# THE CLWYD-POWYS ARCHAEOLOGICAL TRUST

# A458 Road Improvements at Nant-y-dugoed, Powys and Gwynedd ARCHAEOLOGICAL WATCHING BRIEF



**CPAT Report No 355** 

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Report for WS Atkins Heritage

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# **CPAT Report Record**

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# 1 INTRODUCTION

- 1.1 The proposed development involves improvements to the A458(T) trunk road between Shrewsbury and Mallwyd in the vicinity of Nant-y-dugoed Farm. The route corridor for the proposed improvement is approx. 2.5km in length and 0.3km wide between SH 9122 1300 and SH 9353 1387 (Fig. 1).
- 1.2 An initial archaeological assessment was undertaken by the Clwyd-Powys Archaeological Trust (Hankinson, 1996) consisting of a desk-based study and walkover survey, which identified a number of archaeological sites that lay within the proposed corridor. These included a Bronze Age cairn, a possible Roman road and a series of medieval and post-medieval road alignments, together with various agricultural buildings and evidence of ridge-and-furrow cultivation.
- 1.3 The present phase of work was associated with the excavation of a series of test pits along the corridor route and a brief was prepared by WS Atkins Wales relating to the provision of an archaeological watching brief during the course of the excavations.
- 1.4 The Clwyd-Powys Archaeological Trust (CPAT) was invited to prepare a quotation and specification for undertaking the watching brief, but due to existing commitments and the timescale involved, the work was sub-contracted by CPAT to ArchaeoPhysica Ltd<sup>1</sup>. The watching brief was therefore undertaken by ArchaeoPhysica Ltd under the overall supervision of CPAT and the following report produced jointly.

# 2 LOCATION, TOPOGRAPHY AND GEOLOGY (Fig. 1)

- 2.1 The eastern end of the corridor lies on the col known as Bwlch y Fedwen, from where it runs west then south-west down the valley known as Cwm Dugoed, which has steep south and south-east facing slopes. Afon Dugoed flows generally westward and joins Afon Dyfi at Mallwyd, 5km to the west.
- 2.2 The corridor lies in an essentially valley-bottom location, although both its northern and southern edges encroach on higher land to each side. To the north it extends above the existing A458 road and the steep south-facing slopes immediately below it. The southern edge rises fairly high up onto the north-facing slopes above the river. All these slopes are improved pasture but most of the valley bottom itself is blanket bog with isolated trees and occasional ridges of upstanding glacial till. In the vicinity of the river considerable erosion has occurred, both laterally into the peat and glacial till, and also down onto a relatively impermeable boulder clay. Fairly substantial quantities of sub-angular and sub-rounded stones exist in the eroded material.
- 2.3 The rocks underlying the corridor are greywackes belonging to the Sheinwoodian stage of the Wenlock Series of Silurian rocks (British Geological Survey 1994). The soils derived from these rocks vary according to their location within the Cwm Dugoed valley; soils in the valley bottom are slowly permeable loamy upland soils with a peaty surface horizon, or very acid peat soils, of the Wilcocks 2 Soil Association, while on the steeper valley slopes the soils are well drained, occasionally shallow, fine loamy or silty soils of the Manod Soil Association (Rudeforth *et al.*, 1984).
- 2.4 On north-facing slopes ongoing conversion from dry upland soils without surface peat to wetter soils with surface peat and frequently extensive metal ion leaching was noticed in several pits. Much of the leaching seems related to soil acidification by the new peat and in many places underlying and usually pale silts and clays have been darkened by the incorporation of new organic complexes.
- 2.5 This conversion is accompanied in the valley bottom by an increase in blanket peat and tongues of boggy ground extending up the valley sides. In a few cases this can be demonstrated to have occurred within the last 200 years (see Section 6.16 below).

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#### 3 KNOWN ARCHAEOLOGY

3.1 The known archaeology can be summarised as follows, from east to west (Hankinson 1996; Fig. 1):

Site name Lydham to Dolgellau Roman road Bronze Age caim Bwlch y Fedwen road Nant Cwm Bychan road Nant Cwm Bychan Ridge and Furrow Bwlch y Fedwen Enclosure Bwlch y Fedwen House Site Nant Cwm Bychan Milestone Beudy Newydd Barn Beudy Newydd Barn Beudy Newydd Milestone Tal Cefn road Pont Nant-y-Dugoed bridge I Nant-y-Dugoed farm Bort Nant-y-duroed bridge II	Site no./PRN PRN 11900 PRN 1202 ND4 ND3 ND6 ND7 PRN 8271 ND13 ND5 ND12 ND2 ND1 ND11 ND9	NGR SH93401388 SH93431388 SH93321388 SH92801375 SH92821376 SH92851370 SH92761374 SH92761374 SH92401353 SH92211346 SH92051326 SH91851316 SH91841325 SH91761227
Nant-y-Dugoed farm Pont Nant-y-dugoed bridge II	ND1 ND11 ND9	SH91851316 SH91841325 SH91761327
Pont Nant-y-dugoed bridge II Maes-glas farm	ND8 ND10	SH91751328 SH91701332

In addition to these, probable cairns were noted on the west end of Tal Cefn, an additional road linking ND2 with Nant-y-saeson is evident within the corridor and a possible cottage site was noted at the junction of ND2 with the present A458(T). A holloway links Maes-glas with ND2. There was no sign of Milestone ND13.

# 4 THE WATCHING BRIEF - AN OVERVIEW (Fig. 2)

- 4.1 The watching brief was maintained daily over a four-week period between 27 September and 22 October 1999. Although the original project design specified that 51 test pits were to be excavated a series of revisions led to 78 test pits eventually being excavated and numerous changes of individual locations. Pits were generally mechanically excavated although some smaller ones were excavated by hand. The size of pits varied, in general measuring 1.5 x 0.6m, although with some larger pits measuring 3.5 x 1.2m. The hand-excavated pits, approximately 0.6m square and up to 1m deep, were situated against the south edge of the revetment for the A458(T).
- 4.2 Only pits where archaeological or palaeoenvironmental material was present are detailed in the following report; a full list is given in Appendix 1. Very few pits revealed direct evidence of past activity; however several gave a valuable insight into the soil structure and degree of conversion to a wetland environment, in some cases allowing broad dates to be assigned to this latter process. An interpretation section is provided to draw together the results from pits and present them in an archaeological context.
- 4.3 Although it had been intended to include OS grid references and datums for all test pits, and to determine the extent of suitable deposits for palaeoenvironmental analysis using auger data provided by Thyssen Geotechnical, this information was unfortunately unavailable. The digital plan (AW5348.125/SW-TE/007 AutoCAD DWG format) supplied by the client omits pits 23 and 31, and one of each pair from 47 or 47a and 58 or 58a. In these latter cases it is not known whether the illustrated pit is the original one or its successor, designated in the field by Thyssen Geotechnical with the suffix of 'a'. Fig. 2 in this report shows the location all the pits discussed and the approximate location of the "missing" pits. It does not show the locations of any of the other invasive activities, boreholes, hand auger holes and dynamic cone penetrometer sites.
- 4.4 Pits 44, 47, 47a to 50, 53, 55 to 58a, 67 to 69 and 71 all contained material of archaeological or palaeoenviromental interest. Of these, 58a, 68 and 69 contained material of particular palaeoenviromental interest. Pit 73 was cut into an exposed rock face east of Nant-y-dugoed and pit 26 was unfortunately backfilled before recording, although judging from the neighbouring pits and its situation adjacent to the A458(T) it was unlikely to have cut deposits of archaeological interest. Pit 7 was abandoned by Thyssen Geotechnical.

4.5 All other pits (1 to 6, 8 to 25, 27 to 43, 45, 46, 51, 52, 54, 59 to 66, 70 and 72 to 79) revealed no material of archaeological or palaeoenviromental interest.

# 5 THE WATCHING BRIEF - RESULTS (Fig. 2)

#### Pit 44

5.1 Two possible stone land drains, approximately 2m apart, were noted at 0.25m depth immediately below the peaty topsoil. Neither drain was explored in detail but both were clearly of rather crude boulder construction with capstones up to 0.5m across. Both drains were aligned downslope (approximately north - south) in a wet marshy area. Other drains in this area e.g., pit 47a, comprised both stone and ceramic pipes, suggesting multiple phases of drainage. A post-medieval date can be assumed, although stone drains of this type are notoriously difficult to date.

#### Pit 47

5.2 This pit cut a small stone land drain of 0.1m-square internal dimension and an overall width of 0.3m, set in a narrow trench cut into / through iron pan at 0.29m depth. This was again aligned down-slope and is probably of similar function and antiquity to the drains in pit 44. The ground here was waterlogged and peripheral to the valley-bottom bog and hence the drain is likely to be redundant, suggesting that the bog here may be a fairly recent (i.e. post-drain) occurrence.

#### Pit 47a

5.3 Here a ceramic land drain with no flanges was found, laid in a rubble-filled trench which was apparent below the waterlogged topsoil. Substantial quantities of roots were visible down to 0.8m, suggesting a former vegetation cover more substantial than the current wet grassland.

#### **Pit 49**

5.4 This pit revealed an enigmatic structure. A large section of unshaped timber was found approximately 0.5m below the surface capping a pit or ditch (in section) that extended down to 1.4m. This feature cut a layer of peat at 0.75m depth, 0.3m thick. The fill of the structure was an extremely wet loose peat, possibly carried in by water, over an ill-defined silt. Above the wooden cap there was a thin layer of poorly-sorted gravel. There were no finds or dateable material. A large section of the wooden capping was retained (sample no. 7), together with a sample of the mixed silt and peat fill (sample no. 6). It is unlike all other drains found during test-pitting, lacking any solid structure and aligned across the slope in a waterlogged area of the valley bottom in close proximity to the valley-bottom bog. Extremely waterlogged and unstable ground prevented further examination.

#### Pits 50, 48 and 67

5.5 A thin deposit of peat (sample no. 8) was noted between 0.4m and 0.5m below surface in Pit 50, buried below a silty clay. This must represent a wetter episode in the past on this steep south-facing slope below the A458(T). This pit was completely dry, unlike adjacent Pits 49 and 62. Similar deposits were noted in Pits 48 and 67 (sample nos 5 and 3 respectively).

#### Pit 53

5.6 The Nant Cwm Bychan road, ND3 (Hankinson 1996), was cut just west of the point where the road crossed the Nant Cwmbychan. The road surface here was shown to be an approximately 0.06m thickness of fine sub-angular gravel between 0.12m and 0.20m below the surface. Some silt and larger angular gravel was apparent in this material. When excavated by machine this material became mixed with the compacted clay below rendering it almost undetectable. In this case ArchaeoPhysica sampled the material at a later date to be sure of its identification. No other road surfaces were present, but this gravel surface was sufficiently solid to support wheeled traffic. Below it was a compacted orange clay above a greyish brown sandy clay (context 3040).

Pit 55

5.7 This again cut the Nant Cwm Bychan road (ND3) but east of the Nant Cwmbychan. The pit cut deposits against the south edge of the road but some intrusion into the terrace of the road itself allowed the low bank against its southern edge to be examined. This bank is predominantly of earth with a little stone, although this latter is in sufficiently small quantities to limit any suggestion of deliberate inclusion. A former surface was visible in section approximately 0.4m below the present ground surface, under compacted clay and formed from a 0.1m thick layer of dark disintegrating stone, perhaps crushed. The compacted clay exhibited pronounced iron-staining and this may be a

physio-chemical effect due to compression by wheeled traffic, suggesting the road surface was the clay, not the underlying stones. An anomalous layer of sandy stony material lay above the natural orange clay at 0.7m depth. This was sealed beneath the greyish brown sandy clay noted in Pit 53 as context 3040, and the material assumed to be of natural origin.

Pit 56

5.8 Pit 56 was cut into a slope north of ND3 that extends from the former road up to a small level area that marks the ground level precedent to the construction of the A458(T) at a slightly higher level. The pit was aligned north to south and cut into ND3 which bounds an area of bog to the south. At 0.8m below the present surface and extending down for at least another 0.4m was a layer of stone rubble. This was almost immediately concealed below the rapidly rising water level and hence little details are available, except that the top of the rubble appeared almost horizontal for the length of the trench. It is not certain whether it represents a broad former bank between the road and the bog, or whether it formed part of the road itself. Some redeposition of natural material was visible in the adjacent pit (Pit 57), possibly related to the construction of the modern road and hence the large depth of burial of this rubble may not be significant.

Pit 57

5.9 Situated immediately south of the point where ND3 leaves the course of the A458(T), this pit missed the former road but revealed a deep topsoil (0.6m thick) over approximately 0.3m of redeposited sandy clay with well sorted gravel. This is turn sealed a yellowy-brown subsoil with significant charcoal flecking down to at least a depth of 1.09m, below which it was obscured by water. The significance of this charcoal is difficult to judge but the proximity of Tal Cefn with known archaeological material around it might imply the presence of further material in the valley bottom here. It is important to note that this was one of only four locations in the corridor where charcoal was found.

#### **Pit 58**

5.10 This pit was discontinued after a substantial deposit of sharp large gravel was encountered at 0.5m below the surface. This gravel seems to be a relatively modern introduction but has silted voids. The function of this can only be guessed at but its situation suggests drainage, perhaps from the A458(T) above, as the most likely explanation.

Pit 58a

5.11 Dug to replace Pit 58, this revealed no material of archaeological interest, but is noteworthy because the underlying greyish blue boulder clay contained substantial quantities of wood from large roots. There are no trees or large plant species growing there now but these roots imply the existence of trees in what is now valley-bottom bog, possibly an indicator of fairly substantial environmental change. This would imply that areas now beneath blanket bog may have been suitable for cultivation and occupation in the past.

**Pit 68** 

- 5.12 Situated in what is now bog to the west of the Nant Cwmbychan, this pit revealed a surprising complexity of deposits and human activity. The pit was extremely wet with unstable sides due to the surrounding bog but completely natural deposits were not encountered until the grey blue boulder clay at approximately 1.6m below the present surface. The top 1.09m was composed of mixed waterlogged fill with redeposited gravely boulder clay under a thin (0.05m thick) clayey peat, overlying a mid-brown soft silty clay at a depth of 0.30m. This clay continued to a depth of 0.77m and overlay a loose poorly sorted gravel (context 3044) except right at the east end of the pit where it overlay a fibrous peat (context 3045) approximately 0.30m thick. This latter had been cut through and had been replaced by the gravel.
- 5.13 Both contexts overlay a soft brown silty clay containing small stones with increased humic content towards its base at 1.55m below ground level. Immediately below this deposit was a thick band of waterlogged charcoal (sample nos 11 and 12) approximately 0.03m thick, in turn overlying an orangey loose poorly sorted gravel, probably of natural origin and possibly a former subsoil with the fines washed out. Below this depth was obscured by water and the sides of the pit were extremely unstable.
- 5.14 It would seem that either a layer of redeposited material 1.09m thick has been applied over a wide area, or a large pit may have been dug through a buried peat (context 3045) and then backfilled. The charcoal deposit is of unknown origin and date, but may represent a buried ground surface over which the now-buried peat had formed. The charcoal may be a product of woodland clearance.

Pit 69

5.15 This was excavated in the boggy area immediately east of the Nant Cwmbychan. The soil profile here showed a large number of thin bands of silt to approximately 1.0m below the ground level. There were no diagnostic inclusions and the variety of material suggests that the bulk of this is either redeposited natural material from elsewhere, although the strict layering tends to mitigate against this, or possibly different materials laid down by water action. There was no deep peat here, making the area slightly anomalous relative to the surrounding bog. Like nearby Pit 68, it is difficult to interpret. However, a common origin for both profiles might be a possibility.

Pit 71

5.16 This was the third pit to show signs of charcoal and was again right at the east end of the corridor. Unlike the adjacent pits 70 and 72, both extremely wet, this pit was dry which illustrates the extremely variable hydrology in this area. The soil profile was again unusual with a substantial depth of surface peat (sample 13) down to 1.24m, overlying approximately 0.20m of natural orangey clay over glacial gravel. Charcoal was present in a slight band at approximately 0.8m depth (i.e., within the peat). There was little sign of any former buried ground level beneath this peat as it rested directly on dry non-leached subsoils. The lack of podzolisation or gleying suggests that little water has been present in these underlying soils so presumably most of the peat formation is due to adjacent wetter areas. This would imply the existence of a dry area within the bog from fairly ancient times and the charcoal may hint at the existence of nearby activity.

# 6 ARCHAEOLOGICAL INTERPRETATION

#### **Roads and Communications**

- 6.1 There are essentially three road systems within the corridor. From north to south they are: the existing A458(T) with the Pont Nant-y-dugoed bridge III, ND9; the former Nant Cwm Bychan road, ND3; and the Tal Cefn road, ND2. These have been the subject of speculation, especially with regard to the identification of which was the road described by Ogilby in 1675 (Ogilby 1971), which (if any) was the course of the Roman road (Browne 1986; Rigg and Toller 1983) and which was a postulated 18th or 19th-century turnpike (Hankinson 1996).
- 6.2 Most analysis seems to have been based on only summary examination of the earthwork evidence, to which may now be added the evidence of Pits 53, 55 and 56. In addition, Hankinson (1996) notes that the Pont Nant-y-dugoed bridge III (ND9) is dated 1838. However, it is difficult to assess how certain this bridge can be identified as the one illustrated on the 1841 Tithe Map because bridge II (ND8) is very close to the present structure and the approach roads to it follow a very similar alignment to the modern road.
- 6.3 It is clear from the pit evidence that the Nant Cwm Bychan road, identified as a relatively modern turnpike by Hankinson, is of variable nature and construction along its length, especially on either side of the Nant Cwmbychan itself. The relationship between the two sections cannot now be determined because their junction is obscured beneath a bog. However, the west section survives as a narrow terrace with a gravel surface, climbing steeply up to the modern A458(T), whereas the eastern is a wide bounded terrace with a stone surface. In addition, Pit 56 showed a rubble footing below the eastern section of this road. With reference to section 6.9 below, the house site at Bwlch y Fedwen (PRN 8271) seems to date to at least 1650 and it makes sense to assume the Nant Cwm Bychan road would have served this.
- 6.4 To summarise, although the Tal Cefn road seems from Hankinson (1996) to be the road described by Ogilby in 1675, the Nant Cwm Bychan road is likely to be at least as old and certainly of similar antiquity to the Bwlch y Fedwen house site. The Tal Cefn road provided access to the properties further west (Nant-y-dugoed, Nant-y-saeson and Maes-glas, the latter two by short spurs), but would have been on the wrong side of Tal Cefn and any valley-bottom bog to serve Bwlch y Fedwen. The Tal Cefn road has a medieval character, even if subsequently used as a turnpike. The Nant Cwm Bychan road is assumed to be post-medieval by association with the house site, although it may have earlier origins, depending on the actual date of the Bwlch y Fedwen site and the interpretation of the rubble stone footing of this road. The existing A458(T) seems most likely to be the 18th or 19th-century improvement, utilising sections of the Nant Cwm Bychan road in the latter's final form.

#### Boundaries

6.5 No existing boundaries were directly affected by test pits and no evidence of former divisions was found. Some of the existing walls overlay earth banks and especially to the west of Nant-y-dugoed good examples of old field walls exist. There are two types of wall here, the earlier formed from large tight-bedded stones and best seen revetting the downhill face and uphill bank of the Tal Cefn road ND2. This is known locally as "wild walling". More recent dry-stone walls were built within living memory using a looser masonry and a wall of this form now crosses the rubble from the landslide. This particular wall is discussed in section 6.15.

# Drainage

- 6.6 Drains noted in Pits 44 and 47 all seem to drain water from the slopes below the A458(T) into the valley-bottom bog. It is not clear whether these are true land drains or serve to drain the road or a predecessor. The extensive gravel deposit of Pit 58 may have served both functions. Two distinct episodes of drainage are apparent because both stone and ceramic forms were found.
- 6.7 Immediately west of the junction of the Tal Cefn road (ND2) with the A458(T), the excavation of a field access by Thyssen Geotechnical cut a substantial silted stone culvert. This would appear to have drained either the existing road or its predecessor at this point, ND2.

### Settlement

- 6.8 The test pits contributed very little to our understanding of settlement within the corridor. Neither Pits 7 or 16 showed any sign of activity around Nant-y-dugoed and none coincided with settlement features belonging to the Bwlch y Fedwen site. However, surface examination at the latter site revealed that access to it was from the Nant Cwm Bychan road via a gateway or opening in the north flanking bank of the road. Slightly to the east of the three known platforms is a fourth, cut into the lower revetment of the road and now being encroached upon by bog. This would imply that the settlement may have extended across the road at this point. Slight traces of ridge and furrow remain south of the road but it is not clear how this relates to the road itself.
- 6.9 A documentary search in the National Library of Wales revealed five references to the house here dating between 1650 and 1661, when it was occupied by Tudder Owen, his wife Margarett and his heir Evan. In May 1661 the 'chief mansion house called Ty yn y Cwm Bychan' and lands were sold to Lewis Lloyd of Rhiwaedog.
- 6.10 The field access cut by Thyssen Geotechnical at the junction of the Tal Cefn road with the A458(T) revealed both the culvert described above and a small section of possible cobbled surface extending away to the east. Above this surface was a large quantity of domestic pottery, the only place in the entire corridor where this was found. Most of this pottery was of 18th- or 19th-century date, although body sherds from 17th-century vessels were also recovered. A full list is given in Appendix 4. The isolated nature of this find and the mixed date of the material would suggest that a small roadside cottage may have existed here for a while.

#### Landslip and associated sites

- 6.11 There is a tradition of a large landslip from above Nant-y-dugoed and this was confirmed by evidence from Pit 76 which cut a deposit of boulders and roots extending down to 4.7m below ground level. The deposit extends across the present course of the Nant-y-dugoed to at least the edge of the buildings of Nant-y-dugoed Farm. This was implied by the results of Pit 7 and confirmed by the occupier. All this material is rubble from the slip and hence the landscape downhill of the Pont Nant-y-dugoed bridges II and III, including the stream bed, is heavily altered. Detailed correspondence with Mr Jones of Braich-llwyd, whose family has farmed this area for many generations, suggests that this occurred during the lifetime of his grandfather's grandfather and therefore probably during the early 1800's; in any case before 1838 when the present bridge was built.
- 6.12 This landslide has been traced as far down the valley as the Pont Nant-y-dugoed bridge I (ND1) where slip material is clearly piled up against the north side of the western abutment and continues across the line of the road ND2 immediately to the west. This road was never reinstated and would have been impassable to anything other than foot traffic. This implies that road ND2 was either out of use by the time of the landslip, or perhaps put beyond repair by the slip. The holloway from this bridge up to Maes-glas seems to have survived the slip, or to have been reinstated. It is tempting to see this landslip as one of the events that triggered the construction of the present road. It is not known whether the farm of Nant-y-dugoed was affected by the slip. The extant buildings could all post-date the slip but the full eastern extent of the boulder field is not known.

6.13 A channel has been created in the past to carry water from the Nant-y-dugoed into a small field within the loop of the Afon Dugoed. This seems to have been truncated by the landslip but it is difficult to tell without further field examination and the benefit of local knowledge.

#### **Burials**

- 6.14 Another local tradition states that a Quaker burial ground existed in a small isolated enclosure immediately south of ND1, within the bend of the Afon Dugoed (NGR 9180 1318) and skirted to the north by the Tal Cefn road. The enclosure is visible today but has clearly been at least partially buried by the landslip. No test pits were located within this enclosure and hence no positive evidence of burials could be obtained. Correspondence with the Library of the Religious Society of Friends has revealed no documentary evidence for this burial ground here, although there are two reasons why this should not be taken as proof of non-existence. Firstly, the term 'Quaker' is sometimes used as a general label for "non-Conformist" and hence a different group may be responsible, and secondly, Quaker records only survive from the late 18th century onwards. The site is not unsuitable for a non-Conformist burial ground and there is a fragmentary local story of there having been a meeting house or even a chapel near the bridge here.
- 6.15 It is interesting, though perhaps coincidental, that although the landslide buried the Tal Cefn road and part of the alleged burial ground, its shape was perpetuated by the construction of a new wall over the top of the slip material, even though the road was not reinstated. There are now trees growing within the enclosure.

### Geology, Soils and Landscape

- 6.16 There would seem to be an ongoing conversion of dry soil profiles to wet, marked by the conversion of topsoil to peat and increased leaching of the subsoils beneath. This is occurring on the valley sides and is presumably accompanied by a slow rise in the level of the valley-bottom bog. This increase in peat coverage is dateable to post-1832 as the Nant Cwm Bychan road (ND3) was apparently in use then (Hankinson 1996) but is now partly buried beneath peat bog west of the Nant Cwmbychan, a local rise of up to 0.6m. The course of both this road and the Tal Cefn road (ND2) contain areas of blanket peat and at the foot of Tal Cefn this latter road has been completely absorbed beneath the peat and standing water to a depth exceeding 0.6m in places.
- 6.17 This has implications for buried archaeology and palaeoenviromental evidence. All upstanding archaeology is now only visible on slopes above the peat. However, the ridge and furrow south of the Bwlch y Fedwen house site and the edges of the site itself are being encroached upon. This visible change, combined with the charcoal deposits in Pits 68 and 71 and the roots in Pit 58a, suggest that fairly substantial previously dry areas, suitable for settlement or cultivation, may now lie beneath the bog, in the case of Pit 68, up to 1.5m below the present ground level. A further implication is that the present extent of wetland cannot be used to indicate areas devoid of archaeological material.
- 6.18 The palaeoenvironmental potential within the road corridor reflects the origins of the wetland here. As there seems to be an ongoing conversion from dry to wet soil types and flora, most peat is surface material without suitable dateable associations. Buried peats are very rare; only Pits 48, 49, 50, 67, 68 showed buried peat. Pits 11 and 71 both showed deep peat deposits; in Pit 71 these extended from the surface down onto rock, with little intermediate soil. Although buried peats were sampled none of these samples could be related to dateable material. Buried peats on the south-facing slopes might represent local episodes of wetter conditions and in view of a post-1832 encroachment are likely to be quite recent. Deeper peats in the existing wetland (e.g., context 3045 in Pit 68) might be considerably older. Appendix 3 details each sample taken.
- 6.19 To conclude, the origins of the area east of Nant-y-dugoed may be a small glacial lake trapped behind glacial till material in the narrow valley just east of the farm. Erosion by the stream here shows substantial quantities of such till in the sides of this valley. This presumably dried up over time, but whether completely or not is impossible to tell from the available data. Changes in the medieval period towards a wetter climate would have hastened or perhaps initiated the formation of wetland and the encroaching bog today should be viewed as a continuation of that process.

#### 7 CONCLUSIONS

- 7.1 The wide area covered by the watching brief has allowed a valuable insight to be gained into the distribution of archaeological material within the development corridor. The area around Nant-y-dugoed Farm proved to be surprisingly devoid of archaeological material, but was able to demonstrate the existence of the landslide and the effect it had upon the valley. The only archaeological material west of the farm was at the possible cottage site discussed in Section 6.10, and the well-preserved remains of the Tal Cefn road climbing the hill to meet the A458(T). Of a total of fifteen pits in this area, none showed material of archaeological significance. No pits north of the A458(T) revealed anything except clean natural soils with some scree from the steep slopes above.
- 7.2 Further east, between Nant-y-dugoed and Cwm Bychan, of the forty-one pits excavated north of the Afon Dugoed, eleven contained material of archaeological or palaeoenviromental interest. South of the river, eleven pits were excavated but none of these showed material of interest.
- 7.3 At the east end of the corridor, east of the Nant Cwmbychan in a region where known archaeological deposits exist, eight pits were excavated. Of these, five showed archaeological material, two of these away from known areas of activity.
- 7.4 In topographical terms, nothing of archaeological interest was noted on steep south-facing slopes above the level of the present road and nothing on north-facing slopes. On the less steep south-facing slopes east of the Nant Cwmbychan an extensive area of past activity is apparent. The latter area might be considered a potential site for Mesolithic and Neolithic activity beside any remnant of the presumed glacial lake. There is already evidence for Bronze Age activity in the form of a cairn (PRN 1202) and the possible cairns on the west end of the Tal Cefn. There is no real evidence for Roman activity, unless the stone rubble in Pit 56 is part of a road. There is no known evidence for medieval occupation, although the ridge and furrow at Bwlch y Fedwen may belong to this period and the house site itself may have earlier origins. The murder of Lewis Owen by the Gwylliaid Cochion at Llidiart y Barwn in 1555 suggests the presence of a medieval thoroughfare, and either of the Nant Cwm Bychan or Tal Cefn roads could be of this date. Evidence for post-medieval activity is also lacking, although we know that Bwlch y Fedwen is recorded as having a house in 1650. Documentary evidence is lacking for both Maes-glas and Nant-y-dugoed farms, although both were shown as standing on 19th-century maps (Hankinson 1996).

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Documentary Sources in the National Library of Wales, under "Peniarth Estate" DH 157, DH 158, DH 161, DH 163 & DH 164 all refer to "Tudder Owen" of "Cwmbychan"

# 9 ACKNOWLEDGEMENTS

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#### APPENDIX 1 CATALOGUE OF PITS AND CONTEXTS

This appendix lists the context descriptions for each excavated pit. For the exact position of each pit the reader is referred to Fig. 2 in this report. Measurements are the depth from surface to the base of each context, unless specified otherwise. All photographs and negatives are held by the Clwyd-Powys Archaeological Trust. It must be remembered that in several cases wet and unstable ground made detailed recording difficult and sometimes impossible. All measurements are expressed to a precision suitable for each case. Textural descriptions will be affected in some cases by excessive mixing by mechanical excavation and wetting due to ground conditions. Contexts are listed in order of depth, shallowest first.

All pit profiles are illustrated to scale as soil profiles with context numbers. These are on drafting film a copy of which is deposited with the paper archive.

- Pit 1: No photograph, use Pit 36 to illustrate
- 6004 Mid brown friable dry topsoil. 0.18m to base
- 6005 Mid orangey brown friable silty clay with poorly sorted angular stone, probably scree. 0.60m to base

6006 Large angular stones, probably scree deposit. 0.80m to 0.90m to base (slopes)

6007 Mid browny grey gravelly clay with some large stones.

Base of pit at 1.5m, on rock

Dry natural profile. Whole profile stony, but there are no visible scree slopes above this pit today.

- Pit 2: No photograph, use Pit 36 to illustrate
- 6008 Mid brown deep friable dry topsoil. 0.41m to base
- 6009 Mid orangey brown friable silty clay. 0.85m to base
- 6010 Mid browny grey gravelly clay with some large stones.

Base of pit at 2.12m

Dry natural profile.

Pit 3: Colour Film 4 Exp. 2

- 4015 Dark brown loose topsoil. 0.08m to base
- 4016 Light yellowy brown sandy clay with fairly sorted angular (max. 0.1m) stone inclusions. 0.85m to base
- 4017 Mid brown sandy firm clay with stone as in 4016. 2.5m to base
- 4018 Mid yellowy brown sandy clay with fairly sorted angular and sub-angular stone. 4.0m to base
- 4019 Mid brown firm gravelly sandy clay with large amounts of large stones.

Base of pit at 5.0m

Dry natural profile.

Pit 4: Colour Film 4 Exp. 3

- 4020 Mid brown friable loam topsoil. 0.12m to base
- 4021 Light browny yellow firm sandy clay with small angular stones. 0.60m to base
- 4022 Mid yellowy brown loose sandy clay with fairly sorted stone. 3.5m to base
- 4023 Mid yellowy brown firm gravelly clay with poorly sorted large angular and sub-angular stones.

Base of pit at 4.9m

Dry natural profile.

Pit 5: Not recorded, use Pit 36 to illustrate Base of pit at 2.5m Dry natural profile.

Pit 6: Colour Film 4 Exp. 15 & 16

4024 Mid brown friable loam topsoil. From 0.12m to 0.18m to base

4025 Mid browny orange loose silty clay. From 0.4m to 0.8m to base

4026 Mid yellowy brown loose gravel. 1.2m to base

4027 Mid yellowy grey sandy gravel with angular stones. 1.8m to base

4028 Mid greyish yellow sandy silty loose gravel with sandstone boulders.

Base of pit at 3.7m

Dry natural profile.

#### Pit 7: No photograph

Pit not excavated by Thyssen Geotechnical

- Pit 8: Colour Film 4 Exp. 17
- 4029 Mid brown friable loam topsoil. 0.1m to base
- 4030 Mid browny orange loose sandy clay with fairly sorted stone. 0.6m to base
- 4031 Mid greyish brown loose sandy gravel with poorly sorted angular stone. 2.5m to base
- 4032 Mid greyish brown very poorly sorted loose sandy gravel, similar to 4031.

Base of pit at 5.0m

Dry natural profile.

### Pit 9: Colour Film 4 Exp. 33

- 4112 Dark brown slightly peaty loose topsoil. 0.1m to base
- 4113 Mid orange friable silty clay with fairly sorted small sub-angular stone. 0.38m to base
- 4114 Light yellowy grey gravelly silty clay with poorly sorted stone. 1.9m to base
- 4115 Mid grey gravel with small boulders. 2.1m to base

4116 Mid yellowy grey sandy gravel with poorly sorted sub-angular and sub-rounded stone. Base of pit at 4.0m

Dry natural profile.

Pit 10: Colour Film 4 Exp. 32

4109 Mid brown sandy friable topsoil. 0.4m to base

- 4110 Mid grey silty clay with fairly sorted stone. Some orangey banding. 1.5m to base
- 4111 Mid grey sandy clayey gravel with very poorly sorted stone and boulders.

Base of pit at 5.0m

Water at 1.5m

Natural profile. Banding in 4110 may indicate a former stream channel.

Pit 11: Colour Film 4 Exp. 25

4059 Dark brown soft peat with boulders. 2.1m to base

Base of pit at 2.1m where peat rests on rock

Pit flooded by small stream. Wet natural profile with a timber baulk, possibly a fence post but the ground was too unstable to permit its recovery.

- Pit 12: No photograph
- 4050 Mid brown loam topsoil. 0.12 to base
- 4051 Mid browny orange sandy clay with fairly sorted small stones. 2.5m to base

4052 Mid yellowy brown poorly sorted gravel with boulders.

Base of pit at 5.0m

Dry natural profile.

Pit 13: Colour Film 4 Exp. 24

- 4053 Dark brown loam topsoil. 0.15m to base
- 4054 Mid browny orange sandy clay with fairly sorted angular (max. 0.05m) stones. 0.5m to base
- 4055 Light greyish yellow sandy material with fairly sorted small stones. 0.6m to base
- 4056 Dark browny grey sandy material with fairly sorted small stones. 0.7m to base
- 4057 Dark yellowy brown sandy clayey gravel with mixed poorly sorted stone. 4.9m to base
- 4058 Light greyish yellow firm clay with fairly sorted small stones.

Base of pit at 5.0m

Deposits follow slope of ground. Approximately 1m north of pit is a stone bank. Dry profile.

- Pit 14: Colour Film 3 Exp. 28
- 4005 Mid brown sandy friable loam. 0.26m to base
- 4006 Mid orangey brown loose sandy clay with fairly sorted stone. 0.48m to base
- 4007 Light grey clay with a high proportion of small stones. 0.6m to base
- 4008 Light yellowy brown gravelly clay with poorly sorted mostly sub-rounded boulders with iron stain at 1.5m. 3.18m to base.
- 4009 Mid greyish blue firm clay with poorly sorted stone.

Base of pit at 4.6m

Water at 1.5m

Pit 15: Colour Film 4 Exp. 1

4010 Mid brown friable sandy loam. 0.1m to base

4011 Mid orangey brown loose clayey loam with fairly sorted stone. 0.5m to base

4012 Mid brown clayey gravel with very poorly sorted boulders. 4.0m to base

4013 Mid yellowy brown silty clay and gravel with fairly sorted small stones. 4.1m to base

4014 Mid grey clean sandy laminate clay devoid of stone. Clay layers separated by sand. Base of pit at 5.5m

Dry natural profile.

Pit 16: Colour Film 4 Exp. 34

- 4120 Dark brown soft peat with boulders. 0.18m to base
- 4121 Light browny grey silty clay with boulders and small stones. 0.5m to base
- 4122 Light slightly bluish grey gravely sandy clay with boulders and small stone. 1.00m to base
- 4123 Mid orangey grey sandy clay with poorly sorted stone and boulders. 2.5m to base
- 4124 Mid grey firm gravelly clay with fairly sorted stone and boulders.
- Base of pit at approximately 2.5m

Natural profile. Boulders of 4122 may outcrop to south and may be a clearance episode.

- Pit 17: Colour Film 4 Exp. 35
- 4125 Mid brown silty loam topsoil. 0.27m to base
- 4126 Mid orange silty clay with fairly sorted small sub-angular stone. 0.40m to base

4128 Light yellowy grey silty clay with fairly sorted stone. 0.60m to base

4127 Light greyish brown silty clay with poorly sorted mostly sub-angular stone.

Base of pit at 3.2m

Dry natural profile.

Pit 18: Colour Film 5 Exp. 24

- 4250 Mid brown loam. 0.20m to base
- 4251 Mid orange silty clay. 0.53m to base
- 4252 Light greyish yellow gravelly silty clay. 1.5m to base
- 4253 Mid greyish yellow gravel with poorly sorted stone. 2.40m to base

4254 Dark grey silty clayey firm gravel with poorly sorted stone.

Base of pit at 3.0m

Dry natural profile.

Pit 19: Colour Film 5 Exp. 7 & 8

- 4223 Mid brown peaty topsoil. 0.28m to base
- 4227 Dark brown peat. 0.39m to base
- 4224 Light browny grey silty clay with fairly sorted small stones. 0.70m to base
- 4228 Slightly bluish grey silty clay with fairly sorted stones. 1.24m to base
- 4225 Light brown gravelly sandy clay with fairly sorted stone. 2.20m to base
- 4226 Mid grey clayey gravel with poorly sorted stone.
- Base of pit at 3.0m

Peat may be forming here. Dry natural profile.

- Pit 20: Colour Film 4 Exp. 36
- 4201 Dark brown peaty topsoil. 0.05m to base
- 4202 Light greyish brown silty clay with fairly sorted small stones. 0.45m to base
- 4203 Mid brown silty clay. 0.85m to base
- 4204 Light bluish grey clay. 1.10m to base
- 4205 Mid brown silty gravel. 1.5m to base
- 4206 Mid grey clayey gravel.
- Base of pit at 5.0m

0.1m diameter plastic drain just below surface, otherwise a dry natural profile.

- Pit 21: Colour Film 5 Exp. 2, 3 & 4
- 4207 Dark brown firm peaty topsoil. 0.20m to base
- 4208 Mid browny orange silty clay with fairly sorted small stone. 0.60m to base
- 4209 Light greyish yellow silty clay. 0.8m to base
- 4210 Light bluish grey clay with poorly sorted stone. 1.30m to base

4211 Greyish brown gravelly clay, with more gravel below 2.10m.

Base of pit at 5.0m

0.1m diameter plastic drain at 0.5m from ground level, otherwise a dry natural profile.

- Pit 22: Colour Film 5 Exp. 11 & 12
- 4229 Brown loamy topsoil. 0.15m to base
- 4230 Light greyish brown silty clay, changing gradually to mid orangey brown. 0.47m to base
- 4231 Light browny grey clay with fairly sorted stone, more brown towards surface. 1.60m to base
- 4232 Light greyish brown silty gravel with poorly sorted stone.

Base of pit at 5.0m

Dry natural profile.

- Pit 23: No photograph
- 6036 Peaty topsoil. 0.43m to base
- 6037 Light yellowy brown silty clay. 0.80m to base
- 6056 Greyish blue silty clay. 0.40m to base
- 6038 Brown silty gravels with indistinct upper boundary. 2.44m to base
- 6039 Mid bluish grey silty gravel.
- Base of pit at 5.0m
- Natural profile.

Pit 24: Colour Film 5 Exp. 15 & 16

- 4233 Mid brown variable peaty topsoil. 0.20m to base
- 4234 Mid browny orange silty clay with fairly sorted small stones. 0.30m to base
- 4235 Light grey silty clay with some stone and iron-staining at its base. 0.4m to base
- 4236 Light greyish orange gravelly silt with fairly sorted stone; this deposit replaces 4235 towards the north as soil becomes wetter. 0.4m to base
- 4237 Mid greyish orange gravelly silty clay with poorly sorted stone and boulders. 2.8m to base
- 4238 Mid orangey brown silty gravel with fairly sorted small stones.
- Base of pit at 2.8m

Dry natural profile, although wet ground to the south is converting profile to that of a wetter system.

- Pit 25: Colour Film 5 Exp. 22
- 6031 Mid brown peaty topsoil. 0.15m to base
- 6032 Mid brown sandy clay. 0.40m to base
- 6033 Bluish grey silty clay. 1.20m to base
- 6034 Mid brown clayey gravel. 2.30m to base
- 6035 Bluish grey clayey gravel.
- Base of pit at 5.0m

Damp natural profile.

Pit 26: Not recorded

Hand-dug against retaining wall of A458(T). Dry natural profile.

Pit 27: No photograph

No measurements, but a topsoil (0.2m to base) overlays a mid orange subsoil over a loose brown clayey gravel with boulders.

Base of pit at 5.0m

Dry natural profile.

- Pit 28: No photograph, use Pit 36 to illustrate
- 6060 Mid orangey brown silty friable loam with well sorted small stones. 0.20m to base
- 6061 Mid browny orange friable silty clay with some fairly sorted small stones. 0.48m to base

6062 Mid browny grey gravelly clay.

Base of pit at 2.35m

Dry natural profile.

Pit 29: Black & White Film 1 Exp. 1 (Archenfield Archaeology)

6047 Mid brown sand silt. 0.15m to base

6048 Mid brown silty sand with 20% clay. 0.90m to base

6049 Mudstone gravel and clay.

Base of pit at 1.25m

Hand-dug against retaining wall of A458(T). Dry natural profile.

Pit 30: No photograph, use Pit 36 to illustrate

- 6041 Mid orangey brown silty friable loam with well sorted small stones. 0.33m to base
- 6042 Mid orangey brown sandy loam. 0.68m to base

6043 Mid browny grey gravelly clay.

Base of pit at 2.0m

Dry natural profile.

Pit 31: Colour Film 1 Exp. 13, also Archenfield Archaeology Black and White Film 1 Exp. 2

6050 Mid brown silty loamy topsoil. 0.20m to base

6051 Yellowy clay with fine angular gravel. 0.65m to base

6052 Sandy gravel.

Base of pit at 0.95m

Hand-dug against retaining wall of A458(T). Dry natural profile.

Pit 32: No photograph, use Pit 36 to illustrate

- 6044 Mid orangey brown silty friable loam with well sorted small stones. 0.3m to base
- 6045 Mid browny orange friable silty clay with some fairly sorted small stones. 0.5m to base

6046 Mid browny grey gravelly clay. 1.7m to base

Base of pit at 2.0m, cut into angular shillety stone, possibly scree.

Dry natural profile.

Pit 33: Archenfield Archaeology

6053 Dark browny grey silty friable loamy topsoil. 0.40m to base

6054 Mid orangey yellow sandy clay with boulders. 0.80m to base

6055 Light grey organic alluvial sandy clay, becoming more gravelly with depth.

Base of pit at 1.65m

Extremely waterlogged ground and the pit flooded.

Pit 34: Colour Film 1 Exp. 15, 16 & 17

See Pit 35 for identical profile.

Base of pit at approximately 0.7m

Hand-dug against retaining wall of A458(T). Dry natural profile.

Pit 35: Colour Film 1 Exp. 13 & 14

- 2021 Mid brown firm clayey loam topsoil with well sorted small stone. 0.34m to base
- 2022 Mid orangey brown silty sandy clay with fairly sorted small stone and traces of charcoal flecks. 0.54m to base
- 2023 Mid brown loose sandy clay with fairly sorted small stones.

Base of pit at 0.74m

Hand-dug against retaining wall of A458(T). No foundations.

Pit 36: Colour Film 3 Exp. 22 & 23

3031 Mid orangey brown silty friable loam with well sorted small stones. 0.31m to base

3032 Mid browny orange friable silty clay with some fairly sorted small stones. 0.79m to base

3033 Mid browny grey gravelly clay giving way to scree material with depth.

Base of pit at 2.5m

Dry natural profile.

Pit 37: Archenfield Archaeology

6056 Mid brown loose silty topsoil. 0.15m

6057 Mid orange friable sandy silt with approximately 20% clay. 0.50m

6058 Light grey alluvial clay with weathered stone. Gravel content increased with depth.

Base of pit at 2.0m

Waterlogged boggy ground.

Pit 38: Colour Film 5 Exp. 5 & 6

4220 Dark brown soft peat with occasional stones. 0.6m to base

4221 Light bluish grey fine well sorted silty gravel with iron staining at base. 1.90m to base.

4222 Light browny grey silty gravel, more coarse than 4221.

Base of pit at 3.50m

Deposits share slope of ground surface. Dry natural profile.

Pit 39: Archenfield Archaeology

- 6024 Silty peaty friable topsoil. 0.50m
- 6025 Light grey organic alluvial sandy clay with large stones. 1.20m
- 6026 Compact light buff sandy silt with clay. Increasing gravel with depth.
- Base of pit at 2.0m

Wet and boggy ground conditions.

- Pit 40: Black & White Film 1 Exp. 3 (Archenfield Archaeology)
- 6011 Mid brown silty loam topsoil. 0.15m
- 6012 Mid orange clay with angular stones. 0.80m
- 6013 Compact angular mudstone, probably weathered bedrock.
- Base of pit at 1.5m

Very wet ground adjacent to the retaining wall against the south side of the A458(T).

Pit 41: Black & White Film 1 Exp. 4, (Archenfield Archaeology)

6021 Mid brown silty friable loam topsoil. 0.30m

6022 Mid orange clay with silt and gravel. 0.65m

6023 Compact angular mudstone, probably weathered bedrock.

Base of pit at 1.7m

Very wet ground conditions.

- Pit 42: Black & White Film 1 Exp. 5 (Archenfield Archaeology)
- 6014 Mid brown loose friable sandy loam. 0.25m to base
- 6015 Mid orange sandy clay with angular stones. 0.60m to base
- 6016 Compact angular stone and clay with decreasing clay with depth.

Base of pit at 2.60m

Firm and dry ground conditions.

Pit 43: Archenfield Archaeology

- 6017 Dark brown humic friable silty loam topsoil. 0.20m to base
- 6018 Stone-free mid brown clay with silt. 0.60m to base
- 6019 Orangey brown clay with silt. 0.95m to base
- 6020 Loose weathered bedrock (small angular mudstone fragments).

Base of pit at 2.30m

Wet ground conditions.

- Pit 44: Black & White Film 1 Exp. 6 (Archenfield Archaeology)
- 6027 Dark brown surface peat with clay. 0.25m to base
- 6028 Light greyish brown organic alluvial silt with 45% to 60% sand. 0.90m to base
- 6029 Weathered bedrock and light grey fairly loose clay. 1.50m to base

6030 Weathered bedrock.

Base of pit at 2.40m

Wet and boggy ground. The base of the pit rapidly flooded. Two lines of pieces of irregular sandstone approximately 2m apart are thought to be land drains.

- Pit 45: Colour Film 1 Exp. 8 & 9
- 2004 Mid brown friable loam topsoil. 0.2m to base
- 2005 Mid orangey brown loose sandy loam with fairly sorted small stones and a small amount of charcoal. Overlays a possible fill, 2006. 0.4m to base.
- 2006 Light orangey brown loose sandy stony clay. 0.80m to base
- 2007 Mid greyish brown loose loam with fairly sorted slate stone. Under 2006. 0.8m to base

2008 Mid greyish brown loose sandy clay with poorly sorted stones.

Base of pit at 2.4m

Dry natural profile.

Pit 46: No photograph but visually identical to Pits 51 & 52

- 0013 Mid brown friable sandy silty topsoil. 0.4m to base
- 0014 Dark orangey brown loose clayey silt. 0.73m to base
- 0016 Dark greyish brown loose sandy silt. 0.88m to base
- 0015 Mid greyish brown sandy poorly sorted gravel.

Base of pit at 2.25m

Deposits follow slope of ground. Dry natural profile.

0017 Dark brown soft peaty topsoil. 0.06m to base

0018 Wet light yellowy grey leached soft clay, becoming more orange towards base at 0.34m.

0019 Wet mid orangey brown soft clayey buried topsoil. 0.44m to base

- 0020 Stone "Roman" or "bush" drain below 0.44m. Approximately 0.10m square internally.
- 0021 Mid greyish brown saturated sandy gravel.

Base of pit at 0.75m

Flooded after drain 0020 was cut and no further excavation or recording was possible. Wet profile. Drain 0020 inserted through 0019.

Pit 47a: No photograph

- 0022 Dark brown wet silty peaty topsoil. 0.1m to base
- 0023 Light yellowy grey soft wet silty clay, leached towards a more orange base. Cut by trench for a ceramic drain pipe. 0.6m to base
- 0024 Mixed orange, greyish and blue clays with poorly sorted stones. 1.9m to base

0025 Dark greyish brown gravel and clay visible in base of pit.

Base of pit at 1.9m

Pit waterlogged with spalling sides. Extensive root material at depth suggests a more substantial vegetation cover than today.

Pit 48: Film 2 Exp. 17 & 18

3001 Dark brown soft peaty topsoil. 0.08m to base

- 3002 Mid greyish brown sandy clay with small stones. 0.57m to base
- 3007 Mid brown soft clay. 0.90m to base
- 3003 Dark brown soft peat with plant macro fossils, including hazel nuts. 1.20m to base
- 3008 Mid greyish brown sandy clay. 1.45m to base

3004 Light bluish grey sandy clay with poorly sorted stone. 1.79m to base

3005 Light orangey grey sandy clay with indistinct base.

3006 Light orangey grey gravelly sandy clay with fairly sorted angular stone.

Base of pit at 2.7m

Wet natural profile.

- Pit 49: Film 2 Exp. 19, 20, 21, 22, 23, 24 & 25
- 3009 Dark brown peaty topsoil. 0.10m to base
- 3010 Mid browny grey silty clay. 0.31m to base
- 3011 Large section of unshaped wood over 1m long. 0.56m to base
- 3012 Light browny grey soft clay. 0.48m to base
- 3014 Greyish brown clay, cut by ditch fills 3013 and 3019. 0.75m to base
- 3015 Dark brown peat. 1.07m to base
- 3018 Mid brown clay, similar to 3016. 1.20m to base
- 3016 Mid greyish brown soft clay. 1.45m to base
- 3017 Light bluish grey clay. 2.5m to base (of pit)
- 3013 Dark brown loose waterlogged peat fill. 1.4m to an indistinct base
- 3019 Mid greyish yellow soft silty clay with indistinct upper boundary with 3012.

Base of pit at 2.5m

Contexts 3013 and 3019 are fills within a hollow feature below wooden capping 3011. Wet profile.

- Pit 50: Film 2 Exp. 26
- 3020 Brown soft peaty topsoil. 0.07m to base
- 3021 Light greyish brown soft silty clay. 0.41m to base
- 3022 Dark brown soft peat. 0.50m to base
- 3023 Mid greyish brown soft silty clay, becoming lighter in colour with depth. 1.35m to base
- 3024 Light bluish grey loose gravelly sandy clay with fairly sorted stone. 1.77m to base
- 3025 Mid orange loose gravely sandy clay. Iron leached from context(s) above.
- Base of pit at 2.4m

Currently a natural dry profile but materials suggest a wetter origin.

- Pit 51: Film 1 Exp. 6
- 0006 Light yellowy brown friable sandy clayey loam dry topsoil. 0.25m to base
- 0007 Mid orangey brown loose sandy clay with poorly sorted small stones. 0.45m to base
- 0008 Mid greyish brown silty clay with very poorly sorted stone. 1.37m to base
- 0009 Mid browny grey sandy gravel.

Base of pit at 1.8m Water at 1.8m Natural profile.

Pit 52: Film 1 Exp. 7

0010 Mid yellowy brown friable topsoil with well sorted small stones. 0.21m to base 0011 Mid orangey brown loose sandy clay with fairly sorted small stones. 0.54m to base 0012 Mid greyish brown sandy gravel with very poorly sorted large angular stones. Base of pit at 1.5m Water at 2.0m

Natural profile.

Pit 53: Film 2 Exp. 30, 31 & 32

3036 Mid brown loose loamy topsoil. 0.12m to base

3039 Stone rubble layer, 0.07 to 0.15m mostly sub-rounded. 0.5m to base

3037 Light greyish orange soft silty clay. 0.51m to base and partially overlays 3039

3038 Mid orange form clay with small stones. 1.16m to base

3040 Light greyish orange loose sandy clay.

Base of pit at 2.5m

Wet spalling sides. Pit cut into a previous road.

Pit 54: Film 3 Exp. 9

3116 Mid brown friable loam topsoil. 0.04m to base

3117 Mid orange friable silty loam with fairly sorted small stones. 0.34m to base

- 3119 Mid browny orange friable silty loam. 0.90m to base
- 3118 Mid greyish orange loose gravelly silty loam with poorly sorted mixed angular and sub-

angular stone, becoming more stony with depth.

Base of pit at 2.2m

Pit cut into a previous road.

Pit 55: Film 3 Exp. 5, 6, 7 & 8

6001 Mid brown friable loamy topsoil. 0.10m to base

3109 Mid orange firm clay. 0.40m to base

3110 Black deposit, seems to be wet rotten stone. 0.50m to base

- 3114 Mid slight greyish brown firm sandy clay with fairly sorted stone. 0.7m to base
- 3115 Layer of 0.1m sub-angular and sub-rounded stone. 0.89m to base
- 3113 Mid yellowy brown gravelly sandy clay with fairly sorted stones.

Base of pit at 2.5m

Pit cut into a previous road and sections south bank of this (3109). This bank seems to be mostly earth.

Pit 56: Film 1 Exp. 1 & 2

6002 Brown loamy topsoil. 0.08m to base

0004 Mid orangey brown loose subsoil. 0.77m to base

0005 Unsorted stone rubble, above level of adjacent bog. Perhaps not a natural deposit? Base of pit at 1.4m

Isolated water strike at 0.6m

Water at 1.0m

Pit 57: No photograph

0001Mid brown sandy clay firm (and very deep) topsoil with well sorted stone. 0.6m to base0002Mid brown sandy clay with gravel. Seems to be dumped material. 0.9m to base0003Dark yellowy brown soil, probably a buried soil. Has charcoal flecks. 1.09 m to baseBase of pit at approximately 1.4mExtremely wet pit.

Pit 58: No photograph

2009 Dark brown peaty clayey topsoil. 0.1m to base

2010 Mid greyish brown silty clay. 0.4m to base

2011 Well sorted angular stone with silt in voids. Obviously artificial, probably a drain.

Base of pit at 0.5m (pit abandoned by Thyssen Geotechnical)

- 2012 Dark brown waterlogged peaty clay. 0.46m to base
- 2013 Mid greyish brown soft clay. 0.60m to base
- 2014 Light grey sandy clay with poorly sorted stones and roots, partly waterlogged. 1.7m to base

2015 Orange (iron-stained) waterlogged clay with poorly sorted stones.

- Base of pit at 2.7m
- Pit 59: Film 1 Exp. 12
- 2016 Dark brown soft peaty clay, partly waterlogged. 0.17m to base
- 2017 Mid greyish brown silty clay with less than 10% small stones. 0.5m to base
- 2018 Mid grey soft wet silty clay with poorly sorted stone and leached iron at base. 0.8m to base
- 2019 Mid orangey brown wet silty clay with poorly sorted stone.
- 2020 Mid grey wet silty clay with poorly sorted stone and small boulders.
- Base of pit at 2.5m

Water at 0.8 to 0.9m. Natural profile with heavy influx of water from surface at west end.

- Pit 60: Film 2 Exp. 15
- 2034 Dark brown soft wet spalling peat. 0.30m to 0.56m to base (slopes)
- 2035 Light browny grey soft silty sandy waterlogged clay. 0.75m to base
- 2037 Dark slightly bluish grey soft sandy wet clay with poorly sorted stone. 1.23m to base
- 2036 Mid orangey grey soft wet sandy clay with poorly sorted stone.
- Base of pit at 1.4m

Natural wet profile with heavily rooted surface peat.

- Pit 61: Film 2 Exp. 16
- 2038 Mid slightly orangey brown silty friable loam topsoil with fairly sorted stone. 0.38m to base. Darkens on exposure to air.
- 2039 Mid brown loose sandy silty gravel.
- Base of pit at 1.6m

Well-drained dry natural profile.

- Pit 62: Film 2 Exp. 27
- 3026 Dark brown soft peat. 0.52m to base
- 3027 Mid greyish brown soft silty clay. 0.95m to base
- 3028 Light bluish grey soft sandy clay with very poorly sorted stones. Light orange streaks and pockets from iron leaching.
- Base of pit at 2.6m

Wet pit.

- Pit 63: Film 2 Exp. 28
- 3029 Dark brown soft partly waterlogged peat. 0.36m to base
- 3030 Light greyish brown soft silty clay. 0.52m to base

3031 Light orangey grey loose sandy clayey spalling gravel with poorly sorted stone.

Base of pit at 1.9m

Water at 1.6m. Very wet and unstable pit. Natural profile.

- Pit 64: Film 2 Exp. 29
- 3032 Mid brown clayey topsoil. 0.1m to base
- 3033 Light browny grey slightly soft silty clay. 0.82m to base
- 3034 Light orangey grey soft clay. 1.0m to base
- 3035 Mid orangey grey sandy clayey waterlogged gravel.
- Base of pit at 1.78m
- Natural profile.
- Pit 65: Film 2 Exp. 10 & 11
- 2031 Dark brown partly waterlogged peaty topsoil. 0.12m to base
- 2032 Light slightly bluish grey waterlogged loose sandy clayey gravel with very poorly sorted stone and boulders. Some iron staining visible. 0.67m to base

2033 Waterlogged light bluish grey soft sandy clay with very poorly sorted stone and boulders. Base of pit at 1.35m Natural profile. Across the stream from this pit, approximately 3m above the water, is a small memorial of metal on a wooden back with lettering etched into it thus; 'GLYN LEWIS 6 RHAGFYR 1996'. Photographed as Film 2 Exp. 12 & 14.

- Pit 66: Film 2 Exp. 5 & 6
- 2028 Dark brown soft peat. 0.26m to base
- 2029 Mid greyish brown soft wet sandy clay with poorly sorted small stones. 0.71m to base but has an indistinct lower boundary.
- 2030 Mid slightly bluish grey loose sandy clayey gravel with very poorly sorted stone.
- Base of pit at 1.9m

Peat context 2026 may be linked to 2028. Natural profile.

- Pit 67: Film 1 Exp. 25 & Film 2 Exp. 1, 2, 3 & 4
- 2024 Dark brown soft partly waterlogged peaty topsoil. 0.25m to base
- 2025 Light browny grey soft wet silty clay with small stones. 0.5m to base
- 2027 Light grey sandy waterlogged clay with poorly sorted stone. 0.62m to base
- 2026 Dark brown soft waterlogged peat with small stones and boulders at its base. Probably a buried soil.

Base of pit at 1.4m

Seems to be a natural wet profile although formation of peat 2026 needs further study.

- Pit 68: Film 2 Exp. 33, 34 & 35
- 3041 Dark brown soft clayey peaty topsoil. 0.05m to base
- 3042 Mid grey wet gravel with fairly sorted stone, possibly redeposited material. 0.30m to base
- 3043 Mid brown soft wet silty clay. 0.63m to 0.77m to base (slopes)
- 3044 Mid grey loose gravel with poorly sorted stones. 1.09m to base
- 3045 Dark brown waterlogged soft peat cut through and replaced by 3044. 1.10m to base
- 3046 Mid brown waterlogged soft silty clay with fairly sorted small stones. 1.55m to base
- 3047 Waterlogged charcoal layer 0.03m to 0.04m thick within 3046.
- 3048 Mid orangey grey loose spalling gravels with poorly sorted stone.
- Base of pit at 2.12m
- Water at approximately 2m

Down to 1.09m the upper deposits could be considered a mixed fill.

- Pit 69: Film 3 Exp. 12
- 3124 Mid brown loamy topsoil with fairly sorted small stones. 0.14m to base
- 3125 Mid greyish brown fairly sorted gravels. 0.35m to base
- 3126 Brown silty clay, probably redeposited. 0.42m to base
- 3129 Leached grey silty clay. 0.57m to base
- 3127 Light yellowy grey silt with leached iron. 0.66m to base
- 3128 Mid bluish grey sandy gravel with fairly sorted stones. 0.90m to base
- 3131 Browny sandy gravels. 1.00m to base
- 3130 Bluish grey sandy clayey gravel, similar to 3131 and probably related.
- Base of pit at approximately 2m

Upper part of profile, down to 3129, is probably dumped or water-born material.

- Pit 70: Film 3 Exp. 10 & 11
- 3120 Dark brown waterlogged surface peat with roots throughout. 0.71m to base
- 3122 Mid brown waterlogged silty clay. 0.90m to base
- 3121 Light bluish waterlogged grey silty clay with fairly sorted small stones. 1.71m to base
- 3123 Mid orangey grey soft spalling clay.
- Base of pit at 2.0m
- Water entered pit throughout depth

A prime example of a natural deep peat. An extremely wet pit.

- Pit 71: Film 3 Exp. 1 & 2
- 3105 Dark brown soft peat with small twigs and small lumps of charcoal. 1.24m to base
- 3108 Light orangey brown sandy clay with some gravel in it. 1.47m to base
- 3106 Mid browny grey sandy clayey gravel, becoming more bluish grey with depth. 1.9m to base
- 3107 Light orangey grey sandy clayey poorly sorted gravel.
- Base of pit at 2.6m

Suggestion of a thin band of charcoal at 0.8m depth.

- Pit 72: Film 2 Exp. 36
- 3101 Dark brown soft wet peat. 0.35m to base
- 3102 Light grey soft silty waterlogged clay with fairly sorted stones (becoming less so with depth) and leached iron towards base. 0.76m to base
- 3103 Waterlogged light bluish grey sandy clayey poorly sorted gravel. 1.67m to base
- 3104 Mid orangey grey waterlogged sandy clayey very poorly sorted gravel with large pieces of weathered rock.

Base of pit at 2.1m

Wet pit with a natural profile.

Pit 73: No photograph

Cut into a vertical rock face and hence no deposits to record!

- Pit 74: Film 5 Exp. 23
- 4240 Mid greyish brown topsoil. 0.14m to base
- 4241 Light yellowy brown silty clay. 0.35m to base
- 4242 Dark brown dry sandy material, probably desiccated peat. 0.54m to base
- 4243 Light grey silty clay. 1.30m to base
- 4244 Mid bluish grey firm silty gravel. 1.85m to base
- 4245 Brown silty gravels over bluish grey gravels.

Base of pit at approximately 5m

Natural dry profile.

- Pit 75: Film 4 Exp. 30 & 31
- 4102 Mid brown friable topsoil. 0.1m to 0.2m to base (slopes)
- 4103 Light yellowy grey loose sandy clay with well sorted small stones. 0.2m to base
- 4105 Light yellowy brown sandy clay with small sub-angular stones. 0.3m to base
- 4106 Dark brown layer of former turf. 0.5m to base
- 4104 Mid yellowy brown sandy clay with mixed large boulders, landslip material? 1.0m to base
- 4107 Light greyish clay. 1.8m to base
- 4108 Clays and gravels. No recorded.

Base of pit at more than 2m

West end of pit has simple sequence of 4102, 4103, 4104 & 4108. The landslip seems to have affected this area so both the east and west banks of the river here are relatively recent and the original course of the river could be anywhere.

Pit 76: Film 3 Exp. 26 & 27

Mid brown thin gravelly topsoil over very poorly sorted boulders. 1.0m to 1.5m to base
Dark orange with black iron stain approximately 0.12m thick within boulders. 1.1m to base
Brown clayey gravel and very poorly sorted boulders. Approximately 4.7m to base

4004 Mid yellowy grey gravelly clay with poorly sorted stone.

Base of pit at 5.5m

Water at approximately 3m

With the exception of 4004 the whole profile is through the boulder field of a large landslip.

Pit 77: Film 4 Exp. 27 & 28 Natural dry profile identical to Pit 31

Pit 78: Film 4 Exp. 29 Natural dry profile identical to Pit 31

Pit 79: No photograph. Use Pits 77 & 78 for reference Natural dry profile identical to Pit 31

#### APPENDIX 2 SITE ARCHIVE

#### Site records Context record forms Sketch sections of each pit 6 films

photographic catalogue

14 soil samples 11 sherds of post-medieval pottery

Paper archive Two summary reports from Archenfield Archaeology Correspondence Curatorial brief Maps and plans

Digital Archive (Retained by ArchaeoPhysica) Digital drawing: AW5348.125/SW-TE/007 (AutoCAD DWG format) Archived at ArchaeoPhysica as: NYD19991/wb/wsatkinsplan/5348-7.zip

Location plan of pits (Fig. 2) Archived at ArchaeoPhysica as: NYD19991/wb/fig2 pitplan.srf

This report: Lotus WordPro Release 9 format Archived at ArchaeoPhysica as: NYD19991/wb/844rept v2.lwp

This report: Microsoft Rich Text format Archived at ArchaeoPhysica as: NYD19991/wb/844rept.rtf

Digital copies of all colour photographs, in JPEG format.

#### APPENDIX 3 SOIL SAMPLES

Note that although individual samples might have high palaeoenvironmental potential, no easily dateable material was recovered and neither were there any stratigraphical relationships of value for dating these samples.

Sample	Pit No.	Context	Material	Assessment
No.				
1	47a	23	clay & roots	low value
2	58a	2014	roots	may assist in identification of former trees
3	67	2026	buried peat	has palaeoenviromental potential
4	66	2028	surface peat	debatable value
5	48	3003	buried peat	has potential. Hazel nuts visible
6	49	3013	peat and silt	fill of ditch-type feature. Debatable value
7	49	part-3011	wood (large)	a dendro-date would securely date feature
8	50	3022	buried peat	has palaeoenviromental potential
9	62	3026	surface peat	debatable value
10	63	3029	surface peat	debatable value
11	68	3047	charcoal	has palaeoenviromental potential
12	ditto	ditto	ditto	ditto
13	71	3105	surface peat	debatable value, but charcoal present
14	11	4059	surface peat	debatable value

# APPENDIX 4 POTTERY REPORT by Nigel Jones

#### Context 5001/2 & 5003 Cream ware 18th-19th century 1 cup rim/handle with internal print (7g) 1 handle (3g) 3 body sherds (6g)

Coal Measures slip ware 17th-18th century 1 body sherd (5g)

Coal Measures buff ware 17th-18th century 1 body sherd (10g)

Context 5003 only Cream ware18th-19th century 1 body sherd (5g)

Coal Measures Red ware 1 body sherd of hollow ware vessel (13g)

Context 5005 (cobbled surface?) Coal Measures Buff ware 17th-18th century 1 body sherd (5g)

Developed Yellow ware 19th century 1 hollow ware rim (41g)

#### **APPENDIX 5**

#### A458 ROAD IMPROVEMENTS AT NANT-Y-DUGOED SPECIFICATION FOR A CONTRACTED ARCHAEOLOGICAL WATCHING BRIEF BY THE CLWYD-POWYS ARCHAEOLOGICAL TRUST

#### 1 Introduction

- 1.1 The proposed development involves improvements to the A458(T) trunk road between Shrewsbury and Mallwyd in the vicinity of Nant-y-dugoed Farm. The route corridor for the proposed improvement is approx. 2.5km in length and 0.3km wide between SH 9122 1300 and SH 9353 1387.
- 1.2 An initial archaeological assessment was undertaken by the Clwyd-Powys Archaeological Trust (Hankinson 1996) consisting of a desk based study and walkover survey. The main archaeological potential identified is as follows:
  - Bronze Age activity evidenced by a number of cairns, one of which lies within the corridor.
  - A possible Roman road (PRN 11900)
  - A medieval road from Welshpool to Caernarfon which crosses through the route corridor.
  - Post-medieval road alignments, agricultural buildings and ridge and furrow.
- 1.3 A brief has been prepared by WS Atkins -Wales relating to the excavation of 51 test pits along the corridor route and the provision of an archaeological watching brief during the course of the excavations.

#### 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. The information gained should allow a better understanding of the archaeology in the area to be obtained and enable appropriate mitigation measures to be adopted concerning the archaeological resource.

#### 3 Methods

- 3.1 The watching brief will be undertaken during the excavation of all test pits along the corridor route in accordance with the Institute of Field Archaeologists' Standards and Guidance for Archaeological Watching Briefs (IFA 1994).
- 3.2 The depositional sequence of archaeological deposits and natural soils will be recorded in each test pit by means of one drawn section and accompanying photography in colour slide and black and white negative 35mm format. Health and Safety considerations will dictate the precise nature of archaeological recording. All archaeological contexts will be recorded using a standard numbered context system. Excavated spoil will be inspected for artefactual evidence. The discovery of any significant archaeological remains will be reported immediately to WS Atkins Wales.
- 3.3 Particular attention will be paid to the possibility of buried land surfaces. Palaeoenvironmental samples will be recovered from significant contexts and stored under appropriate conditions. Advice on sampling procedures will be provided by Prof. M. Walker, Dept. Geography, University of Wales, Lampeter as required. Provision for analysis of any samples will be the subject of future discussions with the client, although a contingency of £1000 should be allowed for this eventuality. All samples will be treated according to the principles identified in the Brief (Section 10.1-10.4).
- 3.4 Short weekly reports on the progress of the work will be submitted to WS Atkins by 10am on the Monday of the next week.
- 3.5 Following the on-site work all finds will be cleaned, catalogued and stored in an appropriate manner.

- 3.6 If necessary a programme of post-excavation analysis will follow the completion of the watching brief.
- 3.7 An illustrated and bound report will be prepared according to the principles detailed in Section 11 of the Brief within two months of the completion of the fieldwork. A draft will be submitted to WS Atkins -Wales for review and approval prior to issue.
- 3.8 A summary of the archaeological work will be made available for publication in Archaeology in Wales. If the results are of sufficient importance arrangements for appropriate publication will be made in consultation with WS Atkins - Wales.
- 3.9 The site archive will be prepared to specifications laid out in Appendix 3 in the *Management of Archaeological Projects* (English Heritage, 1991). Following agreement with the client, arrangements will be made for the long term conservation and storage of all artefacts in an appropriate repository.

### 4 Resources and Programming

- 4.1 The watching brief has been subcontracted to ArchaeoPhysica of Newport, Shropshire, and will be conducted under the overall supervision of Mr N.W.Jones, a senior member of CPAT's staff who is also a member of the Institute of Field Archaeologists. The watching brief will be undertaken by a skilled and experienced archaeologist with all report preparation completed by or with the assistance of the same field archaeologist who conducted the watching brief.
- 4.2 The duration of the watching brief will depend entirely on the developer's programme of work, but is understood to be for a period of four weeks commencing on 27 September 1999. The subsequent report will be prepared immediately following completion of on-site recording, dependent on the client's instructions and the arrangement of a suitable timetable.
- 4.3 Requirements relating to Health and Safety regulations will be adhered to at all times.
- 4.5 CPAT is covered by appropriate Public and Employer's Liability insurance.

#### 5 References

Hankinson, R. 1996. Nant-y-dugoed Road Improvement: Archaeological Assessment. CPAT Report No 190.

N.W.Jones Projects Officer 22nd September 1999



