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# Rhiwgoch Pumping Station **Harlech**

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## **Archaeological Field Evaluation 2009**

**GAT Project No. G 2064.5**

**Report No. 819**

**August 2009**

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# Archaeological Field Evaluation: **Harlech**

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Report No. 819

United Utilities Operational Services (Wales)

August 2009

By

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&

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# Proposed Pumping Station Harlech

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## ARCHAEOLOGICAL FIELD EVALUATION

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# Rhiwgoch Pumping Station

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## **RHIWGOCH PUMPING STATION, HARLECH.**

### **ARCHAEOLOGICAL FIELD EVALUATION REPORT (G2064.5)**

#### **SUMMARY**

*After the conclusion of an assessment and watching brief via trial trenching, it was recommended that a strip, map and sample strategy be implemented at the proposed site for a water pumping station near Harlech. The process involved the removal of topsoil and subsoil strata onto a natural glacial colluvium to search for any archaeological features or artefacts within the study area. Despite earlier trial trenches identifying a possible road or yard surface, upon stripping the area it became clear that this was merely a natural glacial feature, and no other features or artefacts of an archaeological nature were located.*

#### **1. INTRODUCTION**

Gwynedd Archaeological Trust (GAT) was commissioned by United Utilities Operational Services (Wales) to archaeologically assess a proposed location for a water pumping station near Harlech (centred on NGR SH 58415 31055; figure 1). Upon conclusion of a desk-based assessment and an ensuing watching brief via trial trenching at the location, sufficient evidence was obtained to warrant the recommendation of a strip, map and sample strategy to be implemented at the site prior to the commencement of any construction works.

The warranting evidence was the discovery of potential archaeological structural remains in the form of a suspected yard or road surface within trial trench number three (figure 2 and plate 1). Thus, on the 3<sup>rd</sup> August 2009 an archaeologist was present at the site to observe the removal of topsoil within the designated area, and two archaeologists were present on the 4<sup>th</sup> August 2009 to observe the removal of subsoil onto natural glacial colluvium deposits.

#### **2. METHODS AND TECHNIQUES**

The designated study area measured 20.0m by 12.5m and was stripped using a toothless bucket on a 360<sup>o</sup> excavator machine. An archaeologist was present the entire time to observe that a sufficient depth had been achieved during stripping to reach the natural glacial colluvium, thus ensuring that any cut features would be identified. The actual depth stripped to exceeded this level across the entire site due to the needs of the ensuing construction project, thus the area could be declared archaeologically sterile with confidence.

The site was planned to scale using Total Station (TST) survey equipment and a written record of the trench content and all identified features was completed via GAT pro-formas.

All subsurface features were recorded photographically using a Nikon D40 DSLR. Furthermore, all records, drawings, and photographs were archived within the historic environment record (HER) located at GAT.

#### **3. GEOLOGICAL AND ARCHAEOLOGICAL BACKGROUND**

(Reproduced from GAT report 817, (Kenney, J.2009)

The proposed development area lies on a gently sloping plateau on the outskirts of the town of Harlech (SH 58415 31055) at c.100m OD. The site is bounded by a narrow road on its northern side and is within a roughly trapezoidal field, the eastern boundary of which is a line of low but near vertical crags. The field is rough pastureland and much of it is marshy. Two streams run into the field, meet and flow out as a single stream through the western boundary.

This landscape is defined by the Cambrian rocks of the Harlech dome (Bowen and Gresham 1967, 1), which the British Geological Survey describes as Cambrian shales, sandstones and quartzites (British Geological Survey 1930). The upper part of the town and castle of Harlech stand on a rocky shelf, which

falls steeply to the former shoreline, masked by the sands of Morfa Harlech. The soils have developed on boulder clay and undifferentiated drift.

General archaeological and historical background to the area can be found in the two assessment reports (Kenney 2009a and b, Reports 777 and 810); feature numbers relate to these reports. Below is a summary of information relating specifically to the field in which the present site is located (figure 1). Documentary evidence suggests that the road (feature 3) on the north side of the site dates from the 16<sup>th</sup> century, although the walls must have been rebuilt in the 19<sup>th</sup> century. There was a pond (feature 8) in the field, probably also dating from at least the 16<sup>th</sup> century. The tithe map of 1841 shows the pond as parcel 678 and names it as 'Upper Pool'. The Upper Pool presumably fed water down to the lower Mill Pool just east of the castle, which in turn fed Harlech mill. The early OS maps show the Upper Pool was fed by two streams as today. The First Edition map shows that a straight structure had been built across the western side of the pond. This survives today as a stone-faced bank (feature 7). Both on the ground and on the maps it resembles a dam but the First Edition map suggests that the pond was not retained by this structure. By 1901 the pond seems to have been largely drained. It is likely that the dam-like structure was for flood defence rather than to retain the pond under normal conditions.

By 1889 after leaving the western side of the Upper Pool the water was carried down hill by a series of regular leats and an aqueduct (feature 9), apparently heading for a row of buildings immediately to the south-east of the parish church. The leat system and the buildings were still in use in 1901, although the pond seems much reduced and there is a local memory of the buildings being a bottling plant (Davidson pers com). By 1951 (as seen in aerial photographs) a reservoir (feature 2) had been constructed at the top end of this water supply system and it was probably constructed to improve the water supply to the buildings below, although it may also have been a general source of drinking water.

One of the streams running into the Upper Pool had previously fed a baptismal well (feature 1) constructed by the side of the road. This was built, according to a plaque, in 1841 by the 'Scotch Baptists'.

## **4. RESULTS OF THE ARCHAEOLOGICAL FIELD EVALUATION**

### **4.1 Description**

(See plates 2 to 6)

Due to the logistics of spoil management, it was decided by the engineer for Dŵr Cymru Welsh Water that an additional area located directly to the south of the development area would be topsoil stripped to provide a holding area for the subsoil obtained when the study area was stripped (figure 3). Thus a triangular area measuring 23.0m in length, 12.5m in width at its western end and 1.0m in length at its eastern end was stripped of its topsoil (plate 2). No archaeological features or artefacts were located in the holding area, however due to the subsoil having not been removed it is impossible to be certain as to whether the area was archaeologically sterile, although due to the area not being built upon or infringed in any further way, the strategy was deemed acceptable.

The main development area was initially stripped of its topsoil, which was consolidated in a load located to the south-west of the site avoiding stone-faced bank feature 7 (figure 1). No archaeological features or artefacts were located at this stage, and subsequently the subsoil was also stripped away onto a natural glacial colluvium (plates 3 and 4). The topsoil averaged a regular 0.17m in depth and was a dark, red-brown silt-clay with moderately frequent medium sized sub-rounded pebble inclusions. The subsoil layer was very thin and non-existent in places, composed of a mixture of colluvium silts with occasional modern pottery fragments included. The natural colluvium layer was a mixture of dark red-brown, orange, yellow and grey clays and silt-clays resulting from glacial deposition. To the south of the development area the natural clay became more pronounced and darker in colour due to the progression into waterlogged ground in the catchment area of the streams.

Additional care was taken with the stripping around the possible surface layer identified during the watching brief phase in trial trench three (plate 1), identified by the presence of potentially deliberately laid stones associated with a 0.1m thick deposit of yellow gritty-silt. However upon the removal of top and sub

strata around the feature, it became clear that it was limited to only two large sub-rounded cobbles which were well fixed into the natural silt-clay, and some small rounded cobbles resting upon the natural. These stones were clearly glacial in origin, with the yellow gritty-silt deposit spreading as a natural colluvial layer to the south. No other features or artefacts of archaeological value were located.

A 10.0m stretch of the field boundary wall forming the northern limit of the development area was breached (plates 5 and 6), and the stone deposited in an approved area to the south-west. The breached section was cleaned and inspected for any indication of earlier deposits beneath the wall, or indeed any suggestion of an earlier construction form to the wall, however no such evidence was found.

#### **4.2 Discussion**

The strip, map and sample strategy enabled a clear view of the study area, and provided the opportunity to prove that the area was archaeologically sterile prior to development. The identification of a potential surface layer during the watching brief phase created the requirement for further archaeological works, however in this case the evidence has been proven to be merely glacial deposits of stone and silt-clays.

The programme of works also provided the opportunity to inspect the field boundary wall to the north of the site, once it was breached. However, in this case no evidence could be found to suggest any earlier deposits or phases of the wall.

#### **5. BIBLIOGRAPHY**

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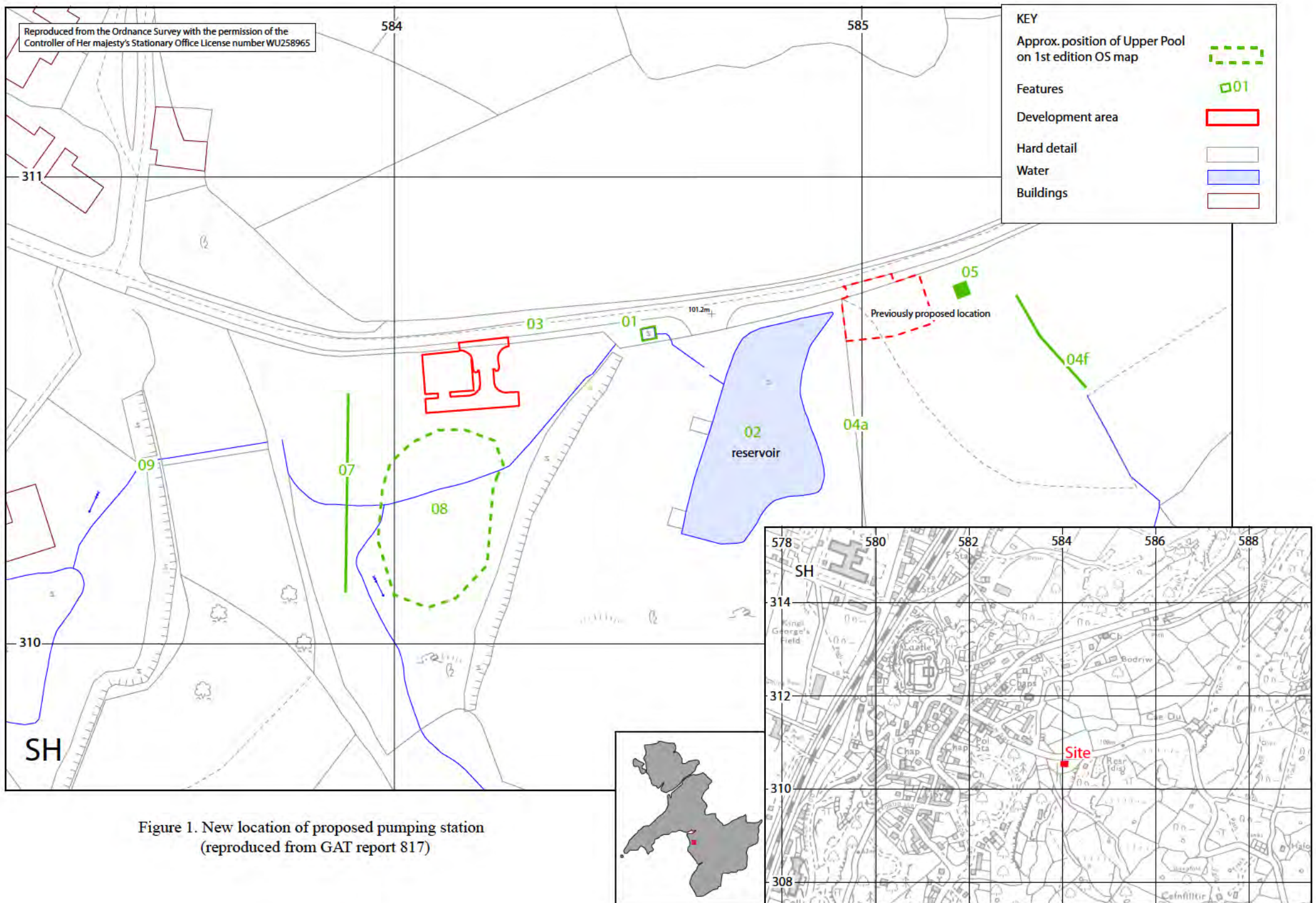


Figure 1. New location of proposed pumping station  
(reproduced from GAT report 817)



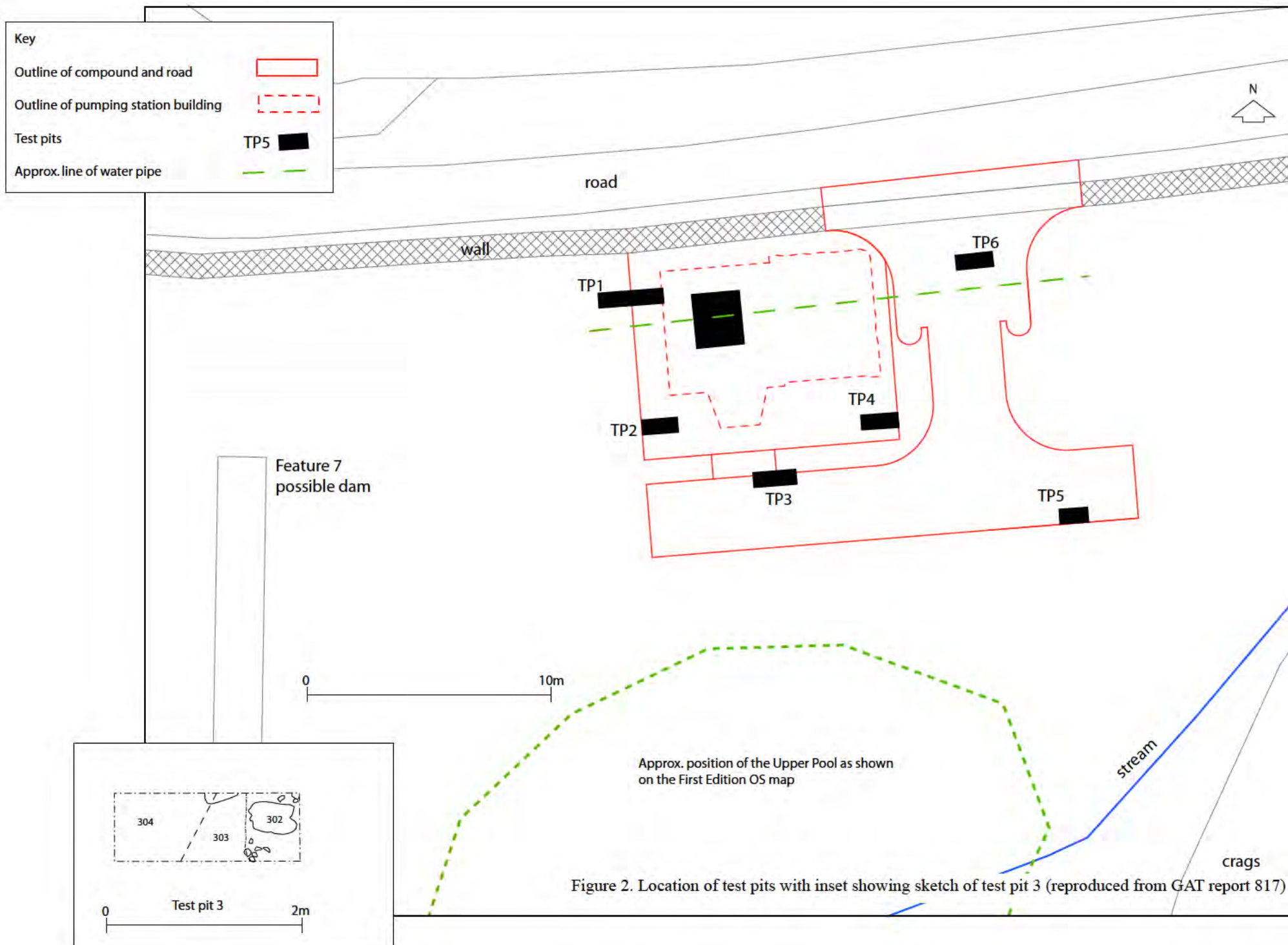


Figure 2. Location of test pits with inset showing sketch of test pit 3 (reproduced from GAT report 817)



Figure 3: Survey of Site





**Plate 1: Test Pit Three, from the North.**



**Plate 2: Topsoil Stripped Holding Area, from the West.**





**Plate 3: Subsoil Stripped Area, from the East.**



**Plate 4: Subsoil Stripped Area, from the West.**





**Plate 5: Breached Field Boundary, from the West.**



**Plate 6: Breached Field Boundary, from the South.**



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