1098

Dolbenmaen Water Treatment Works, Dolbenmaen, Gwynedd

Archaeological Watching Brief - Ground Investigation Works

Ymddiriedolaeth Archaeolegol Gwynedd
Gwynedd Archaeological Trust

Dolbenmaen Water Treatment Works
Doplbenmaen, Gwynedd

Archaeological Watching Brief - Ground Investigation Works

Project No. G2293

Report No. 1098

Prepared for: Black & Veatch Ltd.

December 2012

Written by: Spencer Smith

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PROPOSED DOLBENMAEN WATER TREATMENT WORKS: GROUND INVESTIGATION PROGRAMME

ARCHAEOLOGICAL WATCHING BRIEF

Prepared for

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PROPOSED DOLBENMAEN WATER TREATMENT WORKS: GROUND INVESTIGATION PROGRAMME - ARCHAEOLOGICAL WATCHING BRIEF

Prepared for Black & Veatch Ltd, December 2012

SUMMARY

*Gwynedd Archaeological Trust (GAT) was commissioned by Black & Veatch Ltd to complete a series of archaeological test pits at the location of 10 geotechnical test pits and 6 rotary boreholes associated with proposed works at Dolbenmaen Water Treatment Works (WTW), Dolbenmaen, Gwynedd (NGR **SH49634290**).*

An additional two geotechnical test pits were excavated during the ground investigation works. Due to the unavailability of the required rotary drilling rig, the proposed borehole locations were not examined and the archaeological watching brief for these will be carried out at a later date.

***TPD01**, **TPD05** and **TPD 07** all contained river gravels in their lower levels. The presence of the gravel terraces suggests that these mark the limit of the north bank of the Afon Dwyfor during the creation of this part of the valley. Prehistoric settlement could occupy these gravel terraces given the proximity of prehistoric settlement on the opposite bank.*

***TPD 06**, **TPD 08** and **TPD 11** lie within an area which has been flooded and bio-turbated in the past by the Afon Dwyfor. **TPD 03** and **TPD12** were both cut into a natural rise in the ground, and neither revealed any archaeological evidence.*

***TPD02** was characterised by glacial till, as were **TPD 04, TPD 09** and **TPD10**.*

*Based on the results of the current GI stage as well as the associated archaeological assessment (GAT Report **1092**), it is recommended that an **archaeological evaluation** through trial trenching is undertaken across the WTW zone as a whole (including ancillary zones) in order to ascertain the likely extent of any disturbed or un-disturbed archaeological remains. The rock outcrop in particular and associated mound known as Pen Bryn yr Orsedd (GAT Report **1092** Feature 5) may represent an early medieval assembly mound and it is recommended that a topographical survey is also carried out along with evaluation trenching around the mound periphery. Prehistoric settlement could be found along the gravel river terrace and thinner soils were generally to the north of the site. Based upon the results of the evaluation stage across the proposed WTW zone, it is possible that further archaeological work will be necessary.*

1. Introduction

Gwynedd Archaeological Trust (GAT) was commissioned by *Black & Veatch Ltd* to complete an archaeological watching brief during ground investigation works (GI) at the location of the proposed Dolbenmaen Water Treatment Works (WTW), Gwynedd (NGR **SH49634290** (cf. Figure 1)).

Black & Veatch Ltd drawing number **174357-30-0011** (reproduced as **Figure 01**), indicated a total of 10 No test pits (refs: **TPD01** to **TPD10**), 6 No boreholes (**BHD01** to **BHD06**) and 2No pipeline test pits (no reference numbers). *Black & Veatch Ltd* drawing number **174357-30-0011** indicated that the test pits would be excavated to a mean depth of 4.0m. The boreholes (using a rotary drilling rig), will be excavated to a mean depth of 10.0m (**BHD01** to **BHD04**) or 15m (**BHD05** and **BHD06**). The test pits were distributed across four irregular shaped fields south of the A487 road and within close proximity to the existing water treatment works and sewage treatment works. The average size of each test pits was **0.80m wide x 2.50m long.**

Black & Veatch Ltd requested on 10/12/2012 that two additional geotechnical Test pits (refs: **TPD11** and **TPD12**) were excavated (not located on *Black & Veatch Ltd* drawing number **174357-30-0011**; updated figure forthcoming).

Due to the unavailability of the required rotary drilling rig, the proposed borehole locations were not examined and the archaeological watching brief for these will be carried out at a later date. Both the geotechnical test pits and the boreholes are on the site of a proposed new water treatment works associated with the current existing water treatment works.

Reference was made to the guidelines specified in *Standard and Guidance for Archaeological Watching Brief* (Institute for Archaeologists, 1994, rev. 2001 & 2008; http://www.archaeologists.net/sites/default/files/node-files/ifa_standards_watching.pdf).

The content of this report must be approved by Gwynedd Archaeological Planning Services.

Note: this report is for the current GI programme only; additional GI works and/or archaeological evaluation and mitigation programmes associated with the proposed WTW will be discussed in separate/future reports.

2. ARCHAEOLOGICAL BACKGROUND

GAT completed an archaeological assessment of the proposed development area in November 2012 (Smith, S. GAT Report **1092**). The report assessed an area of 11.212 hectares marked on *Black and Veatch Ltd* drawing **174357-30-0001**. The identified archaeological features included a trackway of at least post-medieval date (Primary Record Number (PRN) 31034 **SH 49611 43118**) and a post-medieval wall (PRN 31022 SH **49619 43194**). Also recorded are a wall contemporary with the access road constructed for the Dolbenmaen Water Treatment Works (PRN 31024 **SH 49770 43173**) and the access road constructed for the Dolbenmaen Water Treatment Works (PRN 31025 **SH 49782 43131**). There may also be other unidentified remains within this area.

Within 500m of the proposed WTW works are a number of archaeological features. These include two prehistoric hut groups (Primary Record Number (PRN) 145 **SH 4994 4345**) and (PRN 170 **SH 5019 4276**).

Recorded as part of the production of GAT project **G2095** Report No.**824** (A487 (T) Road Improvement Scheme: Ty-Cerrig, Gwynedd) were post-medieval drainage ditches (PRN 31015 **SH 49294 43181**) and gullies (PRN 31016 **SH 49298 43245**), field boundaries of at least post-medieval date (PRN 31017 **SH 49412 43272**), (PRN 31019 **SH 49428 43200**), (PRN 31020 **SH 49607 43189**), (PRN 31022 **SH 49619 43194**), (PRN 31023 **SH 49704 43202**), (PRN 31024 **49770 43173**), (PRN 31026 **SH 49814 43230**), (PRN 31029 SH **49716 43206**), (PRN 31030 **SH 49648 43245**), (PRN 31031 **SH 49634 43237**), (PRN 31032 **49469 43309**) and (PRN 31037 **SH 49538 43250**). These lie between 183m and 624m of the proposed WTW works.

In addition a Conifer plantation (PRN 31018 **SH 49433 43261**), the A487 road (PRN 31021 **SH 49585 43234**), an unclassified road to Rhwngddwyryd (PRN 31027 **SH 49662 43300**), an unclassified road to Ty Cerrig (PRN 31028 **SH 49608 43183**), an unclassified road to Dolbenmaen (PRN 31033 SH 49286 43355), trackways identified on the 1st edition of the Ordnance Survey map of 1889 (PRN 31035 **SH 49610 43339**) and (PRN 31036 SH 49484 43360), a stone clearance cairn (PRN 31038 **SH 49387 43297**) and a hedgerow (PRN 31039 **SH 49815 43187**) were all also recorded; These lie between 183m and 624m of the proposed WTW. They may also be other unidentified remains within this area.

There are also two projected Roman roads from Segontium to Tomen y Mur which pass to the North of the proposed Water Main, one on the line of the current A487 (PRN 17557 **SH 49585 43234**) and another (PRN 17820) approximately 350m north of **SH 49800 43006**. These lie between 183m and 350m of the proposed WTW. There may also be other unidentified remains within this area.

Based on *Black & Veatch Ltd* drawing number **174357-30-0011** (reproduced as **Figure 01**), it was possible that test pit **TPD10** could impact on the location of a former field boundary visible on historic mapping. Test pit **TPD02 c**ould impact on the environs of a mound within a field with the field name of *Pen Bryn yr Orsedd*, which translates as 'The Seat on top of the Hill', suggesting it may have been used as an early medieval assembly mound. The remaining GI test pits and boreholes did not appear to target known/suspected archaeological features but may allow an opportunity to inspect below ground deposits and provide information on topsoil and subsoil composition (including information related to ground improvements).

3. METHODOLOGY

3.1 Ground Investigation test pits

The Ground Investigation test pit locations were based on the received locations of 10No proposed test pits and 6No proposed boreholes identified in *Black and Veatch Ltd* Drawing No. **174357-30-0011**. Specific locations were geolocated on site by the *Black and Veatch Ltd* geotechnician in attendance. In the case of TPD 11 and TPD12, *Black & Veatch Ltd* requested on 10/12/2012 that two additional geotechnical Test pits (refs: **TPD11** and **TPD12**) were excavated. These were not geolocated prior to their excavation and consequently their position is approximate as no geolocation data has been provided to GAT.

The geotechnical target areas are as follows:

TPD01

- Located at the western side of the proposed development area to the north of the current Water Treatment Works (WTW) and to the east of the current WTW access road; the Ground Investigation (GI) test pit area will be evaluated in advance with a 0.80m wide x 2.50m long watching brief test pit.

TPD02

- Located at the northern fringes of the proposed development area on southern slope of the mound known as *Pen Bryn yr Orsedd* and to the north of the current WTW; the GI test pit area will be evaluated in advance with a 0.80m wide x 2.50m long watching brief test pit.

TPD03

- Located at the northern fringes at the of the proposed development area and to the north east of the current WTW; the GI test pit area will be evaluated in advance with a 0.80m wide x 2.50m long watching brief test pit.

TPD04

- Located at the north eastern corner of the centre of the proposed development area and to the north east of the current WTW; the GI test pit area will be evaluated in advance with a 0.80m wide x 2.50m long watching brief test pit.

TPD05

- Located at the centre of the proposed development area and to the east of the current WTW; the GI test pit area will be evaluated in advance with a 0.80m wide x 2.50m long watching brief test pit.

TPD06

- Located at the eastern fringes of the proposed development area and to the east of the current WTW; the GI test pit area will be evaluated in advance with a 0.80m wide x 2.5m long watching brief test pit.

TPD07

- Located at the southern fringes of the proposed development area and to the east of the current WTW; the GI test pit area will be evaluated in advance with a 0.80m wide x 2.5m long watching brief test pit.

TPD08

- Located at the western fringes of the proposed development area and to the west of the current WTW; the GI test pit area will be evaluated in advance with a 0.80m wide x 2.5m long watching brief test pit.

TPD09

- Located at the western fringes of the proposed development area and to the northwest of the current WTW; the GI test pit area will be evaluated in advance with a 0.80m wide x 2.5m long watching brief test pit.

TPD10

- Located at the north western corner of the proposed development area and to the north west of the current WTW; the GI test pit area will be evaluated in advance with a 0.80m wide x 2.5m long watching brief test pit.

TPD11

- Located at the south eastern fringes of the proposed development area and to the east of the current WTW; the GI test pit area will be evaluated in advance with a 0.80m wide x 2.5m long watching brief test pit.

TPD12

- Located at the centre of the proposed development and to the east of the current WTW; the GI test pit area will be evaluated in advance with a 0.80m wide x 2.5m long watching brief test pit.

3.2 Watching Brief Methodology

- A written record of the trench content and all identified features was completed via GAT pro-formas

- All trenches recorded photographically, with detailed notations and a measured survey. The photographic record was completed using a digital SLR camera set to maximum resolution in the JPEG format.

- All test pits were opened by a Kubota KX057-4 5.5 tonne rubber tracked excavator fitted with a **toothless** bucket

4. RESULTS OF GROUND INVESTIGATION WATCHING BRIEF

For parity GAT utilised the same alphanumeric numbering system as the proposed geotechnical test pits (TPD). For the location of the individual geotechnical test pits cf. Figure 02.

Each test pit is described separately.

4.1 Test Pits TPD01-TPD12

TPD01

Size: 2.50m x 0.80m x 0.55m
(Maximum excavated depth of Geotechnical Excavation 3.20m)
Orientation N-S

(Archived photographic reference – 024-026 inc. and 030 / report Plate 03)

The topsoil was a mid-brown clay silt, containing a moderate amount of very small sub-rounded stones, and a fine, extensive and deep root system. The depth of the topsoil was 0.15m. The subsoil was a dark brown sandy clay with clay lumps and sub- rounded stones. The depth of the deposit was 0.40m. The underlying natural was a till derived material.

No archaeological activity was identified within the confines of the test pit.

TPD02

Size: 2.50m x 0.80 x 0.55m
(Maximum excavated depth of Geotechnical Excavation 2.10m)
Orientation N-S

(Archived photographic reference – 027-028 inc. / report Plate 04)

The topsoil was a humic dark brown to black clay silt with a fine, extensive and deep root system. The depth of the topsoil was 0.15m. The subsoil was a grey silty material with some small angular inclusions. The depth of deposit was 0.05m. Below this was a very clean orange brown sandy clay. The depth of deposit was 0.40m. The underlying natural was a light grey till derived material.

No archaeological activity was identified within the confines of the test pit.

TPD03

Size: 2.50m x 0.80m x 0.60m
(Maximum excavated depth of Geotechnical Excavation 3.50m)
Orientation E-W

(Archived photographic reference – 036-037 inc. / report Plate 10)

The topsoil was a mid-brown clay silt containing a moderate amount of very small sub-rounded stones, and a fine, extensive and deep root system. The depth of the topsoil was 0.10m. The subsoil consisted of a dark brown to grey till derived material with small sub-

rounded stone fragments. The depth of the deposit was 0.50m. The underlying natural was a loose grey till.

No archaeological activity was identified within the confines of the test pit.

TPD04

Size: 25.0m x 0.80m x 0.60m
(Maximum excavated depth of Geotechnical Excavation 2.70m)
Orientation E-W

(Archived photographic reference – 038-039 inc. / report Plate 12)

The topsoil was a humic mid-brown clay silt with a fine, extensive and deep root system. The depth of the topsoil was 0.20m. The subsoil was a mid-brown till derived material with sub-rounded stones. The depth of the deposit was 0.40m. The underlying natural was an orange brown till derived material.

No archaeological activity was identified within the confines of the test pit.

TPD05

Size: 2.50m x 0.80m x 0.70m
(Maximum excavated depth of Geotechnical Excavation 2.30m)
Orientation N-S

(Archived photographic reference – 029 and 031-032 inc. / report Plate 06)

The topsoil was a mid-brown clay silt with a fine, extensive and deep root system. The depth of the topsoil was 0.10m. The subsoil was orange-brown till derived material with 0.10m to 0.20m sub-angular inclusions. Depth of deposit was 0.55m. The underlying natural was a river gravel.

No archaeological activity was identified within the confines of the test pit.

TPD06

Size: 2.50m x 0.80m x 0.70m
(Maximum excavated depth of Geotechnical Excavation 2.70m)
Orientation NW-SE

(Archived photographic reference – 40-42 inc. / report Plate 13)

The topsoil was a light brown clay silt with a fine, extensive and deep root system. The depth of the topsoil was 0.10m. The subsoil was a mid-brown clay sand with sub angular inclusion up to 10mm in size. The depth of this deposit was 0.50m. Below this was an orange brown sandy clay with sub angular inclusions up to 10mm in size. The depth of this deposit was 0.30m. The natural was a dark brown sandy clay.

One unabraded sherd of post-medieval pottery was recovered from the topsoil.

TPD07

Size: 2.50m x 0.80m x 0.80m
(Maximum excavated depth of Geotechnical Excavation 2.70m)
Orientation N-S

(Archived photographic reference – 33-35 inc. / report Plate 07)

The topsoil was a mid-brown clay silt containing a moderate amount of very small sub-rounded stones and a fine, extensive and deep root system. The depth of the topsoil was 0.10m. The subsoil was a grey-brown clay contain sub angular slate fragments. The depth of this deposit was 0.25m. Below this was a red-orange clay with very few inclusions. The depth of the deposit was 0.40m. The natural was a grey river gravel.

No archaeological activity was identified within the confines of the test pit.

TPD08

Size: 2.50m x 0.80m x 0.35m
(Maximum excavated depth of Geotechnical Excavation 3.00m)
Orientation N-S

(Archived photographic reference – 50-55 inc. / report Plate 19)

The topsoil was a humic mid-brown clay silt containing a small amount of very small sub-rounded stones and a fine, extensive and deep root system. The depth of the topsoil was 0.20m. The subsoil was an orange-brown clay silt contain small amount of very small sub-rounded stones and the root system from the topsoil extending into it. The depth of this deposit was 0.15m. The natural was a sand and gravel mixture.

No archaeological activity was identified within the confines of the test pit.

TPD09

Size: 2.50m x 0.80m x 0.30m
(Maximum excavated depth of Geotechnical Excavation 2.30m)
Orientation N-S

(Archived photographic reference – 56-59 inc. / report Plate 21)

The topsoil was a dark brown clay silt containing a small amount of very small sub-rounded stones and a fine, extensive and deep root system. The depth of the topsoil was 0.30m. The subsoil was a grey till derived material. The depth of the deposit was 1.20m. The natural was a sand and gravel mixture.

One unabraded sherd of post-medieval pottery was recovered from the topsoil.

TPD10

Size: 2.50m x 0.80m x 0.20m
(Maximum excavated depth of Geotechnical Excavation 2.30m)
Orientation N-S

(Archived photographic reference – 002 and 060 / report Plate 23)

The topsoil was a mid-brown clay silt containing a small amount of very small sub-rounded stones and a fine, extensive and deep root system. The depth of the topsoil was 0.20m. The subsoil was a sandy clay till derived material. The depth of the deposit was 0.20m. The natural was a grey till material.

No archaeological activity was identified within the confines of the test pit.

TPD11

Size: 2.50m x 0.80m x 0.60m
(Maximum excavated depth of Geotechnical Excavation 3.40m)
Orientation E-W

(Archived photographic reference – 043-045 inc. / report Plate 15)

The topsoil was a humic light brown clay silt containing a small amount of very small sub-rounded stones and a fine, extensive and deep root system. The depth of the topsoil was 0.20m. The subsoil was an orange-brown clay silt contain small amount of very small sub-rounded stones and the root system from the topsoil extending into it. The depth of this deposit was 0.20m. Below this was a orange clay silt. The depth of the deposit was 0.10. Below this was a lens of grey clay 0.10m deep.The natural was a sand and gravel mixture.

No archaeological activity was identified within the confines of the test pit.

TPD12

Size: 2.50m x 0.80m x 0.45m
(Maximum excavated depth of Geotechnical Excavation 2.70m)
Orientation N-S

(Archived photographic reference – 046-049inc. / report Plate 18)

The topsoil was a humic dark-brown clay silt containing a small amount of very small sub-rounded stones and a fine, extensive and deep root system. The depth of the topsoil was 0.15m. The subsoil was a brown clay silt contain small amount of very small sub-rounded stones. The depth of the deposit was 0.20m. Below this was a light brown clay gravel mixture with a depth of 0.10m. The natural was a silty sand and gravel.

No archaeological activity was identified within the confines of the test pit.

5. INTERPRETATION AND CONCLUSION

The area under investigation for the proposed WTW is located on ground which is flat on the western side of the current WTW access road and undulating on the eastern side of the current WTW access road. The southern half of the site slopes down towards the Afon Dwyfor. The ground was well drained and is used good quality grazing for sheep, with the bedrock exposed at one location within the proposed area.

The central northern section of the proposed WTW is dominated by *Pen Bryn yr Orsedd*. **TPD02** did not find any direct evidence that the southern side of the mound had been reshaped, although an examination of the topographical contours on *Black & Veatch Ltd* drawing **174357-30-0011** suggests that the access to the mound is from the north west, on a line towards the junction of the A487(T) and the current WTW access road. Any contractor works in this area may impact on any buried archaeological deposits.

TPD04, **TPD09** and **TPD10** revealed that the topsoil lay almost immediately on top of the till. The find of unabraded post medieval pottery from **TPD09** suggests that the field has been used for the disposal from waste material from the farms which worked this land, and that other material could be recovered during any contractor works. The proximity of **TPD 04** and **TPD10** to the A487(T), and the possible Roman Road which also lies along this route suggests archaeological material associated with travel along the road could be encountered.

TPD01, **TPD05** and **TPD 07** all contained river gravels in their lower levels, as revealed by the Ground Investigations. The presence of the gravel terraces, and the topographical contours on *Black & Veatch Ltd* drawing **174357-30-0011** suggests that these mark the limit of the north bank of the Afon Dwyfor during the creation of this part of the valley. Prehistoric settlement could occupy these gravel terraces and the proximity of settlement on the south bank immediately opposite

TPD 06, **TPD 08** and **TPD 11** all lie within an area which has been flooded and bio-turbated in the past. The unabraded sherd of post medieval pottery is likely to be associated with the now derelict agricultural building to the east of the proposed WTW.

TPD 03 and **TPD12** were both cut into a rise in the ground visible on the topographical contours on *Black & Veatch Ltd* drawing **174357-30-0011**. Neither revealed any archaeological evidence.

Based on the results of the current GI stage as well as the associated archaeological assessment (GAT Report **1092**), it is recommended that an **archaeological evaluation** through trial trenching is undertaken across the WTW zone as a whole (including ancillary zones) in order to ascertain the likely extent of any disturbed or un-disturbed archaeological remains. The rock outcrop in particular and associated mound known as Pen Bryn yr Orsedd (GAT Report **1092** Feature 5) may represent an early medieval assembly mound and it is recommended that a topographical survey is also carried out along with evaluation trenching around the mound periphery. Based upon the results of the evaluation stage across the proposed WTW zone, it is possible that further archaeological work will be necessary.

6. SOURCES CONSULTED

Black and Veatch Limited Drawing No. **176661-00-1501**

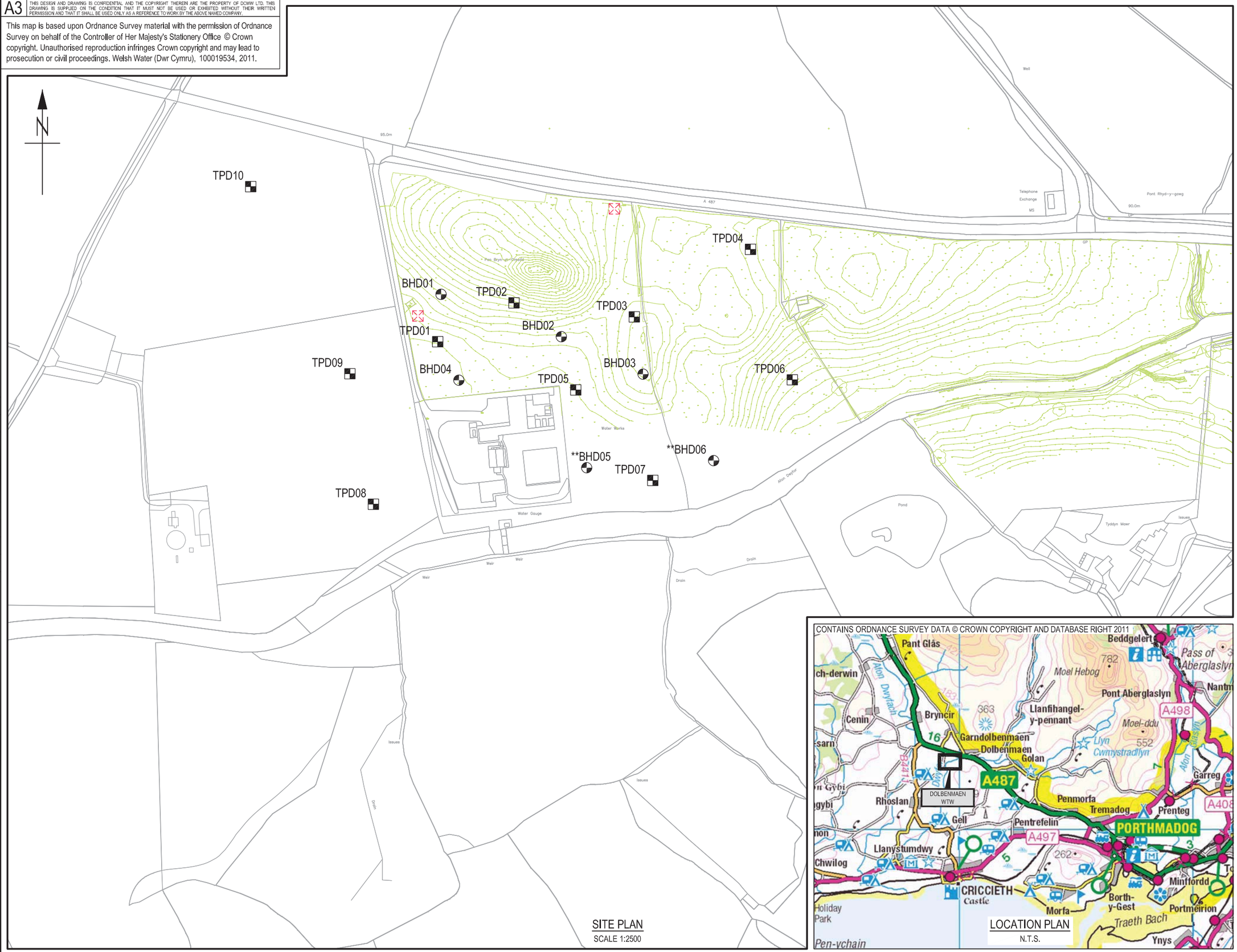
Hopewell, D., 2006. “Roman roads in North-West Wales”. GAT Report **668** Parts I & II.

IFA Standard and Guidance for Archaeological Evaluation (Institute for Archaeologists, 1994, rev. 2001 & 2008).

Richards, G. 2012 GAT Report **970**: *G2270 GARREGLWYD WATER TREATMENT WORKS, FFESTINIOG, MEIRIONNYDD* – Archaeological Assessment

ORIGINAL SHEET SIZE A3 | 10 UNITS - SCALE WITH CAUTION AS DISTORTION CAN OCCUR

A3



SITE PLAN
SCALE 1:2500

LOCATION PLAN
N.T.S.

NOTES

1. SAMPLING AND TESTING TO BE IN ACCORDANCW WITH 174357-00-1510.

LEGEND

BHD01 — ROTARY DRILL BOREHOLE 10m DEPTH

**BHD06 — ROTARY DRILL BOREHOLE 15m DEPTH

TPD01 — MACHINE EXCAVATED TRIAL PIT 4.5m DEPTH

APPROXIMATE LOCATION OF PIPELINE TRIAL PIT

30m 0m 50m
Scale 1:2500

Rev	Drn	Chd	Apvd	Date	Description
A	IMN	REJ	RFB	16.11.12	ISSUED FOR ENQUIRY

Drawing Status: FOR ENQUIRY

Date:	16.11.12	Drawn By:	IMN
Drawing Scale:	AS SHOWN	Checked By:	REJ
Original Size:	A3	Approved By:	RFB

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Dwr Cymru Welsh Water

Scheme Name: DOLBENMAEN WTW AMP5 QUALITY SCHEME

Drawing Title: INTRUSIVE GROUND INVESTIGATION

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DCWW Ref: | Status:

Drawing No.: 174357-30-0011 | Rev: A

NOTE: THE SCALE RATIOS IN THIS DRAWING APPLY WHEN PRINTED AT A3 ONLY

FILE NAME & EXTENSION C:\pw_working\cngpw\d0256361\174357-30-0011
PLOTTED DATE 16/11/2012 09:36:19 PLOTTED BY Norman, Ian M

Figure 01 - Reproduction of Client Site Plan 174357-30-0011

Plate 01 - View along boundary of north field bounding A487 (T) showing modern grading between road and original field level

Plate 02 - View across north field towards the Water Treatment Works

Plate 03 - West Section face of TPD 01

Plate 04 - Location of TPD 02 marked by peg on south face of 'Pen Bryn yr Orsedd'

Plate 05 - Location of TPD 05 marked by peg to the east of current WTW

Plate 06 - West Section face of TPD 05

Plate 07 - West Section face of TPD 07

Plate 08 - Location of TPD 07 on the north back of the Afon Dwyfor

Plate 09 - Location of TPD 03 to the south west of 'Pen Bryn yr Orsedd'

Plate 10 - View of TPD 03

Plate 11 - Location of TPD 04 with the A487 (T) immediately behind the hedge line crossing the image

Plate 12 - Location of TPD 04 with the A487 (T) immediately behind the hedge line crossing the image

Plate 13 - East Section face of TPD 06

Plate 14 - Location of TPD 06 with ruined building in background

Plate 15 - East Section face of TPD 11

Plate 16 - Excavation of TPD 11 below natural as part of Ground Investigation

Plate 17 - Location of TPD 12 taken from top of cloddiau field boundary

Plate 18 - East Section face of TPD 12

Plate 19 - East Section face of TPD 08

Plate 20 - Excavation of TPD 08 below natural as part of Ground Investigation

Plate 21 - West Section face of TPD 09

Plate 22 - Location of TPD 09 to west of current WTW

Plate 23 - West Section face of TPD 10

Gwynedd Archaeological Trust
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