



aeon archaeology

SPEN Ffridd Uchaf, Rhyd Ddu, Gwynedd.

**March 2017
V 1.0**



Archaeological Watching Brief
Project Code: A0107.1
Report no. 0122



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Archaeological Watching Brief

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Project Code: A0107.1

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1.0 NON-TECHNICAL SUMMARY

Aeon Archaeology was commissioned by Scottish Power Energy Networks (SPEN), hereafter the Client, to carry out an archaeological watching brief as part of the undergrounding of a new electricity cable at Fridd Uchaf, hereafter the Site, located approximately 1.5km south of Rhyd Ddu, Gwynedd within the Snowdonia National Park Authority.

The archaeological watching brief as part of the cable undergrounding works for SPEN at Ffridd Uchaf, Rhyd Ddu uncovered post-medieval deposits associated with the construction of the A4085 road. A former field boundary ditch of probable post-medieval was also uncovered running parallel with the road but which has since been infilled.

The watching brief also ensured that the site access track and compound avoided any areas of potential upstanding archaeological remains.

2.0 INTRODUCTION

Aeon Archaeology was commissioned by Scottish Power Energy Networks (SPEN), hereafter the Client, to carry out an archaeological watching brief as part of the undergrounding of a new electricity cable at Fridd Uchaf, hereafter the Site, located approximately 1.5km south of Rhyd Ddu, Gwynedd within the Snowdonia National Park Authority (SNPA) (NGR: SH 57625 51591).

The archaeological monitoring was undertaken as part of a limited phase of works that included the monitoring of a launch and reception pit for a directional drill beneath the Welsh Highland Railway and the A4085 road respectively, and to check that compounds, vehicle movement and associated works did not have an adverse direct physical impact upon upstanding archaeological features (figures 01 and 02).

A mitigation brief was not prepared for this work by the SNPA Archaeologist but the following statement was provided by email correspondence to the Client (email dated 3rd February 2017):

There are no known sites of archaeological interest recorded on the Historic Environment Record or on the National Monument Record so far as I am aware from a cursory check. However there are some possible earthworks/features on the ground. I'm not sure exactly what they represent and they're pretty vague, but they include a couple of low banks and a relict wall (S side of road) and some grassed over wall footings (N side of road). There's nothing visible on the surface that suggests to me that there is potential for features of sufficient interest/importance that further (pre-works) investigation is required or that the work should be modified, but a watching brief would provide reassurance that were significant features to be encountered they would be identified and properly recorded.

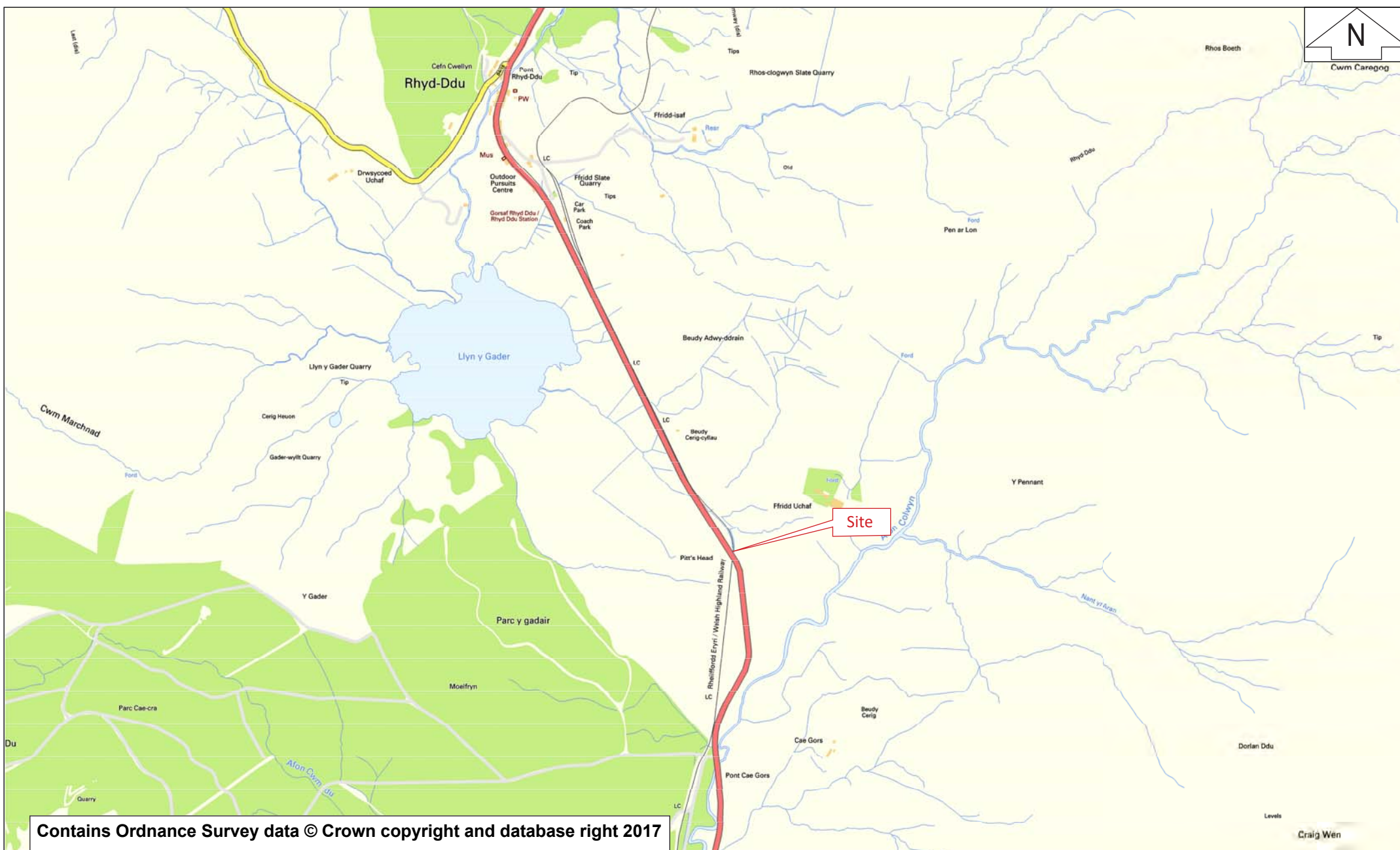
The watching brief was maintained during intrusive groundworks, as detailed below.

A written Scheme of Investigation (WSI) was undertaken by Aeon Archaeology in February 2017 (appendix I) which outlined the principle aims of the watching brief and the methods by which they would be met. This formed the basis of a method statement submitted for the work.

Relevant UK legislation on heritage includes the Ancient Monuments and Archaeological Areas Act 1979, and the Planning (Listed Buildings and Conservation Areas) Act 1990. The Ancient Monuments and Archaeological Areas Act 1979 sets out the requirement for Scheduled Ancient Monument Consent for any works of demolition, repair, and alteration that might affect a Scheduled Ancient Monument. These Acts have been superseded and amended by the Historic Environment Act (Wales) 2016.

For archaeological sites that are not covered by the above Act, protection is afforded through development control, the Town and Country Planning Act 1990 and the Welsh Government's Planning Policy Wales (PPW 2012).

Reference will be made to the guidelines specified in Standard and Guidance for Archaeological Watching Brief (Chartered Institute for Archaeologists, 2014).

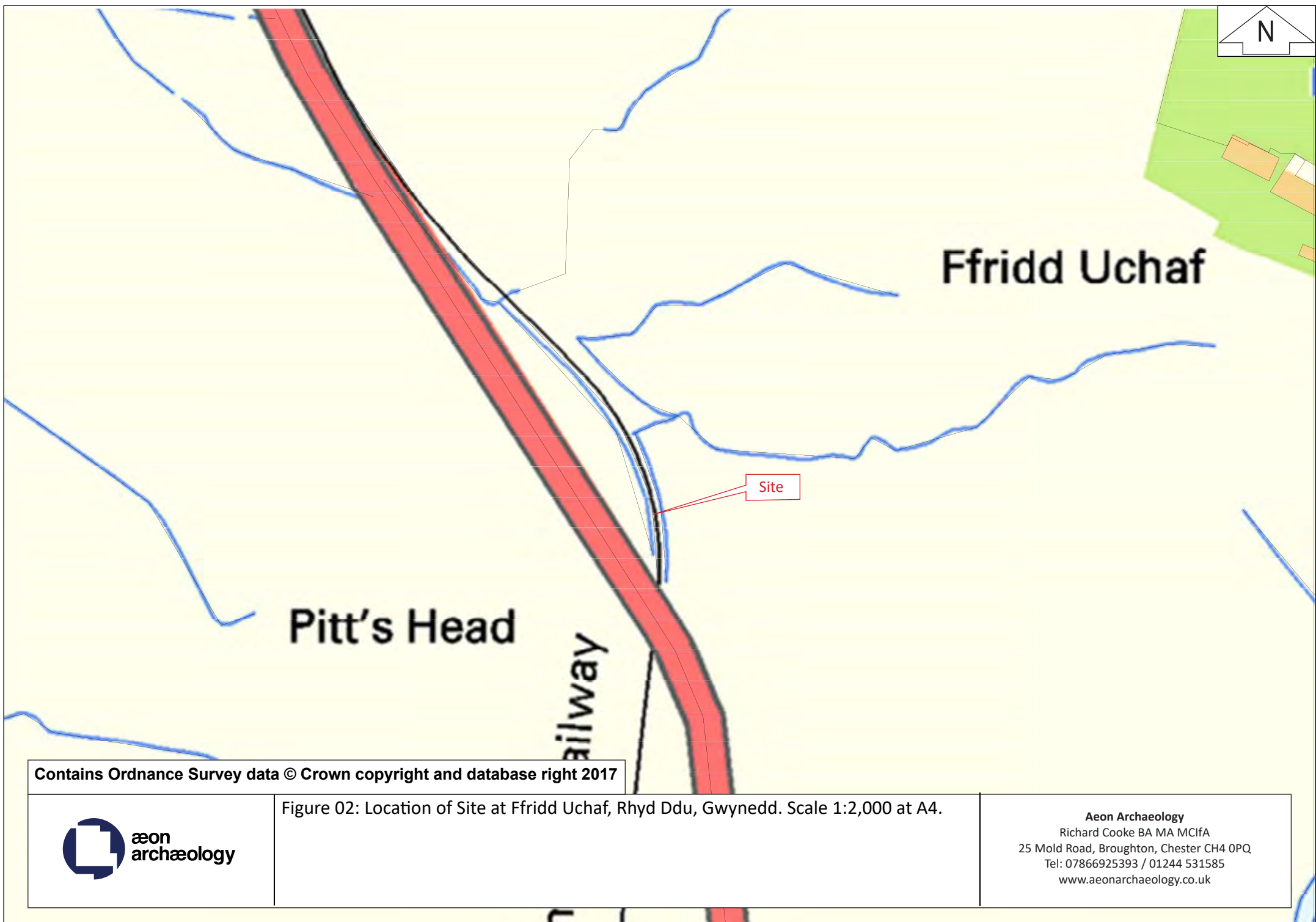


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Figure 01: Location of Site at Ffridd Uchaf, Rhyd Ddu, Gwynedd. Scale 1:15,000 at A4.

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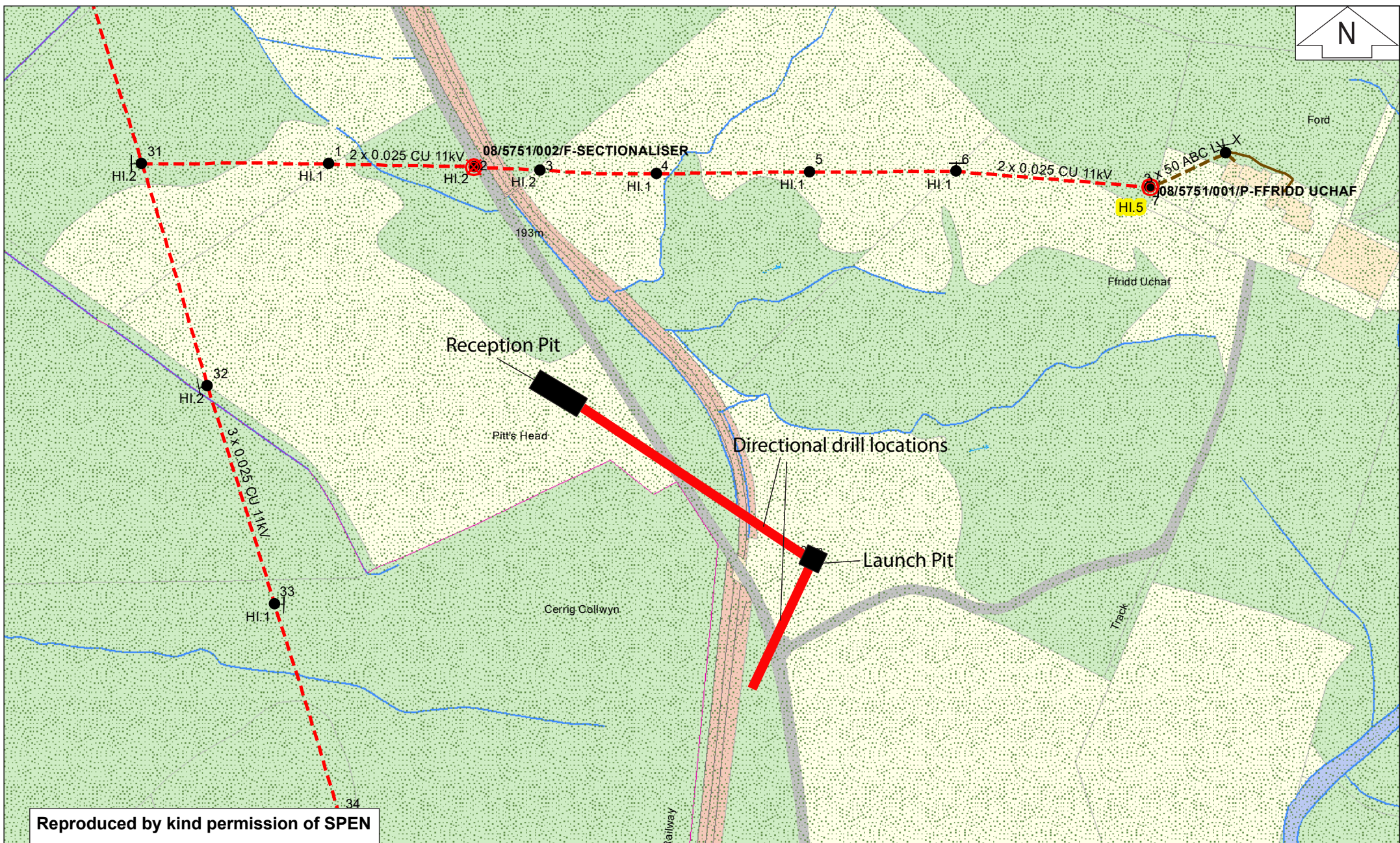


Figure 03: Location of Site at Ffridd Uchaf, Rhyd Ddu, Gwynedd showing two locations of directional drill (shaded red). Scale 1:2,500 at A4.

3.0 PROJECT AIMS

The aim of the watching brief works was to characterise the known, or potential, archaeological remains uncovered during groundworks associated with the excavation of a launch and reception pit during directional drilling beneath the Welsh Highland Railway and the A4085 road respectively.

The broad aims of the archaeological watching brief were to:

- To determine, as far as is reasonably possible, the location, extent, date, character, condition, significance and quality of any surviving archaeological remains on the site, the integrity of which may be threatened by development at the site.
- To establish the nature and extent of existing disturbance and intrusion to sub-surface deposits and, where the data allows, assess the degree of archaeological survival of buried deposits of archaeological significance.
- To allow the SNPA Archaeologist to make an informed decision on the need for and scope of any further archaeological works that may be required on future projects within proximity to the scheme.

The detailed objectives of the archaeological watching brief were to:

- Insofar as possible within methodological constraints, to explain any temporal, spatial or functional relationships between the structures/remains identified, and any relationships between these and the archaeological and historic elements of the wider landscape.
- Where the data allows, identify the research implications of the site with reference to the regional research agenda and recent work in Gwynedd.

The management of this project has followed the procedures laid out in the standard professional guidance *Management of Research Projects in the Historic Environment Project Manager's Guide* (English Heritage 2006; rev 2015), and in the Chartered Institute for Archaeologists *Archaeological Watching Brief* (Chartered Institute for Archaeologists, 2014). Five stages are specified:

Phase 1: project planning

Phase 2: fieldwork

Phase 3: assessment of potential for analysis and revised project design

Phase 4: analysis and report preparation

Phase 5: dissemination

The current document reports on the phase 4 analysis and states the means to be used to disseminate the results. In this instance it was not necessary to prepare a revised project design as alluded to in Phase 3; as there was a paucity of evidence recovered in Phase 2 as the archaeological features only offered minimal potential for analysis and therefore did not warrant any alteration to the initial project design.

The site is to be set in its landscape context so that its full character and importance can be understood. All the information is to be presented in a report that will be held by the Gwynedd Historic Environment Record and the National Monuments Record retained by the Royal Commission

on the Ancient and Historic Monuments in Wales (RCAHMW) so that it can be accessible to the public and future researchers. This phase of work also includes archiving the material and documentary records from the project.

4.0 METHODOLOGY – ARCHAEOLOGICAL WATCHING BRIEF

4.1 Watching Brief

The CIfA maintains a standard for archaeological watching brief which states that:

An archaeological watching brief will record the archaeological resource during development within a specified area using appropriate methods and practices. These will satisfy the stated aims of the project, and comply with the Code of conduct and other relevant by-laws of CIfA.

An archaeological watching brief is defined by the CIfA as a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons (CIfA 2014a). The watching brief will take place within a specified area within the Site where there is a possibility that archaeological deposits may be disturbed or destroyed.

The CIfA further identifies the purpose of a watching brief as allowing, within the resources available, the preservation by record of archaeological deposits, the presence and nature of which could not be established in advance of development or other potentially disruptive works.

It is also important to note that a watching brief provides an opportunity, if needed, for a signal to be made to all interested parties, before the destruction of the archaeological materials, that an archaeological find has been made for which the resources allocated to the watching brief itself are not sufficient to support treatment to a satisfactory and proper standard.

A watching brief is, therefore, not intended to reduce the requirement for excavation or preservation of known or inferred deposits, and it is intended to guide, not replace, any requirement for contingent excavation or preservation of possible deposits.

All soil removal was undertaken using a mechanical excavator fitted with a toothless ditching bucket. A photographic record was maintained throughout, using a digital SLR camera (Canon 6000D) set to maximum resolution and any subsurface remains were to be recorded photographically, with detailed notations and measured drawings being undertaken if required.

In the event of archaeological discovery features were to be excavated by hand and fully recorded using Aeon Archaeology pro-formas, digital photographs, and plan and section drawings taken at a suitable scale (usually 1:20 for plan drawings and 1:10 for section drawings).

The archive produced is held at Aeon Archaeology under the project code **A0107.1**.

4.2 Data Collection from Site Records

A database of the site photographs was produced to enable active long-term curation of the photographs and easy searching. The site records were checked and cross-referenced and photographs were cross-referenced to contexts. These records were used to write the site narrative and the field drawings and survey data were used to produce an outline plan of the site.

All paper field records were scanned to provide a backup digital copy. The photographs were organised and precisely cross-referenced to the digital photographic record so that the Gwynedd Historic Environment Record (HER) can curate them in their active digital storage facility.

4.3 Artefact Methodology

All artefacts were to be collected and processed including those found within spoil tips. They would be bagged and labelled as well any preliminary identification taking place on site. After processing, all artefacts would be cleaned and examined in-house at Aeon Archaeology. If required artefacts would be sent to a relevant specialist for conservation and analysis.

The recovery policy for archaeological finds was kept under review throughout the archaeological watching brief. Any changes in recovery priorities would be made under guidance from an appropriate specialist and agreed with the Client and the SNPA Archaeologist. There was a presumption against the disposal of archaeological finds regardless of their apparent age or condition.

4.4 Environmental Samples Methodology

The sampling strategy and requirement for bulk soil samples was related to the perceived character, interpretational importance and chronological significance of the strata under investigation. This ensured that only significant features would be sampled. The aim of the sampling strategy was to recover carbonised macroscopic plant remains, small artefacts particularly knapping debris and evidence for metalworking.

Advice and guidance regarding environmental samples and their suitability for radiocarbon dating, as well as the analysis of macrofossils (charcoal and wood), pollen, animal bones and molluscs would be obtained from Oxford Archaeology if required.

4.5 Report and dissemination

A full archive including plans, photographs, written material and any other material resulting from the project was prepared. All plans, photographs and descriptions were labelled, and cross-referenced, and will be lodged within a suitable repository to be agreed with the archaeological curator within six months of the completion of the project.

A draft copy of the report has been sent to the client and upon written approval from them paper and digital copies of the report will be sent to the regional HER, the SNPA Archaeologist, and the RCAHMS. Copies of all notes, plans, and photographs arising from the watching brief will be stored at Aeon Archaeology under the project code **A0107.1** with the originals being lodged in a suitable repository to be agreed with the archaeological curator.

5.0 QUANTIFICATION OF RESULTS

5.1 The Documentary Archive

The following documentary records were created during the archaeological watching brief:

Watching brief day sheets	5
Context sheets	10
Digital photographs	23

5.2 Environmental Samples

No environmental samples were taken as part of the watching brief as no suitable archaeological deposits were encountered.

5.3 Artefacts

No artefacts were recovered during the archaeological watching brief.

6.0 RESULTS OF THE ARCHAEOLOGICAL WATCHING BRIEF

6.1 Directional drill launch and reception pits (figures 4-7; plates 1-8)

The archaeological watching brief was maintained by Josh Dean BA ACIfA, Michael Castle BA, and Gary Crawford-Coupe BA as archaeological contractors for Aeon Archaeology. The site was attended on 8th, 13th, 16th, 27th February 2017 and the 2nd March 2017.

The launch pit was located at NGR SH 57677 51497 and measured 1.5m square by 0.55m in depth. The pit was excavated through a 0.2m deep dark grey-brown clay-silt topsoil with occasional sub-rounded pebble inclusions (101) and a >0.35m deep loose, mid-brown clay-silt natural glacial substrata with frequent gravel and rounded cobble inclusions (102). No archaeology was observed and no artefacts were recovered.

The reception pit was located at NGR SH 57587 51558 and measured 4.0m in length by 1.0m in width by 1.0m in depth, orientated northwest to southeast. The pit was excavated through a 0.27m deep loose, dark grey-brown clay-silt topsoil with occasional medium sized sub-angular and angular cobble inclusions (103) and a 0.66m deep fairly firm light grey-brown clay-silt subsoil with frequent small sub-rounded pebble inclusions (108). At the south-eastern end of the trench and to the immediate west of the road the trench cut through a 0.85m deep dark blue-grey sand-silt upcast material (107) that formed a bank between the road and field levels.

At the north-western end of the trench two distinct lenses comprising a 0.13m deep moderately firm brown-white-grey silt-clay (109) and a 0.2m deep firm/malleable light yellow-brown clay (110) were found contained within the subsoil deposit (108). These lenses appeared to be areas of upcast deposition almost certainly associated with the road construction and the redeposition of the subsoil deposit above them has disguised any trace of a clear disturbance cut.

Towards the centre of the trench the cut of a probable ditch [104] was located orientated north to south and measuring >1.0m in length by 1.65m in width by 0.8m in depth. This feature cut through the subsoil deposit (108) on the north-western side and upcast material (107) on the south-eastern side, and was filled by a fairly loose, dark black-brown clay-silt with frequent sub-rounded pebble inclusions (105). From what could be seen of the cut in the limited trench limits it appeared to be running parallel with the road and was almost certainly a field drainage ditch excavated as part of the road construction and therefore of post-medieval date.

No other archaeological remains or artefacts were recovered.



Plate 01: Location of launch pit, from the south.



Plate 02: Laying down of temporary access track for launch pit, from the southeast.



Plate 03: Excavation of launch pit, from the southeast.

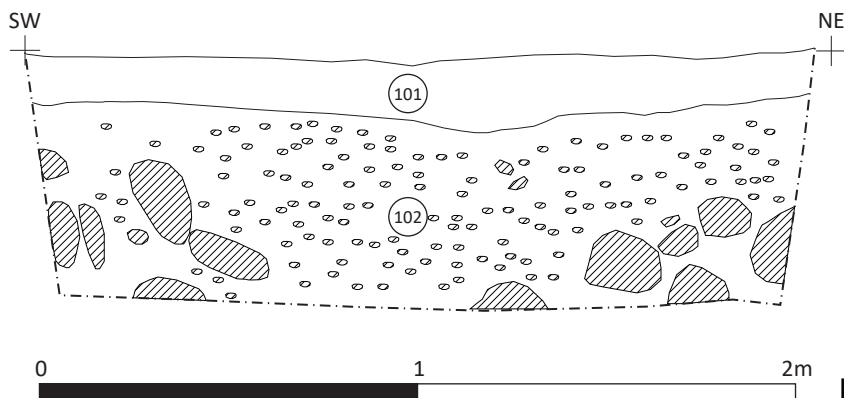


Plate 04: Southeast facing section of launch pit, from the southeast. Scale 1.0m.



Plate 05: Post-excavation photograph of launch pit, from the southwest. Scale 1.0m.

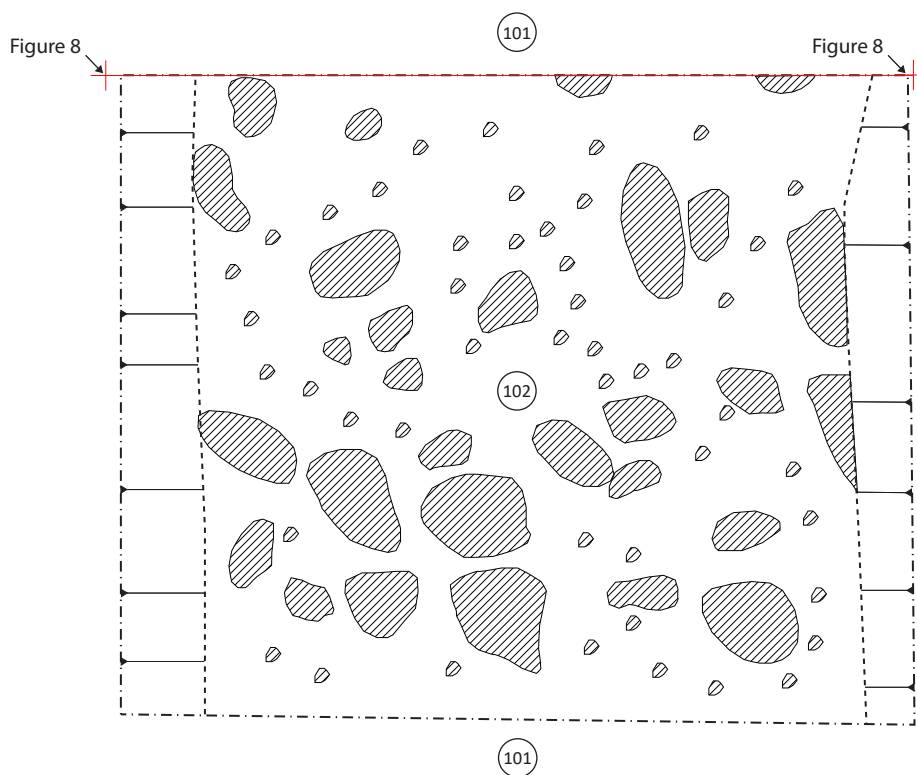
Figure 04: Southeast facing section of launch pit.



1:20 at A4.

Located on figure 05.

Figure 05: Plan of launch pit.



Located on figure 03.

1:20 at A4.

Figures 04 and 05.



Plate 06: Directional drill rig, from the north.



Plate 07: Reception pit, from the northwest. Scale 1.0m.



Plate 08: Northeast facing section of reception pit showing cut [104], from the northeast. Scale 1.0m.



Figure 06: Reception pit, from the northwest showing cut [104] . Scale 1.0m.

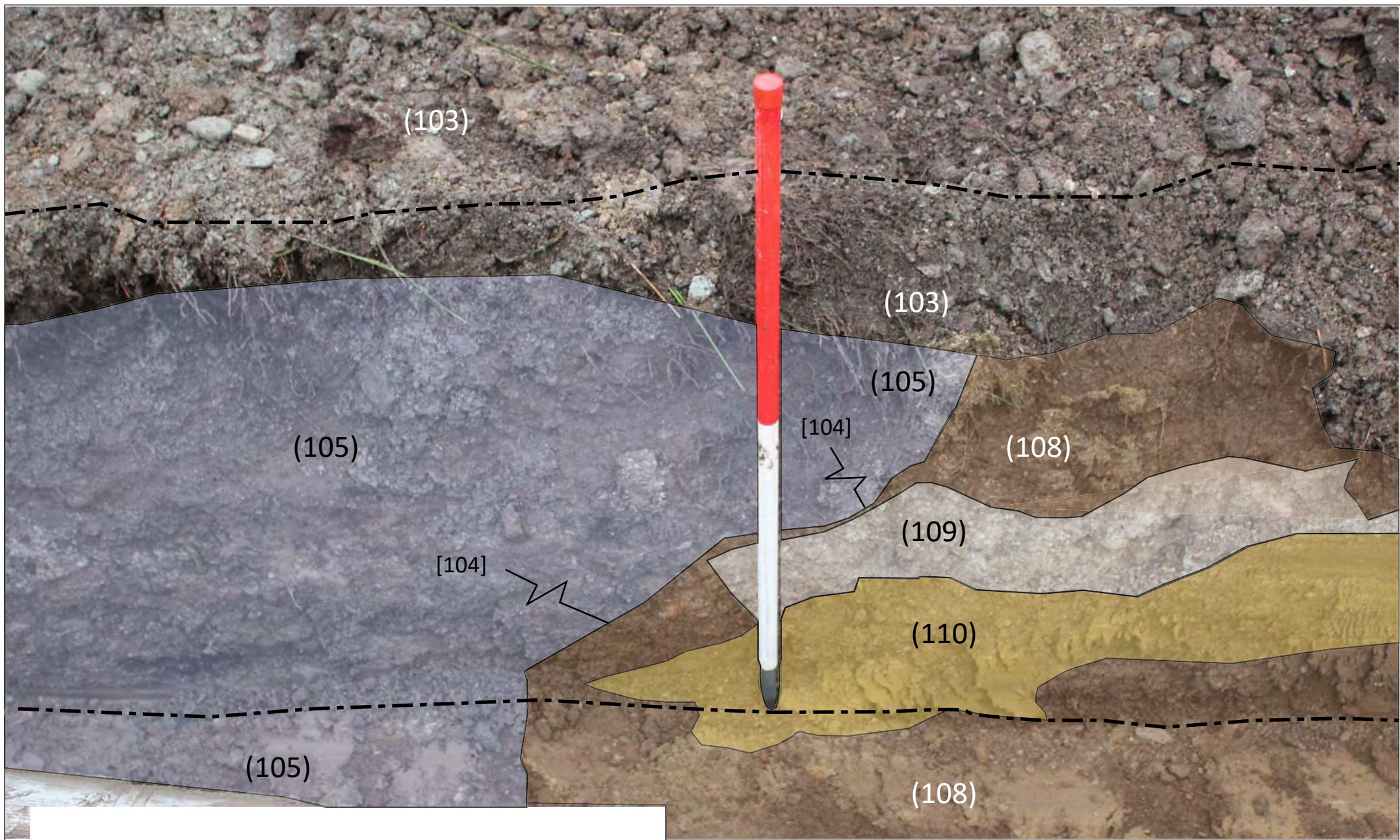


Figure 07: Reception pit, from the northeast showing cut [104] . Scale 1.0m.

7.0 CONCLUSION AND RECOMMENDATIONS

The archaeological watching brief as part of the cable undergrounding works for SPEN at Ffridd Uchaf, Rhyd Ddu uncovered post-medieval deposits associated with the construction of the A4085 road. A former field boundary ditch of probable post-medieval was also uncovered running parallel with the road but which has since been infilled.

The watching brief also ensured that the site access track and compound avoided any areas of potential upstanding archaeological remains.

8.0 SOURCES

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Chisholm, H. 1911. Encyclopaedia Britannica

English Heritage, 1991. Management of Archaeological Projects (MAP2)

English Heritage, 2006, rev 2015. Management of Research Projects in the Historic Environment (MORPHE)

English Heritage, 2011. The Settings of Heritage Assets

The Chartered Institute for Archaeologists, 2014 Standard and Guidance for Archaeological Watching Brief

9.0 APPENDIX I: WRITTEN SCHEME OF INVESTIGATION FOR ARCHAEOLOGICAL WATCHING BRIEF



aeon archaeology

**Ffridd Uchaf, Rhyd Ddu, Gwynedd,
SNEP.**

**Written Scheme of Investigation
for Archaeological Watching Brief.**

February 2017 v2.0



Project Code: A0107.1

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1.0 INTRODUCTION

Aeon Archaeology has been commissioned by Scottish Power Energy Networks (SPEN), hereafter the Client, to provide a written scheme of investigation (WSI) for carrying out an archaeological watching brief as part of the undergrounding of a new electricity cable at Fridd Uchaf, hereafter the Site, located approximately 1.5km south of Rhyd Ddu, Gwynedd within the Snowdonia National Park Authority (SNPA) (NGR: SH 57625 51591).

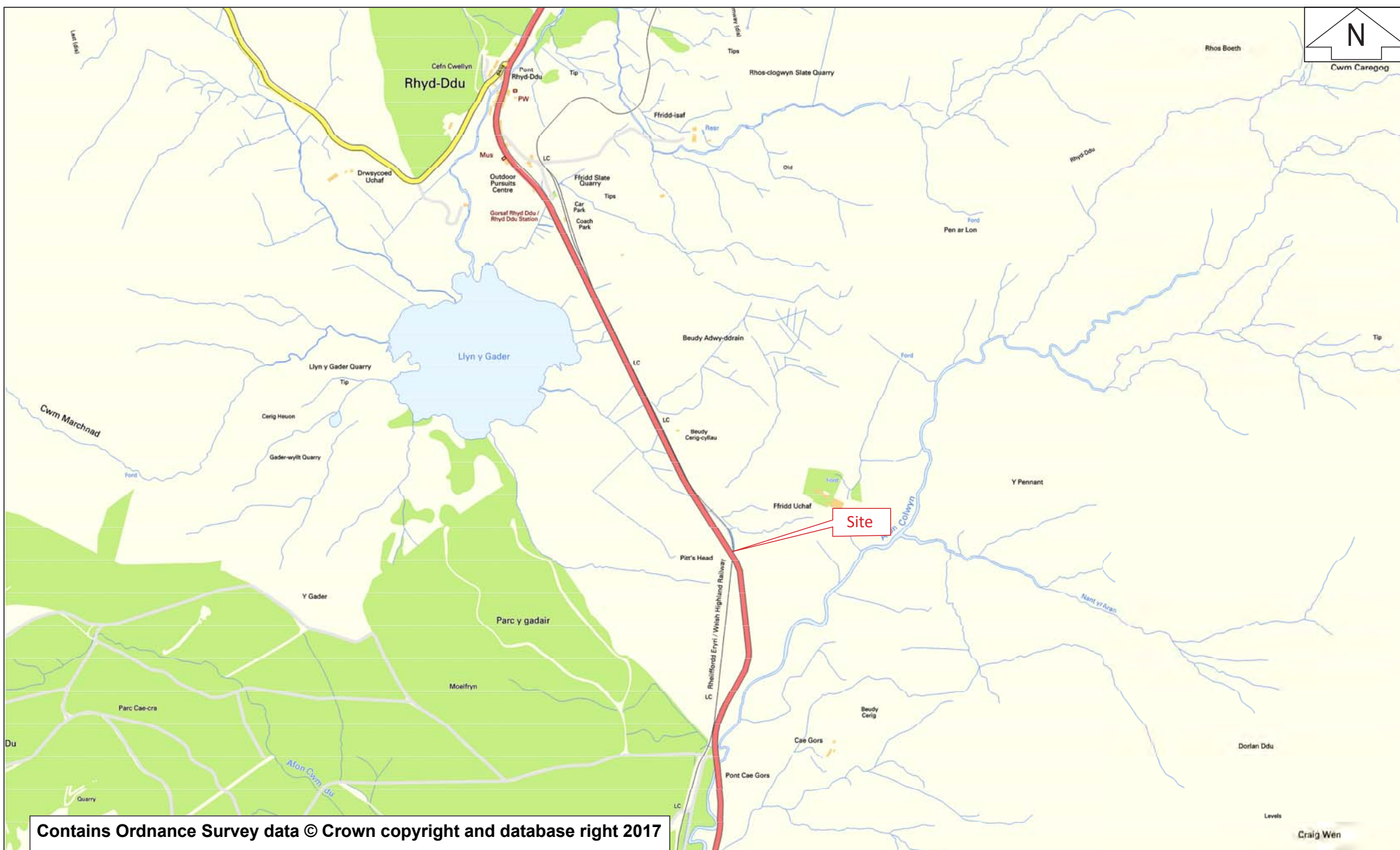
This WSI is for a limited phase of works that includes the monitoring of a launch and reception pit for a directional drill beneath the Welsh Highland Railway and the A4085 road respectively, and to check that compounds, vehicle movement and associated works do not have an adverse direct physical impact upon upstanding archaeological features.

A mitigation brief was not prepared for this scheme by the SNPA Archaeologist but the following statement was provided by email correspondence to the Client (email dated 3rd February 2017):

There are no known sites of archaeological interest recorded on the Historic Environment Record or on the National Monument Record so far as I am aware from a cursory check. However there are some possible earthworks/features on the ground. I'm not sure exactly what they represent and they're pretty vague, but they include a couple of low banks and a relict wall (S side of road) and some grassed over wall footings (N side of road). There's nothing visible on the surface that suggests to me that there is potential for features of sufficient interest/importance that further (pre-works) investigation is required or that the work should be modified, but a watching brief would provide reassurance that were significant features to be encountered they would be identified and properly recorded.

Relevant UK legislation on heritage includes the Welsh Government's Planning Policy Wales (PPW 2012), Welsh Office Circular 60/96, and the Historic Environment Act (Wales) 2016.

The work will adhere to the guidelines specified in Standard and Guidance for Archaeological Watching Brief (Chartered Institute for Archaeologists, 2014).

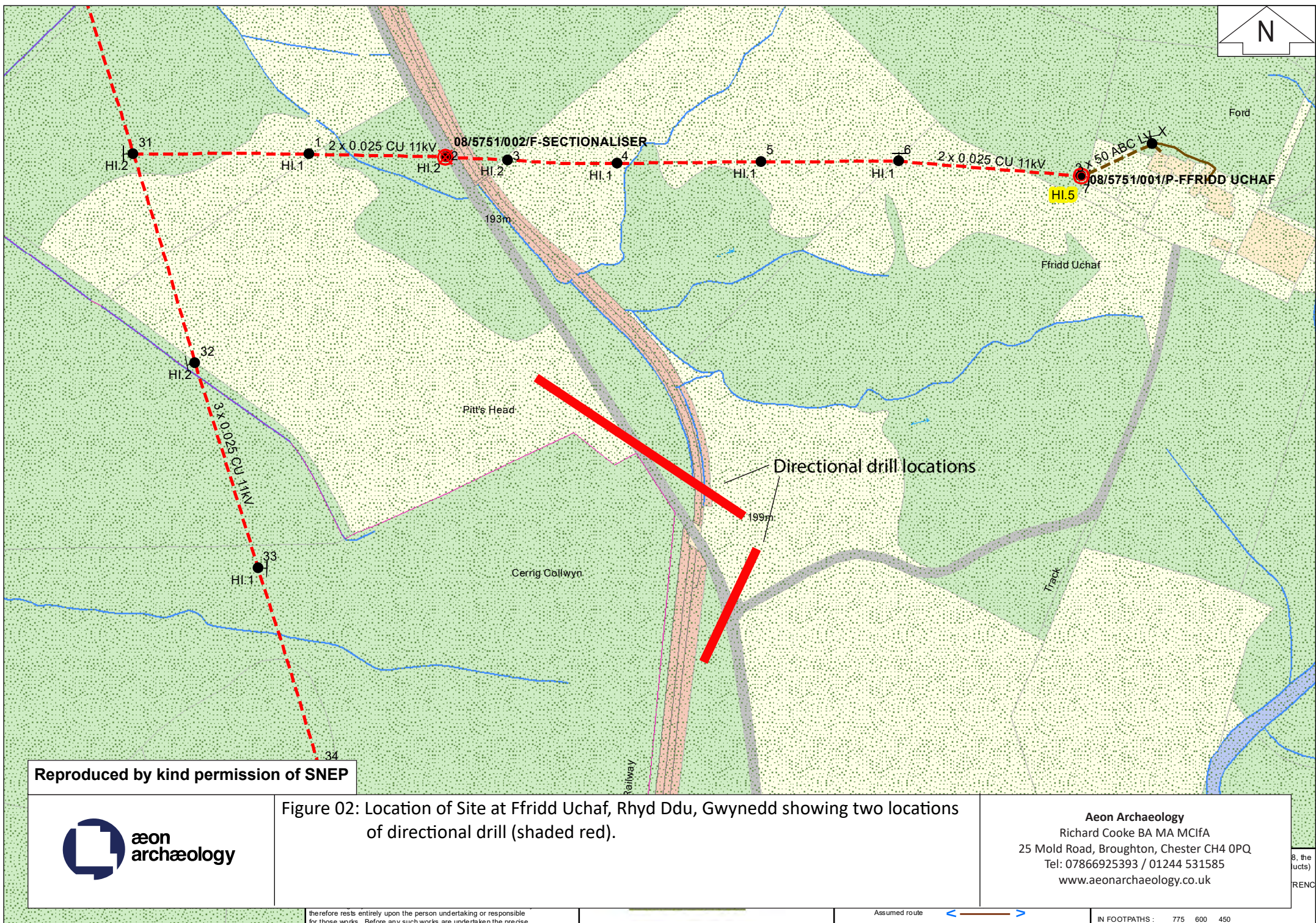


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Figure 01: Location of Site at Ffridd Uchaf, Rhyd Ddu, Gwynedd. Scale 1:15,000 at A4.

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Figure 02: Location of Site at Ffridd Uchaf, Rhyd Ddu, Gwynedd showing two locations of directional drill (shaded red).

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2.0 SITE LOCATION

Rhyd Ddu (*Black Ford*) is a small village in Snowdonia, North Wales which is a starting point for walks up Snowdon (via the Rhyd Ddu Path), Moel Hebog, Yr Aran and the Nantlle Ridge. It lies on the A4085 between Beddgelert and Caernarfon, at its junction with the B4418 to Nantlle and Penygroes. Rhyd Ddu railway station is one of the stops of the Welsh Highland Railway between Caernarfon and Porthmadog.

This phase of the works includes the excavation of launch and reception pits to facilitate directional drilling beneath the Welsh Highland Railway and the A4085 road at the junction of the A4085 and an unnamed minor road leading to the property of Ffridd Uchaf.

3.0 WATCHING BRIEF - ARCHAEOLOGICAL AIMS

The archaeological watching brief shall be maintained:

1. During the excavation of a launch and reception pit for a directional drill beneath the Welsh Highland Railway and the A4085 road respectively.
2. Upon arrival at the Site to check that compounds, vehicle movement and associated works do not have an adverse direct physical impact upon any upstanding archaeological features.

The CIfA maintains a standard for archaeological watching brief which states that:

An archaeological watching brief will record the archaeological resource during development within a specified area using appropriate methods and practices. These will satisfy the stated aims of the project, and comply with the Code of conduct and other relevant by-laws of CIfA.

An archaeological watching brief is defined by the CIfA as a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons (CIfA 2014). The watching brief will take place within a specified area within the Site where there is a possibility that archaeological deposits may be disturbed or destroyed.

The CIfA further identifies the purpose of a watching brief as allowing, within the resources available, the preservation by record of archaeological deposits, the presence and nature of which could not be established in advance of development or other potentially disruptive works.

It is also important to note that a watching brief provides an opportunity, if needed, for a signal to be made to all interested parties, before the destruction of the archaeological materials, that an archaeological find has been made for which the resources allocated to the watching brief itself are not sufficient to support treatment to a satisfactory and proper standard.

A watching brief is, therefore, not intended to reduce the requirement for excavation or preservation of known or inferred deposits, and it is intended to guide, not replace, any requirement for contingent excavation or preservation of possible deposits.

The aims of the watching brief are:

- To allow, within the resources available, the opportunity to gain information about and record the presence/absence, nature and date of archaeological remains on the Site affected by excavations and groundworks, the presence and nature of which could not be established with sufficient confidence in advance of works which may disturb them.

- To provide the facility to signal to the relevant authorities, before irreversible impact to remains that an archaeological and/or historic find has been made for which the resources allocated to the watching brief itself are inadequate to support their treatment to an adequate and satisfactory standard.

The specific objectives of the watching brief are:

- To observe and recover any artefacts of archaeological significance.
- To record the location, dimensions and nature of any deposits, features, structures or artefacts of archaeological significance.
- To recover samples of any deposits considered to have potential for analysis for palaeoenvironmental data should the opportunity arise.

4.0 METHODOLOGY

4.1 Archaeological Watching Brief

The methodology for the watching brief has been prepared with reference to the CIfA's document Standards and Guidance for Archaeological Watching Brief (2014) and will be kept under constant review during the project, in order to see how far it is meeting the terms of the aims and objectives, and in order to adopt any new questions which may arise.

Curatorial monitoring of the archaeological work on behalf of the Council will be carried out by the SNPA Archaeologist (Mr John G Roberts). To facilitate the curatorial monitoring, the officer shall be provided with a minimum of two weeks' notice of the start of the archaeological work.

A suitably qualified and experienced archaeologist(s) from Aeon Archaeology will be commissioned for the maintenance of the watching brief. On arrival on site, the archaeologist(s) will report to the site manager and conform to the arrangements for notification of entering and leaving site. The archaeologist(s) will keep a record of the date, time and duration of all attendances at site, the names and numbers of archaeologists deployed and any actions taken. The archaeologist will be provided with a Health & Safety Induction by the construction contractor and wear a safety helmet, safety footwear and high visibility jacket/vest at all times.

If deposits and or artefacts are exposed during excavations for the development which require recording and recovery, it may be necessary to delay works whilst the proper investigation and recording takes place. Watching brief recording can often be undertaken without delay to groundworks, depending upon the specific circumstances and flexibility of all the staff on site.

Within the constraints of the terms of the watching brief work, the archaeologist will not cause unreasonable disruption to the maintenance of the work schedules of other contractors on site. In the event of archaeological discoveries the treatment of which (either arising from the volume/quantity of material and/or the complexity/importance of the material) is beyond the resources deployed the Client will be notified and a site meeting/telephone consultation arranged with the SNPA Archaeologist. The aim of the meeting will be to confirm that an archaeological find has been made for which the resources allocated to the watching brief itself are not sufficient to support treatment to a satisfactory and proper standard and identify measures which would be sufficient to support treatment to a satisfactory and proper standard prior to destruction of the material in question.

Any archaeological deposits, features and structures identified which can be investigated and recorded under the terms of the watching brief will be excavated manually in a controlled and stratigraphic manner sufficient to address the aims and objectives of the project – subject to the limitations on site access.

It may not be necessary to excavate the complete stratigraphic sequence to geologically lain deposits but the inter-relationships between archaeological deposits, features and structures will be investigated sufficient to address the aims and objectives of the project and the complete stratigraphic sequence to geologically lain deposits will be investigated where practicable.

The method of recording will follow the normal principles of stratigraphic excavation and the stratigraphy will be recorded in written descriptions even where no archaeological deposits have been identified. The archaeologist will record archaeological deposits using proformae recording forms and locate them on a large-scale site plan related to the Ordnance Survey National Grid and Datum references.

The groundworks excavations shall be undertaken using a mechanical excavator fitted with a toothless ditching bucket.

The drawn record will comprise plans at scale 1:20 and sections at scale 1:10; propriety electronic hardware and software to prepare site drawings may be used as appropriate.

The photographic record will be maintained throughout using a digital SLR camera (Canon 550D) set to maximum resolution (72 dpi) and all archaeological features will be recorded photographically with photographs taken in RAW format and later converted to TIFF format for long-term storage and JPEG format for presentation and inclusion in the archive. The standards for the digital archive will adhere to those set out in ‘*Guidelines for Digital Archaeological Archives*’ (RCAHMMW, 2015).

The archive produced will be held at Aeon Archaeology under the project code **A0107.1**.

4.2 Watching brief report

4.2.1 Post-excavation Assessment

A report on the results of the watching brief, in accordance with the recommendations in *Management of Research Projects in the Historic Environment Project Manager’s Guide* (English Heritage 2006; 2015), and in the Chartered Institute for Archaeologists *Standard and Guidance for an archaeological watching brief* (2014) will be required to be produced upon conclusion of the archaeological fieldwork. The report will be completed within a maximum of two months of completion of work on site and may include examination and quantification leading to the identification of function, form, date, method of manufacture, material/fabric type, source, parallels, attributes and condition of artefacts; of the exploitation of wild or domesticated resources; the reconstruction of environments; and the nature of human populations.

Full analysis of the results of the project, including: dating and interpretation of excavated features; pottery and other finds analysis; analysis of industrial residues by an appropriate specialist or specialists; analysis of samples for environmental data (including pollen, plant macrofossils and beetles) by an appropriate specialist or specialists; radiocarbon dating; discussion of the results in their local, regional and national context, including relating the excavated features and palaeoenvironmental data to evidence from nearby sites, and discussion of the results in their local, regional and national context may be required.

The scope of post-excavation assessment will subject to a specification for approval by the SNPA Archaeologist, upon the conclusion of the fieldwork project and preliminary report.

4.2.2 Post-excavation Report

Following completion of the stages outlined above, a report will be produced that will include:

- A non-technical summary.
- A table of contents.
- An introduction with acknowledgements, including a list of all those involved in the project and the location and description of the site.
- A statement of the project aims.
- An account of the project methodology undertaken, with an assessment of the same to include a statement on preservation bias and the means of data collection and sampling strategies.
- A factual summary of the history, development and use of the site.
- A statement setting out the nature, quantity and condition of the material archive (artefacts and ecofacts) including commentary on any bias observed due to collection and sampling strategies and commentary on long-term storage requirements.
- A statement setting out the nature and quantity of the documentary archive (notes, photographs, drawings, digital data).
- A general site plan indicating the position and size of the areas subject to watching brief and the locations of archaeological deposits identified and recorded during the works.
- Plans and sections at appropriate scales, augmented with appropriate photographs. All plans and sections will be related to the Ordnance Survey datum levels and to the National Grid.
- Other maps, plans, drawings, stratigraphic matrices and photographs as appropriate.
- Summary assessment reports on the artefact, bio-archaeological, dating and other assessments/analyses.
- A discussion of the location, extent, date, nature, condition, quality and significance of any archaeological deposits and finds identified during the project.
- A discussion of any research implications arising from the archaeological work.
- Notes on consultations with conservators and the nominated archive repository related to the immediate and long-term conservation and storage requirements for the data held in the site archive and recommendations of retention/discard of artefacts and ecofacts.
- A bibliography of sources consulted.
- Appendices to the report will include artefact catalogues, reports on assessments/analyses and an index to the project archive and a statement on its location/proposed repository.
- In addition the post-excavation report will summarise and draw together the findings of all of the phases of work.

Illustrations will include plans of the location of the study area and archaeological sites. Historical maps, when appropriate and if copyright permissions allow, will be included. Photographs of relevant sites and of the study area where appropriate will be included.

A draft copy of the report will be sent to the SNPA Archaeologist and to the client for comment and approval prior to production of the final report.

Aeon Archaeology will not be held responsible for delays and subsequent costs incurred through the onset of adverse weather. If such conditions occur additional costs may be incurred.

5.0 FURTHER ARCHAEOLOGICAL WORKS DESIGNS (FAWDs)

- The discovery of substantial archaeological remains and/or features during the archaeological works may result in the requirement for an extended programme of archaeological mitigation. This may require the submission of revised quotes to the client as well as a new specification which will be required to be approved by the SNPA archaeologist prior to implementation.
- This WSI does not include a methodology or cost for examination, conservation and archiving of artefacts discovered during the archaeological works, nor of any radiocarbon dates required, nor of examination of palaeoenvironmental samples. The need for these will be identified in the post-fieldwork programme (if required), and a new WSI will be issued for approval by the Client and the SNPA Archaeologist.

6.0 ENVIRONMENTAL SAMPLES

Relevant archaeological deposits will be sampled by taking bulk samples (a minimum of 10.0 litres and maximum of 30.0 litres) for flotation of charred plant remains. Bulk samples will be taken from waterlogged deposits for macroscopic plant remains. Other bulk samples, for example from middens, may be taken for small animal bones and small artefacts.

Bulk environmental samples will also be taken from any fills, deposits or structures which yield archaeological artefacts, charcoal flecks/ fragments, bone, or any other historic remains.

Advice and guidance regarding environmental samples and their suitability for radiocarbon dating, as well as the analysis of macrofossils (charcoal and wood), pollen, animal bones and molluscs will be obtained from Oxford Archaeology.

For guidance purposes the following volume criteria represent the minimum feature sampling requirements:

- 50% of each discrete feature (e.g. pits and postholes)
- 25% of the exposed areas of each linear feature and all terminals/intersections
- 50% of structural features (e.g. beamslots, ring-ditches)
- 50%-100% of domestic/industrial working features (e.g. hearths and ovens)

7.0 HUMAN REMAINS

Any finds of human remains will be left *in-situ*, covered and protected, and both the coroner and the SNPA Archaeologist informed. If removal is necessary it will take place under appropriate regulations and with due regard for health and safety issues. In order to excavate human remains, a licence is required under Section 25 of the Burials Act 1857 for the removal of any body or remains of any body from any place of burial. This will be applied for should human remains need to be investigated or moved.

8.0 ARTEFACTS

All artefacts and ecofacts will be retrieved for identification and recording and will be treated in accordance with CIfA 2008 Guidelines for the collection, documentation, conservation and research of archaeological materials (Chartered Institute for Archaeologists, 2014).

All artefacts are the property of the landowner but it is recommended that finds are deposited with the rest of the project archive within an appropriate museum. Furthermore, the client agrees to granting access to all artefacts recovered by Aeon Archaeology for analysis, study and publication as necessary. All finds would be treated according to advice provided within *First Aid for Finds* (Rescue 1999). Aeon Archaeology staff will undertake initial identification, but any additional advice would be sought from a wide range of consultants.

The recovery policy for archaeological finds will be kept under review throughout the archaeological works. Any changes in recovery priorities will be under guidance from an appropriate specialist and agreed with the SNPA Archaeologist. There will be a presumption against the disposal of archaeological finds regardless of their apparent age or condition.

All finds will be collected and processed including those found within spoil tips. Their location and height will be plotted; finds numbers attributed, bagged and labelled as well any preliminary identification taking place on site. Where specialist advice is required provision will be made to do so at the earliest possible convenience.

After processing, artefacts which are suitable will be cleaned and conserved in-house. Artefacts requiring specialist cleaning and conservation will be sent to the relevant specialist. All artefacts will then be sent to a specialist for analysis, the results of which will then be assessed to ascertain the potential of the finds assemblage to meet the research aims of the project. The value of the finds will also be assessed in terms of the wider educational and academic contributions.

Depending upon the material of the remains the following experts will be consulted regarding the conservation of waterlogged material:

- Organic material: Mr Phil Parkes, Cardiff Conservation Services (tel: +44(0)29 2087 5628)
- Non-organic material: Mr Phil Parkes, Cardiff Conservation Services (tel: +44(0)29 2087 5628)

Depending upon the material of the remains the following experts will be consulted regarding the conservation and analysis of artefacts:

- Bone: Nora Bermingham
- Glass: Hilary Cool, Barbican Research Associates.
- Metal artefacts: Phil Parkes, Cardiff Conservation Services, Cardiff.
- Slag, burnt clay, hammerscale: Dr. Tim Young, Geoarch, Cardiff.
- Stone artefacts: George Smith, Gwynedd Archaeological Trust, Bangor.
- Wood artefacts: Jane Foley, Foley Conservation, Builth Wells.
- Leather: Quita Mould, Barbican Research Associates.
- Environmental Material: Dr Mike Allen, Allen Environmental Archaeology.
- Numismatics: Peter Guest, Barbican Research Associates.
- Ceramics: Leigh Dodd

The cost for examination, conservation and archiving of artefacts discovered during the archaeological mitigation work are not included within this quote.

If well preserved materials are found it may be necessary to employ additional staff. Furthermore, it may be necessary to suspend work within a specific region of the site, or across the whole site, while conservation and excavation/recording takes place. Aeon Archaeology accepts no responsibility for any costs incurred from delays as a result of unexpected archaeological finds.

The cost for the additional staff, resources, and time required to excavate/ record unexpected archaeological finds/ features are not included within this quote and a separate specification will be submitted to the client and the SNPA archaeologist if necessary.

9.0 UNEXPECTED DISCOVERIES: TREASURE TROVE

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

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

The following types of finds are not treasure:

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

All finds of treasure must be reported to the coroner for the district within fourteen days of discovery or identification of the items. Items declared Treasure Trove become the property of the Crown.

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

10.0 ARCHIVING

A full archive including plans, photographs, written material and any other material resulting from the project will be prepared. All plans, photographs and descriptions will be labelled, and cross-referenced, and lodged with the National Monument Record, RCAHMW within six months of the completion of the project.

A draft copy of the report will be produced within six months of the completion of the fieldwork and sent to the Client and the SNPA Archaeologist for comment prior to finalisation of the report and dissemination. Bound copies of the report and an archive CD will be sent to the regional HER (Gwynedd Archaeological Trust, Craig Beuno, Garth Road, Bangor, Gwynedd LL57 2RT) (x 2#), the SNPA archaeologist (x 2#) and to National Monument Record, of the Royal Commission on the Ancient and Historic Monuments of Wales (RCAHMW) (x 1#) for long term archiving. Furthermore, a summary of the project will be sent to *Archaeology in Wales* for publication. Copies of all digital files (inc. photos, report as PDF and Word, spreadsheets, databases, survey data etc) to be presented to each of above on optical disc (ie DVD).

11.0 PERSONNEL

The work will be managed by Richard Cooke BA MA MCIfA, Archaeological Contractor and Consultant at Aeon Archaeology.

12.0 MONITORING AND LIAISON

Regular liaison and site monitoring meetings will take place during all stages of work. The SNPA Archaeologist will be informed of the start date and of discreet subsequent stages.

13.0 HEALTH AND SAFETY

Aeon Archaeology has a Health and Safety Policy Statement which can be supplied upon request. Furthermore, site-specific Risk Assessments and Method Statements are compiled and distributed to every member of staff involved with the project prior to the commencement of works.

14.0 INSURANCE

Liability Insurance – Insignia Underwriting Policy 347002

Employers' Liability: Limit of Indemnity £10m in any one occurrence

Public Liability: Limit of Indemnity £2m in any one occurrence

Legal Defence Costs (Health and Safety at Work Act): £250,000

The current period expires 07/09/17

Professional Indemnity Insurance – Insignia Underwriting Policy 347002

Limit of Indemnity £500,000 any one claim

The current period expires 07/09/17

