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# Fferm Glanllynau, Chwilog, Gwynedd: Storage Yard Extension Archaeological Works

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GAT Project no. G1956

Report No. 712



*Prepared for H Parry*

January 2008

By Robert T.J. Evans



**Ymddiriedolaeth Archaeolegol Gwynedd**  
**Gwynedd Archaeological Trust**

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Cover: Glanllynau Farm, from Glynllifon Estate Map Book c.1815 (Gwynedd Archives XD2/8356)

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## **Archaeological Watching Brief**

*Project No. G1956*

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## **FFERM GLANLLYNNAU, CHWILOG, GWYNEDD (G1956)**

### **ARCHAEOLOGICAL WORKS IN ADVANCE OF PROPOSED DEVELOPMENT**

#### **SUMMARY**

*An archaeological evaluation has been carried out prior to a development at Glanllynau Farm, Chwilog, Gwynedd. The proposal involves the extension of an existing yard for the storage of green waste to the west of Glanllynau farm. Due to the potential for prehistoric and/or medieval activity within the proposed development area, an archaeological strip and map had been recommended, along with excavation of two previously identified features.*

*The site is located c.150m to the east of the scheduled Tomen Fawr medieval ringwork (CN031). A recent archaeological excavation undertaken as part of the A497 Road Improvement Scheme has also identified an Early Bronze Age burial site and a Middle to Late Bronze Age c.600m and c.650m respectively to the west of the site.*

*Two associated pits containing significant quantities of fire-cracked rock were excavated. They have been provisionally interpreted as prehistoric boiling pits, although their interpretation is difficult. No further archaeological features of pre-modern date were identified, although there was some evidence of probably 19<sup>th</sup> century land improvement, and a modern silage pit.*

#### **1. INTRODUCTION**

Gwynedd Archaeological Trust (GAT) has been asked by Mr. H. M. Parry of Glanllynau Farm to undertake an archaeological evaluation in advance of the development of a storage yard for green waste (centred on NGR SH4560137662). This plot of land comprises an area of approximately 1.5 hectares, located on the south coast of the Llŷn Peninsula, c.4.0km west of Criccieth on the A497 (Fig. 1).

The evaluation was requested by Gwynedd Archaeological Planning Service (GAPS) in advance of planning determination as a result of an archaeological assessment that showed that the site had significant potential. This assessment was requested due to the close proximity of a medieval defensive site, Tomen Fawr ringwork, c.150m to the west of the proposed site, and in response to an archaeological assessment of the development area (GAT Report 686). The ringwork is recognised as a site of national significance and has been designated a Scheduled Ancient Monument (SAM No. CN031).

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

A project design was submitted in September 2007 in response to a brief from GAPS for a strip, map and sample within the proposed extraction area, which required stripping under constant archaeological supervision, followed by examination of features revealed by the stripped process (Appendices 2 and 3). In addition excavation of two previously observed pits was required. This was carried out in addition to the strip, map and sample procedure at the same time.

#### **3 METHODS AND TECHNIQUES**

##### **3.1 Strip, Map and Sample**

The development area is located to the immediate west of an existing storage yard and involves the extension of the yard and a new access road. The development area measures 81m by 62m, including a battered slope beyond the storage yard area itself. The entire area was stripped under constant archaeological supervision, and all features revealed by the stripped process examined.

### **3.2 Excavation**

The two features identified were excavated by hand, with the stratigraphy of the archaeological layers, features and deposits respected, in order to provide an appropriate 'preservation by record' for the site. A detailed and general written, photographic and drawn record was produced, with each individual context allocated a specific identifying number. Environmental samples were obtained from the features, but no archaeological artefacts recovered.

### **3.3 Report**

The available information was synthesised to give a summary of the archaeological and historic background and of the assessment, as set out below. The features are listed separately and a summary of the overall assessment of the area is given at the end.

## **4 LOCATION AND TOPOGRAPHY**

The geology of the proposed development is mainly Ordovician sedimentary rocks with igneous intrusions, like that forming the Penychain peninsula to the southwest (Bassett & Davies 1977, 19). Grey slates and mudstones of the Tremadoc series underlie the area, with the most intrusive rocks being rhyolites (Smith & George 1961, 28; Roberts 1979).

The soils comprise mainly typical brown earths with a concentration of alluvial gley soils at the southwestern end of the scheme (1:250,000 Soil Map Series: Sheet 2, Wales).

The proposed development lies on the periphery of the coastal plain overlooking Cardigan Bay and comprises a large trapezoidal field, recently used for maize cultivation that belongs to Glanllynau Farm. To the immediate west of this field is Tomen Fawr medieval ringwork, a Scheduled Ancient Monument (CN031). The surrounding area comprises mainly enclosed, undulating farmland located on a plateau sloping towards the sea. Within this area are a number of river valleys, currently bridged by the A497.

## **5 HISTORICAL AND ARCHAEOLOGICAL BACKGROUND**

### **5.1 Previous Archaeological work within the area**

A programme of archaeological work, including evaluation, excavation and watching brief, was conducted in advance of, and during, the construction of the A497 Road Improvement Scheme between Abererch and Llanystumdwy and an associated gas pipeline realignment scheme (GAT Reports 625 and 624 respectively). Ninety-nine evaluation trenches were opened across the 6.5km length of the scheme. Evidence for archaeological activity within these was mainly limited to post-medieval agricultural activity. Six of the trenches contained archaeology of greater significance, however, including evidence for Romano-British domestic activity identified at the western end of the scheme; There was Early to Late Bronze Age burnt mound and funerary activity within the central and eastern portions of the scheme (including a possible burnt mound site c.320m to the west of the current proposed development). The Late Bronze Age site included a fragmented vessel made from coarse pottery buried in a small pit. An Early Bronze Age funerary site was excavated towards the eastern end of the scheme, northeast of Afon wen Farm and c.400m from the proposed development. The site incorporated a large enclosure ditch forming a ring barrow, at the centre of which were two burial pits each containing a cremation urn. Part of an early 19<sup>th</sup> century turnpike route was also investigated during the excavation phase, revealing a well-built cambered road running between Glan Morfa Farm and Llwyngwyn Farm near the centre of the road improvement scheme. The archaeological watching brief followed on from the excavation phase and was conducted across the entire length of the road scheme but no further activity was identified during this phase.

#### **5.1.1 Geophysical survey**

A magnetometer survey along the whole of the route was undertaken in August 2004 (Stratascan Report No. 1899 *Geophysical Report: A497 Abererch to Llanystumdwy, Gwynedd*). This comprised

magnetic scanning of the soil along a 30m wide strip following the centre line of the easement forming the road improvement area. This identified a number of possible archaeological features as areas of archaeological potential, which were then targeted during the subsequent trial trenching. The area to the north of the proposed development was surveyed and a series of parallel linear anomalies, thought to be agricultural in origin, was identified (*ibid.*: 18). A series of “strong magnetic responses” within the large trapezoid shaped field that includes the current proposed development were thought to indicate the spreading of waste material (*ibid.*). This was confirmed during the evaluation phase of the Road Improvement Scheme: the three evaluation trenches (Trenches 89, 97 and 98) revealed that the area had been subject to modern waste dumping, with the “original” topsoil covered by a thick deposit of “modern” topsoil full of waste material.

### **5.1.2 Aerial Photographs**

A series of aerial photographs has been inspected at RCAHMW of the proposed development area. The photographs were taken by RAF sortie on 14<sup>th</sup> August 1945 (Sortie Number 106G/UK/664; Frame Numbers: 3291, 3292 and 4214 to 4216 and 4296). No features were visible within the proposed development area.

## **5.2 Archaeological and Historical Background**

### **5.2.1 Introduction**

There is considerable evidence for settlement from the later Neolithic through to the post medieval period in the vicinity of the development site, and an early Bronze Age burial site. These are detailed below.

#### **5.2.2 Prehistoric**

##### Early Bronze Age Burial Site (PRN19659)

The site was located in an enclosed field to the east of Afon Wen farm, c.650m west of the current proposed development. It comprised a circular enclosure ditch c.28m diameter, in the centre of which were found traces of a small cairn covering two human cremation urns. The urns were found in inter-cutting pits at the centre of a circular ditch, c. 25m in diameter, covered with a small remnant spread of stone. Both pots contained a substantial quantity of bone, but no grave goods. Radiocarbon dates recovered from the site range from CAL BC 2190 to CAL BC1530 (Beta-210121 to 210124), indicating an Early Bronze Age date.

##### Bryn Bachau Late Neolithic/Early Bronze Age Burnt Mound

Evidence of burnt mound activity was identified near Bryn Bachau Chapel c.2.5km west of the proposed development, in the form of a burnt stone spread and associated pits. The burnt mound covered an area c.25m<sup>2</sup> in size (Figure 6) and was located to the east of a former stream. The burnt stone defining the “mound” lay in a shallow cut terrace or platform and was deposited on top of a linear spread of identified as a glacial deposit, similar to that identified in Trench 66 to the west. A sample of charcoal was sent for radiocarbon dating. Three pits were found at the southern end of the trench, south of the burnt stone spread. Two of the pits contained burnt stone, whilst the largest pit contained a charcoal-rich fill and a number of larger unburnt stones. They were identified as pits or troughs associated with the burnt mound. Two radiocarbon samples were sent for dating: the first was from a discrete deposit on the surface of the burnt stone mound. This produced a date at 2 sigma of CAL BC 2550 to BC 2540 and CAL BC 2490 to BC 2140 (Beta-204432). The second was from the primary fill of pit 402 at the southern side of the burnt mound. This produced a date at 2 sigma of CAL BC 2580 to BC 1910 (Beta-204434).

##### Llwyngwyn Farm Late Bronze Age Domestic Activity

This site was located in an evaluation trench located south of Llwyngwyn farmhouse during the road improvement scheme, c.2.4km west of the current proposed development. Two small pits were identified within the trench that contained numerous fragments of coarse pottery. The pottery appeared to come from a single vessel that had been broken prior to its inclusion in the pits, rather than the result

of later activity. The provenance of the vessel was not fully understood but it was interpreted as a redundant domestic vessel rather than a ritual vessel evident of funerary activity. Charcoal from the fill of one of the two pits containing the pottery fragments was sent for radiocarbon dating (2 Sigma calibration; Beta-204431). This produced a date of CAL BC 1360 to 1360 and CAL BC 1320 to 970. This provided a date range from the Middle to Late Bronze Age that matched the stylistic attribution of the pottery.

#### Glanllynau Middle to Late Bronze Age Domestic Feature

This site was located towards the eastern end of the road scheme in a field belonging to Glanllynau Farm c.600m to the northwest of the proposed study area. The trench was opened during the evaluation phase of the A497 road improvement scheme and was located in response to an apparent pit alignment identified on the geophysics survey (Donaldson, KT Geophysical Survey Report: Abererch to Llanystumdwy, Gwynedd, Stratascan Report Job Ref. 1899, August 2004). The majority of the alignment was outside the road scheme. A large pit was identified in the trench, c.2.0m across. It was filled with a brown/black silt rich in sub-rounded heat fractured stones. There were no signs of extraneous burning around the pit, suggesting the feature may have been dug as a refuse pit for the stones. The pit was cut into a stone-rich grey silt layer. On the eastern side of the pit the grey silt was charcoal-flecked, but not on the western side; suggesting the eastern side was the main focus for associated activity. The trench was subsequently extended eastwards, c.6m and the grey silt layer was investigated further. Charcoal from the lower layer in the pit produced a radiocarbon date of CAL BC 1280 to BC 970 (Beta-204433). The possible date range falls mainly within the Middle to Late Bronze Age period.

#### Findspots

A collection of worked flint (PRN 6787) found on the eroding headland of Penychain is probably the remains of nomadic hunting or fishing of the Mesolithic period, dating from the 6<sup>th</sup> to 5<sup>th</sup> millennia BC. Mean sea-level at that time was some 5 to 10m below the present and such headlands may have provided a prominent position with views over a coastal plain with rich food resources. A polished stone axe of Neolithic date and two axe hammers of Bronze Age date have been found in the grounds of Broom Hall (PRN 2272). The stone axe can be dated to the fourth or fifth millennium BC while the axe hammers are of the early second millennium BC.

Two perforated stones, possibly loom weights, were found separately near Penbryn Neuadd (PRN 2263), south of Abererch. Also a spindle-whorl was found between Pont Llwyngwyn and Afon Wen Farm (PRN 19627). These could be of the later first millennium BC or even from the Roman period and most probably indicate domestic settlement and activity nearby. There is one area of known settlement of this period, consisting of two round houses just to the north of the road near Pont Llwyngwyn. The absence of more widespread evidence for occupation in this area during the later prehistoric and Roman period, despite the fact that it has some quite good farmland, is likely to be because any remains have been obscured by clearance for agriculture and subsequent ploughing.

#### **5.2.3 Roman**

##### Gwinllan Glan Morfa Late Iron Age/Romano-British Settlement Area

This site was originally identified in evaluation Trench 40 during the A497 Road Improvement Scheme, c.3.6km west of the current proposed development. The site comprised a small circular stone-built structure with a central clay hearth surrounded by a cobbled surface. A layer of charcoal atop the cobbled surface was submitted for radiocarbon dating and produced a calibrated date of CAL 50 BC to CAL AD 110 at 2-sigma (Beta-204430), indicative of Late Iron Age/Early Roman activity

##### Late Iron Age/Romano-British Transient Occupation Area, northeast of Glan Morfa Bach

This site was originally identified during the evaluation phase of the road improvement scheme and was located at the edge of a flood plain, c.5.3km west of the proposed current development. Three small hearths were identified and charcoal from one of the hearths produced a radiocarbon date of CAL AD 70 to AD 380 at 2 sigma (Beta-205207) indicative of Late Iron Age/Early Roman activity.

#### 5.2.4 Medieval

There are known medieval settlements at Bothach, Penarth, Chwillog and Penychain (GAT Report 625). Archaeological sites of this period include the earthworks of the possible township of Bothach (PRN 1825), located within Broom Hall Park; Tomen Fawr ring-work (PRN 1329), a defensive site of probable Norman date c.150m to the west of the proposed development, and the medieval hall house at Penarth Fawr dating from the mid-15<sup>th</sup> century (RCAHMW 1960, 112-4). The proposed development is historically part of Llanystumdwy parish.

The Tomen Fawr ring motte is without a bailey, and defended by a ditch on all sides except the south, where the natural slope was scarped to produce the same effect and the material used to emphasise the bank encircling the top. The interior, 12.0m in diameter, has been partly filled in by the collapse of the bank. A slight causeway on the northwest is probably a later insertion, the original entrance having been a timber bridge, a good position for this being the southeast where the outside level is higher. Traces of a possible rectangular structure in the middle of this ringwork and hints of postholes for a gateway and/or palisade along the south edge can be seen as hollows in the grass. The north of the interior is overgrown with gorse, broom and bramble. The top of the bank is between 2.0 and 4.0m above the interior, although this diminishes to 0.5m on the south edge, where part of the bank may have collapsed outward. It is possible that this is due to the removal of soil in about 1850, when 'a cannon ball weighing 3-4lbs' was found (RCAHMW 1960, 236; Owen 1903, 253). The encircling ditch is best preserved on the north and the east where it is 4.0m below the crest of the bank. On the north the ditch has been partly filled in, although it is still visible. On the south the site is defended by the natural slope, although this has been dug into to create material for the bank, which resulted in the line of the ditch being continued round the monument.

The Tomen Fawr ringwork now stands in isolation. The Tomen itself is a Norman ring-work defensive enclosure, later reused by the Welsh Princes and eventually serving as the centre of the township of Ffriddlwyd (GAT Report 625). The township was later given to the Cistercians and became a grange of the Aberconwy Abbey, but returned to the Crown through an exchange. Traces of a possible rectangular structure survive within the ringwork and small depressions in the grass may indicate the positions of gateposts. No associated fieldwork systems have been identified within the surrounding area.

Documentary evidence refers to Edward I staying in this area on his way to Pwllheli following the Edwardian Conquest of North Wales. The most likely location would have been the township of Penychain, now represented by a farm and headland southeast of Haven Holiday Park several kilometres to the west of the proposed development area. A sizeable house or hall would have been required for the royal retinue, but no evidence for this has yet been discovered. One possible explanation suggested was that such a building might have been lost to coastal erosion (*ibid*). However, the building is more likely to have been on the higher land above the marshy coastal fringe and so its remains may lie under an existing dwelling such as Penychain farm.

Penychain was a bond township, becoming crown land soon after the Edwardian Conquest in the late 13<sup>th</sup> century. In 1590 there were 91 people living in 16 dwellings in Penychain (*ibid*). 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 (*ibid*).

#### 5.2.5 Post-Medieval

The proposed development area lies within the parish of Llanystumdwy and, during the nineteenth century, Glanllynau was part of the Glynllifon Estate of Lord Newborough (Fig.2 and frontispiece).

Archival references to Glanllynau Farm date from at least the eighteenth century: a reference is made to an "Evan Owen of Glanllyna" (sic) attending the Borough Court of Nefyn in September 1769, for example (TCHS XIX: 91). The John Evans Map of North Wales (1795) includes Glanllyniau (sic) Farm, visible in its present location. There are references to a plan of the buildings at Glanllynau in 1802 and later (GAS XD2A/1139-1144), whilst the First Edition 1" Ordnance Survey Map of the area, dated to 1838, shows a similar layout to the current Farm. The 1839 Tithe Map and the 25" First to Third Edition Ordnance Survey maps (1889 to 1917), also show similar information. Moreover, the

Tithe and 25" Ordnance Survey Maps show the same field boundaries that are currently in place, suggesting that they were established by at least the early nineteenth century.

Within the general area, there have been relatively few changes 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 A497 is approximately along the line of a route that has been used since at least the 12<sup>th</sup> century and was improved in 1803 by the Porthdinllaen Turnpike Trust (GAT Report 625). John Evans' map of North Wales of 1795 shows the main road here on the same line as the present route. Minor improvements have taken place along the road; between 1839 and 1889 (*i.e.* between the publication of the parish tithe maps and the First Edition 25" Ordnance Survey Map), the road appears to have been straightened.

The general pattern of settlement, consisting of scattered farmhouses and cottages dating from the 18<sup>th</sup> century or later, is little altered from that shown on the map produced to accompany the Llanystumdwy Tithe Apportionment of 1844. This slow rate of change is, in part, due to the lack of raw materials for industrial development, though small-scale industries were developed, with, for example lignite quarried at Bryn Bachau farm east of Pont Llwyngwyn. A lease for 31 years to search for 'coal, stones, ores and minerals' there and on two other farms in the area had been granted by Lord Newborough in 1839 (*ibid*). In 1862 the lease was re-assigned to Trustees of the Bulkeley Coal Iron Stone and Fireclay Co. for 'fields called Caepwllglo and Werglodd Pwll y glo, part of a farm called Brynbechau' (*ibid*). The coal was used to fuel a small brickworks. There was also a corn mill by the river at Afon Wen at the time of the 1889 Ordnance Survey, later developed into a large commercial laundry. The development around Afon Wen was encouraged by the construction of the Caernarvonshire branch of the London and North Western Railway in 1867. This crossed the route of the road at Afon Wen by means of an embankment and bridge but the latter was dismantled after the line was closed in 1967.

The presence of the railway also influenced the construction in 1939 of an extensive naval training camp, HMS Glendower, south of Afon Wen, housing 8,000 recruits, who must have had a considerable impact on such a quiet rural area. The camp was built for the military by Billy Butlin with other ideas in mind. After the war it was turned into a holiday camp and is now the Haven Holiday Park.

## **6 RESULTS OF THE ARCHAEOLOGICAL WORKS**

### ***6.1 Strip, Map and Sample***

The strip and map phase of the archaeological works was carried out in two phases, involving the removal of the topsoil and subsoil by a 14 tonne, 360 degree excavator, until natural glacial sands, gravels and clays were observed, and any archaeological features cut into them.

In September 2007 an area 40m by 45m was stripped, revealing two sub-circular features 35m west of the access point from the storage yard access road.

**Pit 01**, 3.25m by 2.5m, appeared to be filled with stone rich loose soil, containing fire cracked rocks.

**Pit 02**, 1.9m by 1.85m and 2.1m to the south east of pit 001, appeared mainly filled with stone.

In January 2008 the remainder of the development area was stripped. 48m west of the entrance a disturbed patch of ground 5m in diameter was observed containing a significant quantity of backfilled concrete. This showed evidence of modern agricultural activity and proved to be a silage pit that was backfilled in the 1990s (Context 008). The character of this feature was evaluated by machine excavation but was not recorded in detail. No further archaeological features were noted during the soil stripping phase of the archaeological works, with the exception of stone lined drainage inserted as part of agricultural improvements.

## 6.2 Excavation

The two pits were excavated by hand on 14<sup>th</sup> January 2008. Pit 001 was subcircular in shape with a sharp break of slope to top and base and smooth sides (Fig. 3, 6), 3.22m by 2.75m and 0.6m deep. Its fill (004) consisted of a very loose mid greyish brown sandy silt, containing stones of up to a very large size. Some of these stones appeared to be fire cracked. There was no evidence of any charcoal within the fill (Fig. 7).

Pit 002 was 1.9m by 1.85m and 0.3m deep, and of circular shape. It had a more gentle profile and was filled by an extremely loose deposit of stones (006) within a light greyish brown silty clay (Fig. 4, 8).

No archaeological finds were obtained from either pit.

## 7 CONCLUSIONS

The strip, map and sample phase of the archaeological works identified two pits, in addition to some evidence for modern agricultural activity. These pits appear to be isolated features, although there may have been truncation due to landscape improvements in the 19<sup>th</sup> century. They may be of prehistoric origin.

Upon excavation, both the pits were shown to contain fire-cracked rocks within their fills. Pit 001 could be interpreted as a prehistoric cooking place, although the lack of charcoal is perhaps surprising. Pit 002 was much shallower with a gentle profile and contained a much higher concentration of stones to soil fill. It is possible that this is another boiling pit, or a collection of stones associated with the use of Pit 001. The pits are somewhat difficult to interpret in isolation however.

No evidence was found for medieval or post medieval activity within the development area, with the exception of a modern silage pit. There was some evidence for agricultural improvement to the land that may well relate to 19<sup>th</sup> century improvement works instigated by the Glynllifon estate (XD2A/1139-1144).

## 8 ARCHIVE CONTENTS

5	Day Record Sheets
8	Context Sheets
2	Sample Record Forms
1	A2 Sheet of Drawings
57	Digital Images

## 9 SOURCES

### Published sources

Bassett, T.M. and Davies, B.L. 1977 *Atlas of Caernarfonshire* (Caernarfon)

Gresham, C.A. 1973 *Eifionydd*

Jones-Pierce, T. 1958 "An Eighteenth Century Borough Court Book" in *Transactions of the Caernarvonshire Historical Society*. Volume XIX: pp.81-101.

Owen, E. 1903 'Ancient British Camps etc., in Lleyn, Co. Carnarvon' *Arch. Camb. Sixth Series III, Part 3*, 251-262.

RCAHMW, 1960. *An Inventory of the Ancient Monuments in Caernarvonshire. Volume II: Central* (HMSO)

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

Smith, B. and George, T.N. 1961 *British Regional Geology. North Wales* (HMSO)

### **Unpublished sources**

Roberts, J. GAT Report: 573 Project No. G1692 2005

Roberts, J. GAT Report: 624 Project No. G1692 2007

Roberts, J. GAT Report: 625 Project No. G1858 2006

Roberts, J. GAT Report: 686 Project No. G1956 2007

Stratascan 2004. Donaldson, KT Geophysical Survey Report: Abererch to Llanystumdwy, Gwynedd.  
(Stratascan Report Job Ref. 1899, August 2004)

### **Archive sources**

*Historic Environment Record (Gwynedd)*

1839 Tithe Map: Llanystumdwy Parish

Reprint of the First Edition of the one-inch Ordnance Survey of England and Wales: Harlech & Bardsey, 1838

First Edition 25" Ordnance Survey Map 1889

Second Edition 25" Ordnance Survey Map 1900

Third Edition 25" Ordnance Survey Map 1917

*Gwynedd County Archives*

XD2/8356

XD2/17984

XD2/20825

XD2A/1139

XD2A/1140

XD2A/1141

XD2A/1142

XD2A/1143

XD2A/1144

*RCAHMW*

106G/UK/664/3291

106G/UK/664/3292

106G/UK/664/4214

106G/UK/664/4215

106G/UK/664/4216

106G/UK/664/4296



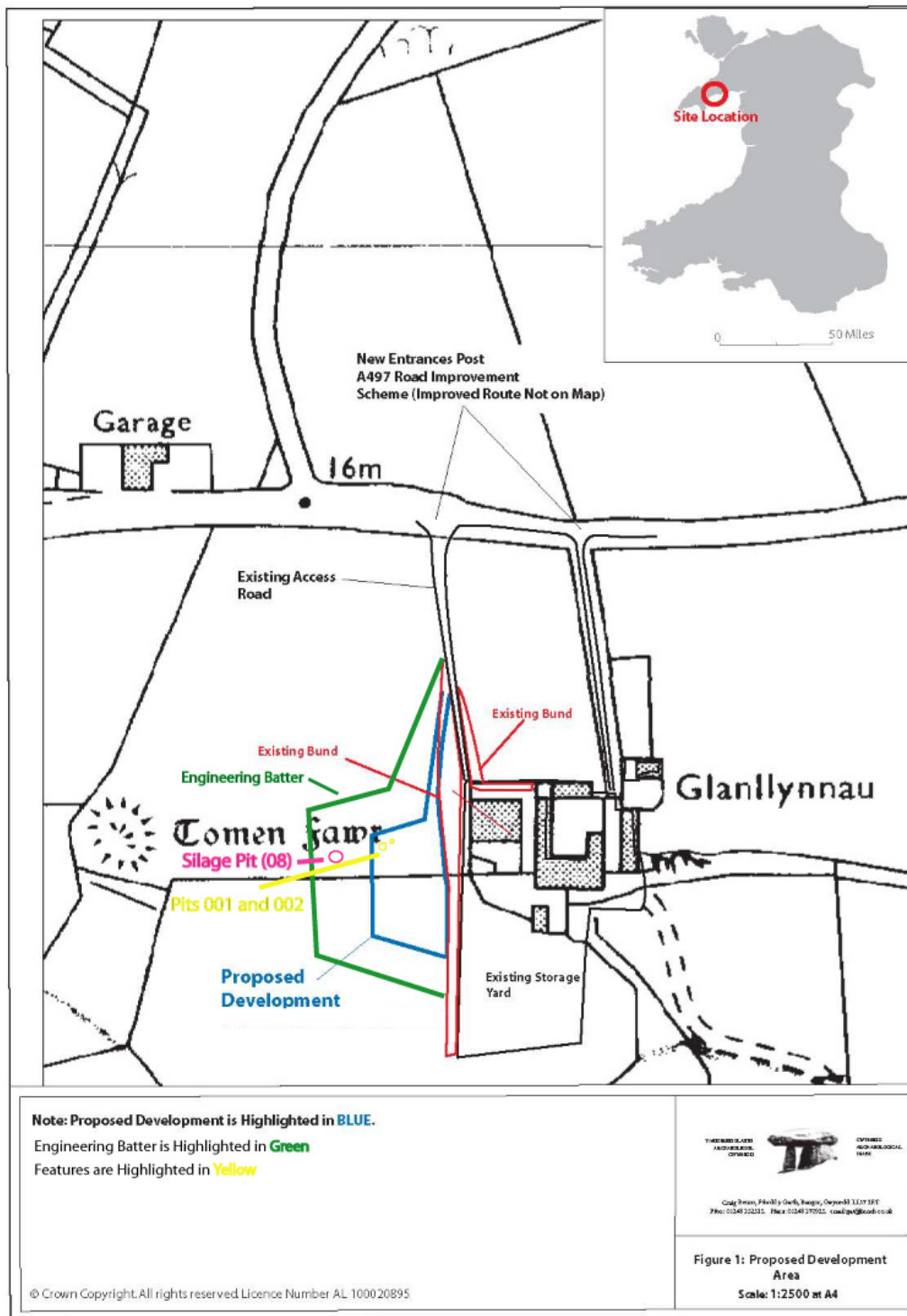


Fig. 1 Location of Glanllynau Farm and the Proposed Development

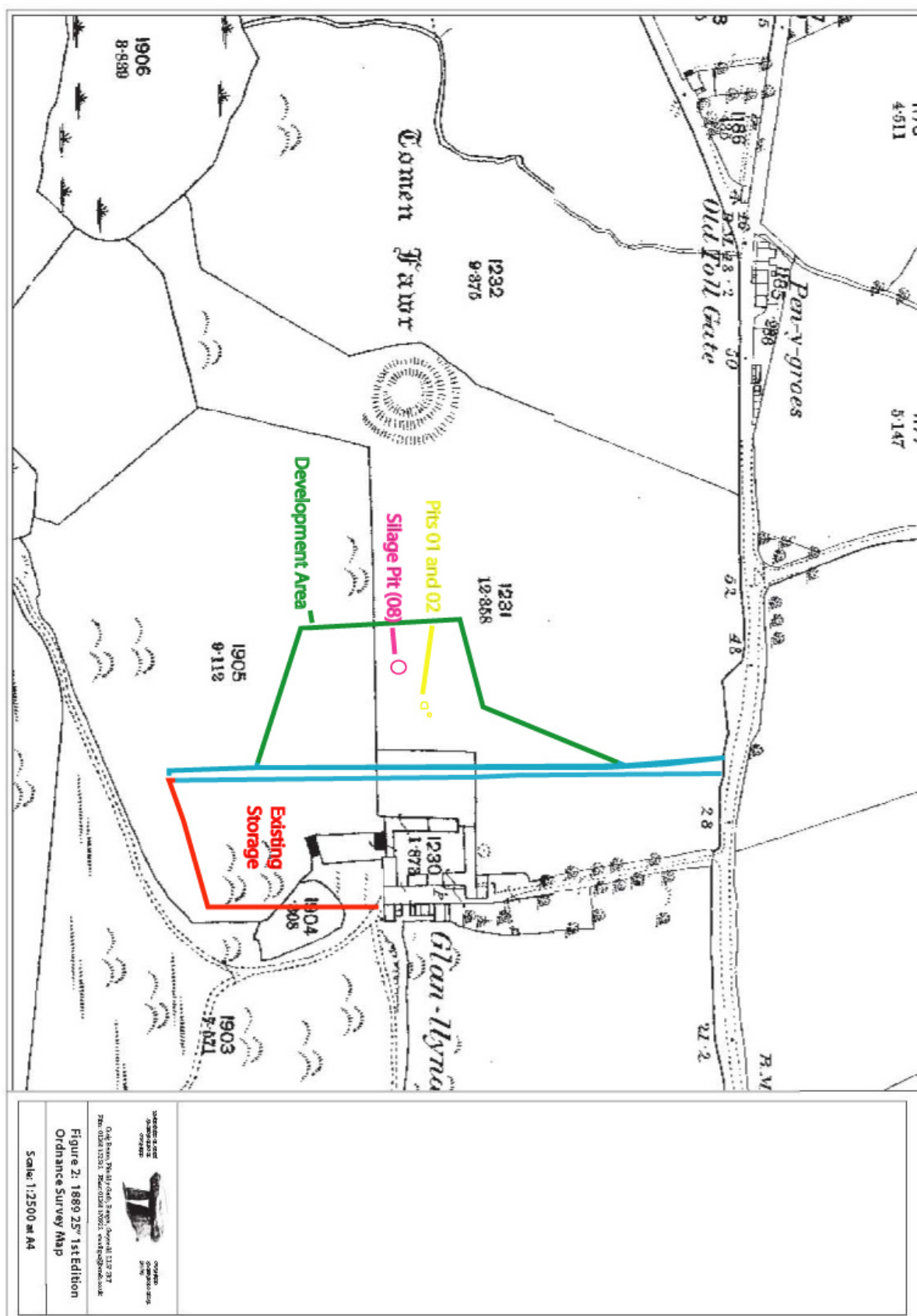


Fig. 2 Development Site on 1889 1:2500 1<sup>st</sup> Edition Ordnance Survey map

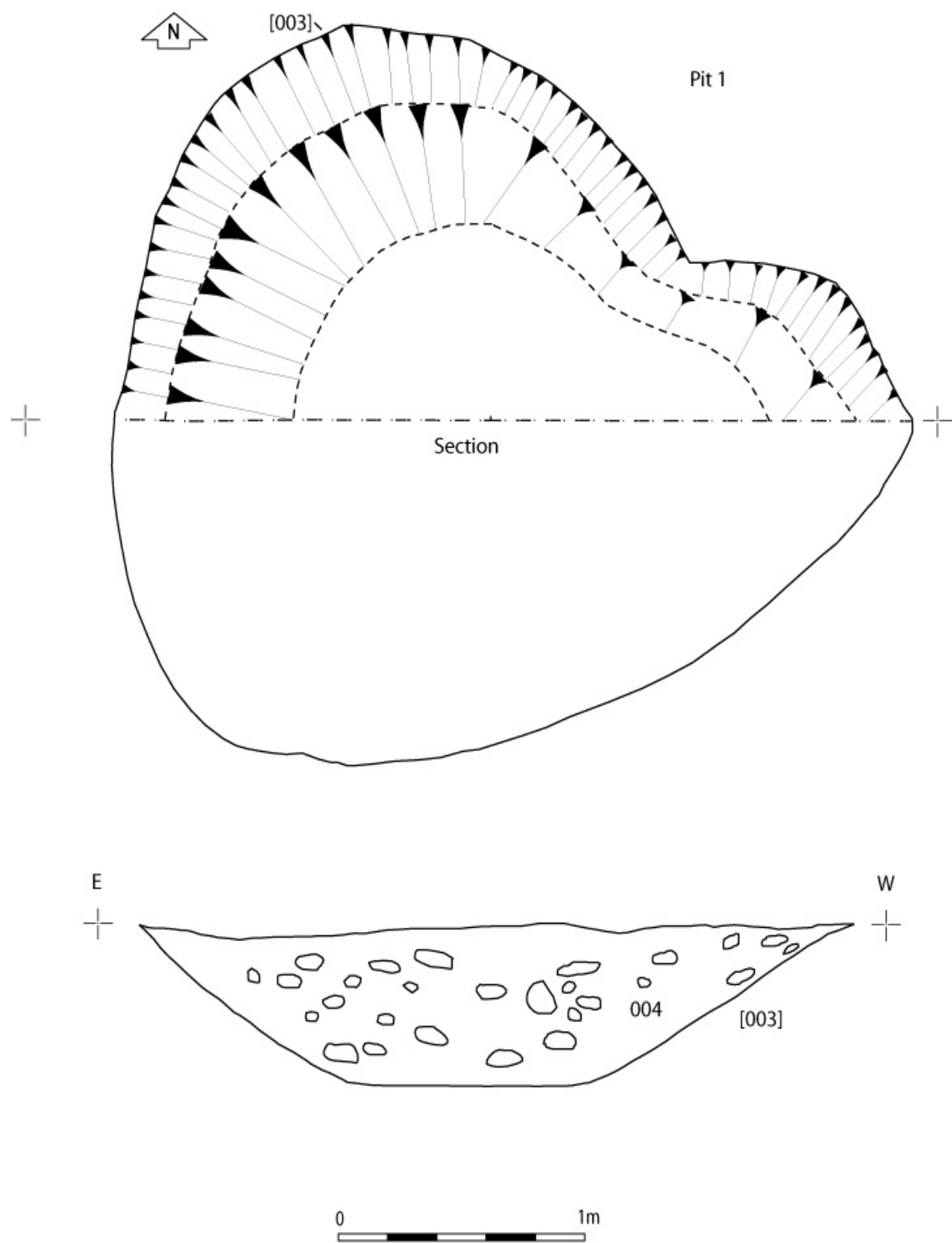


Fig. 3 Pit 001 in Plan and Section

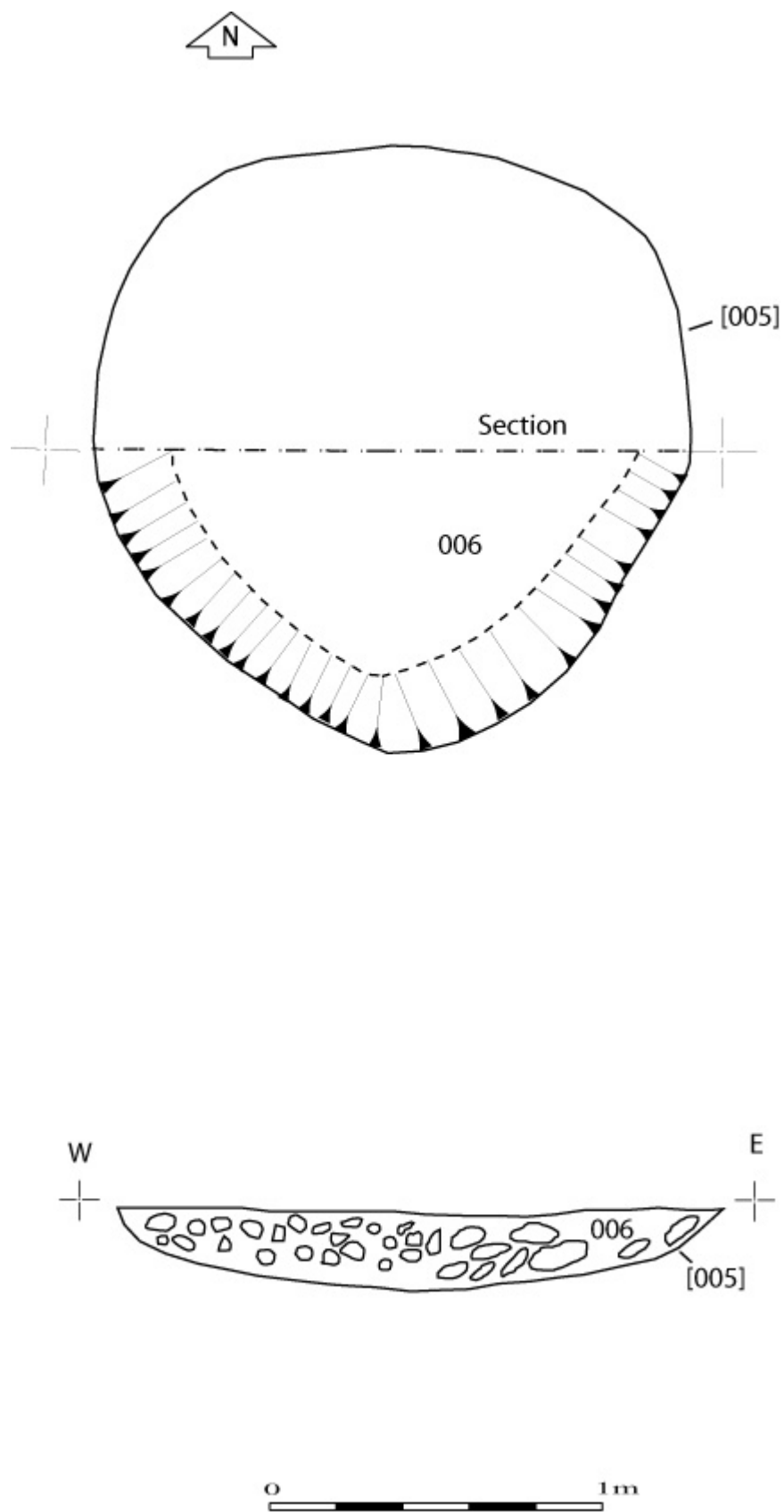


Fig. 4 Pit 002 in Plan and Section





Fig. 5 General View of Soil Stripping from the West



Fig. 6 Pit 001 Prior to Excavation. Scale 1m divided into 50cm segments





Fig. 7 Pit 01 showing Section



Fig. 8 Pit 02 from the south. Scale 1m with 50cm divisions

*Appendix 1*

**List of Contexts**

- 01 Topsoil
- 02 Sandy Clay Subsoil
- 03 Cut of Pit 001
- 04 Sandy Silt Fill of 03
- 05 Cut of pit 002
- 06 Light grayish brown silty clay fill of pit 002
- 07 Glacial sand and Gravel natural soil
- 08 Sileage pit

## **Appendix 2**

### **FFERM GLANLLYNNAU, CHWILOG: STORAGE YARD EXTENSION**

#### **PROJECT DESIGN FOR ARCHAEOLOGICAL WORKS (G1956)**

Prepared for H Parry, September 2007

#### **1. INTRODUCTION**

Gwynedd Archaeological Trust (GAT) has been asked by Mr. H. Parry to provide a cost and project design for carrying out a programme of archaeological works in advance of an extension to an existing waste recycling storage yard (NGR SH4560137662).

#### **2. PROJECT BACKGROUND**

An archaeological assessment was undertaken in August 2007 (GAT Report 686). The assessment identified three sites lying outside but close to the proposed extraction area: the Tomen Fawr medieval ringwork (CN031) is located c.150m to the east; an Early Bronze Age burial site was located 600m west of the site during works associated with the A497 Road Improvement Scheme; a Middle to Late Bronze Age site was located c.650m west of the site during the same scheme.

The proposals within this specification follow the recommendations given in the Assessment Report, and the guidelines given within the Institute of Field Archaeologists *Standard and Guidance* documents (IFA 2001).

#### **3. REQUIREMENTS**

The assessment contained recommendations for a strip, map and sample within the proposed extraction area (para. 5.2), an archaeological technique that requires machine stripping under constant archaeological supervision, followed by examination of features revealed by the stripped process. If complex archaeological remains are found, then a design for undertaking further works is submitted. If no complex archaeological remains are found, then a report would be produced describing the results of the strip, map and sample.

**Initial strip, map and sample has begun (6<sup>th</sup> September 2007) and two features have been identified. A design for dealing with these features is attached (Appendix 3)**

#### **4 METHOD STATEMENT**

##### **4.1 Strip, map and sample**

The proposed development is located to the immediate west of an existing storage yard and involves the extension of the yard and a new access road. The development area measures c.40.0m in width c.70.0m in length, as detailed in the supplied survey drawing. Attached to the northeastern end of this area is a proposed access road, c.3.00m in width and 73.0m in length. This area defines the floor surface of the proposed storage yard, however there would also be a battered slope beyond this. Full details concerning the dimensions of the proposed batter are not currently available, but the anticipated extent is shown on fig 1.

This phase will involve the removal of turf and topsoil by a 360° tracked excavator fitted with a toothless ditching bucket, followed by the removal of sub-soils. Machine stripping will cease when archaeologically significant deposits are encountered, or when the topsoil and subsoil has been removed to the underlying glacial till or rock. Soil removal will be continuously monitored by an archaeologist.



Stripping and removal of the overburden will be undertaken in such a manner as to ensure damage does not take place to surfaces that have already been stripped, nor to archaeological surfaces that have not yet been revealed.

The machine stripping will be undertaken in as careful a manner as possible, to allow for good identification of archaeological features. A small team of archaeologists will be responsible for subsequently further cleaning defined areas where necessary. This will be kept to the minimum necessary to allow features to be identified and defined in plan, with occasional sections excavated to ascertain the depth and complexity of deposits.

If appropriate, further machine excavation shall be carried out after hand excavation and recording of such deposits has been completed; such techniques are only appropriate for the removal of homogenous low-grade deposits, which may give a "window" into underlying levels. They shall not be used on significant complex stratigraphy and the deposits to be mechanically removed shall have been appropriately recorded first.

Limited areas may require hand cleaning, to clarify complex feature intersections, and any hand excavation will respect the stratigraphy of archaeological layers, features, deposits and structures. When required, each context will be excavated in sequence. If complex features are discovered, these will be cleaned to define their extent and small sondages may be excavated to investigate depths of deposits, but full excavation will not take place until a further detailed design has been submitted and cleared by GAPS and the clients.

Record photographs shall be taken of all contexts. The record will illustrate the principal features and finds in both detail and general context. All record photographs shall be taken on a digital camera set to high resolution and an image size of at least 2592 x 1944, resulting in files of approximately 14Mb.

## **5. GENERAL GUIDELINES**

The following guidelines for finds, paleo-environmental sampling, human remains and treasure trove, will be adhered to where relevant.

### **5.1 Finds Recovery**

The following provisions will apply as far as reasonably possible to all the types of archaeological investigation proposed.

It is the intention to recover all artifacts from their original context, though the material which is contained in the machined topsoil will obviously not be able to be completely retained. The soil moved shall be subject to a search in order to obtain a sample of the material present within it.

All artifacts will be retained from hand excavated contexts unless they are of obviously recent origin. In these cases, sufficient of the material will usually be retained where it is important to validate the date and establish the function of the feature.

Some categories of finds of limited intrinsic interest may be sampled and recorded on site where their retention is not considered essential to the archaeological aims and objectives of the project and they would constitute an excessive storage burden. Examples of such items are burnt stone or undifferentiated post medieval tile fragments.

Recovery of artifacts will normally be by hand, except where bulk samples are taken for other purposes or for special recovery of small items (e.g. with cremation deposits). In certain circumstances where unusual or extremely fragile and delicate objects are to be found, then their recovery will be by the appropriate specialists.

The vast majority of finds recovered from archaeological excavations comprise pottery fragments, bone, environmental and charcoal samples, and non-valuable metal items such as nails. Often many of these finds become unstable (ie they begin to disintegrate) when removed from the ground. All finds

are the property of the land owner, however, it is Trust policy to recommend that all finds are donated to an appropriate museum where they can receive specialist treatment and study. At the very least the Trust would request access to the finds for a reasonable period to allow for study and publication. All finds work will be undertaken according to the guidance given in *Guidance for Finds Work* (Institute of Field Archaeologists, 1992). The Trust uses a wide range of specialists for examining and conserving archaeological finds, which include Arcus at Sheffield University for skeletal remains, Birmingham University Archaeology for examining environmental samples; Alex Gibson for Prehistoric pottery. Radiocarbon dates are usually obtained from Beta Analytic, Miami.

## 5.2 Palaeo-environmental sampling

The following provisions will apply if sampling is required.

Different environmental sampling strategies may be employed according to the perceived character, interpretational importance and chronological significance of the strata under investigation.

- Bulk samples of 20 to 40 litres will be taken for flotation for *carbonised remains* where there is clear indication of good potential for such material.
- Bulk samples of 10 litres will be taken from significant datable waterlogged deposits for *insects and macroscopic plant remains*.
- Column samples or sub-samples (of 10 litre bulk samples) of waterlogged deposits and sealed buried soils with potential for *pollen* preservation will be taken for analysis if appropriate.
- Bulk samples of 1 Kg will be collected for *molluscs* if clearly present. Columns of such samples will be taken through deposits where there is clear potential for recovering a datable sequence of environmental information.
- Recovery of *small animal bones* will normally be achieved through processing other bulk samples or may be taken specifically to sample particularly rich deposits.
- Each deposit in possible human cremations will be recovered in its entirety, sieved to retrieve the cremated bone and any associated artifacts, and then processed by flotation to recover any associated charred plant remains.
- Undisturbed kubiena tin or column samples of sediments will be taken for *micromorphology* of buried soils where these are likely to shed important light on the environmental development of the area.

## 5.3 Human Burials

Any Human remains discovered during the first stage 1 of the archaeological works programme will be left undisturbed, for potentially subsequent removal during later stages of works.

If human remains are found, Atkins will be notified immediately, and an appropriate strategy shall be agreed.

In order to excavate human remains, a licence is required under Section 25 of the Burials Act 1857 for the removal of any body or remains of any body from any place of burial. This will be applied for should human remains be uncovered.

Due care and respect will be accorded any human remains located in the course of archaeological excavations and monitoring of the construction works.

Archaeological recording will be undertaken in accordance with good practice guidelines. No excavated remains will be left on view overnight. If it should be necessary to lift the remains, they will

be removed to a safe store pending full compliance with any conditions for disposal required by the licence.

All soil containing cremated bone will be collected, and sent to a relevant specialist for analysis. If the burial is preserved within an urn, then excavation may be undertaken by a specialist, who will lift the urn and burial in a single block, and complete the excavation within a museum. The contents will then be sent to relevant specialists for analysis.

#### **5.4 Unexpected Discoveries: Treasure Trove**

Treasure Trove law has been amended by the Treasure Act 1996. The following are Treasure under the Act:

- *Objects other than coins* any object other than a coin provided that it contains at least 10% gold or silver and is at least 300 years old when found.
- *Coins* all coins from the same find provided they are at least 300 years old when found (if the coins contain less than 10% gold or silver there must be at least 10. Any object or coin is part of the same find as another object or coin, if it is found in the same place as, or had previously been left together with, the other object. Finds may have become scattered since they were originally deposited in the ground. Single coin finds of gold or silver are not classed as treasure under the 1996 Treasure Act.
- *Associated objects* any object whatever it is made of, that is found in the same place as, or that had previously been together with, another object that is treasure.
- *Objects that would have been treasure trove* any object that would previously have been treasure trove, but does not fall within the specific categories given above. These objects have to be made substantially of gold or silver, they have to be buried with the intention of recovery and their owner or his heirs cannot be traced.

The following types of finds are not treasure:

- Objects whose owners can be traced.
- Unworked natural objects, including human and animal remains, even if they are found in association with treasure.
- Objects from the foreshore which are not wreck.

All finds of treasure must be reported to the coroner for the district within fourteen days of discovery or identification of the items. Items declared Treasure Trove become the property of the Crown, on whose behalf the National Museums and Galleries of Wales acts as advisor on technical matters, and may be the recipient body for the objects.

The National Museums and Galleries of Wales will decide whether they or any other museum may wish to acquire the object. If no museum wishes to acquire the object, then the Secretary of State will be able to disclaim it. When this happens, the coroner will notify the occupier and landowner that he intends to return the object to the finder after 28 days unless he receives no objection. If the coroner receives an objection, the find will be retained until the dispute has been settled.

#### **5.6 Processing data, illustration, report and archiving**

Following completion of the strip, map and sample as outlined above, a report will be produced incorporating the following:

- Non-technical summary
- Introduction
- Specification and Project Design
- Methods and techniques
- Archaeological Background
- Description of the results of the strip, map and sample
- Summary and conclusions

- Bibliography of sources consulted.

Illustrations, including plans and photographs, will be incorporated within the report.

## **5.7 Archive**

A full archive including plans, photographs, written material and any other material resulting from the project will be prepared. All plans, photographs and descriptions will be labelled and cross-referenced, and lodged in an appropriate place (to be decided in consultation with the regional Sites and Monuments Record) within six months of the completion of the project. All digital data will be written to CD-ROM and stored with the paper archive.

## **6. STAFF**

The project will be supervised by Andrew Davidson, Principal Archaeologist at the Trust, who has worked in various aspects of British archaeology for 18 years, and who has been responsible for managing all contract work at the Trust for the past five years, including archaeological programmes for major road contracts, pipeline construction and new development sites. The work will be carried out by fully trained Project Archaeologists who are experienced in conducting archaeological fieldwork and working with contractors and earth moving machinery.

## **7. HEALTH AND SAFETY**

The Trust subscribes to the SCAUM (Standing Conference of Archaeological Unit Managers) Health and Safety Policy as defined in **Health and Safety in Field Archaeology** (1999).

## **8. INSURANCE**

The Trust holds public liability insurance with an indemnity limit of £2,500,000 through Russell, Scanlon Limited Insurance Brokers, Wellington Circus, Nottingham NG1 5AJ (policy 01 1017386 COM), and Professional Indemnity Insurance for £2,000,000 per claim (policy No. 59A/SA11818791).

## **Appendix 3**

### **FFERM GLANLLYNNAU, CHWILOG: STORAGE YARD EXTENSION**

#### **PROJECT DESIGN FOR ARCHAEOLOGICAL EXCAVATION (G1956)**

Prepared for H Parry, September 2007

#### **1 Introduction**

1.1 This Archaeological Design outlines the specific procedures for a second stage of Archaeological Works concurrent with the strip, map and sample of the proposed storage yard extension (NGR SH4560137662). For the purposes of this design the defined area will be referred to as Site 01

1.2 This document defines the extent and nature of the proposed work and indicates the proposed methodologies that will be undertaken. The document should be read in conjunction with the original project design

1.3 Site 01 is located at the northwestern extent of the currently stripped area. The strip was undertaken on the 6<sup>th</sup> September 2007. Site 01 incorporates two sub-circular features, c.3.0m apart.

1.4 The two features have provisionally been identified as pits: Pit 01 is 2.50m wide and Pit 02 is 1.50m wide. Both have fills of stone-rich clay-silt. Several stones within Pit 01 appear to be heat fractured.

1.5 The archaeological features recorded at Site 01 are of interest and are sufficiently important to warrant further investigation. The presence of heat fractured stone may indicate burnt mound activity of Bronze Age date.

#### **2 Results of the strip, map and sample phase**

2.1 The area incorporating Site 01 is part of an ongoing strip, map and sample phase. An area c.35.0m in width by 35.0m in length has been stripped. This is not the full extent of the proposed development area, which is due to continue at an approved date.

#### **3 Interpretation of Site 01**

3.1 Interpretation is currently limited to surface results, specifically the appearance of heat fractured stones in Pit 01, which could suggest Bronze Age burnt mound activity. The initial assessment (GAT Report 686) identified three sites lying outside but close to the proposed extraction area: the Tomen Fawr medieval ringwork (CN031), which is located c.150m to the east and a recent archaeological excavation undertaken as part of the A497 Road Improvement Scheme has also identified an Early Bronze Age burial site and a Middle to Late Bronze Age pit c.600m and c.650m respectively to the west of the site. The pits in Site 01 bear general similarities to that in Trench 80, identified during the A497 Road Improvement Scheme (GAT Report 624). Further investigation could reveal the provenance of the two features.

#### **4 Proposed further archaeological works**

4.1 The proposals set out in this document represent a second stage of works and has been formulated to target those aspects of the archaeological data already recovered from the site that have the potential to contribute to interpretations of the history of inhabitation of the site or to wider questions at a local, regional or national scale.

4.2 Works to date have established the survival, within this part of the site, of two archaeological features of suspected prehistoric origin. This interpretation is based on known archaeological activity within the area and the appearance of the features.

4.3 The aim of further excavation will be to characterise and understand the development of the industrial, settlement/agricultural landscape in terms of the changing nature of human inhabitation over time. Any finds or palaeoenvironmental remains recovered from the features would help to achieve this.

## **5 Strategy**

5.1 The primary strategy is intended to provide appropriate 'preservation by record' for the site.

5.2 It is proposed that further investigation of Site 01 will be achieved by excavating the two identified features and the removal of any possible palaeoenvironmental or artefactual material

## **6 Methodology**

6.1 Excavation: will generally be by hand but a machine may be used in exceptional circumstances, as described above. In all cases the stratigraphy of archaeological layers, features, deposits and structures will be respected. A detailed plan of all archaeological features will be produced, updating the plans which are included in this design.

6.2 Photography: digital photographic record, illustrating in both detail and general context the principal features and finds discovered will be maintained.

6.3 Finds procedures: all finds and samples will be recorded, collected, bagged as appropriate, and labelled according to their individual stratigraphical context. Finds from each archaeological context will be allocated an individual finds tray and waterproof labels will be used for each tray to identify unique individual contexts. Each label will be marked with the appropriate context number in waterproof ink and will be securely attached.

6.4 All finds and samples will be exposed, lifted, cleaned, conserved, marked, bagged and boxed according to the United Kingdom Institute for Conservation's Conservation Guidelines No.2, the Council for British Archaeology's First Aid For Finds (Second Edition, 1987) and the Institute of Field Archaeologists' Guidelines for Finds Work (1992).

6.5 Artefacts recovered during the archaeological investigations will be taken away from the site at the end of each working day and will be stored in a secure off-site location. No formal procedures for cleaning finds on-site have been made. However, to assist spot dating and identify any potential conservation issues, occasional finds may be cleaned on-site.

6.6 All artefacts recovered from both phases of works at this site will be fully catalogued. After appropriate post-excavation assessment and analysis, all artefacts recovered from the archaeological works will be deposited with the appropriate approved museum at the end of the project.

6.7 The project's archive comprises every record relating to that project, from written records and illustrative material to the retained artefacts. The Project Officer will ensure that every element of the archive is kept clean and secure, and that it is stored in a suitable environment. The archive comprising written, drawn, photographic and electronic media, will be fully catalogued, indexed, cross-referenced and checked for archival consistency.

6.8 Environmental samples: samples will be processed by flotation and scanned to assess the environmental potential of deposits, but will not be fully analysed. The residues and sieved fractions will be recorded and retained with the project archive.



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