1984. *Soils and their use in Wales*, Soil Survey Bulletin No. 11. Harpendon: Soils Survey of England and Wales.

## **APPENDIX 1**

### **PROPOSED SEWAGE DISPOSAL IMPROVEMENTS AT BAGILLT SPECIFICATION FOR AN ARCHAEOLOGICAL WATCHING BRIEF BY CLWYD-POWYS ARCHAEOLOGICAL TRUST**

#### **1 Introduction**

- 1.1 The proposed development at Bagillt involves the construction of new sewage pipelines as part of the Bagillt Sewage Disposal Improvements Scheme.
- 1.2 This area lies mainly along the A458 between Bagillt and Greenfield, and through Greenfield Business Park.
- 1.3 The Clwyd Powys Archaeological Trust in their capacity as archaeological advisors to Welsh Water have determined that an Archaeological watching brief is necessary to record the archaeological resource affected by the proposed scheme.

#### **2 Objectives**

- 2.1 The objectives of the archaeological works are:
  - 2.1.1 to record the nature, condition, significance and, where possible, the chronology of any archaeological deposits and/or features revealed within the area of the proposed development during the development works in so far as these aims are possible;
  - 2.1.2 to prepare a report outlining the results of the watching brief.

#### **3 Methods**

- 3.1 The watching brief will be carried out according to the guidelines approved by the Curatorial Section of the Clwyd Powys Archaeological Trust and will involve the examination of all the groundworks in the archaeological sensitive areas.
- 3.2 All archaeological deposits and/or features noted during the watching brief will be recorded by drawn section and/or photography.
- 3.3 Following the on-site work an illustrated and bound report will be prepared. 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 and finds.
- 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 watching brief will be undertaken by a skilled and experienced archaeologist. Overall supervision will be by R.J.Silvester, 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 watching brief.
- 4.3 The date of commencement, and likely duration of the watching brief have 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.

N.W.Jones  
11th August 1998

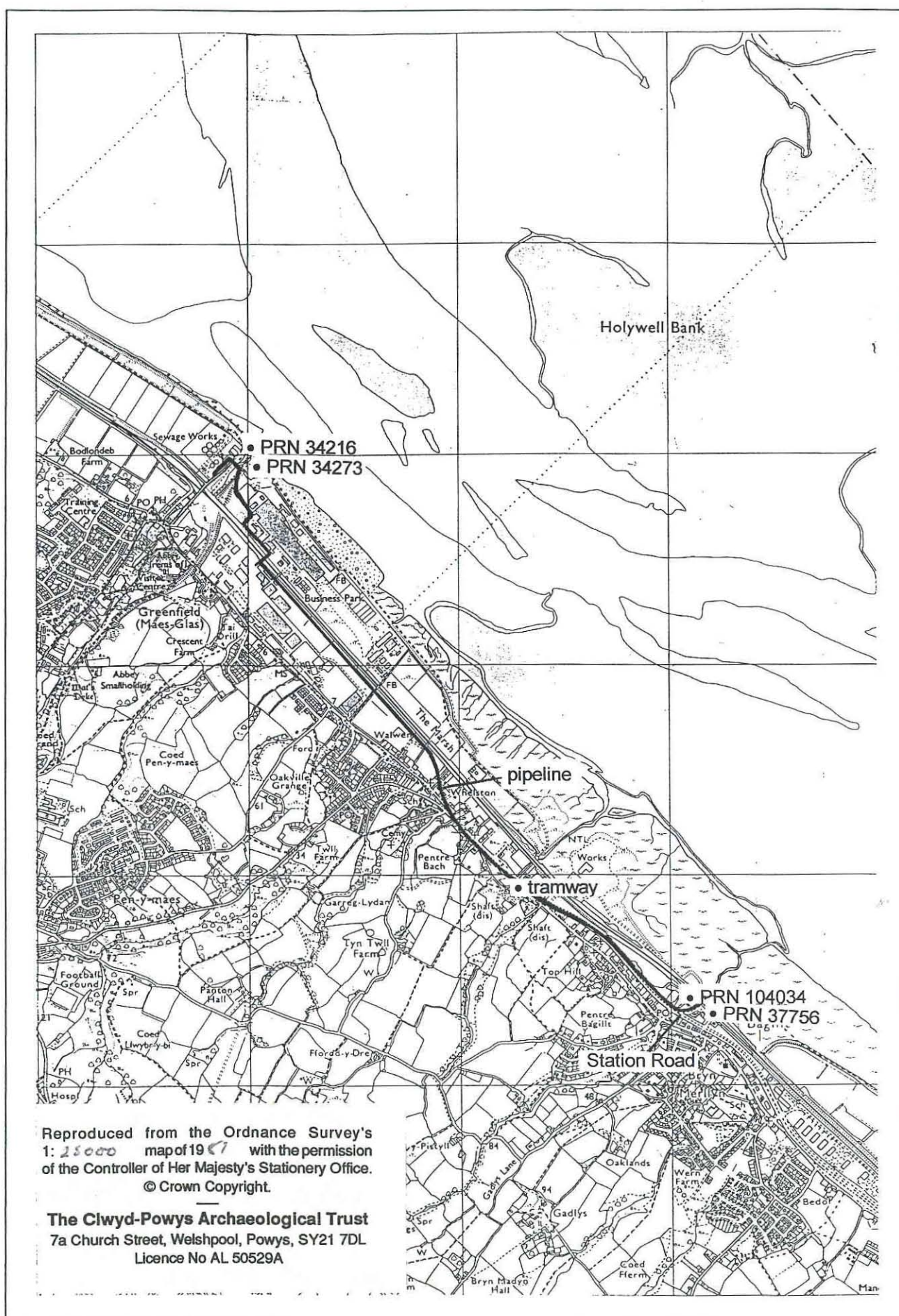


Fig. 1 Scheme location, scale 1:25,000

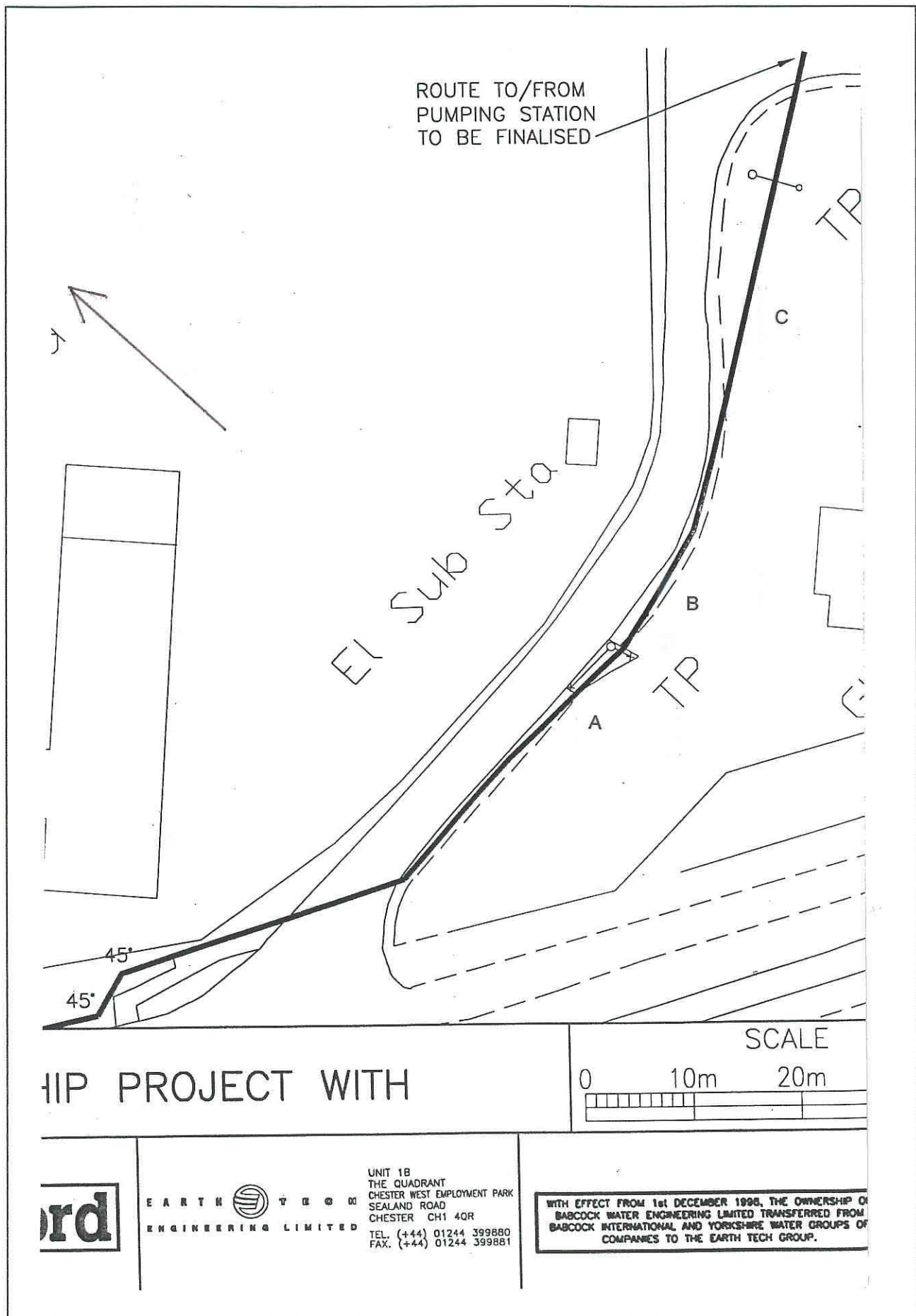


Fig. 2 Watching brief adjacent to Station Road, Bagillt, scale 1:500 (reproduced with permission from Earth Tech Engineering Ltd).

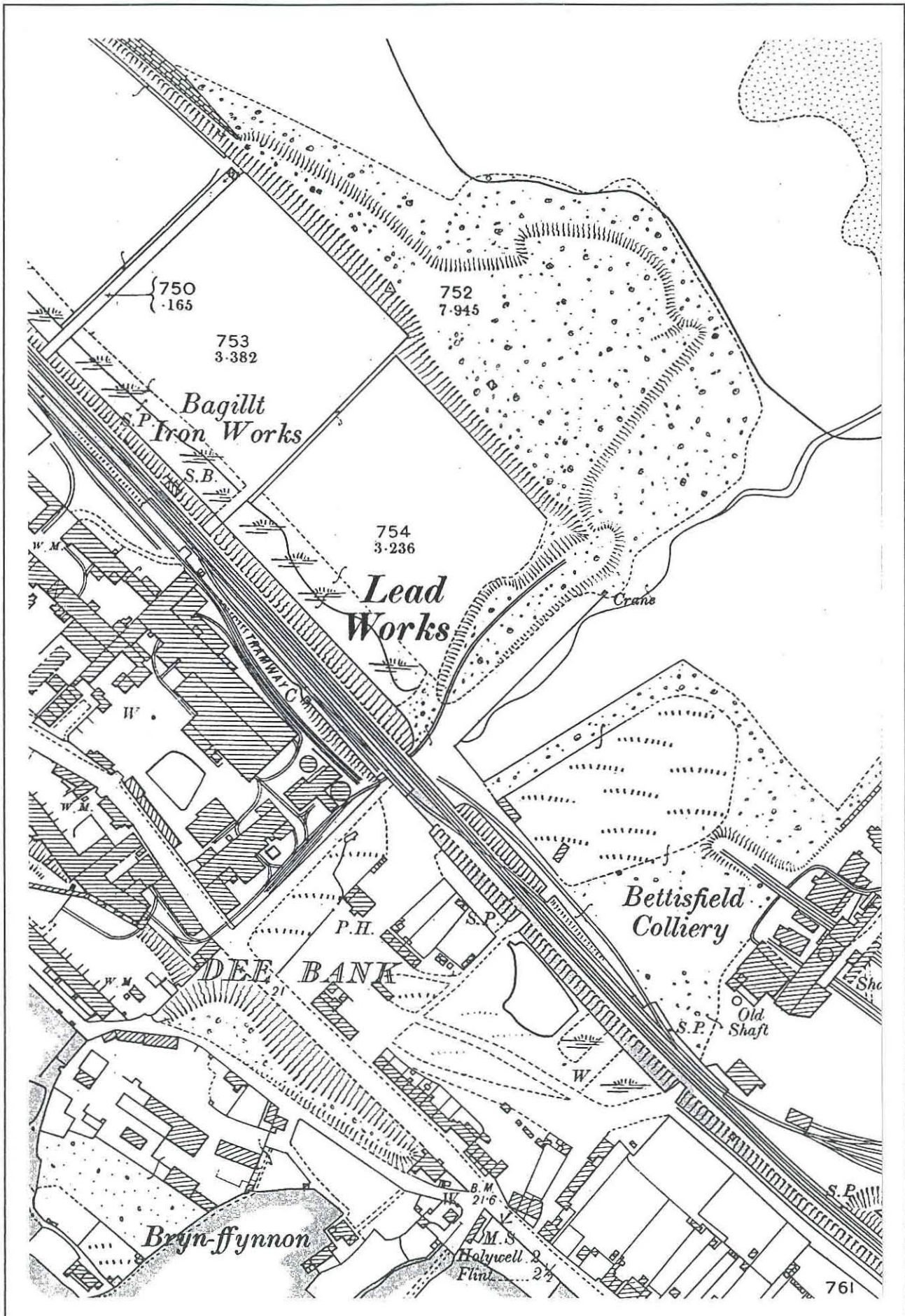


Fig. 3 Extract from Ordnance Survey 2nd edition 25" 1899, (Flint 6.11) showing Dee Bank Lead Works

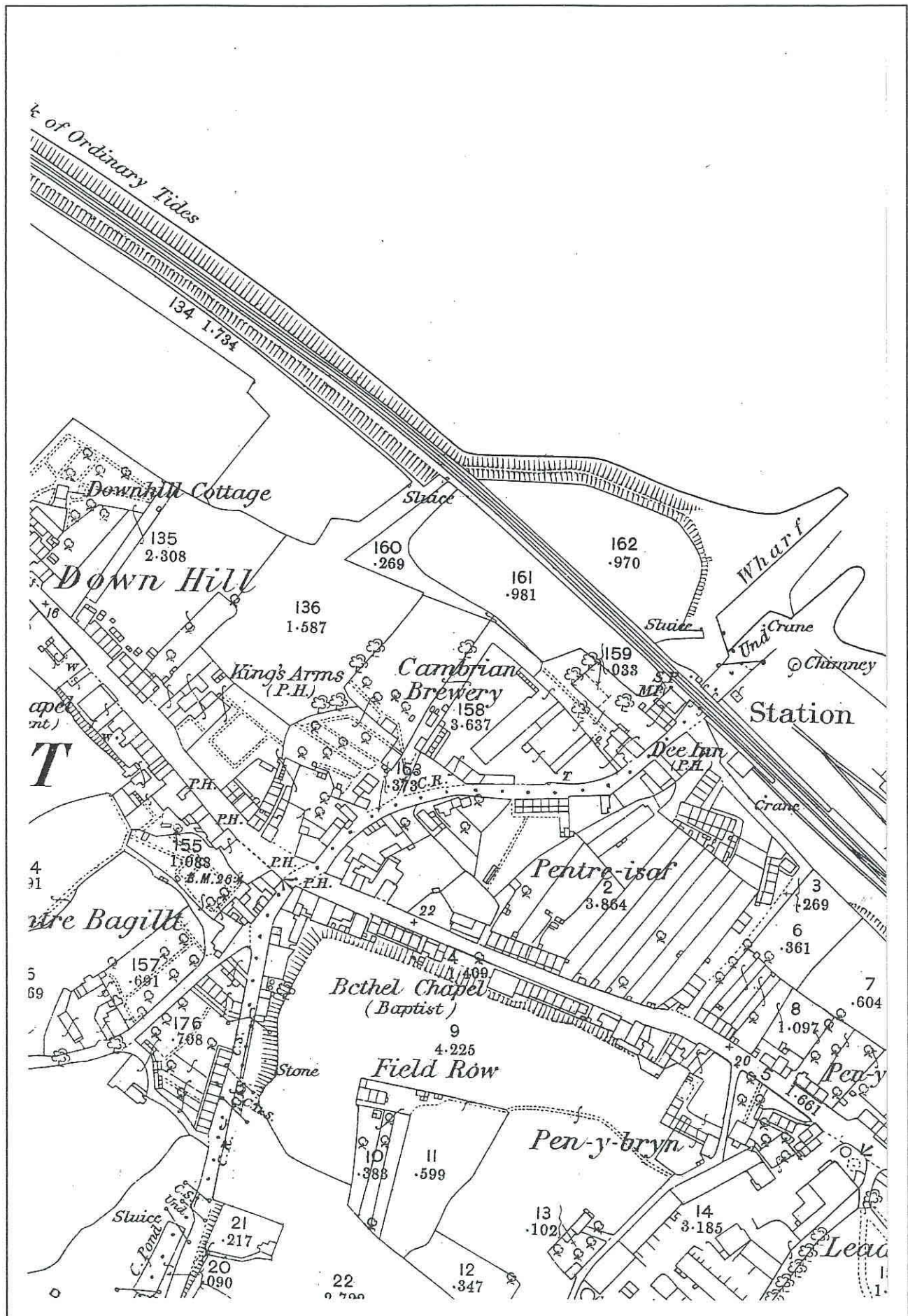


Fig. 4 Extract from Ordnance Survey 1st edition 25" 1871 (Flint 6.11), showing Station Road, Bagillt

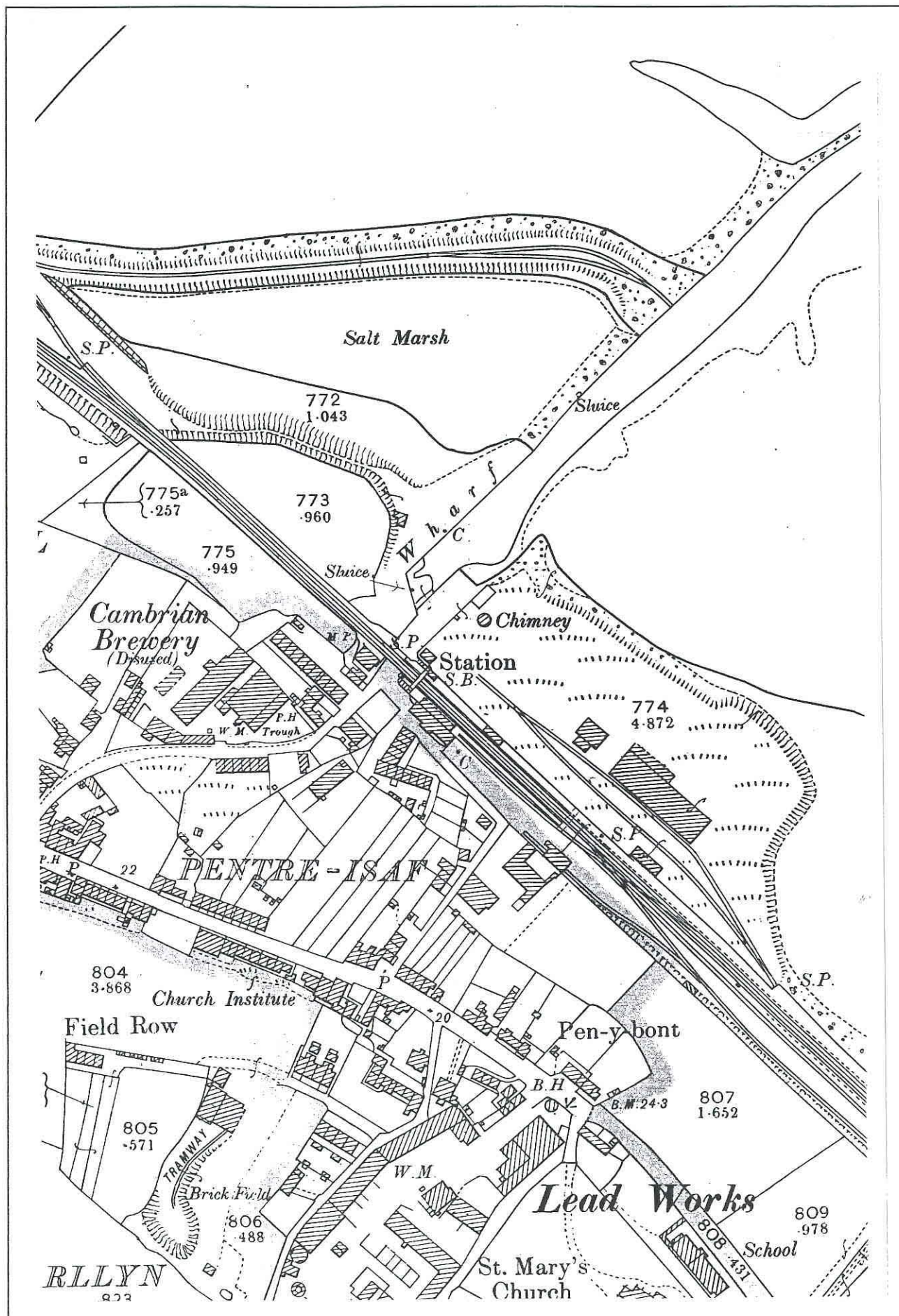


Fig. 5 Extract from Ordnance Survey 2nd edition 25" 1899 (Flint 6.11), showing Station Road, Bagillt