

HERITAGE IMPACT ASSESSMENT

Proposed Anaerobic Digestion Facility at the Former Ruby
Brickworks, Hendre, Rhydymwyn

ARS Report N°: 2023/2



**ARCHAEOLOGICAL
RESEARCH SERVICES LTD**

Digging with Purpose

Archaeological Research Services

Suite 1
First Floor
Dunham House
Cross Street
Sale
M33 7HH

t. 01619 762544

e. admin@archaeologicalresearchservices.com

w. www.archaeologicalresearchservices.com

Evaluation ▪ Excavation ▪ Watching Briefs ▪ All Aspects of Fieldwork
Environmental Impact Assessment ▪ Desk-Based Assessments ▪ Heritage Statements ▪ Historic Buildings
Geophysics ▪ Geoarchaeology ▪ Palaeoenvironment ▪ Design and Publication

PROPOSED ANAEROBIC DIGESTION FACILITY AT THE FORMER RUBY BRICKWORKS, HENDRE, RHYDYMWYN:

HERITAGE IMPACT ASSESSMENT

ARS LTD REPORT 2023/2



ARCHAEOLOGICAL
RESEARCH SERVICES LTD
Digging with Purpose

www.archaeologicalresearchservices.com

Connect with us:



Prepared on behalf of: Caulmert
Date of compilation: January 2023
Compiled by: Jonathon Lester and
William Rigby ACIfA
Checked by: Jenny Doole
Approved for issue by: Lucie McCarthy
Planning Reference: N/A Pre-planning
Local Authority: Sir y Fflint (Flintshire County Council)
Site central NGR: SJ 20469 67677

EXECUTIVE SUMMARY

Project Name:	Proposed Anaerobic Digestion Facility at the Former Ruby Brickworks, Hendre, Rhydymwyn
Planning Authority:	Sir y Fflint (Flintshire County Council)
Planning Reference:	N/A (Pre-planning)
Location:	Hendre
Parish:	Rhydymwym
Bedrock Geology:	Bowland Shale Formation - Mudstone
Superficial Geology:	Head – Clay, silt, sand and gravel
Soils:	<i>Soilscape 6 & 20</i>
Site central NGR:	SJ 2046 6767
Date of Report:	January 2023

Archaeological Research Services Ltd was commissioned by Caulmert on behalf of N.W. Energy Ltd to produce a Heritage Impact Assessment (HIA) for an area of land at the former Ruby Brickworks, Hendre, Rhydymwym. This is in advance of the submission of a planning application for a proposed anaerobic digestion facility that will comprise a reception hall, ten storage tanks for digestate and other liquids, gas upgrade/compression unit, flare, weighbridge, and other associated facility features.

This assessment has identified that four non-designated heritage assets are recorded within the proposed development area by CPAT HER. However, there appears to be a discrepancy between the historical mapping and the locations of these heritage assets. Further non-designated heritage assets relating to Ruby Brickworks could be located within the PDA. It is considered that Hendre Quarry, Brick Kiln and Stack (CPAT HER PRN:60481), located on the south eastern boundary of the PDA, is actually outside the PDA where the Listed Building Brick Kiln and Stack is located (Cadw ref: 24733).

The former Ruby Brickworks was located within the eastern half of PDA, although only one derelict building remains. This is considered to relate to the later 20th century development within the PDA and has limited *evidential* and *historical illustrative value of local significance*. No above ground structural remains of the earlier late-19th/early-20th century Ruby Brickworks exist within the PDA, these having been demolished in two phases during the late-20th century. The only structural remains to survive are the Grade II listed Brick Kiln and Stack, but as stated above, they are located outside the site boundary.

Given the level of clearance in the late-20th century associated with these later redevelopment phases, there is a *low potential* for below ground remains to survive as possible foundations. Depending on the amount of site clearance and depth of foundation trenches required for the proposed development there is a potential for below ground remains; however, if any below ground remains relating to the Ruby Brickworks were to survive they would be of *low to moderate evidential and historical illustrative value of regional significance*.

The setting study component of the assessment identified that the only designated heritage assets that could be visually affected by the proposed development are those directly within the environs of the PDA. The anaerobic facility would only have a *slight to moderate* adverse effect on the setting of these designated heritage assets.

A large degree of the significance of all the designated heritage assets is derived from their *evidential, historical illustrative, architectural and aesthetic value*. As the proposed development will not be affecting the physical material and fabric of these Listed Buildings, the anaerobic digestion

facility will cause *no change* to this element of the significance of these designated heritage assets. The facilities associated with the anaerobic digestors will not obstruct the ability to appreciate the buildings relating to North Hendre Lead Mine (Taylor's Shaft) as *group*. None of the proposed anaerobic digestion facility will impede intervisibility between these Listed Buildings, meaning that they will still be able to be appreciated as *group*.

However, the proposed development will be visible from the North Hendre Lead Mine Listed Buildings in one direction to the south. The Brick Kiln and Stack will have views of the anaerobic facilities in two directions to the north and west. Yet, in both cases it is considered that this will only be a *slight to moderate adverse visual effect* as the Listed Buildings themselves are illustrative of a previous industrial setting. Therefore, the proposed development would represent a continuation of this industrialised setting.

It is recommended that a strategy of box evaluation trenching be undertaken where intrusive groundworks are to take place, in order to assess the level of possible preservation of archaeological assets associated with industrial features and processes. This should be undertaken through an agreed WSI in consultation with Clywd-Powys Archaeological Trust planning archaeologists.

It is also suggested that screening of the proposed development could be provided by retaining and enhancing the soil bunds and tree lines to the north and south limiting the visual adverse effect to *slight*.

Welsh Translation (update once the client has approved the draft)

<https://www.cymen.cymru/>

CONTENTS

1	Introduction	1
1.1	Project and Planning Background	1
1.2	Site description	1
1.3	Geology and Soils.....	1
2	Aims and Objectives.....	1
3	Method Statement	2
3.1	Approach.....	2
3.2	Study Area.....	2
3.3	Information Sources.....	2
4	Baseline Assessment	3
4.1	Archaeological and Historical Background	3
4.1.1	Prehistoric to Romano-British (1,000,000 BC to 410 AD)	3
4.1.2	Medieval (410 to 1540).....	4
4.1.3	Post-Medieval (1540 to 1901).....	4
4.1.4	Modern (1901 to the present day)	6
4.2	Designated Assets	7
4.3	Non-Designated/Other Heritage Assets	7
4.3.1	Archaeological Remains	7
4.3.2	Historic Built Environment.....	8
4.3.3	Historic Landscape	9
4.4	Previous Investigations	9
4.4.1	Archaeological Events	9
5	Assessment of the Significance of Affected Heritage Assets.....	10
6	Setting Assessment	10
6.1	Methodology.....	10
6.2	Step 1: Identify which heritage assets and their settings are affected	13
6.3	Step 2: Assess whether, how, and to what degree these settings and views make a contribution to the significance of the heritage asset(s) or allow significance to be appreciated....	13
6.3.1	North Hendre Lead Mine	14
6.3.2	Brick Kiln and Stack	14
6.4	Step 3: Assess the effects of the proposed development, whether beneficial or harmful, on the significance or on the ability to appreciate it	14
6.5	Step 4: Explore ways to maximise enhancement and avoid or minimise harm	15
6.6	Step 5: Make and document the decision and monitor outcomes.	15
7	Assessment of Potential Impacts	15
8	Recommendations	16

9	Statements and Acknowledgements.....	16
9.1	Archive Deposition.....	16
9.2	Publicity, Confidentiality and Copyright	16
9.3	Statement of Indemnity.....	16
9.4	Acknowledgements.....	16
10	References.....	17
10.1	Primary Sources	17
10.2	Secondary Sources	17
Appendix I	Gazetteer of Archaeological Remains	19
	CPAT HER Entries	19
Appendix II	Gazetteer of the Historic Built Environment	23
	Listed Buildings	23
	CPAT HER Entries	23
Appendix III	Gazetteer of HLC Units.....	29
Appendix IV	Gazetteer of Previous Archaeological Events	30
	HER Event Entries.....	30
Appendix V	Figures	32
Appendix VI	Photographs.....	44
Appendix VII	Groundsure Large-Scale Historic Map Report	60

© ARS Ltd 2023

LIST OF TABLES

Table 1: 1839 Tithe Apportionments for the Plan of Halkin Parish in the County of Flint (IR29/50/19)	4
Table 2: 1838 Tithe Apportionment for the Plan of the Parish of Northop in the County of Flint (IR29/50/32)	4
Table 3: Listed Buildings within the wider 1km study area	7
Table 4: Elements of the historic built environment located within the PDA	8
Table 5: Elements of the historic built environment located just outside the PDA that could possibly extend into or be located inside the PDA	9
Table 6: HLC types Located within the PDA	9
Table 7: Assessing the contribution of setting to the significance of heritage assets	11
Table 8: Assessing the effect of the proposed development.	12
Table 9: Designated Heritage Assets identified by the walkover of having the potential of being impacted by the proposed development	13

LIST OF FIGURES

Figure 1: Site location	33
Figure 2: Tithe Plan of Halkin Parish in the County of Flint	34
Figure 3: Tithe Plan of the Parish of Northop in the County of Flint	35
Figure 4: Listed Buildings	36
Figure 5: Archaeological Remains	37
Figure 6: Heritage Assets identified within the PDA	38
Figure 7: Historic Built Environment	39
Figure 8: Historic Landscape	40
Figure 9: Historic Landscape Characterisation	41
Figure 10: Previous Archaeological Events	42
Figure 11: Photograph Location	43

LIST OF PHOTOGRAPHS

Photograph 1: View of PDA looking north, towards North Hendre Lead Mine	45
Photograph 2: View of PDA looking northwest	45
Photograph 3: View west of northern boundary between the PDA and Ore Shed	46
Photograph 4: View east of northern boundary of PDA	46
Photograph 5: View south towards the PDA from the northern boundary	47
Photograph 6: View south towards the late-20 th century derelict building	47
Photograph 7: View northwest towards the late-20 th century derelict building	48
Photograph 8: View southwest towards the late-20 th century derelict building	48
Photograph 9: View northwest towards the late-20 th century derelict building	49
Photograph 10: View north towards the late-20 th century derelict building and madeground	49
Photograph 11: View southeast from the PDA towards Brick Kiln and Stack	50
Photograph 12: View west along the northern boundary of the PDA	50
Photograph 13: View south along the eastern boundary of the PDA	51
Photograph 14: View south along the eastern boundary of the PDA	51
Photograph 15: View west of possible brick structure/foundations just beyond eastern boundary of the PDA (1x1m scale)	52

Photograph 16: View View west of possible brick structure/foundations just beyond eastern boundary of the PDA (1x1m scale).	52
Photograph 17: View northeast towards Taylor’s Shaft Engine House and Boiler Stack.	53
Photograph 18: View southwest towards Ore Shed.....	53
Photograph 19: View south towards the PDA from North Hendre Lead Mine group.....	54
Photograph 20: View west across the soil bund and tree line between the PDA and North Hendre Lead Mine group.	55
Photograph 21: View south towards the PDA from North Hendre Lead Mine group.....	55
Photograph 22: View north from northern boundary of the PDA towards North Hendre Lead Mine group.	56
Photograph 23: View north from west section of the PDA towards North Hendre Lead Mine group.	56
Photograph 24: View west along the soil bunds on northern boundary of the PDA.	57
Photograph 25: View south towards Brick Kiln and Stack, outside of the PDA.....	57
Photograph 26: View east of Brick Kiln and Stack, outside the PDA.	58
Photograph 27: View northeast of the soil bund and tree line along the southern boundary between the PDA and Brick Kiln and Stack.	58
Photograph 28: View north from the Brick Kiln and Stack towards the PDA.....	59
Photograph 29: View southeast from the PDA towards Brick Kiln and Stack.	59

DRAFT



I INTRODUCTION

1.1 Project and Planning Background

Archaeological Research Services Ltd was commissioned by Caulmert on behalf of N.W. Energy Ltd to produce a Heritage Impact Assessment (HIA) for an area of land at the former Ruby Brickworks, Hendre, Rhydymwym. This is in advance of the submission of a planning application for a proposed anaerobic digestion facility that will comprise a reception hall, ten storage tanks for digestate and other liquids, gas upgrade/compression unit, flare, weighbridge, and other associated facility features.

1.2 Site description

The 'red line boundary' of the proposed development area (hereafter 'PDA') is depicted by a red polygon on Figure 1, and is c. 1.96ha in area, centred at NGR SJ 20469 67677. The PDA is bounded to the north by Listed Buildings associated with North Hendre Lead Mine, as well as a former quarry. The east boundary is bordered by woodland, to the south by Brick Kiln and Stack and the continuation of the same brownfield site and to the west by warehouse building and Nant Figillt. The PDA consist of a brownfield site with a derelict building associated with Ruby Brickworks surrounded by made ground and soil bunds (Photographs 1-2, 5, 10 & 11).

1.3 Geology and Soils

The underlying solid geology of the PDA comprises of Bowland Shale Formation - Mudstone, overlain with superficial deposits of Head - Clay, silt, sand and gravel. (BGS 2023).

The soils of the PDA are classified by the *Soilscapes* interactive online viewer as belonging to the *Soilscapes* 6 and 20 soils units. These soils are described as '*freely draining slightly acid loamy soils*' and '*loamy and clayey floodplain soils with naturally high groundwater*' (Cranfield University 2023).

2 AIMS AND OBJECTIVES

The principal aims of this assessment are to produce a report detailing the archaeological potential of the PDA, and to assess the potential impacts of the proposed development upon any buried and upstanding archaeological remains, the historic built environment, the historic landscape, and to assess their significance. The following objectives will contribute towards accomplishing these aims:

- ◆ To collate and assess existing information about the historic environment within the study area and to determine as fully as possible from the available evidence the nature, survival, quality, extent and importance of any archaeological remains and any upstanding buildings/structures within the PDA.
- ◆ To provide an assessment of areas of archaeological potential and survival based on the above research and assess the potential for the use of particular investigative techniques in order to aid the formulation of any necessary mitigation strategy, including further evaluation, excavation, and/or preservation of archaeological remains.
- ◆ To assess, where possible from the available sources, the extent of any ground disturbance associated with any previous intrusive development.
- ◆ To provide an assessment of potential impacts of the proposed development to the settings of cultural heritage assets, and make recommendations for further detailed assessment should this be considered necessary.

3 METHOD STATEMENT

3.1 Approach

The desk-based element of the report was undertaken in accordance with the guidelines set out in The Chartered Institute for Archaeologists' *Standards and Guidance for Historic Environment Desk Based Assessment* (CIfA 2020).

The approach to the assessment of significance is that set out in *Conservation Principles* (Cadw 2011), which states that the significance of heritage assets derives from the 'heritage values' that they possess, which may be *evidential, historical (either illustrative or associative), aesthetic or communal*. Reference is also made to 'heritage significance' as described in the *National Planning Policy Framework (NPPF)*, which is defined as the '*value of a heritage asset to this and future generations because of its heritage interest. That interest may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset's physical presence, but also from its setting*' (MHCLG 2021, 71-72).

3.2 Study Area

The study area adopted for this assessment was agreed with Dr Gary Duckers, Head of Technology, Information and Planning for Clywd-Powys Archaeological Trust, and comprises a 1km off-set from the PDA. This study area is depicted by a dark blue outline on Figure 1 and subsequent figures.

3.3 Information Sources

The following sources of information were consulted to inform this assessment:

- ◆ The Clywd-Powys Historic Environment Record (CPAT HER), maintained by Clywd-Powys Archaeological Trust (CPAT) for information regarding heritage assets, details of previous fieldwork, and Historic Landscape Characterisation (HLC) mapping.
- ◆ The Cadw records maintained by Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW) for information regarding designated assets.
- ◆ The Flintshire County Council for historic maps, plans and other documents relevant to the study area.
- ◆ Groundsure Historic Mapping Report for historic Ordnance Survey maps.
- ◆ The British Geological Survey onshore digital maps at 1:50 000 scale (DiGMapGB-50 – WMS).
- ◆ Cranfield University's *Soilscapes* free interactive online viewer for a simplified version of the 1:250,000 scale Digital National Soil Map for England and Wales.
- ◆ Environment Agency Lidar data.
- ◆ Google Earth and Bing online historical satellite imagery.
- ◆ Various other relevant books, journals and publications identified during the course of the assessment, details of which can be found in the references section of the report.
- ◆ A site walkover to Historic England (2017) Level 1 standard was undertaken in foggy weather conditions on 30th November 2022.

4 BASELINE ASSESSMENT

4.1 Archaeological and Historical Background

In the discussion that follows, where sites recorded on the CPAT Regional HER are described, the relevant HER preferred reference number is provided in parenthesis. Any designated assets are referred to by their unique Cadw number, and any other sites identified as part of this assessment are referenced by their unique ARS numbers. All of these identification numbers can be found in the tables in sections 4.2 and 4.3 below, or in the Appendices at the end of the report.

4.1.1 Prehistoric to Romano-British (1,000,000 BC to 410 AD)

Flintshire is a county in the northeast of Wales. The county borders England to the east, the county of Denbighshire to the west and the county of Wrexham to the south. Within the 1km study area, no archaeological findspots or sites have currently been identified that predated the Bronze Age period. Beyond the 1km study area, there is presently little evidence for Palaeolithic activity within Flintshire. The nearest evidence is located c. 8.7km north of the PDA and relates to an incomplete auroch skull found near Shotton Steel Works in the Dee estuary.

No finds associate with Mesolithic activity have been found within the PDA or wider 1km study area. However, beyond the 1km study area, several flint flakes and tools associated with Mesolithic nomadic groups of hunter-gatherers have been recorded. The closest of these is c. 1.4km southeast of the PDA, (CPAT HER PRN:117677). Mesolithic cave occupation has also been discovered c. 3.4km away to the south: an assortment of animal bones, including horse and wild boar, were discovered, dating to 5000 to 7000 years of age. (CPAT HER PRN:132147; Hankinson 2015).

Several Neolithic lithic findspots, such as (CPAT HER PRN:117667), c. 1.4km from the PDA, have been recorded beyond the wider study area, alongside a possible Neolithic Timber Circle at the later Iron Age Hillfort, *Moel-y-Gaer*, c. 1.7km north from the PDA (CPAT HER PRN:70263).

There is, however, more substantial evidence for later Prehistoric activity within the 1km study area, such as several standing stones, occupation activity and cairn sites. The standing stones relate to Ruby Houses Stone (CPAT HER PRN: 97730), c. 160m east from the PDA, and a former stone recorded at '*Coitier Garreg*' (CPAT HER PRN 97771), northeast c. 965m away.

During the Iron Age/Romano-British transition period, Flintshire was occupied by the Iron Age '*Deceangli*' tribe, '*Tegeingl*' in Welsh. *Moel-y-Gaer* Iron Age hillfort lies c. 1.8km north of the PDA, outside of the wider 1km study area (Cadw ref: 011), on Halkyn Mountain.

In the later Iron Age period, *Moel y Gaer* was a sub-oval hilltop enclosure, which measured about c. 190m north-south by c. 130-170m. A bank, ditch and counterscarp generally define the extent of the hillfort, but there is some variation, notably around the east-facing entrance. The site encompasses a tumulus on the summit of the hilltop, which was possibly constructed and in use during the late Bronze Age and early Iron Age. A possible Bronze Age mound is located on the northern side of the hill; however, this also could be associated with a much later Roman signalling tower or that of a known Napoleonic beacon located on top of the hill found during excavations in 1972 (Cadw ref: 011).

It is likely that the '*Deceangli*'/Welsh '*Tegeingl*' like their southern neighbours, the '*Ordovices*', were placed under military administration following the initial campaign of governor Julius Agricola in 78AD (Todd, 2004). The Romano-British period provides less substantial evidence of localised activity inside the 1km study area. A Roman findspot of a cast copper alloy trumpet brooch dating from c.

75- 175 AD, is recorded c. 820m northeast of the PDA boundary (CPAT HER PRN:120336). A Romano-British pottery sherd was unearthed c. 860m northeast from the PDA, (CPAT HER PRN:70807), possibly linked with a nearby paved track at Rhosesmor which may date to the Romano-British period (CPAT HER PRN:100299).

No Iron Age activity has been recorded within the PDA.

4.1.2 Medieval (410 to 1540)

Following the emergence of various petty kingdoms in the early medieval period, this region of Flintshire was divided into the 'Hundreds of Englefield'/Welsh '*Cantref Tegeingl*', eventually becoming part of the western boundary with Mercia (Zaluckyj 2011). This can be seen with the linear earthwork of Wat's Dyke, an early historic boundary marker probably associated with the border of the kingdom of Mercia; the section closest to the PDA is c. 2.7 km east from the PDA, running from Chester-Holywell Road to Soughton Farm, (Cadw ref: 083).

A number of medieval sites are located within the 1km study area. One of these, '*Maes y groes*' or 'Field of Cross/Crossroad' (CPAT HER PRN:102699), is located c. 810m southeast of the PDA. However, the title was possibly just a field name, as no visible remains of a cross or crossroads exist. A number of medieval quillets (CPAT HER PRN:97755, PRN:97760, PRN:97761, PRN:97762 & PRN:97782) c. 300-950m east and southeast have been recorded. These quillets represent small plots of land illustrating medieval agricultural practices in the surrounding landscape. Further medieval agricultural practice is suggested by possible ridge and furrow cultivation (CPAT HER PRN:99224), running straight north to south, parallel to the western hedge in a level field c. 50m northwest of St John's Church (Cadw Ref: 16440) in Rhydymwyn, c. 610m south of the PDA. The possible site of the 11th century battle at Rhydymwyn is also recorded within the 1km study area (CPAT HER PRN:17410), c. 800m southeast of the PDA. No medieval activity has been recorded within the PDA.

4.1.3 Post-Medieval (1540 to 1901)

The first maps to depict the PDA in detail are the Tithe maps for the parishes of Halkin (Halkyn) 1839 and Northop in the County of Flint 1838 (Figures 2-3 & Tables 1-2). The Tithe apportionments recorded that plot 824 in Halkin formerly belonged to the Marquis of Westminster and was occupied by Richard Lloyd. Plot a202, in the parish of Northop, is recorded as being owned by Miss Frances Mostyn Edwards, and occupied by Edward Lloyd. The two occupiers of the plots share the same surname, possibly suggesting a tentative familial connection. The names of the fields also share similarities plot 824 is referred to as '*Werglodd*', while plot a202 is called '*Werglodd Y Nant*'. The name '*Werglodd*' means meadow in Welsh, which is supported by the record for plot a202 that states that the land was used as pasture. It would appear that the plots within the PDA were previously subdivided along the political boundary between the parishes of Halkin and Northop.

Table 1: 1839 Tithe Apportionments for the Plan of Halkin Parish in the County of Flint (IR29/50/19)

Plot Number	Landowner	Occupier	Name	State of Cultivation
824	Robert Grosvenor Marquis of Westminster	Richard Lloyd	Werglodd	Unknown

Table 2: 1838 Tithe Apportionment for the Plan of the Parish of Northop in the County of Flint (IR29/50/32)

Plot Number	Landowner	Occupier	Name	State of Cultivation
a201	Miss Frances Mostyn Edwards	Miss Frances Mostyn Edwards	Wood	Woodland
a202		Edward Lloyd	Werglodd Y Nant	Pasture

In the surrounding landscape, c. 600m to the northwest of the PDA, further fieldnames have been recorded on the HER and Tithe apportionments that suggest a possible winter dwelling: '*Ardd-y-Hendre*' (CPAT HER PRN:98992), and '*Bryn Lidiart*' meaning 'Hill of the Gate' (CPAT HER PRN:98990). Agriculture was pivotal to the economy of the local area. *Lygan Uchaf* (Cadw ref: 26206), c. 550m north of the PDA, is a Grade II listed farmhouse purchased by the Grosvenor Estate in 1759. The present house was built in 1851, while an L-shaped farm range that surrounded the farmyard is dated to 1850 and is in characteristic Grosvenor Estate style (CPAT HER PRN:178173, PRN:179478, PRN:179479 & PRN:179480).

The local village of Rhydymwyn, c. 250m south from the PDA, means 'Ford of the Ore' in Welsh. This illustrates that activity in the area surrounding the PDA was not limited to agricultural, but extractive industries were also important to the local economy. The parish was created as a subdivision of the parish of Cilcain, and in 1865 the Church of St John was built with the aid of a grant from the Incorporated Society for the Building of Churches. The site was donated by Philip Bryan Davies and the architect was the nationally important J. L. Pearson, who was engaged at works on Gwysaney for Davies. The church is a Grade II* listed as an accomplished High Victorian design and an early work by one of the principal ecclesiastical architects of the period.

The 1870 and 1871 OS maps show that the PDA continued to be two agricultural fields (Appendix VII), with the western half of the PDA bisected north to south by a footpath. Outside the PDA a new innovation is depicted, with the Mold and Denbigh Junction Railway running along its southwestern boundary. The railway would have provided vital connectivity for industrial activity in the surrounding area and opened on 12th September 1869.

The mid-19th century industrial revolution led to the growth of extractive industries, such as *Dolfechlas-uchaf*, a Grade II listed Kiln, (CPAT HER PRN:104104). Extraction of minerals across the mineral-rich Alyn valley surrounding the PDA is denoted by localised mining activity. Across the landscape, numerous mineshafts are recorded (CPAT HER PRN:126911, PRN:126910, PRN:94495, PRN:94494, PRN:115316, PRN:126671, PRN:128626, PRN:126635 & PRN:97807). This further illustrates the importance of mining activity to the PDA and its surrounding locality. *Erwfeilin* Lead Mine (CPAT HER PRN:18068), c. 850m south of the PDA, represents further extraction activity from the 19th century, but is thought have a possible Romano-British—or earlier—antecedent.

The 1899 OS map shows that the western half of the PDA remains largely the same. However, the eastern half has been developed with 'Ruby Brickworks' annotated (Appendix VII). Three structures are depicted in the northeastern corner of the PDA—the northern structure astride border. A circular structure is also illustrated, suggestive of a possible kiln. Approximate 60m north of the PDA, extraction activity is shown as Hendre lead mine and shaft (CPAT HER PRN:126911), with a structure possibly relating to the Boiler Stack at Taylor's Shaft also depicted (Cadw ref: 26203).

Hendre Villa has also been constructed, c. 90m to the northwest. Further buildings are constructed along the route of the railway (CPAT HER PRN), possibly influenced by its construction. These include two small structures depicted on the 2nd edition OS map of 1889 (PRN 94501), c. 900m west of the

PDA. These are thought to be associated with the railway boundary, along with a section of stone block wall standing around 3m high and a former Railway pool (CPAT HER PRN:99229, PRN:115317 & PRN:115318).

4.1.4 Modern (1901 to the present day)

The early-20th century saw further development within and immediately around the PDA. The 1912 OS plan, like the earlier maps, depicts the western half of the PDA as being relatively undeveloped, with the footpath bisecting north to south (Appendix VII). The eastern half has remained largely the same: the two central buildings representing Ruby Brickworks, engine and boiler house and western drying sheds (CPAT HER PRN:1001845 & PRN:1001842) and circular structure to their west are identically configured. However, the clay pit has been expanded considerably to the north of the PDA, while the eastern structure within the PDA has been extended southwards, to include the eastern drying sheds with chimney and a further circular structure—possibly another kiln (CPAT HER PRN:1001840). This possible kiln, within the PDA, could be associated with Brick Kiln and Stack (Cadw ref: 24733). The kiln is described as being round, constructed out of bricks and strengthened with steel straps, with a domed roof and round opening at its apex. However, the OS plans do not depict the Listed Building and the listed remains are in fact outside of the PDA to the south, suggesting discrepancy between the OS plan and the actual location of this designated heritage asset. The main innovation within the PDA is what appears to be a tramway connection that links Ruby Brickworks to the Mold and Denbigh Junction Railway, as well as rail loading bays and offices (CPAT HER PRN:1001841 & PRN:1001837).

Large developments, immediately to the north of the PDA and associated with Taylor's Shaft, can be seen on the 1912 OS map (Appendix VII). The 1899 OS map showed three small buildings associated with Hendre lead mine, while the 1912 OS plan depicts considerable industrial development. Taylor's Shaft Engine House has been constructed, as well as associated ancillary buildings, with the Boiler Stack to the south (Cadw ref: 26202 & 26202).

In 1928, Halkyn District United Mines Ltd incorporated and amalgamated a number of older shafts. The company reopened and deepened the *Olwyn Goch* Shaft, c. 230m northwest of the PDA, to 490ft. These former mine workings are an important relic of Welsh industrial heritage—as one of the largest and most important lead producers in Britain, they produced over 21,000 tonnes of ore at the peak of production in 1934, with a vast network of shafts, tunnels and roadways amalgamating to over 62 miles of tunnels (Ebbs 2008 & CPAT HER PRN:18091, PRN:18096).

The Ministry of Supply Valley Site is located c. 1.1 km south of the PDA (Cadw ref: 210). It comprises of the remains of underground caverns and a group of twenty-one munition assembly buildings. This site was to provide secure, bombproof storage for the Government's reserve stocks of chemical weapons. Construction commenced in late 1939 and buildings were commissioned for use from late 1940. Production at the site ceased in April 1945 and decontamination and disassembly began in 1948. During the Cold War, the tunnels were used as a buffer storage depot for emergency rations, bakeries and canteens.

The 1962 OS map shows that the western half of the PDA remained undeveloped, while buildings relating to Ruby Brickworks had been removed and replaced (Appendix VII). Two larger buildings, described as 'Works', with two circular structures annotated as chimneys, were built and the railway connection was no longer in existence. As stated, the larger of the two circular structures could be associated with the listed Brick Kiln and Stack (Cadw ref: 24733), not depicted on the OS map in their actual location. Lead mining ceased at Taylor's Shaft after 1977, but men were employed in maintenance and tunnel repairs until 1987.

The 1988 OS map shows that two larger buildings were later demolished and replaced with a single smaller structure (Appendix VII). The larger of the two 'chimneys' is still in existence, possibly

representing Brick Kiln and Stack in the wrong location. The Ruby Brickworks office has been replaced with a 'Depot', and a 'Coal Yard' with a small chimney occupies the northeastern corner of the PDA. This configuration of structures and ancillary buildings continues on the 1991 OS plan; however, the chimney/kiln is no longer depicted.

As outlined earlier, the PDA currently represents an area of predominantly levelled made ground. The western half is bound to the northwest by a structure depicted on the 1988 OS map. The north of the PDA is bordered by a soil bank and tree line, which continues to the east and south. The PDA is bisected by a line of trees running north to south that delineates the two halves of the PDA as mentioned above. The small structure, depicted from 1988, is still in existence but is a derelict state (Photographs 5-9).

4.2 Designated Assets

On-Site

There are no designated heritage assets recorded by Cadw within the PDA.

Study Area

Cadw records 8 designated heritage assets within the wider 1km study area beyond the PDA, comprising 8 Listed Buildings, and 1 Registered Historic Landscape. They relate mainly to industrial period extraction activity surrounding the PDA. These are listed in Tables 3 below and their locations are depicted in purple (Grade II* Listed Buildings) and magenta (Grade II Listed Buildings) on Figure 4.

Table 3. Listed Buildings within the wider 1km study area

Cadw ID	Description	Grade
26204	Ore Dressing Shed	II
26203	Boiler Stack at Taylor's Shaft	II
26202	Taylor's Shaft Engine House	II
26205	Brick Kiln and Stack	II
16440	Church of St John	II*
525	Engine House at Hendre	II
26206	'Lygan Uchaf'	II
16441	Lime Kiln'	II

4.3 Non-Designated/Other Heritage Assets

4.3.1 Archaeological Remains

On-Site

CPAT records no known archaeological sites or findspots within the PDA. However, 4 entries relating to elements of the historic built environment are located within the PDA. These are recorded as being buildings, yet in reality they no longer exist as above ground remains, apart from Hendre Quarry, Brick Kiln and Stack (CPAT HER PRN: 60481). For further details and discussion about these heritage assets see section 4.3.2.

Study Area

CPAT records 59 known archaeological sites and/or findspots within the wider study area. These predominantly relate to medieval and post-medieval agricultural activity as well as post-medieval

industrial activity within the surrounding landscape. Their locations are depicted in orange on Figure 5. Further details are provided in the gazetteer in Appendix I.

4.3.2 Historic Built Environment

On-Site

As stated in section 4.3.1, there are 4 elements of the historic built environment recorded by CPAT HER. These are listed in Table 4 below and are depicted in green on Figures 6 and 7. Although the location for Hendre Quarry, Brick Kiln and Stack CPAT HER record is on the boundary of the PDA. In reality, the record relates to the Grade II listed Brick Kiln and Stack located outside of the PDA (Cadw ref: 26205 & Figure 5). This highlights a minor discrepancy between the Cadw and CPAT entries. All the entries, however, share an association with Ruby Brickworks. Although an extant building is located within the PDA, this building relates the 1980s development, now derelict (Photographs 5-9). The main buildings associated with Ruby Brickworks no longer exist as upstanding remains (Photographs 1-2, 5, 10 & 11), yet depending upon the level of clearance associated with two phases of late-20th century development, could possibly survive as below ground foundations.

Table 4: Elements of the historic built environment located within the PDA

HER ID	Description	Period
60481	Hendre Quarry, Brick Kiln and Stack Grade II listed brick kiln	post-medieval
1001840	Ruby Brickworks, eastern drying sheds Drying sheds for Ruby Brickworks,	post-medieval
1001837	Ruby Brickworks, offices Office accommodation for Ruby Brickworks	post-medieval
1001842	Ruby Brickworks, western drying sheds Drying sheds for Ruby Brickworks	post-medieval

Study Area

CPAT records a further 79 elements of the historic built environment within the wider 1km study area beyond the PDA. These, as with the archaeological remains, predominantly relate to post-medieval agricultural and industrial activity in the surrounding landscape. They are depicted in green on Figure 7. Further details are provided in the gazetteers in Appendix II.

Historical map regression, however, identified that there could be some further inconsistencies between the locations of the CPAT HER entries and buildings identified on the OS maps, similar to the issues surrounding the recorded locations of Hendre Quarry Brick Kiln and Stack and the Cadw listed Brick Kiln and Stack. The Brick Kiln and Stack is, as stated, located outside of the PDA, but the CPAT HER record is position on the PDA boundary. None of the OS maps depict the Brick Kiln and Stack in either of these locations (Appendix VII). Both locations are illustrated on the OS maps as either rough land or woodland. Yet, the 1912 OS map suggests that a kiln and chimney stack could possibly be located within PDA, which might be the Brick Kiln and Stack (Cadw ref: 26205 & CPAT HER PRN: 60481). This could highlight that the OS maps have a degree of inaccuracy, but Listed Buildings associated with Taylor's Shaft co-locate with their respective depictions on OS maps and Cadw entries. This discrepancy cannot therefore be confidently clarified or explained. It is considered that the OS maps may have a degree of inaccuracy, possibly implying that other CPAT HER entries relating to Ruby Brickworks could extend into or be located within the PDA. Those hypothetically and tentatively suggested as possibly lying within the PDA are listed in Table 5 below and their recorded locations depicted on Figure 6. Indeed, what is clear from the evidence we have is that the eastern half of the PDA represented an area that was subjected to multiple phases of development, primarily associated with Ruby Brickwork.

Table 5: Elements of the historic built environment located just outside the PDA that could possibly extend into or be located inside the PDA

HER ID	Description	Period
103051	Ruby Brickworks Derelict brickworks buildings some with chimneys still standing. N0185	post-medieval
1001845	Ruby Brickworks, engine and boiler house Engine and boiler house for Ruby Brickworks	post-medieval
1001839	Ruby Brickworks, kiln Kiln at Ruby Brickworks,	post-medieval
1001838	Ruby Brickworks, privies Privies for Ruby Brickworks,	post-medieval
1001841	Ruby Brickworks, rail loading bays Rail loading bays for Ruby Brickworks,	post-medieval

4.3.3 Historic Landscape

On-Site

The entirety of the PDA resides within the HLC unit 'FLNTHL183 – Irregular Fieldscapes. Woodland. Extractive Processing/Manufacturing. Military'. This unit illustrates that the PDA was previously utilised as an extraction/manufacturing processing plant related to Ruby Brickworks. The unit is tabulated in Table 6 below and illustrated on Figure 9.

Table 6: HLC types Located within the PDA

HLC ID	HLC Broad type	HLC Primary type	Details
FLNTHL183	Irregular Fieldscapes	Irregular Fieldscapes. Woodland. Extractive. Processing/Manufacturing. Military	Upper Alyn Valley

Study Area

CPAT record a further 3 HLC units within the wider 1km study area. These similarly relate to irregular fieldscapes and extractive activity, as well as nucleated and non-nucleated settlement illustrating the historical characteristics of the local surrounding landscape. These are illustrated on Figure 9 and detailed in Appendix III.

4.4 Previous Investigations

4.4.1 Archaeological Events

CPAT records a total of 18 archaeological investigations undertaken within the 1km study area. These are detailed in Appendix IV and their locations illustrated on Figure 10. They predominantly relate to desk-based assessments and surveys of former industrial activity in the surrounding landscape.

5 ASSESSMENT OF THE SIGNIFICANCE OF AFFECTED HERITAGE ASSETS

This assessment has identified that 4 non-designated heritage assets are recorded within the PDA by CPAT HER. However, there appears to be a discrepancy between the historical mapping and the locations of these heritage assets. Further non-designated heritage assets relating to Ruby Brickworks could be located within the PDA. It is considered that Hendre Quarry, Brick Kiln and Stack (CPAT HER PRN:60481) located on the south eastern boundary of the PDA is actually outside the PDA, where the Listed Building Brick Kiln and Stack is located (Cadw ref: 24733 & Photographs 25-27).

The eastern half of the PDA represents an area of land that has been subjected to sequential phases of development. The PDA is currently levelled made ground surrounded and bisected by soil bunds and tree lines. Within the PDA, a single structure remains that relates to a building of unknown function first identified on the 1988 OS map. This building represents a late-20th century structure that is currently in a state of dereliction and is of *negligible* significance.

Previously, the eastern half of the PDA was occupied by two large structures in the northeastern corner of the PDA, which were replaced by the smaller structure mentioned above and a coal yard,. These structures were mid-20th century in date and any remains of them would be of limited *evidential* value and *negligible* significance. However, a possible kiln (CPAT HER PRN:60481), directly to the south of the eastern building could be the Brick Kiln and Stack (Cadw ref: 24733), depicted within the PDA on 1962 OS map—but in actual fact located outside the PDA (For an in-depth discussion to the location discrepancies see section 4.3.2). It is likely that Brick Kiln and Stack, outside the PDA, is a remnant of the earlier complex of structures identified between 1899 and 1912 on OS maps. These structures relate to Ruby Brickworks, which were later replaced by the mid-20th century structures. It is considered that there is a *low potential* for any remains of these buildings and the former rail connection to survive below ground, as this area of the PDA has been subjected to two subsequent sequences of redevelopment. Yet, however unlikely, if any below ground remains relating to Ruby Brickworks were discovered these would be of *low to moderate evidential* and *historical illustrative value* of *regional significance*. The *Research Frameworks for the Archaeology of Wales: Northeast Wales (22/12/2003)* states that ‘there is a clear need to raise the profile of all industrial archaeology’ and due to the trend of developing ‘brownfield’ development of derelict industrial sites. A detailed process of recording at these sites ‘which are representative of their industry, despite the existence of apparently reliable documentation’ should be carried out (RFAW 2003).

Prior to industrialization, the PDA represented two agricultural fields subdivided by the parish boundary between the Halkin (Halkyn) and Northop. This boundary is of *low historical illustrative value* of *local significance* as relating to the boundary between two local parishes. It is recorded on OS mapping from 1870 to 1962, presumably after which the parish boundary was changed.

6 SETTING ASSESSMENT

6.1 Methodology

The setting assessment also follows the guidelines set out in *Managing Setting of Historic Assets in Wales: How to Assess the Impact of Change or Development within the Setting of Historic Assets* (Cadw 2017) which recommends a 4-stage approach to the assessment of impacts to settings of heritage assets:

- ◆ Step 1: Identify the historic assets that might be affected by a proposed change or development.

- ◆ Step 2: Define and analyse the settings to understand how they contribute to the significance of the historic assets and, in particular, the ways in which the assets are understood, appreciated and experienced.
- ◆ Step 3: Evaluate the potential impact of a proposed change or development on that significance
- ◆ Step 4: If necessary, consider options to mitigate or improve the potential impact of a proposed change or development on that significance.

For Step 2, the guidance provides a detailed, but non-exhaustive, checklist of potential attributes of a setting which may help to elucidate its contribution to the significance of an asset. However, the guidance highlights that it may be the case that only a limited selection of the attributes listed is likely to be particularly important in terms of any single asset (Cadw 2017, 6-7). This checklist is reproduced in Table 7 below.

Table 7. Assessing the contribution of setting to the significance of heritage assets

The asset's physical surroundings	<ul style="list-style-type: none"> ◆ Topography ◆ Aspect ◆ Other heritage assets (including buildings, structures, landscapes, areas or archaeological remains) ◆ Definition, scale and 'grain' of surrounding streetscape, landscape and spaces ◆ Formal design e.g. hierarchy, layout ◆ Orientation and aspect ◆ Historic materials and surfaces ◆ Green space, trees and vegetation ◆ Openness, enclosure and boundaries ◆ Functional relationships and communications ◆ History and degree of change over time
Experience of the asset	<ul style="list-style-type: none"> ◆ Surrounding landscape or townscape character ◆ Views from, towards, through, across and including the asset ◆ Intentional intervisibility with other historic and natural features ◆ Visual dominance, prominence or role as focal point ◆ Noise, vibration and other nuisances ◆ Tranquility, remoteness, 'wildness' ◆ Busyness, bustle, movement and activity ◆ Scents and smells ◆ Diurnal changes ◆ Sense of enclosure, seclusion, intimacy or privacy ◆ Land use ◆ Accessibility, permeability and patterns of movement ◆ Degree of interpretation or promotion to the public ◆ Rarity of comparable survivals of setting

	<ul style="list-style-type: none"> ◆ Cultural associations ◆ Celebrated artistic representations ◆ Traditions
--	--

Similarly for Step 3, the guidance provides a detailed, but non-exhaustive checklist of potential attributes of a development affecting setting which may help to elucidate the implications for the significance of an asset. However, the guidance highlights that it may be the case that only a limited selection of the attributes listed is likely to be particularly important in terms of any single asset (Cadw 2017, 8-9). This checklist is reproduced in Table 8 below.

Table 8. Assessing the effect of the proposed development.

Location and siting of the development	<ul style="list-style-type: none"> ◆ Proximity to asset ◆ Position in relation to relevant topography and watercourses ◆ Position in relation to key views to, from and across ◆ Orientation ◆ Degree to which location will physically or visually isolate asset
Form and appearance of the development	<ul style="list-style-type: none"> ◆ Prominence, dominance, or conspicuousness ◆ Competition with or distraction from the asset ◆ Dimensions, scale and massing ◆ Proportions ◆ Visual permeability (extent to which it can be seen through), reflectivity ◆ Materials (texture, colour, reflectiveness, etc.) ◆ Architectural and landscape style and/or design ◆ Introduction of movement or activity ◆ Diurnal or seasonal change
Other effects of the development	<ul style="list-style-type: none"> ◆ Change to built surroundings and spaces ◆ Change to skyline, silhouette ◆ Noise, odour, vibration, dust, etc. ◆ Lighting effects and 'light spill' ◆ Change to general character (e.g. urbanising or industrialising) ◆ Changes to public access, use or amenity ◆ Changes to land use, land cover, tree cover ◆ Changes to communications/accessibility/ permeability, including traffic, road junctions and car-parking, etc. ◆ Changes to ownership arrangements (fragmentation/permitted development/etc.) ◆ Economic viability
Permanence of the development	<ul style="list-style-type: none"> ◆ Anticipated lifetime/temporariness ◆ Recurrence ◆ Reversibility

The checklists presented in Tables 7 and 8 provide a framework for the assessment of impacts to setting which, following a consideration of potential mitigation or enhancement in Step 4, should be clearly documented in Step 5. The GPAN states that:

'It is good practice to document each stage of the decision-making process in a non-technical and proportionate way, accessible to non-specialists. This should set out clearly how the setting of each heritage asset affected contributes to its significance or to the appreciation of its significance, as well as what the anticipated effect of the development will be, including of any mitigation proposals. Despite the wide range of possible variables, normally this analysis should focus on a limited number of key attributes of the asset, its setting and the proposed development, in order to avoid undue complexity. Such assessment work is a potentially valuable resource and should be logged in the local Historic Environment Record' (Historic England 2017, 15).

6.2 Step 1: Identify which heritage assets and their settings are affected

Cadw's *Managing Setting of Historic Assets in Wales: How to Assess the Impact of Change or Development within the Setting of Historic Assets* (2017, 6) states that assessments must:

- ◆ consider details of the location, size and scale of the proposed change or development
- ◆ consider the location of the identified historic assets
- ◆ where appropriate, include a plan overlaying the zone of theoretical visibility on the sites of the historic assets.

Cadw records a total of 8 designated heritage assets within a 1km radius of the PDA (see section 4.2 and Appendix II for further details). All of these identified assets were subsequently visited and it was determined that only the Listed Buildings associated with Taylor's Shaft and the Brick Kiln and Stack, directly within the environs of PDA, could possibly be impacted by the proposed development (see Table 9). The remaining 4 Designated Heritage Assets had no intervisibility with the PDA with either the intervening topography, woodland or urban setting obstructing all views towards it.

Table 9. Designated Heritage Assets identified by the walkover of having the potential of being impacted by the proposed development

Cadw ID	Description	Grade
26204	<i>Ore Dressing Shed</i>	II
26203	<i>Boiler Stack at Taylor's Shaft</i>	II
26202	<i>Taylor's Shaft Engine House</i>	II
26205	<i>Brick Kiln and Stack</i>	II

6.3 Step 2: Assess whether, how, and to what degree these settings and views make a contribution to the significance of the heritage asset(s) or allow significance to be appreciated

This section will provide an overview of the historical background of a group of 3 Listed Buildings at the former North Hendre Lead Mine and Brick Kiln and Stack associated with the former Ruby Brickworks and the historical development of their landscape setting, in order to address the question as to how, and to what degree the setting, and views to and from the asset(s) contribute to their significance or allow this to be appreciated.

6.3.1 North Hendre Lead Mine

North Hendre Lead Mine is a group of 3 Listed Buildings immediately to the north of the PDA. Taylor's Shaft Engine House, Boiler Stack and Ore Shed all draw a large degree of their *significance* from their *group value*, as *rare* surviving examples of a once important local industry (Cadw ref: 26202, 26203 & 26204). Their *group value* is intrinsically linked with the setting of each Listed Building, as they are all associated with each other and with the North Hendre Lead Mine (Taylor's Shaft).

However, their significance is also partly derived from their *evidential* and *historical illustrative value* in representing late-19th and early-20th industrial innovations relating to North Hendre Lead Mine (Taylor's Shaft). Indeed, they also have *architectural* and *aesthetic value* in displaying late-19th to early-20th century construction and architectural techniques and materials—although Taylor's Shaft Engine House and Ore Shed are in a state of dereliction.

6.3.2 Brick Kiln and Stack

Similarly, Brick Kiln and Stack also draws its *significance* from its *evidential* and *historical illustrative value* relating to late-19th and early-20th century industrial innovations relating to Hendre Brickworks (Ruby Brickworks). As with the above Listed Buildings, Brick Kiln and Stack has *architectural* and *aesthetic value* but is also in a poor state of conservation. The setting of this designated heritage asset is not as pivotal to the *significance* of this Listed Building, as the buildings with which it was previously associated are no longer in existence.

This and all the aforementioned buildings have been designated by Cadw as Listed Buildings, signifying that they are all of *national significance*.

6.4 Step 3: Assess the effects of the proposed development, whether beneficial or harmful, on the significance or on the ability to appreciate it

It is considered that proposed development will only have a *slight to moderate* adverse effect on the setting of the designated heritage assets.

As stated, a large degree of the significance of all the designated heritage assets is derived from their *evidential*, *historical illustrative*, *architectural* and *aesthetic value* and the proposed development will not be affecting their physical material and fabric. Therefore, the anaerobic digestion facility will cause *no change* to this component of the significance of these designated heritage assets.

What is more, the facilities associated with the anaerobic digestors will not obstruct the ability to appreciate the buildings relating to North Hendre Lead Mine (Taylor's Shaft) as *group*. None of the proposed anaerobic digestion facility will impede intervisibility between these Listed Buildings, meaning that they will still be able to be appreciated as *group*.

However, the proposed development will be visible from the North Hendre Lead Mine Listed Buildings in one direction to the south (Photographs 19, & 21-23. The Brick Kiln and Stack will also have views of the anaerobic facilities in two directions: to the north and west (Photographs 26-28. In both cases, however, it is considered that this will only cause a *slight to moderate adverse visual effect*, as the Listed Building themselves are illustrative of a previous industrial setting; the proposed development, therefore, would represent a continuation of this industrialised setting. Furthermore, it is suggested that—as the digester and storage tanks are cylindrical—they are similar in character to previous kiln structures, while the flare for the facility can be interpreted as an equivalent to a chimney stack. Therefore the proposed development will echo the previous setting of these designated heritage assets.

The proposed use of green cladding on tanks and structures will also limit the visual effects of the facilities, as this will coalesce with the surrounding natural landscape. The *slight to moderate adverse visual impact* could, however be further reduced to a *slight adverse visual effect* by retaining and enhancing the soil bunds and tree lines surrounding the PDA to the north and south (Photographs 20-21, 24, & 26-27), which would provide added screening between the proposed development and the designated heritage assets.

6.5 Step 4: Explore ways to maximise enhancement and avoid or minimise harm

The ways in which the proposal could be designed to minimise its visual effects of anaerobic digestion facility could be as follows:

- ◆ The retention and enhancement of the existing soil bunds and tree lines to the north and south of PDA to provided additional screening.

6.6 Step 5: Make and document the decision and monitor outcomes.

This report documents the decision-making process with regard to this assessment, but the outcomes cannot be considered until after the application has been determined and therefore this is outside the scope of this assessment.

7 ASSESSMENT OF POTENTIAL IMPACTS

The proposed development would see the construction of an anaerobic digestion facility that will comprise a reception hall, ten storage tanks for digestate and other liquids, gas upgrade/compression unit, flare, weighbridge, and other associated facility features. The potential direct physical impact to any heritage assets during the clearance and construction phases include the following:

- ◆ Removal or truncation of heritage assets during ground works, site clearance and construction (e.g. removal of hardstanding).
- ◆ Damage to buried archaeological remains because of piling and excavation of foundation trenches
- ◆ Other groundworks associated with the construction of the proposed development which have the potential to damage or destroy below ground features or deposits of cultural heritage value, should they be present.

As noted, the former Ruby Brickworks was located within the PDA, although only one derelict building remains. This is considered to relate to the later 20th century development within the PDA and has limited *evidential* and *historical illustrative value of local significance*. No above ground structural remains exist of the earlier late-19th/early-20th century Ruby Brickworks within the PDA; these were demolished in two subsequent phases during the late-20th century. The only structural remains to survive are the Grade II listed Brick Kiln and Stack, but as stated above, they are located outside the site boundary.

Dependent upon the level of clearance in the late-20th century associated with these later redevelopment phases, there is a *low potential* for some below ground remains to survive as possible foundations. Depending on the amount of site clearance and depth of foundation trenches required for the proposed development there is a potential for below ground remains, if present, to be directly impacted by the construction phases. The construction of the 3-digester single storage

tanks and associated compressors and pasteurisers could possibly directly impact the former Ruby Brickworks' western and eastern dry sheds (CPAT HER PRN:1001842 & PRN: 1001840) and possible kilns and chimneys (CPAT HER PRN:1001839). They could also impact on the former railway loading bay (CPAT HER PRN: 1001841), while the construction of the Flare, CHP's and Gas Upgrade/Compression would also affect the loading bays as well as the former Ruby Brickworks' offices (CPAT HER PRN: 1001837). If any below ground remains relating to the Ruby Brickworks were to survive they would be of *low to moderate evidential and historical illustrative value of regional significance*.

8 RECOMMENDATIONS

It is recommended that a programme of box evaluation trenching be undertaken where intrusive groundworks are to take place, in order to assess the level of possible preservation of archaeological assets associated with industrial features and processes. This should be undertaken through an agreed WSI in consultation with Clywd-Powys Archaeological Trust planning archaeologists.

Additionally, it is suggested that screening of the proposed development could be provided by retaining and enhancing the soil bunds and tree lines to the north and south, limiting the adverse visual effect to *slight*.

9 STATEMENTS AND ACKNOWLEDGEMENTS

9.1 Archive Deposition

One digital PDF/A copy of the final report will be deposited with CPAT HER.

9.2 Publicity, Confidentiality and Copyright

Any publicity will be handled by the client. Archaeological Research Services Ltd will retain the copyright of all documentary and photographic material under the Copyright, Designs and Patent Act (1988).

9.3 Statement of Indemnity

All statements and opinions contained within this report arising from the works undertaken are offered in good faith and compiled according to professional standards. No responsibility can be accepted by the author/s of the report for any errors of fact or opinion resulting from data supplied by any third party, or for loss or other consequence arising from decisions or actions made upon the basis of facts or opinions expressed in any such report(s), howsoever such facts and opinions may have been derived.

This report is based on the national and local planning policy and guidance in force at the time of compilation and the information sources listed in Section 3. This report is based on the information available at the time of preparation and any subsequent updates will not have been incorporated. This report should not be relied upon beyond twelve months from the date of compilation.

This report should not be relied upon for any purpose other than as stated in the Aims and Objectives.

9.4 Acknowledgements

Archaeological Research Services Ltd would like thank Caulmert for commissioning this work, and Dr Gary Duckers, Head of Technology, Information and Planning for Clywd-Powys Archaeological Trust for the provision of HER data.

10 REFERENCES

10.1 Primary Sources

1839. *Tithe Map for the Plan of Halkin Parish in the County of Flint*. (IR29/50/19/001).
1838. *Tithe Map for the Plan of the Parish of Northop in the County of Flint*. (IR29/50/32/001).
1870. *County Series*. 1:2.500.
1871. *County Series*. 1:2.500.
1872. *County Series*. 1:2.500.
1899. *County Series*. 1:2.500.
1912. *County Series*. 1:2.500.
1962. *National Grid*. 1:2.500.
1977. *National Grid*. 1:2.500.
1988. *National Grid*. 1:2.500.
1991. *National Grid*. 1:2.500.
1993. *National Grid*. 1:2.500.
2003. *Landline*. 1:1,250.

10.2 Secondary Sources

- British Geological Survey. 2023. *Geology of Britain viewer*. Available online at: <http://mapapps.bgs.ac.uk/geologyofbritain/home.html> [Accessed 10th January 2023].
- Cadw. 2011. *Conservation Principles for the sustainable management of the historic environment in Wales*. Llwodraeth Cynulliad Cymru Welsh Assembly Government.
- Cadw. 2017. *Managing Setting of Historic Assets in Wales*. Llywodreath Cymru Welsh Government.
- Chartered Institute for Archaeologists. 2020. *Standard and guidance for historic environment desk-based assessment*. Reading, Chartered Institute for Archaeologists.
- Cranfield University. 2023. *The Soils Guide*. Available online at: <http://www.landis.org.uk/soilscapes/> [Accessed 10th January 2023].
- Ebbs, C. 2008. *The Milwr Tunnel: Bagillt to Loggerheads*. Cris Ebbs.
- Hankinson, R. 2015. *Caves of North-East Wales: Archaeological Assessment 2014-15*. Unpublished report. CPAT Report No. 1313.
- Historic England. 2017. *Historic Environment Good Practice Advice in Planning. Note 3: The Setting of Heritage Assets*. Swindon, Historic England.
- Ministry of Housing, Communities and Local Government (MHCLG) 2021. *National Planning Policy Framework*. London, The Stationery Office.
- Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW). 2003. *A Research Framework for the Archaeology of Wales East and Northeast Wales – Post Medieval 22/12/2003*. Paper prepared by Brian Malaws (RCAHMW).

Todd, M. 2004. *A Companion to Roman Britain*. Malden, MA: Blackwell Pub.

Zaluckyj, S. 2011. *Mercia: The Anglo-saxon Kingdom of Central England*. Almeley, Logaston Press.

DRAFT

APPENDIX I GAZETTEER OF ARCHAEOLOGICAL REMAINS

CPAT HER Entries

HER PRN	Description	Period
97771	Coitier Garreg No stone located.	Bronze Age
102731	Caer Garreg Standing stone 1870 OS map shows a stone in this field which will explain the name.site not visited.;	Bronze Age/unknown
97730	Ruby houses stone Site not visited. Depicted on 1870 6" OS map.	Bronze Age
57732	Rhosesmor Mine, Roman find Desk-top survey and evaluation carried out by EAS in 1998 prior to land reclamation of Rhosesmor lead and zinc works. No documentary evidence was found to suggest that the area in question was mined before the mid C19th or later than c.1912. No evidenc	Roman
120336	Rhosesmor, Trumpet Brooch Cast copper alloy trumpet brooch dating from c.75- 175 AD.	Roman
100299	Rhosesmor Paved Track Flat-topped bank 0.4m high 1.6m wide 100m long stretch survives at least 1150m long. Originally shallow ditch on either side the bank was paved pack horse track associated with lead mine.;	medieval/Roman
99224	Playing Field Ridges Slight suggestion of ridge and furrow running dead straight N-S, parallel to the W hedge in a level field 50m NW of St John's Church, Rhydymwyn. Most obvious in the centre of the field. Irregular widths between 3-5m. (Clwyd County Council 1979 – Flintshire)	medieval
17410	Rhydymwyn battlefield Possible site of 11 th century battle. (Wayne, D 1992b, 86).	medieval
97762	Wernier quillet Site not visited.	medieval
97760	Caer-Corrig Quillet Site not visited.	medieval
97761	Coties Newydd quillet Site not visited.	medieval
97755	Gwenglodd quillet Nothing archaeological visible.	medieval
99227	Hen Blas quillet Site of quillet indicated on 1840 Tithe Schedule (ref 129). No sign of quillet or any hedge boundaries. (Clwyd County Council 1979 - Flintshire SMR)	medieval
102699	Maes-y-groes Fieldname Field named 'Maes y groes' or 'Field of cross/crossroad' on 1839 Tithe Schedule. No visible remians of a cross or crossroads. Thought to be a field name only. (Clwyd County Council 1979 - Flintshire SMR)	medieval
97782	Nant Farm quillet Site not visited.	medieval

HER PRN	Description	Period
98992	Ardd-y-Hendre Field named 'Ardd y hendre' on 1840 Tithe Schedule. Name suggestive of a winter dwelling. No visible remains. (Clwyd County Council 1979 - Flintshire SMR)	post medieval
98990	Bryn Llidiart Field named 'Bryn Lidiart' (Hill of the Gate) on 1840 Tithe Schedule. Nothing archaeological visible. (Clwyd County Council 1979 - Flintshire SMR)	post medieval
99163	Coed Du old road Trackway located 150m S of Coed Du, running W-E parallel with hedge line. Visible at its W end as a 3m wide sunken track, petering out after about 40m. Some large trees line the edge of it. (Clwyd County Council 1979 - Flintshire SMR)	post medieval
99179	Coitie Ysgubor field Field name. (Clwyd County Council 1979 - Flintshire SMR)	post medieval
53527	Dolfechlas-isaf, pond Large pond lying between the road and the dismantled railway depicted on 1st edition (1873) OS map.	post medieval
18068	Erwfelein Lead (1864-1871)	post medieval
99226	Gwern-y-Refel Field name on 1840 tithe Map suggestive of smithy. A few large stones in SE corner of field, but no sign of a smithy. (Clwyd County Council 1979 - Flintshire SMR)	post medieval
18094	Halkyn, South/Halkyn, Rhydymwyn Lead/Silver/Zinc (1897-1903)	post medieval
18098	Hendre Figallt Lead (19th century)	post medieval
94495	Hendre Mine, adit Possible mine adit depicted on the 1st edition OS map of 1873.	post medieval
94493	Hendre Mine, quarry Quarry depicted on the 1st edition OS map of 1873.	post medieval
115316	Hendre, pit Possible quarry pit or mine shaft, measuring 3m in diameter x 2m deep. (Better Woodlands for Wales visit, 10/02/2011)	post medieval
94494	Hendre, shaft (lead) Lead shaft depicted on the 1st edition OS map of 1873.	post medieval
128626	Hendre, shaft I Mine shaft visible on post-war (1940s) aerial photographs. Evidence probably removed by	post medieval
97783	Pant y Cwlas Field name. No archaeological remains.	post medieval
18166	Pen-yr-Orsedd Lead/Silver (1864-1889)	post medieval
169325	Pen-yr-orsedd Farm, outbuilding Rubble stone built pig shed, roughly rectangular in shape.	post medieval
99229	Railway pool	post medieval

HER PRN	Description	Period
	Remains of a pool - a depression around 20m diameter and 1m deep next to the railway. The hollow is dry and has trees growing out of it. (Clwyd County Council 1979 - Flintshire SMR)	
97806	Red Lion bank Possible bank, derived from road widening? Bank overgrown.	post medieval
103055	Rhosesmor/Halkyn District Mines Lead/Silver/Zinc (1858-1913)	post medieval
98630	Rhydymwyn Industrial Estate track or leat Trackway or leat depicted on the 1914 6" OS map. No visible remains. (Clwyd County Council 1979 - Flintshire SMR)	post medieval
98608	Tyddyn-y-Gwent old road Old road depicted on 1811 map (D/GW/687) No visible remains, though a few large trees seem to be in line with its original course. (Clwyd County Council 1979 - Flintshire SMR)	post medieval
99231	Vicarage ditch and bank Bank and ditch depicted on 1914 6" OS map. Ditch is 4-6m wide and runs N-S, very shallow. It is now defined by fences and trees on its eastern side. On OS map, ditch meets a bank at its southern end. Nothing now survives of this bank - area now being co	post medieval
97788	Wern-y-Gaer Farm, Coitier Groundel Field name, no archaeological remains.	post medieval
18224	Wern-y-Gaer/Nantfigallt Lead (1868)	post medieval
97739	Nantfigillt Fechan No visible remains of farm or enclosure. A stone structure possibly associated with the old lead mine is situated within the garden adjacent to farm.	post medieval
97779	Pen yr Orsedd building No sign of "plas" building. No apparent reason for site names.	post medieval
97742	Red Lion public house building No evidence of old building east of Red Lion public house.	post medieval
97780	Red Lion Public House, Building, Caerfallwch, Northop No visible remains of old building at Red Lion public house, Caerfallwch.	post medieval
97743	Top-y-Rhos building No trace of old building.	post medieval
130256	Supermarine Spitfire I R7062 The Spitfire was one of 450 delivered to the RAF by Supermarine, Southampton, to contract b19713/39 between May 1940 and April 1941. Its service life included assignments to 308/405 squadrons and 57 OTU. The aircraft collided with R6829 and crashed near	modern
98044	Rhydymwyn, MS Valley, Wartime ARP Shelter No.9 This Air Raid Protection (ARP) shelter was the northernmost within this area of the West Bank. It was constructed within a recess cut into the terracing which was retained by a dry-stone revetment.	modern
13104	Rhosesmor Mine, water pump Large electric water pump at Batters Shaft, dating to about 1900. Was partially dismantled and damaged during salvage work prior to	modern

HER PRN	Description	Period
	the closure of the mine. Was probably installed to pump water to the surface for ore dressing.	
13106	North Hendre Flat Workings, winch I Hand-operated drum winch with a diameter of 1.2m. A geared device with a drum diameter of 0.6m. Was originally mounted upon timbers in the roof of an inclined passage.	modern
13107	North Hendre Flat Workings, winch II A geared winch with a 1.2m diameter flywheel. Manufactured by Charles Booth & Co of Park Lane Liverpool (ships chandlers and engineering supplies). Was used to raise ore up the Main East Incline and was powered by a surface compressor at the main shaft	modern
130397	Miles Master I T8376 Pratt and Grant (2002, 223) report that the aircraft stalled while low flying and crashed between Mold and Nannerch on 12/12/1940. The pilot was killed and the aircraft written off. Location approximate.	modern
13109	Halkyn Tunnel North, drill carriage Heavy steel drill carriage used in 1908. Inscribed 'McCullick Patent'. Weighs c. 2t. Is fitted with axles for transporting underground by rail. Designed to support two arm-mounted compressed air rock drills. Locked in position for drilling by screw-	modern
13108	Halkyn Tunnel North, wagon Wooden, end-tipping ore-wagon, dating to about 1908. Similar to those described in PRN 13101.	modern
19213	Hendre quarry Modern quarry. See also PRN 100231 barrow destroyed by quarry (Silvester, R J & Brassil, K S 1991, 10).	modern
99164	Erw pwll tywfod Field name only. (Clwyd County Council 1979 - Flintshire SMR)	unknown
99230	Dolfechlas Uchat Farm Field A series of low banks seen on AP 037 74 176 - these are thought to be natural breaks of slope in sloping field. (Clwyd County Council 1979 - Flintshire SMR)	unknown
98613	Cae Clawdd Field named 'Cae Clawdd' or 'Ditch/bank Field' on 1839 Tithe Schedule. A natural ridge runs from the east and immediately west, the land slopes down steeply towards the north and west. A boggy ditch runs along the northern edge of the field. (Clwyd Count	unknown
128629	Hendre, trackway Terraced trackway. Now abandoned (Hankinson.R & Silvester. R.J, 2008).	unknown
99007	Lygan uchaf linear feature A series of former hedge banks said to have been removed in the 1950's, extending 5 or 6 small fields into one large one. (Clwyd County Council 1979 - Flintshire SMR)	unknown

APPENDIX II GAZETTEER OF THE HISTORIC BUILT ENVIRONMENT

Listed Buildings

NHLE ID	CPAT HER PRN	Description	Grade
26204	60482	Ore Dressing Shed	II
26203	60480	Boiler Stack at Taylor's Shaft	II
2620	60483	Taylor's Shaft Engine House	II
26205	60481	Brick Kiln and Stack	II
16440	36184	Church of St John	II*
0525	99002	Engine House at Hendre	II
26206	60518	'Lygan Uchaf'	II
16441	104104	Lime Kiln'	II

CPAT HER Entries

HER ID	Description	Period
214445	Cilcain, weir Weir identified by the Amber Barrier Atlas project 2020	unknown
214446	Cilcain, weir Weir identified by the Amber Barrier Atlas project 2020	unknown
214447	Cilcain, weir Weir identified by the Amber Barrier Atlas project 2020	unknown
126909	Coed lygan-Uchaf, building Building noted on early Ordnance Survey mapping during Glastir private woodland project	post medieval
53525	Dolfechlas-isaf, farmstead Farmstead likely to contain traditional farm buildings as those depicted on 1st edition (1873) OS map corresponding with buildings on the modern digital mapping.	post medieval
53526	Dolfechlas-isaf, structure Small structure adjacent to dismantled railway depicted on 1st edition (1873) OS map.	post medieval
56988	Engine House Site recorded in former Flintshire SMR. Supposed site of an engine house from an unknown reference.	post medieval
98999	Glan-yr-Afon 18th century stone public house. (Clwyd County Council 1979 - Flintshire SMR)	post medieval
126675	Glan-yr-afon, limekiln Lime kiln noted on early Ordnance Survey mapping during Glastir private woodland project	post medieval
126674	Glan-yr-afon, limekilns Lime kiln noted on early Ordnance Survey mapping during Glastir private woodland project	post medieval
126676	Glan-yr-afon, quarry building I Building noted on early Ordnance Survey mapping during Glastir private woodland project	post medieval
126677	Glan-yr-afon, quarry building II Building noted on early Ordnance Survey mapping during Glastir private woodland project	post medieval
94501	Glan-yr-afon, structure	post medieval

HER ID	Description	Period
	Two small structures depicted on the 2nd edition OS map of 1889. Possibly associated with the Mold and Denbigh Junction Railway to the north.	
18096	Hendre Lead/Silver (Early 19th century-1987)	post medieval
99209	Hendre air shaft Disused Air Shaft shown on 1964 6" OS map. Site not visited. (Clwyd County Council 1979 - Flintshire SMR)	post medieval
126911	Hendre Lead Mine, building Mine shaft noted on early Ordnance Survey mapping during Glastir private woodland project	post medieval
126910	Hendre Lead Mine. Shaft Mine shaft noted on early Ordnance Survey mapping during Glastir private woodland project	post medieval
103420	Hendre Limekiln Limekiln presumed to have been destroyed. Rough stone wall at this location was possibly associated.	post medieval
104072	Hendre Limekiln Kiln (OS, 1964)	post medieval
98998	Hendre Limeworks Hendre Limeworks depicted on 1914 6" OS map. now in use as an extensive limestone quarry. (Clwyd County Council 1979 - Flintshire SMR)	post medieval
94500	Hendre Mine, buildings I Two small buildings with 3 small enclosures in between shown on the 2nd edition OS map of 1889. Probably associated with the Hendre Lead Mine located to the east.	post medieval
94499	Hendre Mine, tramway Tramway depicted on the 2nd edition OS map of 1889 running NE-SW between the Hendre Lead Mine and Hendre Mine Quarry (PRN 94493).	post medieval
103373	Hendre Quarry Engine House Substantial limestone 4-walled structure measuring 15m high by 6m wide by 6m long. n0285;	post medieval
1001836	Hendre Quarry, engine house 2 Built 1917 to hold electric motors for pumps in Taylor's shaft adjacent.	post medieval
103415	Hendre Villas Engine House Substantial limestone block building with walls up to 3m high and 10m long by 9m wide.the floor is concreted and the evidence for machinery foundations confirm this as the engine house. n0285;	post medieval
126672	Hendre, building I Building noted on early Ordnance Survey mapping during Glastir private woodland project	post medieval
126673	Hendre, building II Building noted on early Ordnance Survey mapping during Glastir private woodland project	post medieval
126671	Hendre, old shaft (lead) Mine shaft noted on early Ordnance Survey mapping during Glastir private woodland project	post medieval
115317	Hendre, stone wall Section of stone block walling standing to around 3m high. Ivy covered in places. There is a large bank built up behind it - so the wall possibly acted some sort of revetment to stabilise the bank alongside the railway line.	post medieval
115318	Hendre, walls	post medieval

HER ID	Description	Period
	Two low, parallel walls visible aligned N-S. Possibly concrete, with squared holes through them. To the immediate E there is a square concrete platform. Walls are all moss covered and there are brambles growing over remains. Possibly remnants of a building.	
97747	Lewis Furniture Centre No evidence of weighbridge / weighing machine.	post medieval
103418	Lygan Uchaf Limekiln No evidence of a limekiln at this site as shown on the os map presumed destroyed. n0285;	post medieval
99005	Lygan Uchaf tracks Line of a former trackway depicted on 1870 6" OS map leading from Coed Lygan Uchaf to limekiln. This has since been removed to form one large arable field. (Clwyd County Council 1979 - Flintshire SMR)	post medieval
178173	Lygan-uchaf farm Farm complex identified on OS 2nd edition 25 inch to 1 mile map. Likely to contain traditional farm buildings (CPAT, Farms and Farmsteads - Flintshire, 2019).	post medieval
179478	Lygan-uchaf farm, farm building Traditional farm building, or building now encompassing a traditional farm building, identified from OS 2nd edition 25 inch to 1 mile map by CPAT Farm	post medieval
179479	Lygan-uchaf farm, farm building Traditional farm building, or building now encompassing a traditional farm building, identified from OS 2nd edition 25 inch to 1 mile map by CPAT Farm	post medieval
179480	Lygan-uchaf farm, farm building Traditional farm building, or building now encompassing a traditional farm building, identified from OS 2nd edition 25 inch to 1 mile map by CPAT Farm	post medieval
179481	Lygan-uchaf farm, farm building Traditional farm building, or building now encompassing a traditional farm building, identified from OS 2nd edition 25 inch to 1 mile map by CPAT Farm	post medieval
126634	Nant Cottage, building Building noted on early Ordnance Survey mapping during Glastir private woodland project	post medieval
126635	Nant Cottage, shaft Mine shaft noted on early Ordnance Survey mapping during Glastir private woodland project	post medieval
126636	Nant Cottatge, house House noted on early Ordnance Survey mapping during Glastir private woodland project	post medieval
178169	Nant Farm Farm complex identified on OS 2nd edition 25 inch to 1 mile map. Likely to contain traditional farm buildings (CPAT, Farms and Farmsteads - Flintshire, 2019).	post medieval
179474	Nant Farm, farm building Traditional farm building, or building now encompassing a traditional farm building, identified from OS 2nd edition 25 inch to 1 mile map by CPAT Farm	post medieval
99006	Nant Figillt stepping stones Stepping Stones depicted on 1914 6" OS map. No visible remains. (Clwyd County Council 1979 - Flintshire SMR)	post medieval
97731	Nant Figillt stone Site not visited.	post medieval
178170	Nant-figillt farm	post medieval

HER ID	Description	Period
	Farm complex identified on OS 2nd edition 25 inch to 1 mile map. Likely to contain traditional farm buildings (CPAT, Farms and Farmsteads - Flintshire, 2019).	
179475	Nant-figillt farm, farm building Traditional farm building, or building now encompassing a traditional farm building, identified from OS 2nd edition 25 inch to 1 mile map by CPAT Farm	post medieval
178168	Pen-yr-orsedd Farm Farm complex identified on OS 2nd edition 25 inch to 1 mile map. Likely to contain traditional farm buildings (CPAT, Farms and Farmsteads - Flintshire, 2019).	post medieval
179473	Pen-yr-orsedd Farm, farm building Traditional farm building, or building now encompassing a traditional farm building, identified from OS 2nd edition 25 inch to 1 mile map by CPAT Farm	post medieval
100304	Pen-yr-orsedd Farmhouse Two storied building of rubble construction with a slate roof. Large external chimney breast on east side thought to be 17th century or earlier orsedd mound, no mound visible today.; (cas 4/12/93)	post medieval
98628	Pent-y-Terfyn stone Boundary stone described in 1699. No visible remains. (Clwyd County Council 1979 - Flintshire SMR)	post medieval
99223	Penyfron wheel pit Site of wheel pit - now destroyed (since 1975) and occupied by a modern house and garden. (Clwyd County Council 1979 - Flintshire SMR)	post medieval
97807	Red Lion circular feature Circular bank 0.5m in height and 8m length. Depression within circular feature and possible entrance to the NE. Probably an old lead shaft.	post medieval
87820	Red Lion Public House, Caerfallwch, Northop Eastern face has two projections; a porch to the front door and a toilet block to the back (South).	post medieval
145073	Rh-y-mwyn, Rhyd-y-mwyn - WW1 Plaque, war memorial First World War (1914-1918), Board / Plaque / Tablet	modern
103065	Rhosesmor Powder Magazine Stone footings of small building 2.9m by 3.4m standing up to 0.75m high, believed to be the remains of a powder magazine. n0185;	post medieval
129227	Rhosesmor, Cefn Eurgain Lane, Jerusalem Chapel, Chapel House Chapel House	post medieval
126608	Rhyd-Alyn, Flour Mill, mill race Mill race noted on early Ordnance Survey mapping during Glastir private woodland project	post medieval
145074	Rhyd-y-mwyn, Rhyd-y-mwyn - WW2 Plaque, war memorial War memorial commemorating the Second World War (1939-1945) of Board / Plaque / Tablet type	modern
145075	Rhyd-y-mwyn, Rhyd-y-mwyn War Memorial Institute, war memorial War memorial commemorating the First World War (1914-1918) of Hall / Institute type	modern
104074	Rhydymwyn Milestone Milestone missing at this location. n0785;	post medieval
104075	Rhydymwyn Mill House House called Mill House shows no evidence of it being a mill at all. nothing else in the area to suggest a mill. n0785;	post medieval
17138	Rhydymwyn National School	post medieval

HER ID	Description	Period
	Approximate NGR. designed by Thomas Henry Wyatt. tablet in gable records site given by P.B. Davies-Cooke of Gwysaney in 1868 (seaborne, m.v.j., 1992, 90-1). currently private house (ibid, 102).	
98000	Rhydymwyn, MS Valley, Process Garage, This building served as the garage and workshop for all of the vehicles at Valley. It is single-storied but open to its sloping steel-framed roof which is unique to the surviving buildings at Valley. The garage originally had three inspection pits	modern
103051	Ruby Brickworks Derelict brickworks buildings some with chimneys still standing. n0185;	post medieval
1001840	Ruby Brickworks, eastern drying sheds Drying sheds for Ruby Brickworks,	post medieval
1001845	Ruby Brickworks, engine and boiler house Engine and boiler house for Ruby Brickworks	post medieval
1001839	Ruby Brickworks, kiln Kiln at Ruby Brickworks,	post medieval
1001837	Ruby Brickworks, offices Office accommodation for Ruby Brickworks	post medieval
1001838	Ruby Brickworks, privies Privies for Ruby Brickworks	post medieval
1001842	Ruby Brickworks, western drying sheds Drying sheds for Ruby Brickworks,	post medieval
1001843	Ruby Brickworks, workshops Workshopd for Ruby Brickworks,	post medieval
1001841	Ruby Brickworks, rail loading bays Rail loading bays for Ruby Brickworks	post medieval
178167	Tyddyn-y-gwynt farm Farm complex identified on OS 2nd edition 25 inch to 1 mile map. Likely to contain traditional farm buildings (CPAT, Farms and Farmsteads - Flintshire, 2019).	post medieval
178895	Tyddyn-y-gwynt farm, farm building Traditional farm building, or building now encompassing a traditional farm building, identified from OS 2nd edition 25 inch to 1 mile map by CPAT Farm	post medieval
178896	Tyddyn-y-gwynt farm, farm building Traditional farm building, or building now encompassing a traditional farm building, identified from OS 2nd edition 25 inch to 1 mile map by CPAT Farm	post medieval
178897	Tyddyn-y-gwynt farm, farm building Traditional farm building, or building now encompassing a traditional farm building, identified from OS 2nd edition 25 inch to 1 mile map by CPAT Farm	post medieval
98576	Tyddyn-y-Gwynt Lime Kiln Limekiln shown on c1862 map (D/DM/223/63). No visible remains. (Clwyd County Council 1979 - Flintshire SMR)	post medieval
178172	Wern Farm Farm complex identified on OS 2nd edition 25 inch to 1 mile map. Likely to contain traditional farm buildings (CPAT, Farms and Farmsteads - Flintshire, 2019).	post medieval
179477	Wern Farm, farm building Traditional farm building, or building now encompassing a traditional farm building, identified from OS 2nd edition 25 inch to 1 mile map by CPAT Farm	post medieval
178171	Wern-y-gaer Farm	post medieval

HER ID	Description	Period
	Farm complex identified on OS 2nd edition 25 inch to 1 mile map. Likely to contain traditional farm buildings (CPAT, Farms and Farmsteads - Flintshire, 2019).	
179476	Wern-y-gaer Farm, farm building Traditional farm building, or building now encompassing a traditional farm building, identified from OS 2nd edition 25 inch to 1 mile map by CPAT Farm	post medieval

DRAFT

APPENDIX III GAZETTEER OF HLC UNITS

HLC UID	HLC Broad type	HLC Primary type	Details
FLNTHL757	Irregular Fieldscapes	Irregular Fieldscapes. Woodland. Nucleated Settlement. Non-nucleated Settlement. Extractive. Communications	Trellyniau
FLNTHL183	Irregular Fieldscapes	Irregular Fieldscapes. Woodland. Extractive. Processing/Manufacturing. Military	Upper Alyn Valley
FLNTHL349	Irregular Fieldscapes	Irregular Fieldscapes. Woodland. Nucleated Settlement. Extractive. Processing/Manufacturing. Communications. Designed Landscape	Leeswood
FLNTHL417	Extractive	Marginal Land. Non-nucleated Settlement. Extractive. Processing/Manufacturing. Communications	Halkym Mountain

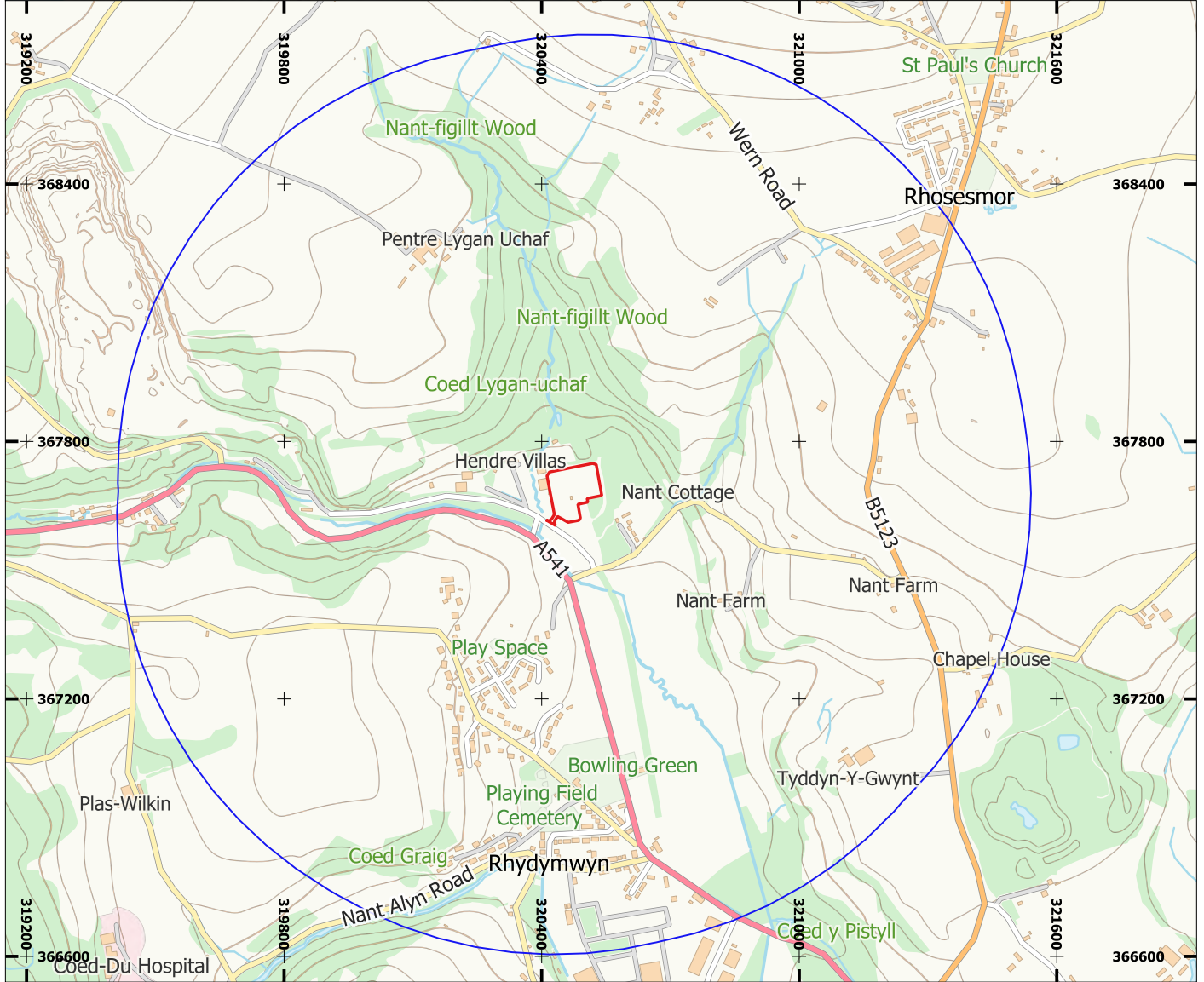
APPENDIX IV GAZETTEER OF PREVIOUS ARCHAEOLOGICAL EVENTS

HER Event Entries

PRN	Name	Description/Event
38542	Rhydymwyn to Northop Gas Pipeline, assessment 1992	Evaluation of proposed pipeline identified a battlefield (17410) and field banks (26932) (Wayne, D 1992).
49214	Rhydymwyn battlefield, metal detector survey 1992	Metal detector survey of possible site of 11th century battle. Various ferrous objects and lead token with acorn motif recovered (Wayne, D 1992b, 86).
13097	Halkyn Mountain mines, topographical survey 1996	In 1996 the Grosvenor Caving Club explored a number of Flintshire lead veins for the first time since their closure. Work concentrated on locating the Halkyn Tunnel. A large number of artifacts were found and a photographic record was made. (Ebbs, C, 1)
38271	Hen Blas motte and bailey, excavation 1957	Motte and bailey built AD 1157. Motte predominantly levelled in late 13th cent for timber buildings within a pallsade. Excavations concluded in 1957. Site bounded on north & south by steep sided ravine. S f 62.
112363	Hendre Quarry, assessment project 2008	Assessment project carried out by Clwyd Powys Archaeological Trust in 2008.
123124	Medieval and Post-Medieval Industry, assessment project 2011-12	Assessment project carried out for Cadw by Clwyd-Powys Archaeological Trust in 2011-12. Consisted of desk-based assessment and limited fieldwork of medieval and early post-medieval industrial sites in east and north-east Wales.
70807	Rhosesmor Mine Land Reclamation Scheme, evaluation 1998	Desk-top survey and evaluation carried out by EAS in 1998 prior to land reclamation of Rhosesmor lead and zinc works. No documentary evidence was found to suggest that the area in question was mined before the mid C19th or later than c.1912. No evidence
106538	Rhydymyn, MS Valley, assessment project 2006	Assessment project carried out by Birmingham Archaeology in 2006
129723	Mills and Milling Scheduling Enhancement Programme 2011-12	Cadw-funded Scheduling Enhancement Programme looking at medieval and early post-medieval (pre-1750) mills in north-east and mid-Wales. Desk based assessment (PRN129724) was followed by field survey (PRN129725).
129724	Mills and Milling Scheduling Enhancement Programme, desk-based assessment 2011-12	Desk-based assessment, part of a Scheduling Enhancement Programme looking at medieval and early post-medieval (pre-1750) mills in north-east and mid-Wales (Hankinson & Silvester, 2012).
128559	Railway Ruin, Glastir HEF report	NULL
129106	Rhosesmor, Cefn Eurgain Lane, Jerusalem Chapel, Chapel House	Photographic survey undertaken in 2005 ahead of development. (Andy Evans, 2013)
140230	Twentieth Century Military Remains - Rhydymwyn, Flintshire. Scheduling Enhancement Programme	The main programme of work comprised a desk-based-assessment using primary and secondary documentation in order to identify the nature, uses and inter-relationships of the surviving resource. This was informed largely by the Historic Environment Management
141996	Medieval and Post-Medieval Industry, desk based assessment 2011-12	Desk-based assessment of medieval and early post-medieval industrial sites in east and north-east Wales.

PRN	Name	Description/Event
132130	Military Aircraft Crash Sites. Scheduling Enhancement Programme 2013-14	A thematic study of military aircraft crash sites in east and north-east Wales carried out by CPAT and funded through grant-aid from Cadw as part of a pan-Wales project. The work comprised an initial desk-top study (PRN132131), followed by field visits.
132131	Military Aircraft Crash Sites. Scheduling Enhancement Programme, desk based assessment 2013-14	Desk based assessment, part of a Scheduling Enhancement Programme looking at aircraft crash sites in east and north-east Wales. Work commenced in August 2013 with a desk-top assessment. Based on a pan-Wales database of crash sites both on land and at sea.
144346	Halkyn, Pen Yr Orsedd, building survey, 2017	The exterior and the interior were viewed and photographed. The location and orientation of photographs were located on existing plans.
170065	Rivers Scheduling Enhancement Project "Rivers Usk, Honddu and Grwyne	This Cadw-funded project was completed over 12 months by Clwyd-Powys Archaeological Trust [CPAT]. Its purpose was to identify in-river archaeological features, or those related to river modification across the CPAT region.

DRAFT



Site name: Proposed Anaerobic Digestion Facility at the Former Ruby Brickworks, Hendre
 Date: January 2023
 Drawn by: WR
 Scale: Varies

Site Boundary
 Sir y Fflint - Flintshire County Council

1km Study Area



Archaeological Research Services Ltd

Suite 1
 First Floor
 Dunham House
 Cross Street
 Sale
 M33 7HH
 Tel: 01619 762544
 www.archaeologicalresearchservices.com

This drawing: © ARS Ltd
 Contains Ordnance Survey data.
 © Crown copyright and database right 2023

Figure 1:
Site location



Figure 2: Tithe Plan of Halkin Parish in the County of Flint

 Site Boundary

Information based upon Historic Environment Record Data © Clwyd-Powys Archaeological Trust and Cadw data © Cadw 2023. Contains Ordnance Survey data © Crown copyright and database right 2023.

0 20 40 60 80 m



Site name: Proposed Anaerobic Digestion Facility at the Former Ruby Brickworks, Hendre
 Date: January 2023
 Drawn by: WR
 Scale: 1:1,500 @ A3

Archaeological Research Services Ltd

Suite 1
 First Floor
 Dunham House
 Cross Street
 Sale
 M33 7HH



This drawing: © ARS Ltd
 Contains Tithe map IR29/50/19/001:
 © Crown Copyright Images reproduced by courtesy of The National Archives, London, England.
 www.NationalArchives.gov.uk &
 www.TheGenealogist.co.uk.

Tel: 01619 762544
 www.archaeologicalresearchservices.com

Figure 3: Tithe Plan of the Parish of Norththop in the County of Flint

 Site Boundary



Information based upon Historic Environment Record Data © Clwyd-Powys Archaeological Trust and Cadw data © Cadw 2023. Contains Ordnance Survey data © Crown copyright and database right 2023.

0 20 40 60 80 m



Site name: Proposed Anaerobic Digestion Facility at the Former Ruby Brickworks, Hendre
Date: January 2023
Drawn by: WR
Scale: 1:1,500 @ A3

Archaeological Research Services Ltd

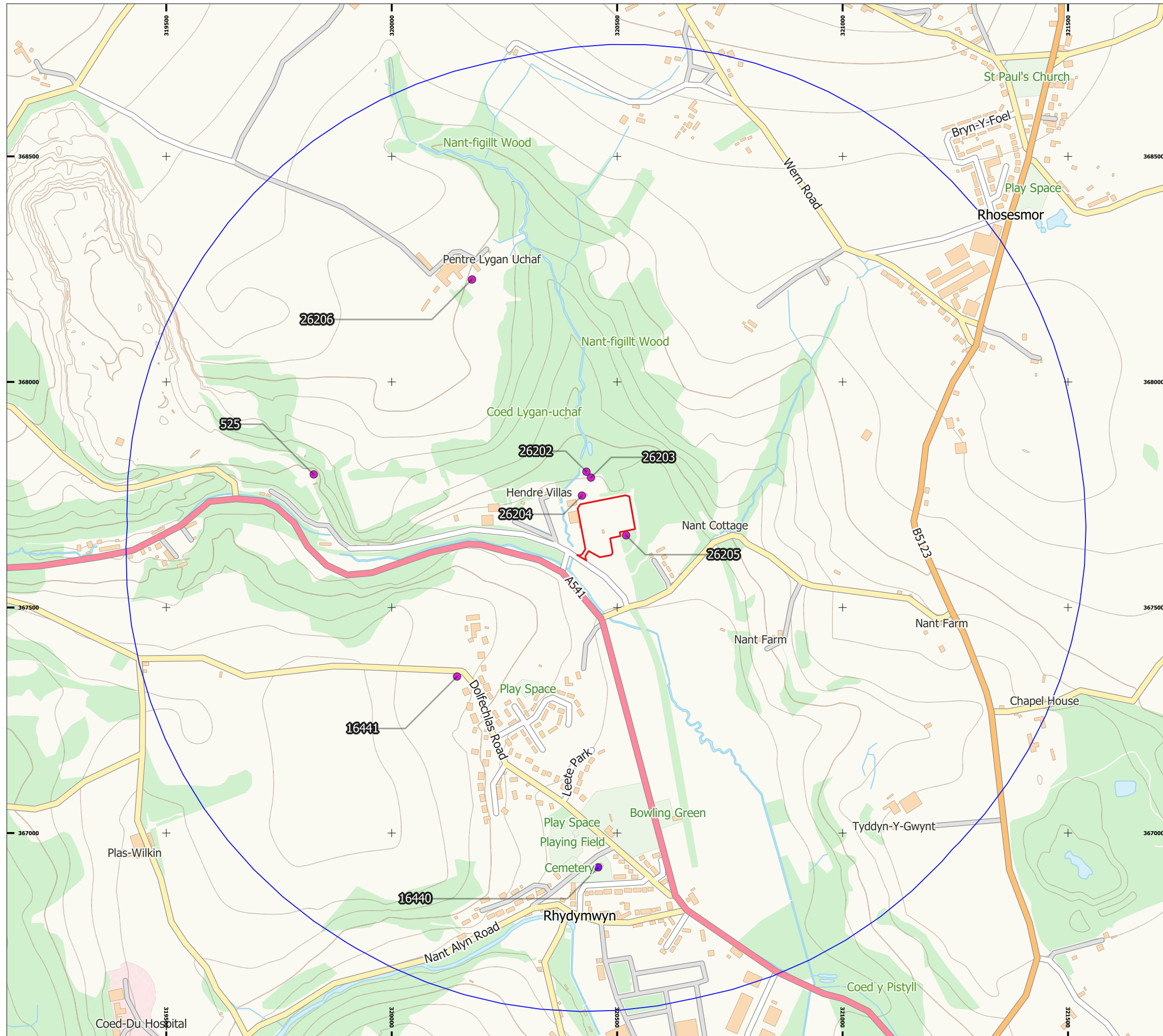
Suite 1
First Floor
Dunham House
Cross Street
Sale
M33 7HH



This drawing: © ARS Ltd
Contains Tithe map IR29/50/32/001:
© Crown Copyright Images reproduced by courtesy of The National Archives, London, England.
www.NationalArchives.gov.uk &
www.TheGenealogist.co.uk.

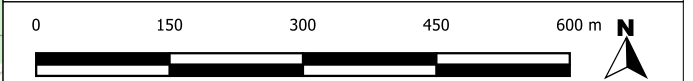
Tel: 01619 762544
www.archaeologicalresearchservices.com

Figure 4: Listed Buildings



- Site Boundary
- 1km Study Area
- Listed Buildings (point)
- II*
- II

Information based upon Historic Environment Record Data © Clwyd-Powys Archaeological Trust and Cadw data © Cadw 2023. Contains Ordnance Survey data © Crown copyright and database right 2023.



Site name: Proposed Anaerobic Digestion Facility at the Former Ruby Brickworks, Hendre
 Date: January 2023
 Drawn by: WR
 Scale: 1:8,500 @ A3

Archaeological Research Services Ltd

Suite 1
 First Floor
 Dunham House
 Cross Street
 Sale
 M33 7HH

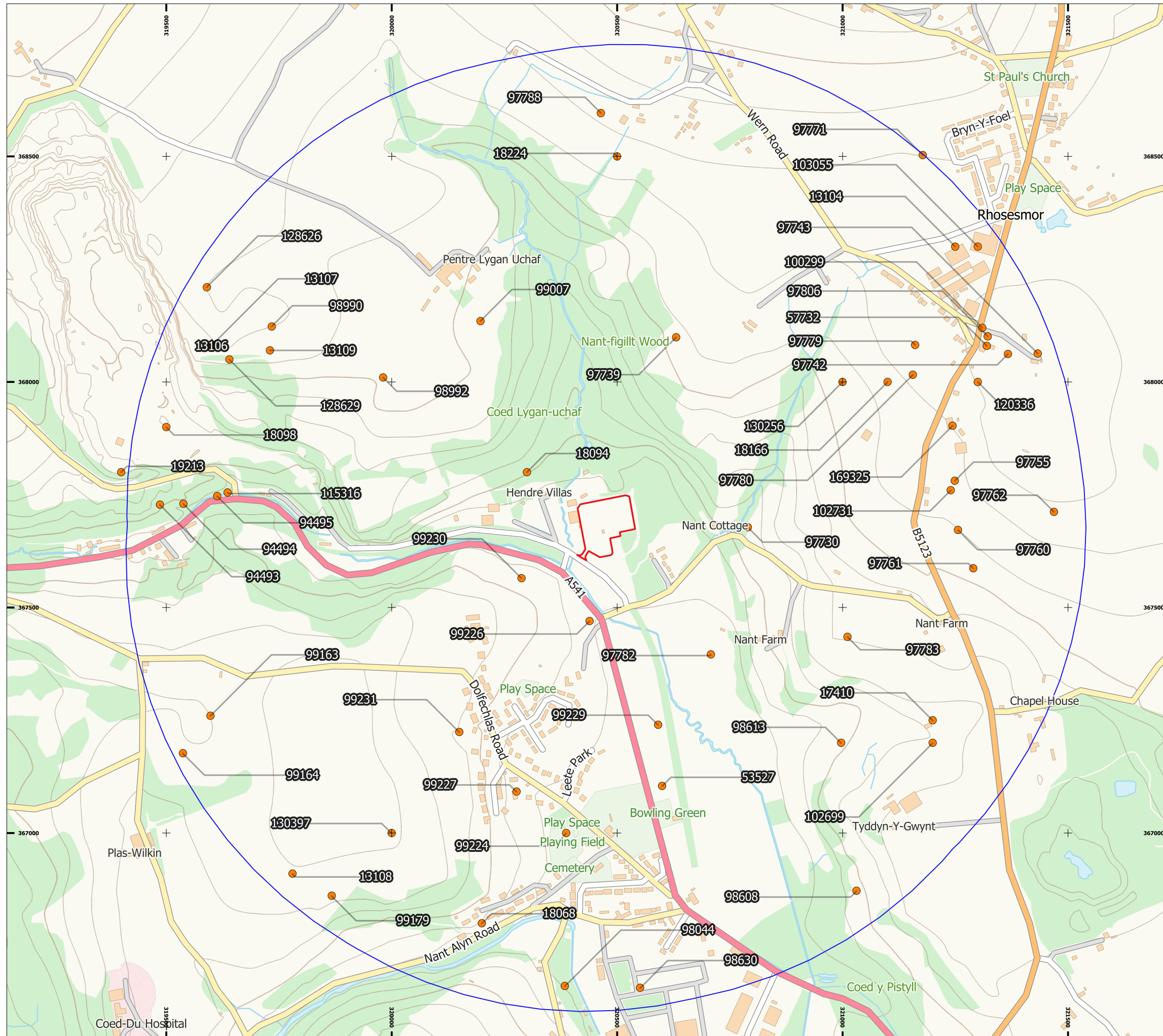


This drawing: © ARS Ltd

Contains Ordnance Survey data.
 © Crown copyright and database right 2023.

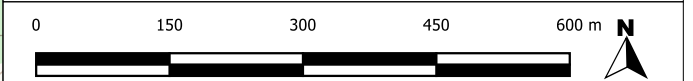
Tel: 01619 762544
www.archaeologicalresearchservices.com

Figure 5: Archaeological Remains



- Site Boundary
- 1km Study Area
- Archaeological Remains (points)

Information based upon Historic Environment Record Data © Clwyd-Powys Archaeological Trust and Cadw data © Cadw 2023. Contains Ordnance Survey data © Crown copyright and database right 2023.



Site name: Proposed Anaerobic Digestion Facility at the Former Ruby Brickworks, Hendre
 Date: January 2023
 Drawn by: WR
 Scale: 1:8,500 @ A3

Archaeological Research Services Ltd

Suite 1
 First Floor
 Dunham House
 Cross Street
 Sale
 M33 7HH



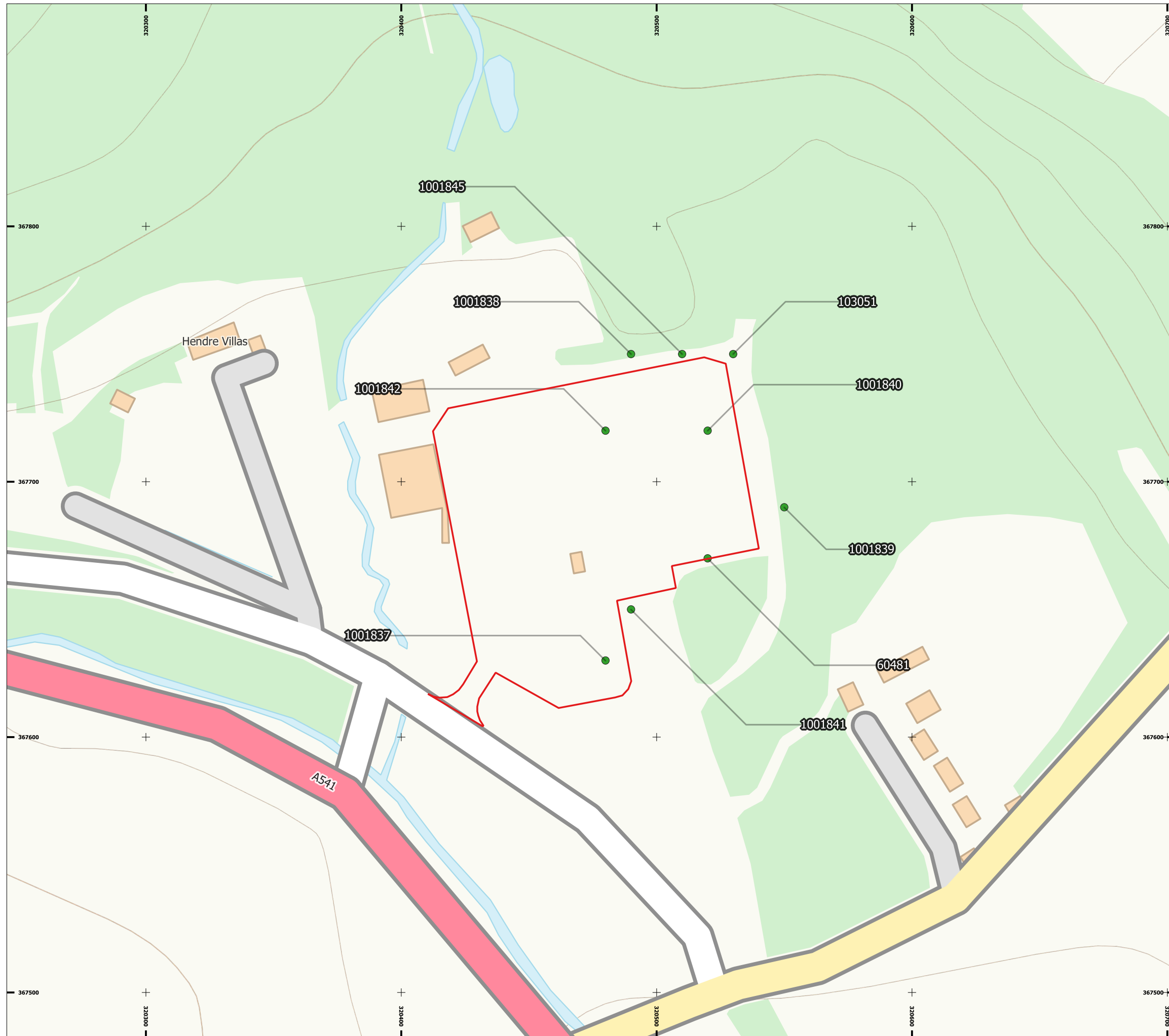
This drawing: © ARS Ltd

Contains Ordnance Survey data.
 © Crown copyright and database right 2023.

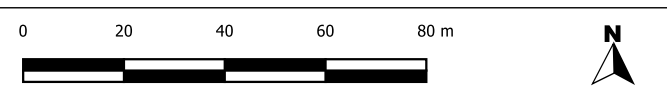
Tel: 01619 762544
www.archaeologicalresearchservices.com

Figure 6: Heritage Assets identified within the PDA

- Site Boundary
- Built Heritage Assets (points)



Information based upon Historic Environment Record Data © Clwyd-Powys Archaeological Trust and Cadw data © Cadw 2023. Contains Ordnance Survey data © Crown copyright and database right 2023.



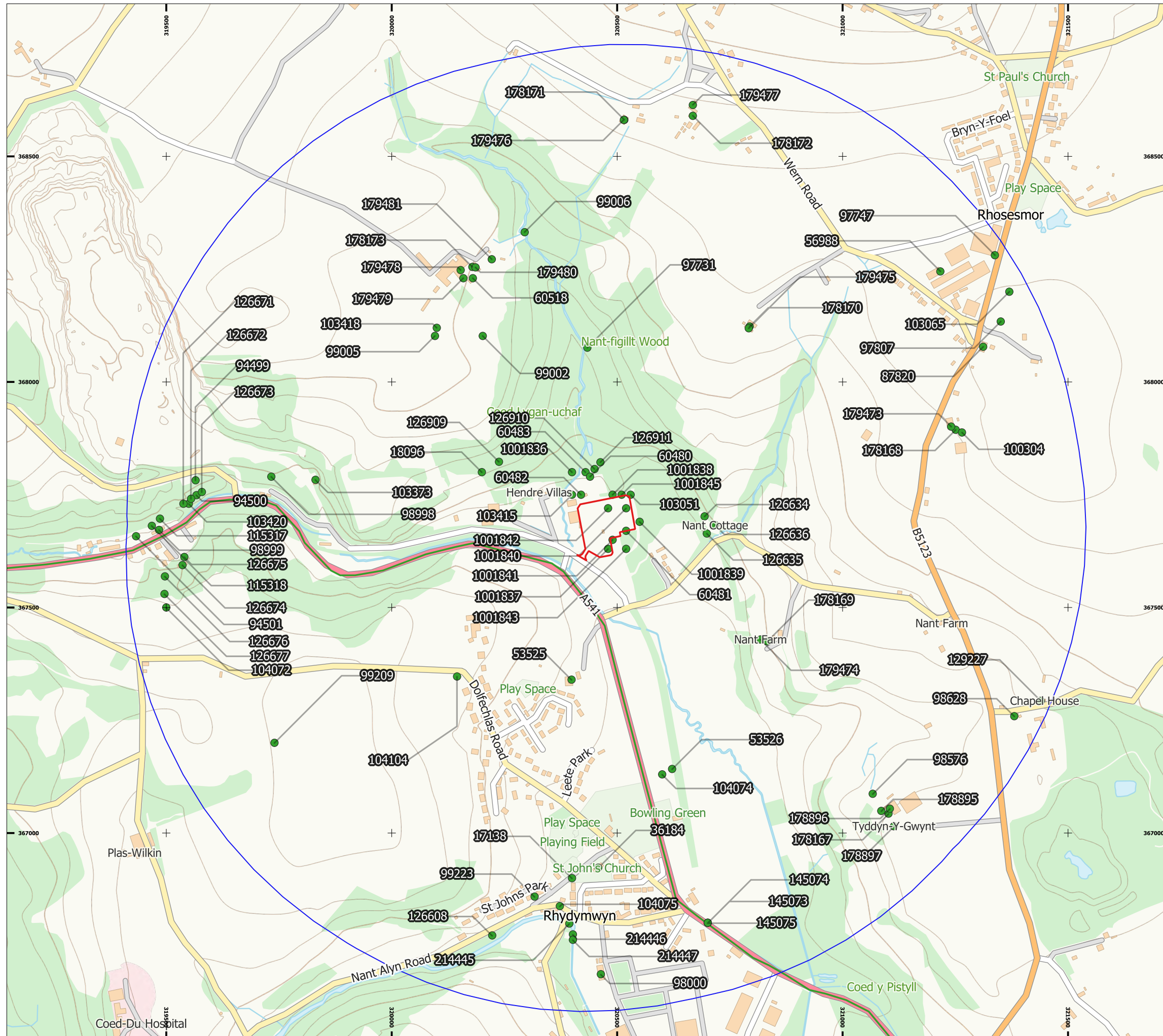
Site name: Proposed Anaerobic Digestion Facility at the Former Ruby Brickworks, Hendre
 Date: January 2023
 Drawn by: WR
 Scale: 1:1,500 @ A3

Archaeological Research Services Ltd
 Suite 1
 First Floor
 Dunham House
 Cross Street
 Sale
 M33 7HH
 Tel: 01619 762544
 www.archaeologicalresearchservices.com



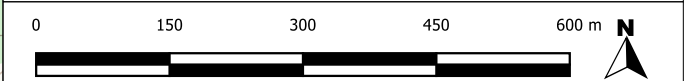
This drawing: © ARS Ltd
 Contains Ordnance Survey data.
 © Crown copyright and database right 2023.

Figure 7: Historic Built Environment



- Site Boundary
- 1km Study Area
- Built Heritage Assets (points)
- 140829 Turnpike (line)

Information based upon Historic Environment Record Data © Clwyd-Powys Archaeological Trust and Cadw data © Cadw 2023. Contains Ordnance Survey data © Crown copyright and database right 2023.



Site name: Proposed Anaerobic Digestion Facility at the Former Ruby Brickworks, Hendre
 Date: January 2023
 Drawn by: WR
 Scale: 1:8,500 @ A3

Archaeological Research Services Ltd

Suite 1
 First Floor
 Dunham House
 Cross Street
 Sale
 M33 7HH

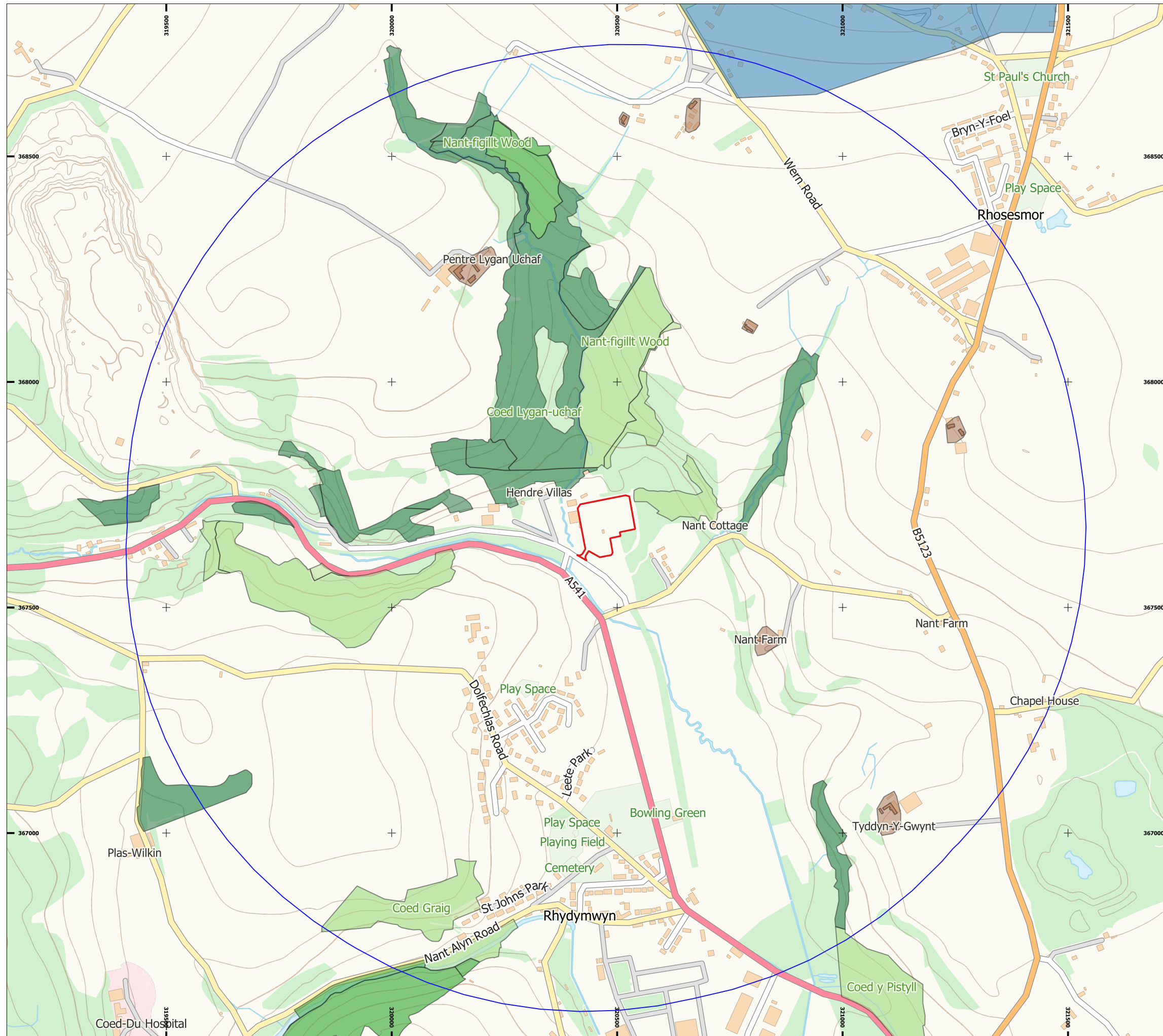


This drawing: © ARS Ltd

Contains Ordnance Survey data.
 © Crown copyright and database right 2023.

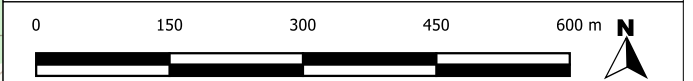
Tel: 01619 762544
www.archaeologicalresearchservices.com

Figure 8: Historic Landscape



- Site Boundary
- 1km Study Area
- Agriculture
- Hollywell Common and Halkyn Mountain
- Ancient Woodland**
- Ancient Semi Natural Woodland
- Plantation on Ancient Woodland Site
- Restored Ancient Woodland Site

Information based upon Historic Environment Record Data © Clwyd-Powys Archaeological Trust and Cadw data © Cadw 2023. Contains Ordnance Survey data © Crown copyright and database right 2023.



Site name: Proposed Anaerobic Digestion Facility at the Former Ruby Brickworks, Hendre
 Date: January 2023
 Drawn by: WR
 Scale: 1:8,500 @ A3

Archaeological Research Services Ltd

Suite 1
 First Floor
 Dunham House
 Cross Street
 Sale
 M33 7HH



This drawing: © ARS Ltd

Contains Ordnance Survey data.
 © Crown copyright and database right 2023.

Tel: 01619 762544
www.archaeologicalresearchservices.com

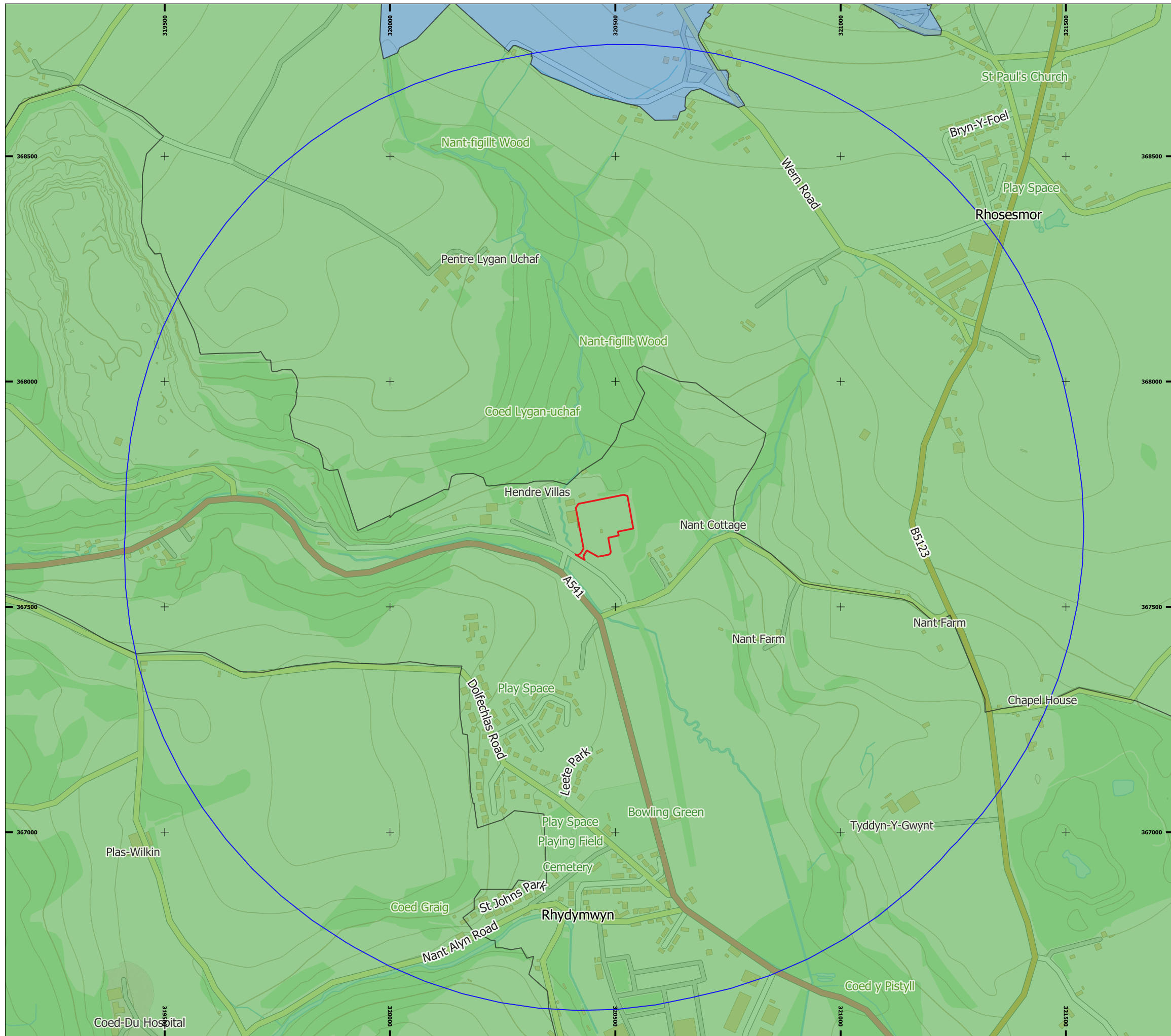
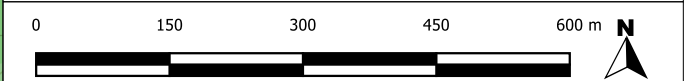


Figure 9: Historic Landscape Characterisation

- Site Boundary
- 1km Study Area
- HLC unit Broad Type
- Irregular Fieldsapes
- Extractive

Information based upon Historic Environment Record Data © Clwyd-Powys Archaeological Trust and Cadw data © Cadw 2023. Contains Ordnance Survey data © Crown copyright and database right 2023.



Site name: Proposed Anaerobic Digestion Facility at the Former Ruby Brickworks, Hendre
 Date: January 2023
 Drawn by: WR
 Scale: 1:8,500 @ A3

Archaeological Research Services Ltd

Suite 1
 First Floor
 Dunham House
 Cross Street
 Sale
 M33 7HH



This drawing: © ARS Ltd

Contains Ordnance Survey data.
 © Crown copyright and database right 2023.

Tel: 01619 762544
www.archaeologicalresearchservices.com

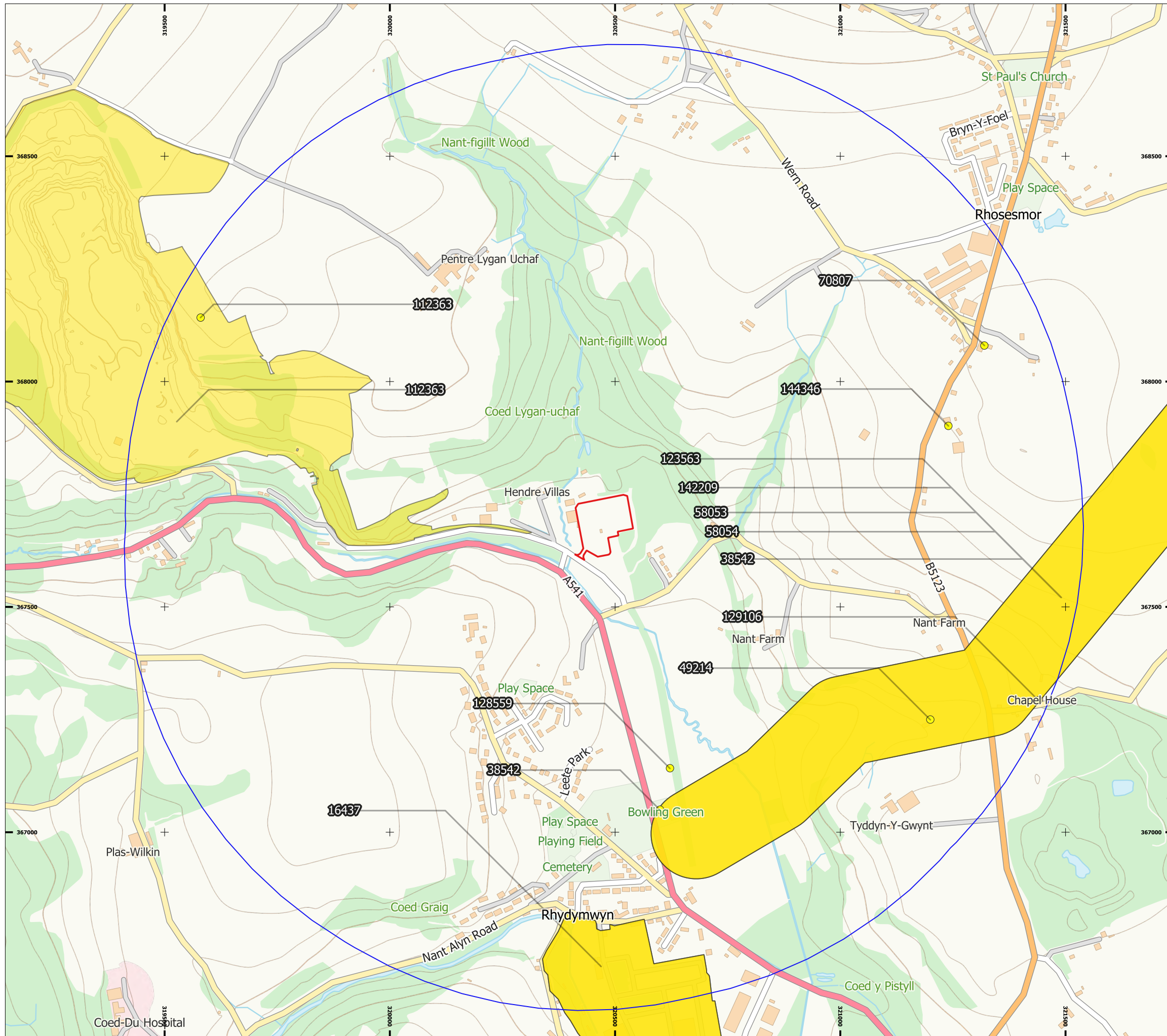
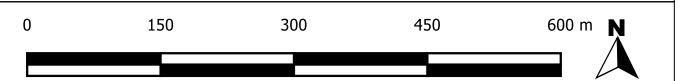


Figure 10: Previous Archaeological Events

- Site Boundary
- 1km Study Area
- Listed Buildings (point)
- II*
- II

Information based upon Historic Environment Record Data © Clwyd-Powys Archaeological Trust and Cadw data © Cadw 2023. Contains Ordnance Survey data © Crown copyright and database right 2023.



Site name: Proposed Anaerobic Digestion Facility at the Former Ruby Brickworks, Hendre
 Date: January 2023
 Drawn by: WR
 Scale: 1:8,500 @ A3

Archaeological Research Services Ltd

Suite 1
 First Floor
 Dunham House
 Cross Street
 Sale
 M33 7HH



This drawing: © ARS Ltd

Contains Ordnance Survey data.
 © Crown copyright and database right 2023.

Tel: 01619 762544
www.archaeologicalresearchservices.com

Figure 11: Photograph Locations



- Site Boundary
- Photograph Location

Information based upon Historic Environment Record Data © Clwyd-Powys Archaeological Trust and Cadw data © Cadw 2023. Contains Ordnance Survey data © Crown copyright and database right 2023.



Site name: Proposed Anaerobic Digestion Facility at the Former Ruby Brickworks, Hendre
Date: January 2023
Drawn by: WR
Scale: 1:1,000 @ A3

Archaeological Research Services Ltd

Suite 1
First Floor
Dunham House
Cross Street
Sale
M33 7HH



This drawing: © ARS Ltd

Contains Ordnance Survey data.
© Crown copyright and database right 2023.

Tel: 01619 762544

www.archaeologicalresearchservices.com

DRAFT



Photograph 1:
View of PDA looking north, towards North Hendre Lead Mine.



Photograph 2:
View View of PDA looking northwest.



Photograph 3:
View west of northern boundary between the PDA and Ore Shed.



Photograph 4:
View east of northern boundary of PDA.



Photograph 5:
View south towards the PDA from the northern boundary.



Photograph 6:
View south towards the late-20th century derelict building.



Photograph 7:
View northwest towards the late-20th century derelict building.



Photograph 8:
View southwest towards the late-20th century derelict building.



Photograph 9:
View northwest towards the late-20th century derelict building.



Photograph 10:
View north towards the late-20th century derelict building and madeground.



Photograph 11:
View southeast from the PDA towards Brick Kiln and Stack.



Photograph 12:
View west along the northern boundary of the PDA.



Photograph 13:
View south along the eastern boundary of the PDA.



Photograph 14:
View south along the eastern boundary of the PDA



Photograph 15:
View west of possible brick structure/foundations just beyond eastern boundary of the PDA (1x1m scale).



Photograph 16:
View View west of possible brick structure/foundations just beyond eastern boundary of the PDA (1x1m scale).



Photograph 17:
View northeast towards Taylor's Shaft Engine House and Boiler Stack.



Photograph 18:
View southwest towards Ore Shed.



Photograph 19:
View south towards the PDA from North Hendre Lead Mine group.



Photograph 20:
View west across the soil bund and tree line between the PDA and North Hendre Lead Mine group.



Photograph 21:
View south towards the PDA from North Hendre Lead Mine group



Photograph 22:
View north from northern boundary of the PDA towards North Hendre Lead Mine group.



Photograph 23:
View north from west section of the PDA towards North Hendre Lead Mine group.



Photograph 24:
View west along the soil bunds on northern boundary of the PDA.



Photograph 25:
View south towards Brick Kiln and Stack, outside of the PDA.



Photograph 26:
View east of Brick Kiln and Stack, outside the PDA.



Photograph 27:
View northeast of the soil bund and tree line along the southern boundary between the PDA and Brick Kiln and Stack.



Photograph 28:
View north from the Brick Kiln and Stack towards the PDA.



Photograph 29:
View southeast from the PDA towards Brick Kiln and Stack.

DRAFT

Site Details:

320472.31949787575,
367685.7035677584

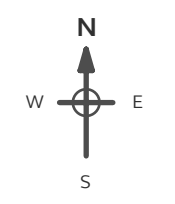
Client Ref: 2022297
Report Ref: GS-9256453
Grid Ref: 320475, 367676

Map Name: County Series

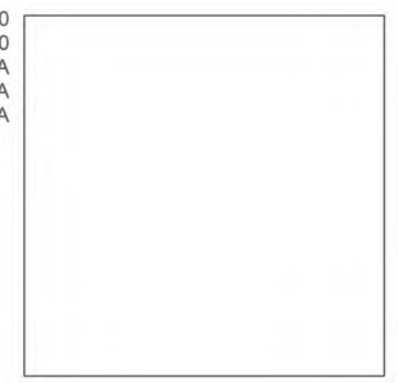
Map date: 1870

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1870
Revised 1870
Edition N/A
Copyright N/A
Levelled N/A

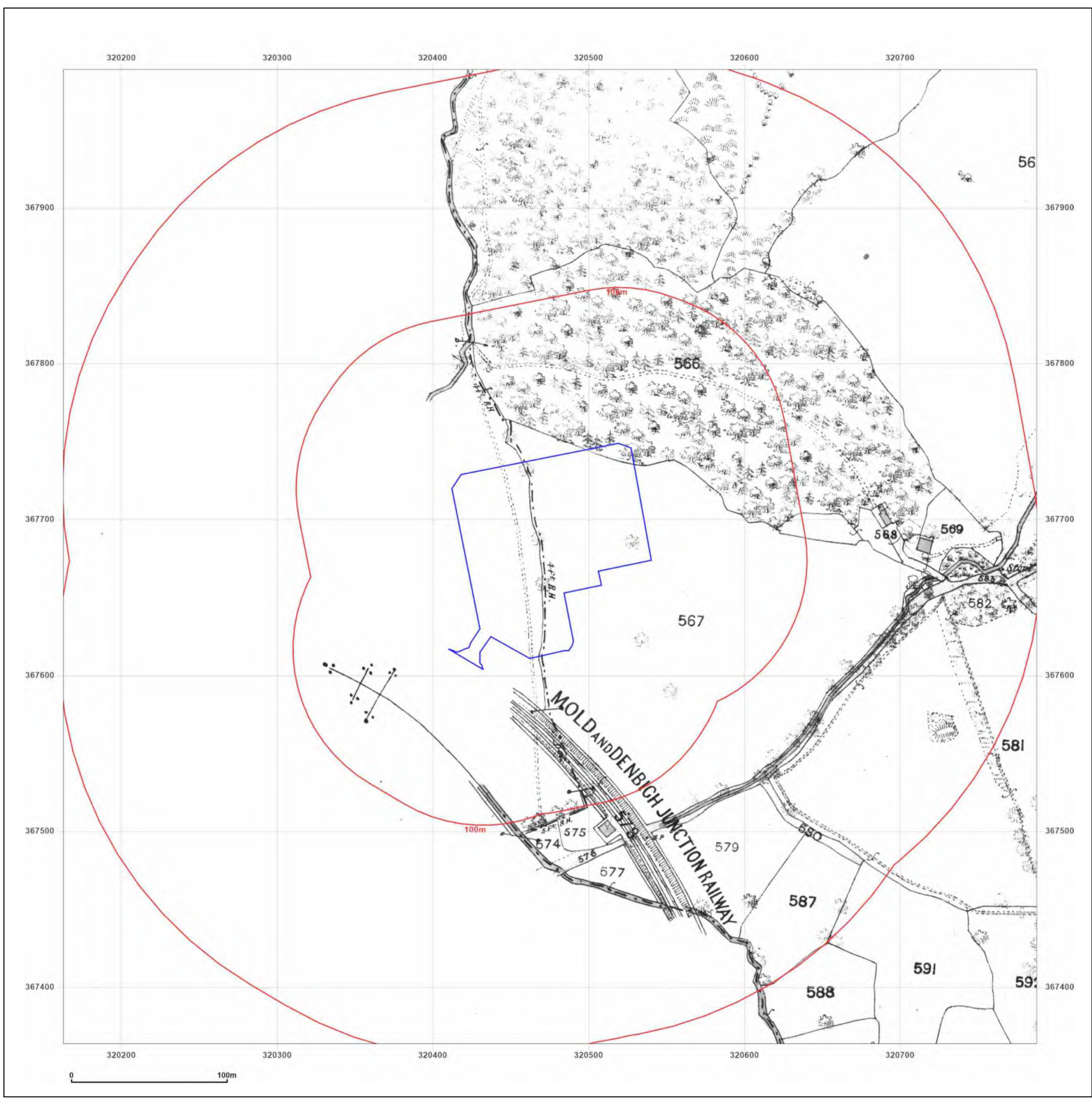


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 13 December 2022

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

320472.31949787575,
367685.7035677584

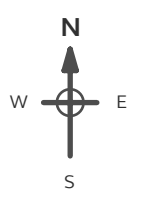
Client Ref: 2022297
Report Ref: GS-9256453
Grid Ref: 320475, 367676

Map Name: County Series

Map date: 1871

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1871
Revised 1871
Edition N/A
Copyright N/A
Levelled N/A

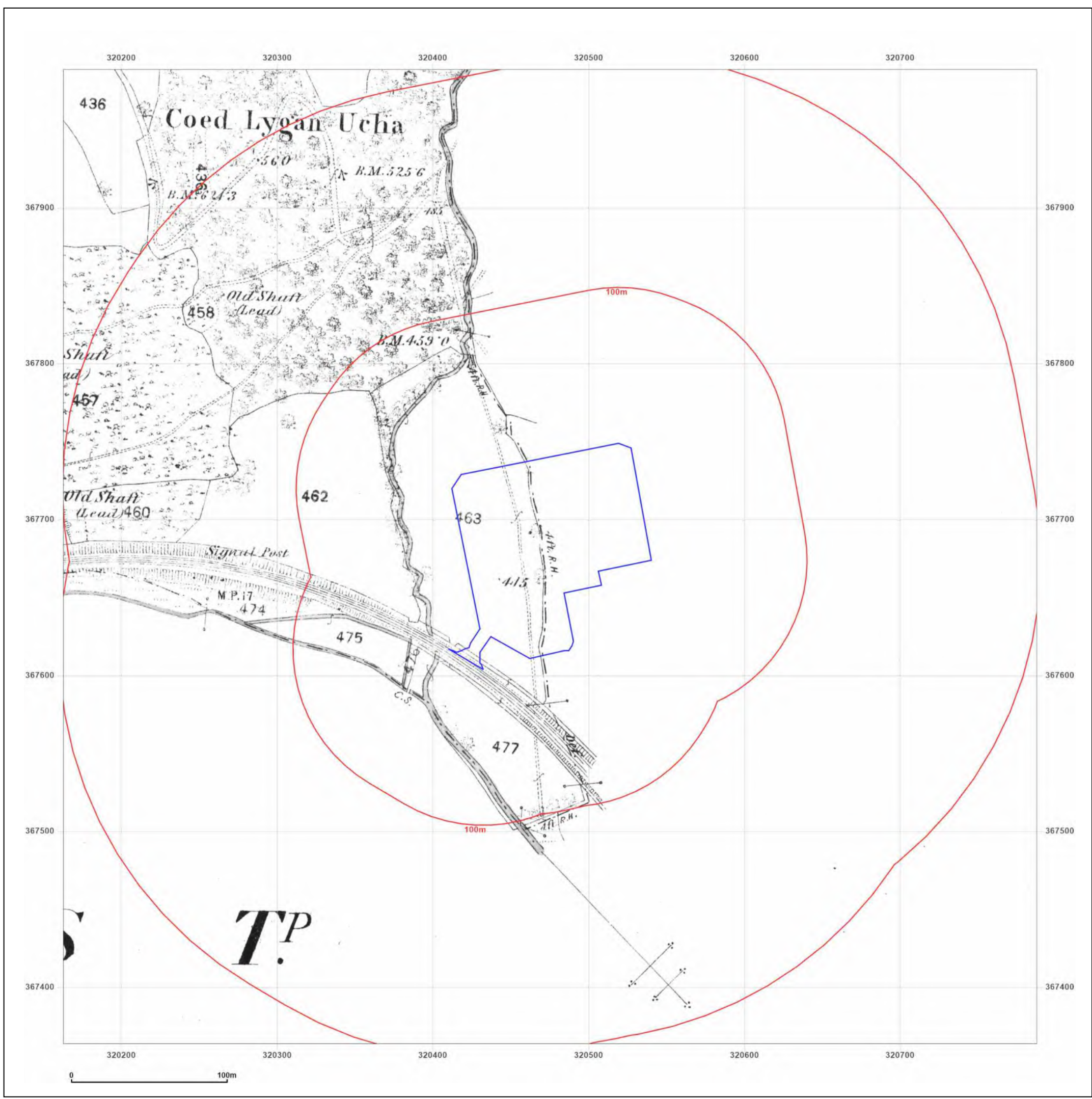


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 13 December 2022

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

320472.31949787575,
367685.7035677584

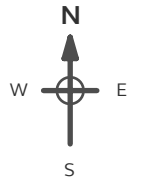
Client Ref: 2022297
Report Ref: GS-9256453
Grid Ref: 320475, 367676

Map Name: County Series

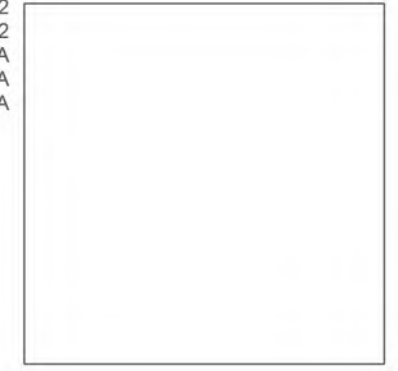
Map date: 1872

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1872
Revised 1872
Edition N/A
Copyright N/A
Levelled N/A

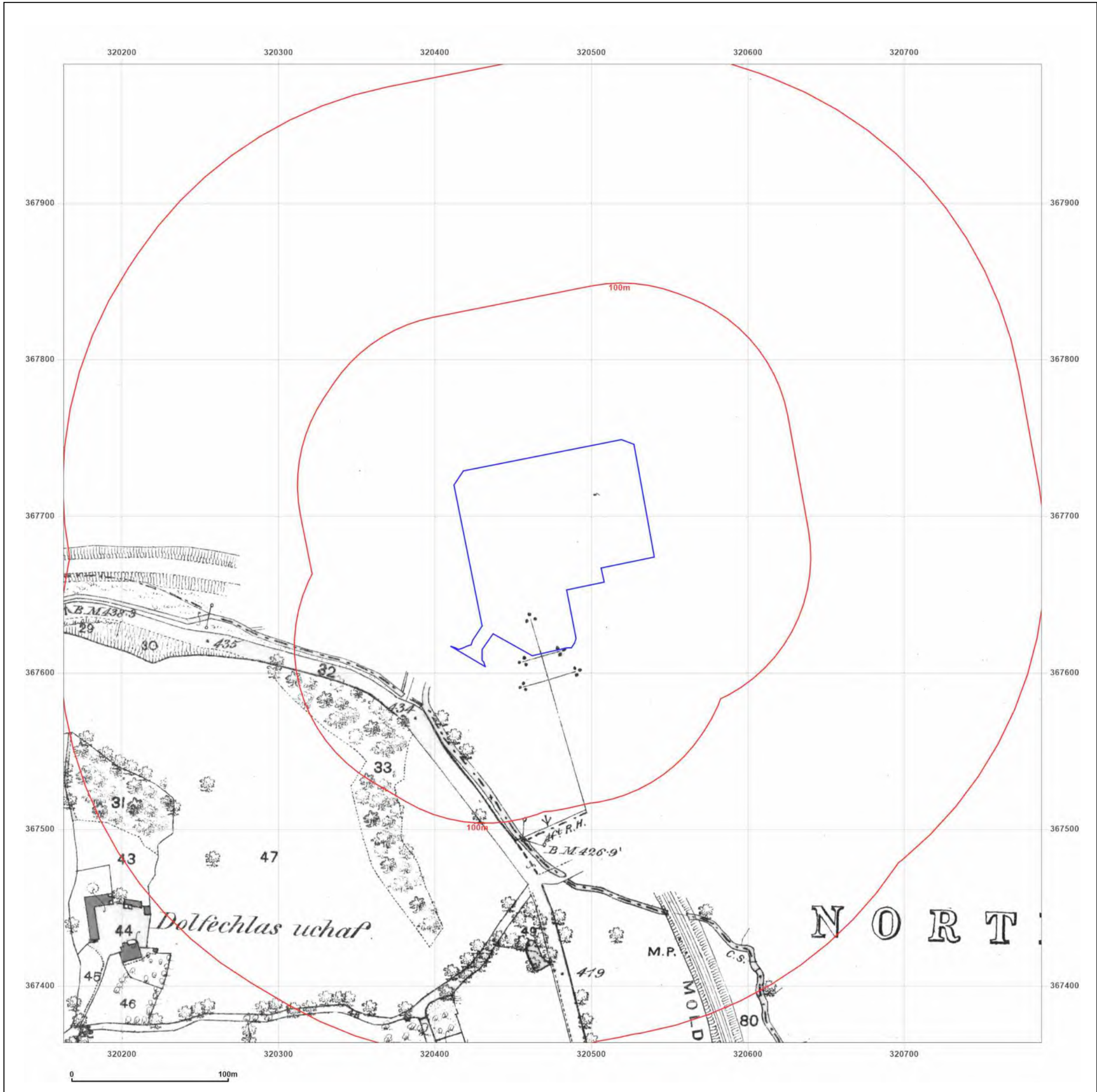


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 13 December 2022

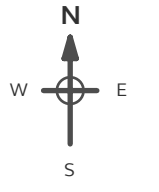
Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



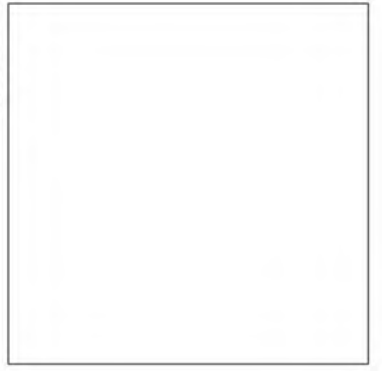
Site Details:
 320472.31949787575,
 367685.7035677584

Client Ref: 2022297
Report Ref: GS-9256453
Grid Ref: 320475, 367676

Map Name: County Series
Map date: 1899
Scale: 1:2,500
Printed at: 1:2,500



Surveyed 1899
 Revised 1899
 Edition N/A
 Copyright N/A
 Levelled N/A



Produced by
 Groundsure Insights
 T: 08444 159000
 E: info@groundsure.com
 W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 13 December 2022

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

320472.31949787575,
367685.7035677584

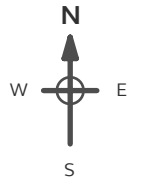
Client Ref: 2022297
Report Ref: GS-9256453
Grid Ref: 320475, 367676

Map Name: County Series

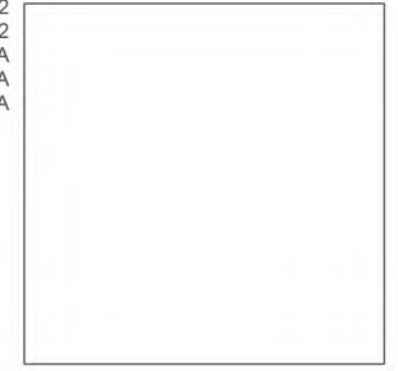
Map date: 1912

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1912
Revised 1912
Edition N/A
Copyright N/A
Levelled N/A



Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 13 December 2022

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

320472.31949787575,
367685.7035677584

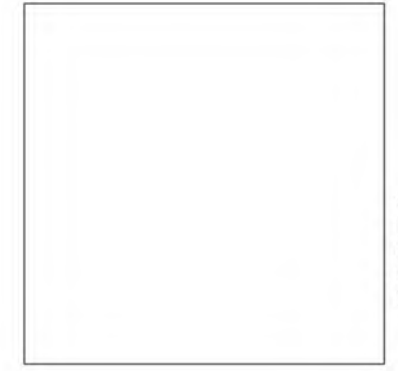
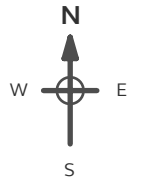
Client Ref: 2022297
Report Ref: GS-9256453
Grid Ref: 320475, 367676

Map Name: National Grid

Map date: 1962

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1960
Revised 1960
Edition N/A
Copyright 1962
Levelled 1951



Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 13 December 2022

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf

Site Details:

320472.31949787575,
367685.7035677584

Client Ref: 2022297
Report Ref: GS-9256453
Grid Ref: 320475, 367676

Map Name: National Grid

Map date: 1962

Scale: 1:2,500

Printed at: 1:2,500



Surveyed N/A
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A



Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 13 December 2022

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

320472.31949787575,
367685.7035677584

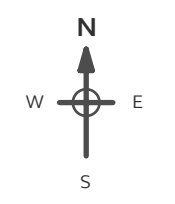
Client Ref: 2022297
Report Ref: GS-9256453
Grid Ref: 320475, 367676

Map Name: National Grid

Map date: 1977

Scale: 1:2,500

Printed at: 1:2,500



Surveyed N/A
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

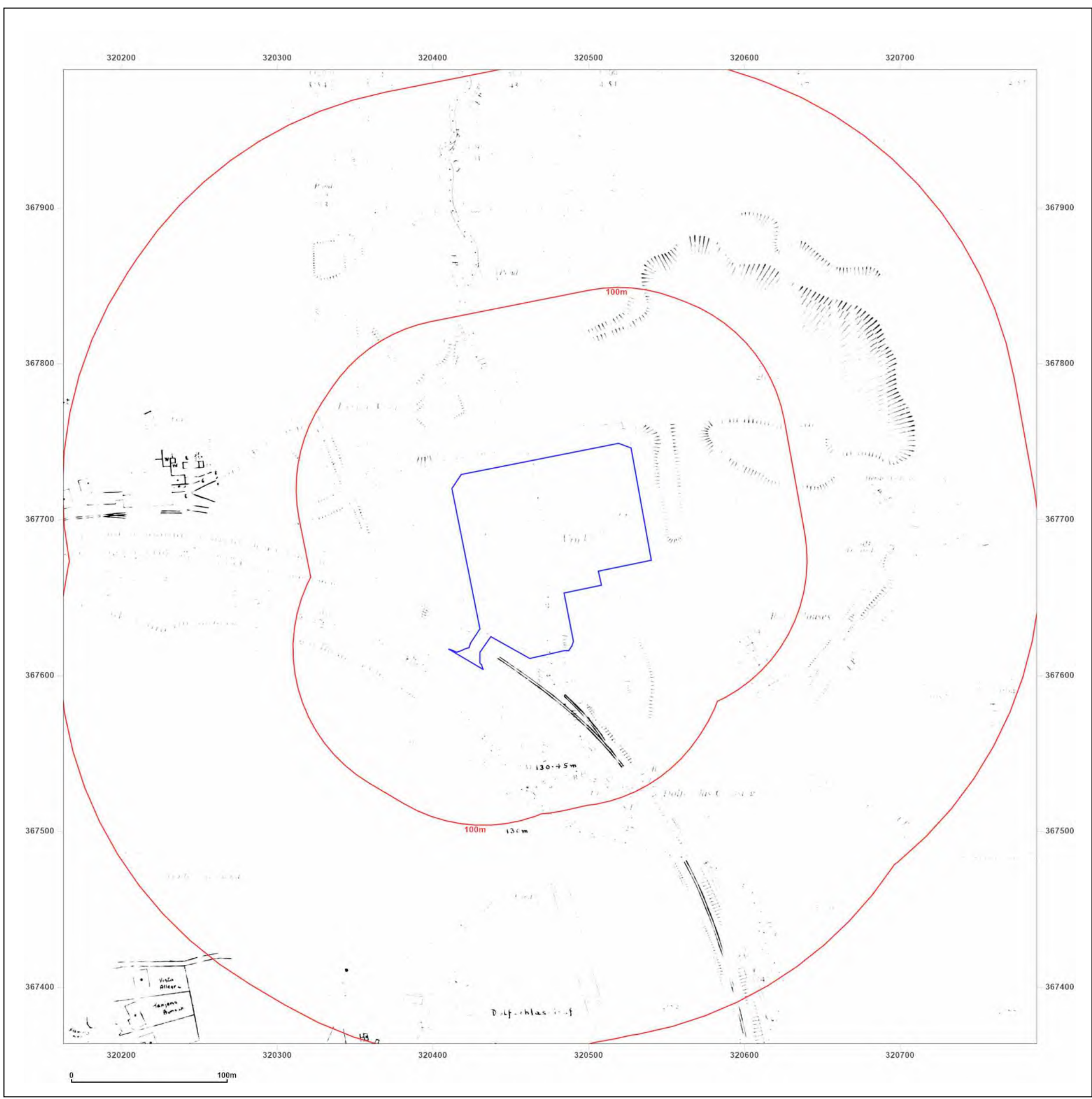


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 13 December 2022

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

320472.31949787575,
367685.7035677584

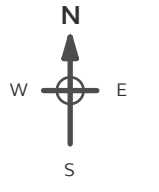
Client Ref: 2022297
Report Ref: GS-9256453
Grid Ref: 320475, 367676

Map Name: National Grid

Map date: 1988

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1988
Revised 1988
Edition N/A
Copyright 1988
Levelled N/A

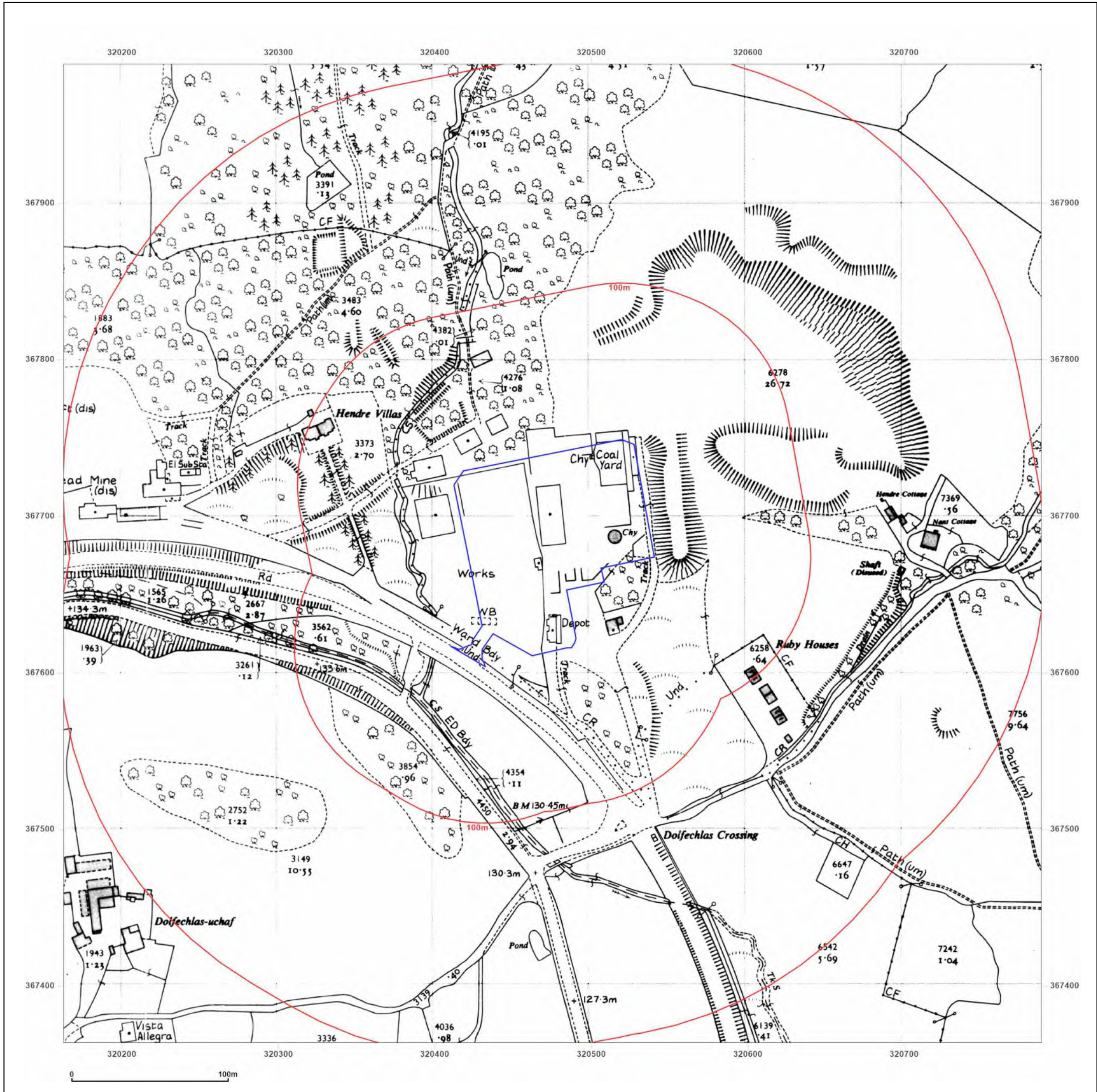


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 13 December 2022

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

320472.31949787575,
367685.7035677584

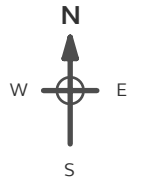
Client Ref: 2022297
Report Ref: GS-9256453
Grid Ref: 320475, 367676

Map Name: National Grid

Map date: 1991

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1967
Revised 1991
Edition N/A
Copyright 1991
Levelled 1967

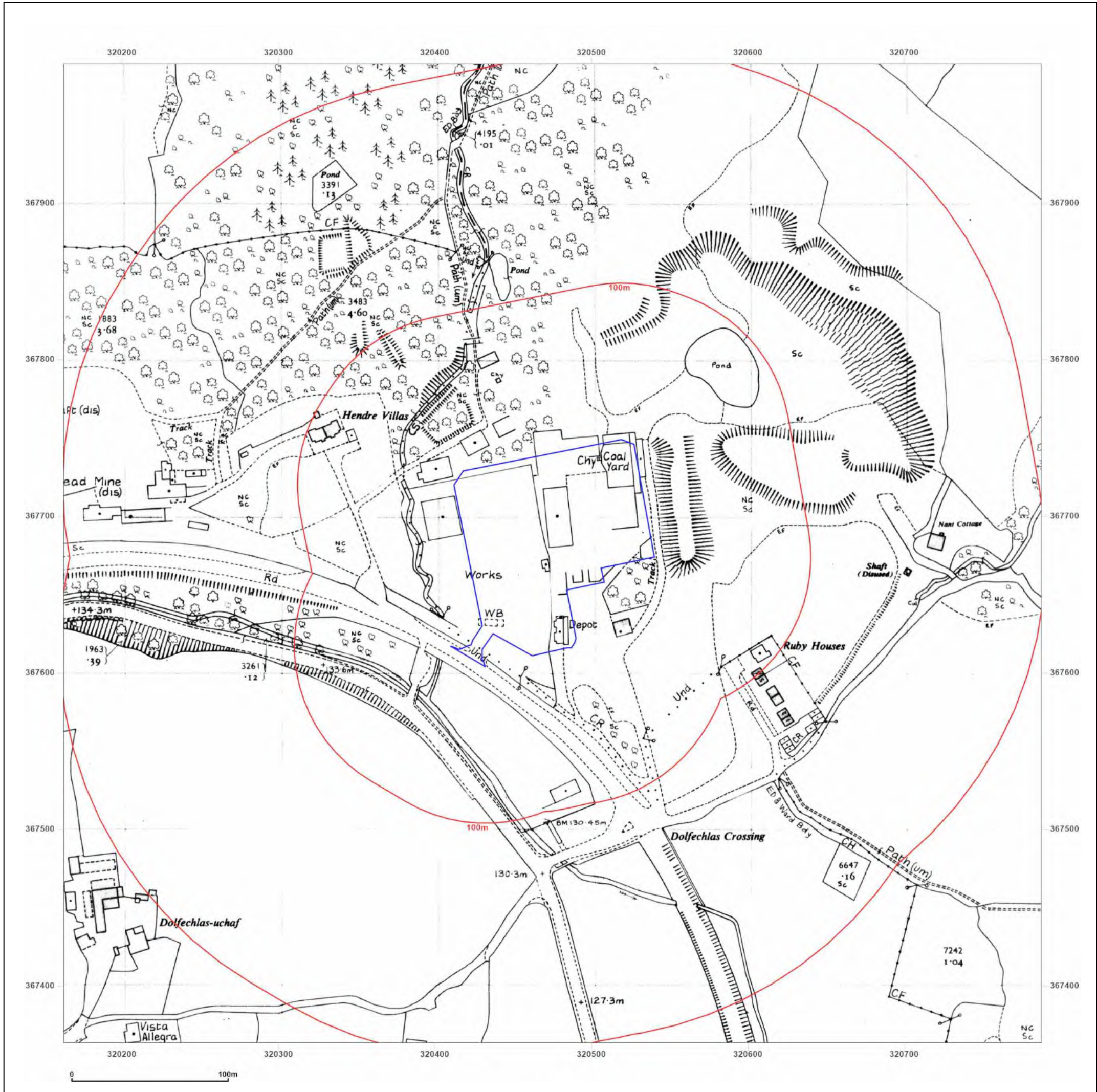


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 13 December 2022

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

320472.31949787575,
367685.7035677584

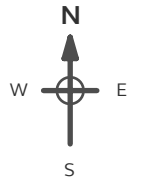
Client Ref: 2022297
Report Ref: GS-9256453
Grid Ref: 320475, 367676

Map Name: National Grid

Map date: 1993

Scale: 1:2,500

Printed at: 1:2,500



Surveyed N/A
Revised N/A
Edition N/A
Copyright 1993
Levelled N/A



Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 13 December 2022

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

320472.31949787575,
367685.7035677584

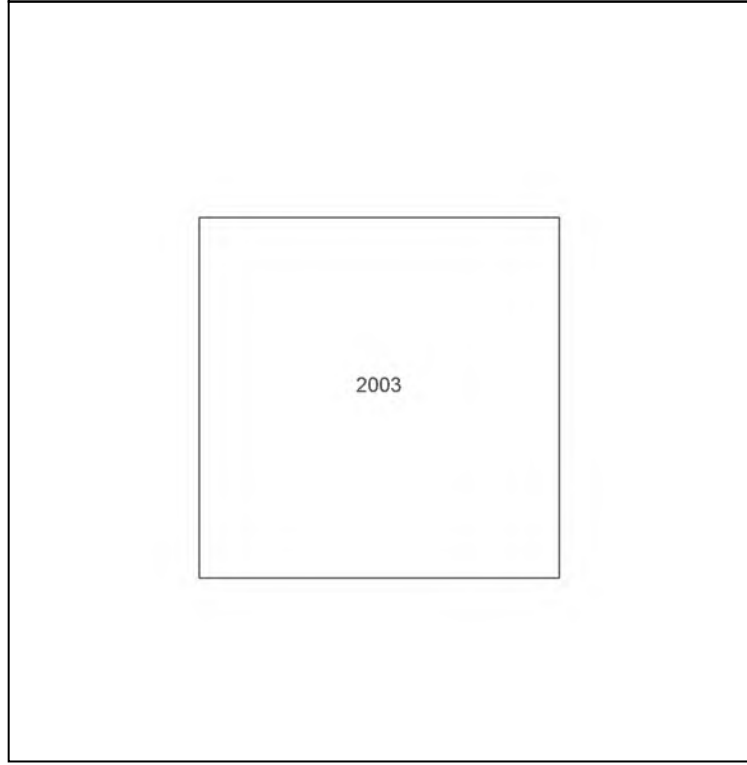
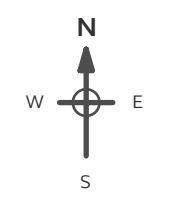
Client Ref: 2022297
Report Ref: GS-9256453
Grid Ref: 320475, 367676

Map Name: LandLine

Map date: 2003

Scale: 1:1,250

Printed at: 1:1,250



Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 13 December 2022

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf

