

Llandyfaelog Substation Archaeological Evaluation Report

On behalf of **National Grid**
nationalgrid

Llandyfaelog Substation

Carmarthenshire

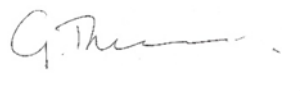
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Llandyfaelog Substation

Archaeological Evaluation Report

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SUMMARY

Oxford Archaeology undertook a 42-trench evaluation to inform a planning application to build an Air Insulated Substation (AIS) to the north of Llandyfaelog, Carmarthenshire. The evaluation was conducted to investigate the presence of archaeological features associated with a series of putative prehistoric or later enclosures and ring-ditches on the geophysical survey and the projected line of the Roman Via Julia Maritima road. The putative section of the road investigated runs from Carmarthen (a Roman town) due south to a possible coastal fort site at Kidwelly.

Although a combination of LiDAR and geophysical survey seemed to indicate the possible line of the Roman road through Trenches 17, 21 and 24, little evidence for it was found in the trenches. The only possible component feature is a single, wide, shallow ditch that was found in Trench 21. This was possibly a roadside ditch related to the Roman road, although this identification was inconclusive due to a lack of datable materials. The ditch contained a dark silty clay fill but yielded no artefacts or organic material to confirm its date or function. Beyond this, there was little evidence of archaeological significance. No artefacts or identifiable remains from the prehistoric, Roman, or medieval periods were identified within the site.

The desk-based assessment, geophysical survey and trial trenching together have shown that most of the fields investigated have been subject to extensive levelling, drainage and agricultural improvement over a period of several centuries, which would explain why the Roman road is so poorly preserved. These disturbances can also explain the numerous apparently significant magnetic responses on the geophysical survey plot. The historic maps show no trace at all of the Roman road. If it was indeed present on the predicted line, traces of the road line must have been largely removed prior to the earliest available map of the area (the 1844 Tithe Map). Modern mechanised farming has no doubt intensified the process of ground disturbance. Buried cables and pipe trenches criss-cross the site and represent another source of extensive modern ground disturbance.

ACKNOWLEDGEMENTS

Oxford Archaeology would like to thank National Grid for commissioning this project. Thanks are also extended to Mike Ings who monitored the work on behalf of Heneb, The Welsh Archaeological Trust. Thanks are also extended to the team from Stantec who acted as Principal Contractor, providing much support to the project. In particular, Ben Sleep was the Project Manager and Miles Davies was the Site Manager.

The project was managed for Oxford Archaeology by Stuart Foreman. The fieldwork was directed by Lee Sparks, who was supported by Harrysson Waldman, James Cross and Barnaby Rees. Survey and digitising was carried out by Harrysson Waldman and Matt Bradley. Thanks are also extended to the team of OA staff that prepared the archive under the supervision of Nicky Scott.

1 INTRODUCTION

1.1 Scope of work

- 1.1.1 Oxford Archaeology (OA) has been commissioned by Stantec on behalf of National Grid to undertake an archaeological evaluation of the site of a proposed Air Insulated Substation (AIS) at Llandyfaelog, Carmarthenshire, Wales.
- 1.1.2 The work was undertaken to inform the Local Planning Authority (Carmarthenshire County Council) in advance of the submission of a planning application. The archaeological evaluation trenching work was informed by a previous Historic Environment Desk Based Assessment (HEDBA; Stantec 2024) and geophysical survey (Heneb 2024) and was undertaken following consultation with Mike Ings, Archaeological Planning Manager at Heneb: The Welsh Archaeological Trust. No brief was prepared but discussions with Mike Ings established the Local Authority's requirements for work necessary to inform the planning process. This document outlines how OA implemented those requirements.
- 1.1.3 All work was carried out in accordance with *The Chartered Institute for Archaeologists' Code of Conduct, Standard for archaeological field evaluation* (2023) and *Universal guidance for archaeological field evaluation* (2023).
- 1.1.4 The documentary archive will be deposited with Carmarthenshire Museum under the accession code: CAASG: 2025.0002. As no finds were recovered, no landowner's permission to donate finds is needed. The digital archive will be deposited with Archaeology Data Service (ADS).
- 1.2 Location, topography and geology
 - 1.2.1 The site lies to the east of the A484, 1.35km north of the settlement of Llandyfaelog and 6km south of Carmarthen (Fig. 1).
 - 1.2.2 The area of proposed development consists of c 52ha of agricultural fields and is surrounded by further agricultural fields, interspersed with farms and woods. The site slopes gently to the south/south-east from 130m aOD in the north to c 120m aOD in the south. The nearest watercourse lies c 890m northwest of the site and c 1.3km east of the site.
 - 1.2.3 The geology of the area is mapped as Milford Haven Group - argillaceous rocks and sandstone and conglomerate, interbedded, sedimentary bedrock formed between 427.4 and 407.6 million years ago during the Silurian and Devonian periods, with the most southern part of the site being mapped as Senni Formation – sandstone, sedimentary bedrock formed between 410.8 and 393.3 million years ago during the Devonian period.
 - 1.2.4 Immediately west of the site is an area covered by superficial glacial till deposits, which do not extend into the trenching fields. These deposits formed between 116 and 11.8 thousand years ago during the Quaternary period (Fig. 6).

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- 1.3 Archaeological and historical background
- 1.3.1 The archaeological and historical background of the site has been described in detail in the Historic Environment Desk Based Assessment (HEDBA, Stantec 2024). A brief summary is provided below.
- 1.4 Previous Archaeological Investigations
- 1.4.1 Ground investigation (GI) works undertaken within the Site in 2024 were conducted under archaeological monitoring. No archaeological finds or features were recorded during the works (CA 2024).
- 1.4.2 Geophysical survey of the site revealed potential ring ditches, enclosures, and the possible course of the Via Julia Maritima Roman road (Fig. 2). Linear anomalies, probably representing former field boundaries, were identified in Fields 2, 4, 5, 7, 8, 14 and 32. These features are likely to be post-medieval in date and if so, they would likely not be considered archaeologically significant.
- 1.4.3 The survey also identified several potential ring ditches across Fields 6, 7, 14, and 32. Ring ditches have two common interpretations: as either Bronze Age (2500–750 BC) burial mounds/round barrows or roundhouses of either Bronze Age or Iron Age (750 BC – 43 AD) date. In this instance, it was thought more likely, prior to the trenching, that the ring ditches represented burial mounds. However, as all detected anomalies were partial arcs, this interpretation was considered tentative (Fig. 2).
- 1.4.4 Three possible enclosures were identified within the survey area. Two possible sub-rectangular enclosures were located in Fields 7–8 and Field 32. Both of these features formed diffuse anomalies, and while their shape and form were compelling, their interpretation was also considered tentative. The third enclosure was located in Field 14 and consisted of two strong curvilinear positive anomalies in the north-western part of the survey area. While the western extent of this feature was obscured by power lines, its form suggests that it could have been a prehistoric enclosure. However, this interpretation remains speculative, as the anomaly did not form a complete enclosure (Fig. 2).
- 1.4.5 The most compelling archaeological feature identified in the survey was the Via Julia Maritima Roman road. The road, which connects the Roman forts at Carmarthen and Loughor, was apparently visible in several fields, with the most convincing evidence observed in Field 10, where positive linear anomalies were interpreted as the remains of the fossa (drainage ditches) flanking the road (Fig. 2). The faint negative anomaly between these ditches was thought to be the remains of the agger, the raised road surface. When combined with the LiDAR coverage of the scheme, the route of the road was thought to be quite clearly defined and good preservation was predicted. In the north-eastern and south-western parts of the survey area a linear depression in the LiDAR coverage was interpreted as the road line. In the central part of the survey area, there were apparent upstanding remains in Field 13, whilst the geophysical survey showed what looked like flanking ditches (fossae) and a possible raised road surface (agger) in Field 10.
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- 1.5 Prehistoric Period (500,000 BC – AD 43)
 - 1.5.1 Pen Celli standing stone, the remains of a standing stone of probable Bronze Age date and assumed to be of funerary and/or ritual function, is located c 1.7km east of the Site and other scheduled examples are recorded in the much wider site environs.
 - 1.5.2 A possible burnt mound is recorded c 620m north-west of the Site. The feature was recorded during the pipeline works and comprised a slight mound containing charcoal rich soil and fire cracked stone. There appears to be some confusion between this burnt mound and a possible barrow recorded immediately to the north. The Dyfed Regional HER notes that the location of the possible barrow is uncertain and seems to correspond with the subsequently excavated burnt mound.
 - 1.6 Romano-British Period (43 – 410 AD)
 - 1.6.1 Heneb recorded evidence of a Roman road immediately north-east of the Site, on the projected route of the Via Julia Maritima Roman road, which ran from Carmarthen to Loughor via Kidwelly. The Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW) record for the road (423818 and 415842) notes that it was identified during aerial reconnaissance during a drought in 2018. Cropmarks, showing sections of the agger and flanking quarry pits or ditches, indicate a direct route between Carmarthen and Kidwelly. The records note that a faint parch mark could be seen with a flanking ditch at Bwlch y Gwynt. No visible evidence of the road has been detected in Llandyfaelog, although the road alignment has been confirmed in Nantllan where clear parch marks of an agger and quarry pits have been recorded. It is worth noting that the RCAHMW records for the road project more centrally through the Site, though both projections are based on known and inferred sections of the road elsewhere along its route.
 - 1.6.2 An earthwork of uncertain nature and function is recorded c 480m north-east of the Site and is noted to be of interest by the Dyfed Regional HER given its proximity to the Roman road, although no further information is available. No evidence of any earthwork is detectable on the LiDAR coverage of the Site, though subtle earthworks can be hard to distinguish using 2m resolution LiDAR. Whilst no earthwork was visible on the available LiDAR data from Data Map Wales, which was limited to 2m resolution, the online data viewer shows an earthwork. The reason for this discrepancy remains unclear. A possible linear feature can be seen traversing the Site on a broadly north-east/south-west alignment on an APU aerial photograph of 1955. The linear feature corresponds with the earthwork from the online data viewer. Given that the feature is cut by later field boundaries as well as the Pontyates to Bancyfelin Gas Pipeline, which can also be seen on DSM LiDAR coverage of the Site, the evidence indicates that this feature represents the remains of the Via Julia Maritima Roman road. A series of trial pits were monitored in the vicinity of the cropmark and no archaeological remains were observed. However, the test pits were neither targeted nor sufficiently thorough to discount the potential for associated archaeological remains.
 - 1.6.3 During the 2nd century AD the Romans founded a town at Carmarthen, which was deserted by the early 5th century AD. The Site is likely to have
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formed part of the agricultural hinterland of the town at Carmarthen during this period. The Rural Settlement of Roman Britain (Allen *et al.* 2015) does not record any excavated Romano-British sites (eg villas, farmsteads or field systems) within the immediate vicinity of the Site, with the closest record comprising a road between Carmarthen and Pontarddulais to the south-east, which very broadly aligns with the route of the B4306, though in places the two converge.

1.7 Medieval Period (AD 410 – 1540)

1.7.1 No medieval sites or finds have been recorded from within the site.

1.7.2 The Dyfed Regional HER records two medieval sites within the study area. One record relates to the site of an extra parochial church of presumed medieval date recorded c 1km south-east of the Site, though the actual location of the church is unknown, and the evidence is documentary only. The second record, also based on place name evidence, is for church lands immediately west of the Site. The Grade II listed Church of St Maelog, located c 905m south of the Site, has medieval origins, having first been mentioned in 1139. The settlement of Llandyfaelog, surrounding the church, may have origins in this period.

1.7.3 The town of Carmarthen (c 6km north of the Site) was, during this period, the largest and most important town and port in Wales. Having started as a small urban settlement, which would later be called 'Old Carmarthen', by the early 12th century 'New Carmarthen' — an Anglo-Norman town — had been established. The town prospered: a priory and friary were founded, and town defences were established. As in the Romano-British period, the Site would have once again probably formed part of the agricultural hinterland of the town of Carmarthen, as well as the settlement at Llandyfaelog, during this period. There are no detectable earthwork remains indicating such use (eg plough furrows), in the LiDAR coverage of the Site, but the potential for buried remains associated with such activity, such as infilled furrows and drainage/boundary ditches, cannot be discounted.

1.8 Post-Medieval Period (AD 1540 – 1901)

1.8.1 Three records fall within the Site, including two records in the north of the Site relating to place name evidence ('llan') indicative of former church lands. Tithe mapping indicates that these glebe lands were not associated with the Grade II listed Church of St Maelog. A disused quarry of possible post-medieval date is recorded in the south of the Site, having been noted on 19th-century Ordnance survey mapping as an 'old quarry'. Earthwork remains of these features are evident on LiDAR. The mapped geological deposits or till and Senni formation may have been extracted for aggregate. The route of the A484, immediately west of the Site was utilised as a toll road between the River Twyi at Carmarthen to Kidwelly during this period.

1.8.2 Heneb records demonstrate a primarily agricultural use of the Site environs, with multiple farmsteads scattered across the study area and further possible church glebe lands. Other agricultural records include those for field boundaries as well as two pounds and a cow shed. Local industry is largely represented by quarrying, with two further sites in addition to that noted

above, though a kiln and blacksmiths are also recorded and would have been characteristic industry of a rural settlement in this period. The remaining records are largely for cottages and dwellings as well as local infrastructure such as wells, sluices and milestones.

2 AIMS AND METHODOLOGY

2.1 Aims

2.1.1 The general aims of the evaluation were to determine and understand the date, nature, function and character of the archaeological remains present within the site and their cultural and environmental settings, and to help inform any further mitigation works required.

2.1.2 The specific aims and objectives were as follows:

- i. To identify the nature, character, extent and possible date of any archaeological sites and/or features within the Site
- ii. To assess the survival, quality, condition and significance of any archaeological remains
- iii. To ensure the preservation by record of all archaeological remains revealed during the course of the further archaeological work; and
- iv. To prepare an appropriate archaeological archive including the treatment and preservation of any artefacts

2.2 Research Framework

2.2.1 The evaluation took place within Carmarthenshire and may contribute to the goals of Regional Research Frameworks relevant to this area.

2.2.2 A Research Framework for the Archaeology of Wales has been established and was last refreshed in 2017, although draft documents relating to a 2022 review are available.

2.2.3 Research themes identified in the 2022 review that may be relevant to this programme of archaeological evaluation include:

- Improving and refining chronology in 1st millennium BC Wales;

2.2.4 Given the location of the site a few miles south of Carmarthen along the line of a Roman road, the Roman period research objectives for South-West Wales are particularly relevant. The following regional weaknesses in the archaeological record have been identified:

- 'There is a lack of understanding as to the nature and extent of Roman influence within the rural context. It is not clear whether this is because of insufficient data or a failure to explore the potential of what is available.'
- 'The role of the native elite as advocates of Romanisation is unclear. Social organisation within the local population has yet to be clarified.' Roman roads are often a focus for human burial and burials (where soil conditions permit preservation) and are rich sources of information on status and social organisation.

- 'The degree to which Roman material culture penetrated this remote part of the province has not been established. The poverty of the region may not have been taken into account. The chronology of occupation remains unresolved.'
- 'Outside Carmarthen excavation has largely focused on evidence of military occupation. With the exception of the recent work near Wolfs Castle civilian and native sites have not been investigated.'
- 'Establishing the chronology, function and significance of the numerous small rectilinear enclosures is essential to our understanding of this period.'

2.3 Methodology

2.3.1 The evaluation comprised 42 trenches, each 40m long and 1.5m wide. They were positioned to provide as even a coverage of the site as possible, whilst also targeting various geophysical and LiDAR anomalies and avoiding services and ecological constraints (Fig. 2). As a result of late amendments to the trenching scope the trenches are numbered from 1 to 46. Trenches 1, 2, 43 and 44 were cancelled. Trenches 36 and 37 were moved from their original position, also with the agreement of Heneb, to allow for a 30m diameter exclusion zone from a badger sett.

2.3.2 The trenches were excavated using two JCB 3CX wheeled mechanical excavators fitted with toothless buckets under the direct supervision of an archaeologist. The exposed surface of each trench was then sufficiently cleaned to establish the presence/absence of archaeological remains. All archaeological remains were then excavated and recorded as specified in the WSI for the project.

3 RESULTS

3.1 Introduction and presentation of results

3.1.1 The results of the evaluation are presented below and include a stratigraphic description of the trenches that contained features. The full details of all trenches with dimensions and depths of all deposits can be found in Appendix A. No artefacts or environmental samples were recovered.

3.2 General soil and ground conditions

3.2.1 The soil sequence in the trenches was relatively uniform with a shallow sequence of subsoil and topsoil directly overlying the natural geology, which comprised patchy weathered sandy clay and gravel in the majority of the trenches. Plates 1 to 12 are a selection of trench record photos intended to illustrate the range of geology, site conditions and potential features present in the trenches. Plates 12-14 show sections dug by hand through archaeological features.

3.2.2 Ground conditions throughout the evaluation were generally good, and the site remained largely dry throughout. Archaeological features, where present, were easy to identify against the underlying natural geology.

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- 3.3 General distribution of archaeological deposits
- 3.3.1 Trenches 17, 18, 21, 22, 24 and 42 (Fig. 3) were all positioned to directly investigate the projected line of the Julia Maritima Roman road. Of these, only Trench 21 revealed any archaeological features at all. The others came down onto bedrock geology at shallow depths, with no visible archaeological features or deposits. A few linear features were recorded and investigated but proved to either geological features such as periglacial scarring or recent agricultural features visible in the topsoil.
- 3.3.2 The following sections provide the most likely explanations for various apparent archaeological features in the geophysical survey, arranged by field in the same geographical order as used in the geophysical survey report (Heneb 2024). Field 31 was not trenched.
- 3.4 Field 32
- 3.4.1 No archaeology at all was found in Trenches 3, 4, 5 or 6, all located in Field 32. The survey in this field recorded a possible rectangular ditched enclosure, response 32 (1) and 32 (2-9) all of which broadly followed the same alignment as the surrounding modern field system and are probably best explained as agricultural features in the topsoil. Two putative partial ring ditches, responses 32-(10-11), are not at all clearly defined and as noted in the report, could equally result from fluctuations in background geology.
- 3.5 Field 14
- 3.5.1 This field included Trenches 7, 8, 9, 10 and 11, in which no features at all were visible. Geophysical responses 14 (1-5) result from the adjacent electrical cables and are not archaeologically significant. Response 14 (6) was a very faint linear anomaly which is most likely an agricultural drainage feature. Response 14 (7 and 8) was interpreted as a potentially significant enclosure. However, the features look typical of agricultural disturbances elsewhere on the site. In the absence of any corresponding features in the trenches they are not considered archaeologically significant. Responses 14 (9-13) all consisted of faint, mostly positive, curvilinear responses that form arcs, appearing to form incomplete circles with a diameter of less than 20 m. The survey report acknowledged that their interpretation as roundhouses is tenuous and they could equally be explained by variations in the geology or agricultural activity.
- 3.6 Field 1
- 3.6.1 This field included Trenches 12 and 14 of which Trench 12 was the only one to contain features. Trench 14 was entirely devoid of features. None of the magnetic responses noted in this field were thought to be archaeological.
- 3.6.2 Trench 12 contained two linear features (Fig. 7, Sections 1200 and 1201; Plates 12 and 13). The north-south aligned linear (1203), appears to have been filled with a gravel deposit derived from the weathered bedrock. Linear feature 1205 is visible on the geophysical survey plot. It is aligned NE-SW and contains a single dark grey-brown silty clay fill. These features are probably both naturally formed periglacial scars.
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- 3.7 Fields 11 and 12
- 3.7.1 This field contained no trenches. None of the magnetic responses recorded were thought to be archaeologically significant.
- 3.8 Field 13
- 3.8.1 Trench 17 was the only trench dug in Field 13. None of the magnetic responses recorded in this field were thought to be archaeologically significant. Response 13(2) is the projected line of the Via Julia Maritima Roman Road, as detected faintly on the lidar plot, but no sign of the road could be discerned on the geophysical survey plot or in Trench 17.
- 3.9 Field 10
- 3.9.1 Response 10(7) is a pair of positive north-east to south-west aligned linear features approximately 8m apart. This represents the clearest section of the Julia Maritima Roman road on the geophysical survey. In contrast the road is not visible in the lidar data in this section. The response was investigated by Trench 42, but no archaeological features or upstanding earthworks were visible. That was the only trench to be dug in this field, due in large part to a junction of buried modern service trenches.
- 3.10 Field 42
- 3.10.1 None of the magnetic responses in Field 42 were thought to be archaeologically significant and no trenches were dug.
- 3.11 Field 9
- 3.11.1 Response 9(4) marks the location where the Via Julia Maritima road is thought to run. It is not particularly identifiable on the geophysical survey plot within this field and no other archaeologically significant magnetic responses were present. No trenches were dug in this field.
- 3.12 Field 38
- 3.12.1 Neither of the magnetic responses in Field 38 were archaeologically significant and no trenches were dug.
- 3.13 Field 7
- 3.13.1 Trenches 33, 34, 45 and 46 were dug in this field, none of which revealed any archaeological features. Trench 46 contained evidence for animal burrowing and tree rooting in the form of an irregular tree-throw hole that contained a brown sandy-silt fill.
- 3.13.2 A group of geophysical anomalies in Field 7 coincided with outcrops of solid bedrock geology and are not archaeologically significant. The geophysical survey report acknowledges that the potentially archaeological anomalies in this field are most likely the result of geological banding. Response 7(6), a possible ring-ditch is one such feature. Response 7(7), interpreted as a possible track, coincides with a ridge of solid bedrock running through the middle of Trench 33. Response 7(1) was interpreted as a possible ditch that seemed to continue into Field 8. This feature is most likely an infilled
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- drainage ditch within the topsoil. Other magnetic anomalies in Field 7 were clearly modern, related to the Pontiets to Bancyfelin Gas Pipeline.
- 3.14 Field 8
- 3.14.1 No trenches were dug in Field 8 and no archaeologically significant magnetic responses were identified either. Response 8(1) is evidence for post-medieval or modern agricultural earthworks to improve the pasture by levelling the ground. Response 8(2) conforms to a post-medieval field boundary seen in the 1844 Tithe map and 1st edition OS mapping of the area. By the 2nd edition OS mapping, the field boundary had moved to its present location (Heneb 2024).
- 3.15 Field 5
- 3.15.1 Trenches 39, 40 and 41 were excavated in this field, of which Trench 39 was the only one to contain a feature. Responses 5(3) and 5(4) are probable post-medieval field boundaries, although no trace of 5(4) was found in Trench 40. It is likely that the features are confined to the topsoil.
- 3.15.2 Trench 39 contained a small east-west aligned gully, probably a modern drainage feature (Fig 7 Section 3900, Plate 16). It contained a dark black-grey silty clay fill that appeared similar to the topsoil and is probably recent in date.
- 3.16 Field 8
- 3.16.1 No trenches were dug in Field 8. Responses 8(1) and 8(3) appear to be similar to adjacent response 7(1) in Field 7 which were not visible as features in Trench 45 and are probably the result of geological banding or agricultural drainage features in the topsoil.
- 3.17 Field 6
- 3.17.1 This field included Trenches 27, 28, 29, 30, 31 and 33. Of these only Trench 30 contained any features, a very shallow east-west aligned gully which does correspond with a feature on the geophysical survey and is probably a post-medieval or modern drainage feature (Fig. 7 Section 30, Plates 8 and 15). The geophysical survey includes an array of possible features some of which are clearly parallel geological bands or cultivation marks, response 6(1). Responses 6(2, 3 and 4) are probable post-medieval field boundaries. Given the lack of features in most trenches, remains of the boundaries must be largely confined to the topsoil.
- 3.17.2 Potentially significant responses in Field 6 include response 6 (8- 9) and 6 (10) which were interpreted as possible prehistoric ring-ditches, although the report acknowledges that the interpretation is very tenuous and they could equally result from geological banding. All were very poorly defined and obscured by the parallel geological banding or cultivation marks which are very pronounced in this field. Given the absence of features in the trenches they are not considered archaeologically significant.

3.18 Field 2

3.18.1 Trenches 13, 18, 19, 20, 21, 22 and 23 were excavated in this field. One wide shallow ditch, possibly relating to the Via Julia Maritima Roman road, was found in Trench 21 in Field 2 (Fig. 5, Fig. 7 Section 2100, Plates 6 and 14). The ditch was clearly visible as a linear soil mark during machine excavation of the trench. It contained a single, dark reddish-brown silty clay fill that contained no artefacts or organic traces. No soil sample was taken due to the shallow, sterile and inorganic nature of the fill. The north-south alignment of the feature coincides with the projected line of the Roman road, but it did not produce any dating evidence. The same trench contained some shallow irregular discreet features interpreted as tree-throw holes or animal burrows.

3.18.2 Trench 23 contained two irregular features (2303 and 2305) that were filled with a black-grey clayey sand. Both features were probably the result of animal burrowing (Fig. 7 Section 2300, 2301).

3.18.3 Geophysical responses in Field 2 included 2(1 -4) which were not archaeologically significant. Response 2(5) corresponded with a known post-medieval field boundary. Response 2(6) was interpreted as a probable post-medieval boundary although not known from historic maps. Response 2(7) was the projected line of the Julia Maritima Roman Road. A very faint positive anomaly corresponded with the road line but would only be recognised as such with prior knowledge of the road.

3.19 Field 3

3.19.1 Trench 24 was the only one excavated in this field. It was also placed to investigate the projected line of the Roman road, Response 3(4), but no buried features or earthworks were found. A very faint positive anomaly corresponded with the road line could be seen on the survey plot but would only be recognised as such with prior knowledge of the road. Responses 3(1, 2 and 3) were modern features of no archaeological significance.

3.20 Field 61

3.20.1 The geophysical survey recorded no archaeologically significant magnetic responses in this field and no trenches were excavated.

3.21 Field 4

3.21.1 Trenches 25 and 26 were excavated in this field, neither of which revealed any features. The magnetic responses in this field were limited to geological banding that could result from agricultural practises 4(1-2). Response 4 (3) could be a quarry pit.

3.22 Potential cut features investigated by hand

3.22.1 Cut features were recorded and investigated by hand in Trenches 12, 21, 23, 30, 39 and 46, as described by field above, although for the most part these are interpreted as either the result of post-medieval or modern land improvement and drainage, or geological features interpreted as periglacial scars and tree-throws. Small groups of irregular discreet features in Trench 21 and 23 are interpreted as probable infilled animal burrows.

- 3.23 Finds summary
- 3.23.1 No artefacts were recovered during the evaluation.
- 3.24 Environmental summary
- 3.24.1 No soil samples were recovered during the evaluation.

4 DISCUSSION

- 4.1 Reliability of field investigation
 - 4.1.1 The trenching layout provided good coverage of the site and also enabled the geophysical and LiDAR anomalies to be tested. The archaeological remains were found to be heavily truncated and disturbed by agricultural earthworks. Where present, features were easy to identify and record. Overall, the results of the investigation are considered to be a reliable indicator of the archaeological remains surviving on the site, although much has probably been lost due to extensive pasture improvement groundworks. The geophysical survey suggests that the extent of disturbance is variable between fields. Localised patches of survival may be expected in fields that have been subject to least disturbance. None of the fields showed any discernible sign of upstanding earthworks.
- 4.2 Evaluation objectives and results
 - 4.2.1 One wide shallow ditch, possibly relating to the Via Julia Maritima Roman road, was found in Trench 21. It contained a single, dark reddish-brown silty clay fill that produced no artefacts or organic traces.
 - 4.2.2 Otherwise, very little evidence for surviving archaeological remains was uncovered. No evidence for prehistoric, Roman or medieval remains was found within the study area. The 2m LiDAR analysis carried for the study area did not show any trace of the road (Heneb 2024, Fig. 8). However, Datamap Wales lidar coverage of the site (Heneb 2024, Plate 3) does appear to show a faint earthwork corresponding with the projected road line on a north-east to south-west alignment through Trenches 17, 21 and 24. This may suggest that the earthwork is very slight. The poor preservation of the road and absence of any associated datable features means that the regional research objectives outlined above cannot be addressed.
 - 4.2.3 A small number of other features were investigated across the site that were shown to be either geological features or widely dispersed individual, undated ditches, probably post-medieval or modern in date, that are probably agricultural drainage or cultivation features of low significance.
 - 4.2.4 The somewhat variable weathered sandy clay and gravel natural geology encountered in most trenches is consistent with the weathered upper surface of the Milford Haven Group sedimentary bedrock. While glacial till deposits are mapped by BGS in the areas immediately adjacent (Fig. 6), no superficial deposits are mapped within the fields which were evaluated. In the south-eastern field (Field 7) a group of geophysical anomalies interpreted in the geophysical survey report as potentially archaeological were found to correlate with outcropping ridges of solid Sandstone bedrock.

The BGS map shows a change from sedimentary bedrock to sandstone in that field (Fig. 6). There were variations in the depth of the subsoil which correlated with the undulating topography of the field. However, there was no indication of thickened soil sequences correlating with the projected line of the Julia Maritima Roman road.

- 4.2.5 Many of the magnetic anomalies interpreted as potentially archaeological in the geophysical survey report are now thought to be features in the topsoil and subsoil resulting from levelling and drainage of the pasture fields in the post-medieval or modern periods, probably including ploughing of most fields. Most fields show evidence for closely spaced ridged magnetic anomalies that look like cultivation marks and follow the same alignment as the modern field boundaries (Fields 6, 7, 8, 9, 10, 13, 14, 32 and 42). The extent and character of disturbance varies considerably between fields, probably due to different landowners applying different improvement methods and/or due to differing ground conditions. Two placenames on the 1844 Tithe Map indicate that one field in the northern part of the site (Tithe Map Field 629, "Peat Field") and one in the south-east (Tithe Map Field 674, "Peat Pond") once included peat deposits, which have been drained in the period since (Heneb 2024). A former quarry is recorded in the southern part of the site (Heneb 2024, reference 40846). Evidence for bands of disturbance on the geophysical survey is notably absent in Field 38. If most of the fields investigated have been subject to levelling, drainage and agricultural improvement over a period of several centuries it would explain why the Roman road is so poorly preserved. The historic maps show no trace at all of the Roman road. If it was indeed present on the predicted line, traces of the road line must have been largely removed prior to the earliest available map of the area (the 1844 Tithe Map). Modern mechanised farming has no doubt intensified the process of ground disturbance. Buried cables and pipe trenches criss-cross the site and represent another source of extensive modern ground disturbance.
- 4.3 Interpretation
- 4.3.1 The single ditch recorded in Trench 21 may possibly be a roadside ditch associated with the Julia Maritima Roman road. The north-south alignment of the feature coincides with the projected line of the road but, due to the poor preservation of the road within the study area, and the lack of artefactual dating evidence, it cannot be said with certainty that the feature is related to the road.
- 4.3.2 The results of this evaluation have shown that the site contains very limited surviving archaeological remains of prehistoric to Roman date or other periods. This is probably due in part to levelling and agricultural improvement of the pasture fields, evidence for which is extensive on the geophysical survey plot. No artefacts at all were recovered, which suggests that the site lies at some distance from any historic settlement focus, and/or that settlements in the area were poor in terms of material culture.

APPENDIX A TRENCH DESCRIPTIONS AND CONTEXT INVENTORY

Trench 1							
General description					Orientation		
Not excavated					Length (m)		
					Width (m)		
					Avg. depth (m)		
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
Trench 2							
General description					Orientation		
Not excavated					Length (m)		
					Width (m)		
					Avg. depth (m)		
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
Trench 3							
General description					Orientation	N-S	
Trench devoid of archaeology. Consists of topsoil and subsoil overlying the mixed natural geology silty gravels.					Length (m)	40	
					Width (m)	1.5	
					Avg. depth (m)	0.35	
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
300	Layer			0.22	Topsoil. Dark brown clayey silt		
301	Layer			0.2	Subsoil. Light orangey-brown clayey silt		
302	Layer				Natural. Dark pinkish-red gravels with mottles of light yellowish-orange clayey silt		
Trench 4							
General description					Orientation	E-W	
Trench devoid of archaeology. Consists of topsoil and subsoil overlying the natural geology of gravels.					Length (m)	40	
					Width (m)	1.5	
					Avg. depth (m)	0.35	
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
400	Layer			0.2	Topsoil. Mid-dark grey clayey silt		
401	Layer			0.21	Subsoil. Light yellow-brown clayey silt		
402	Layer				Natural. Dark pink-red gravels		
Trench 5							

General description						Orientation	N-S
Trench devoid of archaeology. Consists of topsoil and subsoil overlying the mixed natural geology of clay and gravels.						Length (m)	40
						Width (m)	1.5
						Avg. depth (m)	0.35
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
500	Layer			0.23	Topsoil. Mid-dark brown clayey silt		
501	Layer			0.2	Subsoil. Dark orange-brown clayey silt		
502	Layer				Natural. Dark pink-red gravels with mottles of light greyish yellow silty clay		
Trench 6							
General description						Orientation	NNW-SSE
Trench devoid of archaeology. Consists of topsoil and subsoil overlying the natural mixed geology of silty gravels.						Length (m)	40
						Width (m)	1.5
						Avg. depth (m)	0.3
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
600	Layer			0.12	Topsoil. Mid-dark brown clayey silt		
601	Layer			0.16	Subsoil. Dark orange-brown clayey silt		
602	Layer				Natural. Dark pink-red clayey silt gravels		
Trench 7							
General description						Orientation	N-S
Trench devoid of archaeology. Consists of topsoil and subsoil overlying the natural mixed geology of clay and gravels.						Length (m)	40
						Width (m)	1.5
						Avg. depth (m)	0.35
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
700	Layer			0.15	Topsoil. Dark-brown clayey silt		
701	Layer			0.22	Subsoil. Light yellow-brown clayey silt		
702	Layer				Natural. Dark pink-red with mottles of dark purple silty clay weathered sandy clay		
Trench 8							
General description						Orientation	N-S
Trench devoid of archaeology. Consists of topsoil and subsoil overlying the mixed natural geology of clay and gravels.						Length (m)	40
						Width (m)	1.5
						Avg. depth (m)	0.35
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
800	Layer			0.25	Topsoil. Mid dark-brown clayey silt		
801	Layer			0.2	Subsoil. Dark orange-brown clayey silt		

802	Layer				Natural. Dark pink-red silty clay gravels		
Trench 9							
General description					Orientation	E-W	
Trench devoid of archaeology. Consists of topsoil overlying subsoil overlying mixed clay and gravel bedrock geology.					Length (m)	40	
					Width (m)	1.5	
					Avg. depth (m)	0.25	
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
900	Layer			0.23	Topsoil. Light pink-grey clayey silt		
901	Layer			0.26	Subsoil. Light orange-red brown silty clay		
902	Layer				Natural. Light pink-red silty clay and gravel bedrock		
Trench 10							
General description					Orientation	NW-SE	
Trench devoid of archaeology. Consists of topsoil overlying subsoil overlying mixed clay and gravel geology.					Length (m)	40	
					Width (m)	1.5	
					Avg. depth (m)	0.4	
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
1000	Layer			0.22	Topsoil. Light grey-red clayey silt		
1001	Layer			0.67	Subsoil. Red-brown silty clay		
1002	Layer				Natural. Light pink-red silty clay with mixed gravel/bedrock		
Trench 11							
General description					Orientation	NW-SE	
Trench devoid of archaeology. Consists of topsoil overlying subsoil overlying mixed clay and gravel/bedrock geology.					Length (m)	40	
					Width (m)	1.5	
					Avg. depth (m)	0.45	
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
1100	Layer			0.2	Topsoil. Light pink-grey clayey silt		
1101	Layer			0.65	Subsoil. Red-brown silty clay		
1102	Layer				Natural. Light pink-red silty clay with gravel/bedrock		
Trench 12							
General description					Orientation	NW-SE	
					Length (m)	40	

Trench revealed two ditches. Consists of topsoil and subsoil overlying the natural geology of clay.						Width (m)	1.5
						Avg. depth (m)	0.4
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
1200	Layer			0.2	Topsoil. Firm dark brown clayey silt		
1201	Layer			0.2	Subsoil. Firm reddish brown with mottles of light yellowish grey silty clay		
1202	Layer				Natural. Firm red silty clay with mottles of mid dark-grey silty clay		
1203	Cut		0.58	0.24	Ditch. Irregular linear, N-S aligned with moderate-steep sides and a concave base		
1204	Fill	1203	0.58	0.24	Secondary Fill. Firm, dark grey brown silty clay, naturally silted fill		
1205	Cut		0.56	0.2	Ditch. NE-SW aligned drainage ditch with shallow sides and a concave base		
1206	Fill	1205	0.56	0.2	Secondary Fill. Dark grey brown silty clay, naturally silted fill of ditch		
Trench 13							
General description						Orientation	NE-SW
Trench devoid of archaeology. Consists of topsoil and subsoil and colluvium overlying the natural geology of clay.						Length (m)	40
						Width (m)	1.5
						Avg. depth (m)	0.35
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
1300	Layer			0.15	Topsoil. Dark brown clayey silt		
1301	Layer			0.1	Subsoil. Red gravels, slightly clayey		
1302	Layer			0.15	Colluvial Layer. Firm dark grey silty clay		
1303	Layer				Natural. Light brown-grey with mottles of dark yellow-brown and light grey silty clay		
Trench 14							
General description						Orientation	WNW-ESE
Trench devoid of archaeology. Consists of topsoil overlying subsoil overlying clay geology.						Length (m)	40
						Width (m)	1.5
						Avg. depth (m)	0.4
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
1400	Layer			0.23	Topsoil. Light grey-brown clayey silt.		
1401	Layer			0.33	Subsoil. Mid red/yellow-brown silty clay		
1402	Layer				Natural. Brown-red clay geology with some gravel		
Trench 15							

General description						Orientation	NE-SW
Trench devoid of archaeology. Consists of topsoil and subsoil overlying the natural geology of clay.						Length (m)	40
						Width (m)	1.5
						Avg. depth (m)	0.38
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
1500	Layer			0.25	Topsoil. Firm dark brown clayey silt		
1501	Layer			0.15	Subsoil. Dark-grey with mottles of light yellowish grey clay		
1502	Layer				Natural. Firm red silty clay with mottles of orangey brown and light grey		
Trench 16							
General description						Orientation	N-S
Trench devoid of archaeology. Consists of topsoil and subsoil overlying the natural geology of clay.						Length (m)	40
						Width (m)	1.5
						Avg. depth (m)	0.35
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
1600	Layer			0.25	Topsoil. Firm dark brown clayey silt		
1601	Layer			0.1	Subsoil. Light brown-grey with mottles of dark orangey brown silty clay		
1602	Layer				Natural. Firm red-brown with mottles of orangey brown and mid-dark grey silty clay		
Trench 17							
General description						Orientation	NW-SE
Trench devoid of archaeology. Consists of topsoil overlying subsoil overlying mixed clay geology.						Length (m)	40
						Width (m)	1.5
						Avg. depth (m)	0.45
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
1700	Layer				Topsoil. Firm red-brown clayey silt		
1701	Layer			0.37	Subsoil. Light red-brown silty clay		
1702	Layer				Natural. Pink-red silty clay with yellow sandy patches and gravel		
Trench 18							
General description						Orientation	NW-SE
Trench devoid of archaeology. Consists of topsoil overlying subsoil overlying clay geology.						Length (m)	40
						Width (m)	1.5
						Avg. depth (m)	0.3

Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
1800	Layer			0.2	Topsoil. Dark red-brown clayey silt.		
1801	Layer			0.3	Subsoil. Dark red-brown silty clay		
1802	Layer				Natural. Firm pink-red clay with frequent gravels and small patches of light yellow sandy clay		
Trench 19							
General description					Orientation	NW-SE	
Trench devoid of archaeology. Consists of topsoil and subsoil overlying the natural geology of clay.					Length (m)	40	
					Width (m)	1.5	
					Avg. depth (m)	0.35	
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
1900	Layer			0.15	Topsoil. Firm dark brown clayey silt		
1901	Layer			0.2	Subsoil. Firm dark red-brown clayey silt		
1902	Layer				Natural. Firm pink-red clayey silt and gravels with mottles of light brown sandy clay and light yellow-grey silty clay		
Trench 20							
General description					Orientation	N-S	
Trench devoid of archaeology. Consists of topsoil overlying subsoil overlying gravel and bedrock geology with clay					Length (m)	40	
					Width (m)	1.5	
					Avg. depth (m)	0.5	
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
2000	Layer			0.2	Topsoil. Red-brown clayey silt		
2001	Layer			0.4	Subsoil. Firm red-brown silty clay with some gravel inclusions		
2002	Layer				Natural. Mid pink-red clay with gravel and bedrock and some patches of lighter white-pink clays		
Trench 21							
General description					Orientation	E-W	
Trench revealed a ditch. Consists of topsoil overlying subsoil overlying gravel and clay geology					Length (m)	40	
					Width (m)	1.5	
					Avg. depth (m)	0.3	
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
2100	Layer			0.15	Topsoil. Firm dark brown clayey silt		
2101	Layer			0.25	Subsoil. Firm pink-red clayey silt		

2102	Layer				Natural. Firm pink-red gravels with mottles of light brown and orangey brown sandy clay with manganese inclusions		
2103	Cut		2.36	0.62	Ditch. N-S aligned shallow ditch with shallow sides and a flat base		
2104	Fill	2103	2.36	0.62	Secondary Fill. Dark reddish brown silty clay		
Trench 22							
General description					Orientation	NW-SE	
Consists of topsoil overlying subsoil overlying gravel and clay geology					Length (m)	40	
					Width (m)	1.5	
					Avg. depth (m)	0.4	
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
2200	Layer			0.2	Topsoil. Firm dark red-brown clayey silt		
2201	Layer			0.4	Subsoil. Firm dark orange-red/brown silty clay with some gravel		
2202	Layer				Natural. Firm mid pink-red clay with frequent gravel and some patches of off-white/yellow		
Trench 23							
General description					Orientation	NE-SW	
Trench consists of topsoil overlying subsoil which overlies colluvium and natural					Length (m)	40	
					Width (m)	1.5	
					Avg. depth (m)	0.5	
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
2300	Layer			0.1	Topsoil. Firm dark brown clayey silt		
2301	Layer			0.1	Subsoil. Firm pink-red gravels		
2302	Layer			0.35	Colluvial Layer. Firm mid-dark grey with pink-red gravels		
2303	Layer				Natural. Firm pink-red silty clay gravels with mottles of yellow-brown silty clay		
2304	Cut		0.42	0.1	Tree Throw. Sub-oval with shallow sides and concave base		
2305	Fill	2304	0.42	0.1	Secondary Fill. Black-grey clayey sand		
2306	Cut		0.75	0.19	Tree Throw. Sub-oval/irregular with shallow sides and concave base		
2307	Fill	2306	0.75	0.19	Secondary Fill. Black-grey clay-sand		
Trench 24							
General description					Orientation	E-W	
					Length (m)	40	

Trench devoid of archaeology. Consists of topsoil overlying subsoil overlying mixed clay and gravel geology						Width (m)		1.5
						Avg. depth (m)		0.7
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date	
2400	Layer			0.34	Topsoil. Red-grey brown clayey silt			
2401	Layer			0.5	Subsoil. Red brown silty clay			
2402	Layer				Natural. Light pink-red clay and gravel			
Trench 25								
General description						Orientation	NNE-SSW	
Trench devoid of archaeology. Consists of topsoil overlying subsoil overlying mixed gravel/bedrock land some clay geology.						Length (m)	40	
						Width (m)	1.5	
						Avg. depth (m)	0.3	
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date	
2500	Layer			0.22	Topsoil. Light pink-brown clayey silt			
2501	Layer			0.47	Subsoil. Red-brown gravels with some orange silty clay			
2502	Layer				Natural. Light pink-red gravel with silty clay			
Trench 26								
General description						Orientation	NNW-SSE	
Trench devoid of archaeology. Consists of topsoil overlying subsoil overlying mixed clay and gravel geology.						Length (m)	40	
						Width (m)	1.5	
						Avg. depth (m)	0.6	
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date	
2600	Layer			0.2	Topsoil. Light pink-brown clayey silt			
2601	Layer			0.3	Subsoil. Pink-brown silty clay			
2602	Layer				Natural. Light pink bedrock/gravel with some patches of orange-pink silty clay			
Trench 27								
General description						Orientation	E-W	
Trench devoid of archaeology. Consists of topsoil subsoil and colluvium overlying the natural geology of clay and gravel.						Length (m)	40	
						Width (m)	1.5	
						Avg. depth (m)	0.5	
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date	
2700	Layer			0.18	Topsoil. Red brown clayey silts			
2701	Layer			0.22	Subsoil. Brown clayey silts			
2702	Layer			0.22	Colluvial Layer. light-mid brown clayey silts			

2703	Layer				Natural. red-brown weathered silty clay with gravels		
Trench 28							
General description					Orientation	NW-SE	
Trench consists of topsoil overlying subsoil which overlies natural					Length (m)	40	
					Width (m)	1.5	
					Avg. depth (m)	0.48	
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
2800	Layer			0.24	Topsoil. red-brown clayey silts		
2801	Layer			0.17	Subsoil. light-mid red-brown clayey silts		
2802	Layer				Natural. red-brown/pink-brown silty clay/weathered sandy clay with gravels		
Trench 29							
General description					Orientation	NW-SE	
Trench devoid of archaeology. Consists of topsoil overlying subsoil overlying mixed bedrock and clay geology.					Length (m)	40	
					Width (m)	1.5	
					Avg. depth (m)	0.3	
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
2900	Layer			0.25	Topsoil. Pink-brown clayey silt		
2901	Layer			0.4	Subsoil. Orangey red silty clay		
2902	Layer				Natural. Light pink-red weathered sandy clay bedrock		
Trench 30							
General description					Orientation	N-S	
Trench revealed one gully. Consists of topsoil overlying subsoil overlying bedrock and some silty clay geology					Length (m)	40	
					Width (m)	1.5	
					Avg. depth (m)	0.4	
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
3000	Layer			0.2	Topsoil. Pink-brown clayey silt		
3001	Layer			0.3	Subsoil. Light orangey red/brown silty clay		
3002	Layer				Natural. Light pink-red bedrock with some patches of silty clay		
3003	Cut		0.31	0.1	Gully. E-W aligned drainage gully with shallow sides and a concave base		
3004	Fill	3003	0.31	0.1	Secondary Fill. Firm, light grey-brown silty clay		

Trench 31							
General description					Orientation	NW-SE	
Trench devoid of archaeology. Consists of topsoil overlying subsoil overlying mixed gravel and some clay geology.					Length (m)	40	
					Width (m)	1.5	
					Avg. depth (m)	0.8	
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
3100	Layer			0.27	Topsoil. Light red-brown clayey silt		
3101	Layer			0.6	Subsoil. Orangey red silty clay with some gravel		
3102	Layer				Natural. Light pink-red bedrock/gravel with some patches of clay		
Trench 32							
General description					Orientation	N-S	
Trench devoid of archaeology. Consists of topsoil and subsoil overlying natural					Length (m)	40	
					Width (m)	1.5	
					Avg. depth (m)	0.3	
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
3200	Layer			0.1	Topsoil. Mid-dark brown clayey silt		
3201	Layer			0.15	Subsoil. Orange-brown clayey silt		
3202	Layer				Natural. Firm mid-dark pinkish red clayey silt with gravel		
3203	Void						
Trench 33							
General description					Orientation	ENE-WSW	
Trench devoid of archaeology. Consists of topsoil and subsoil overlying the natural geology of clay.					Length (m)	40	
					Width (m)	1.5	
					Avg. depth (m)	0.5	
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
3300	Layer			0.22	Topsoil. Firm mid-dark grey clayey silt		
3301	Layer			0.3	Subsoil. Firm dark orange-brown clayey silt		
3302	Layer				Natural. Firm dark pink-red with mottles of dark purple silty clay weathered with gravels		
Trench 34							
General description					Orientation	N-S	
Trench devoid of archaeology. Consists of topsoil and subsoil overlying the natural geology of clay.					Length (m)	40	
					Width (m)	1.5	

						Avg. depth (m)	0.4
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
3400	Layer			0.23	Topsoil. Firm mid-dark brown clayey silt		
3401	Layer			0.25	Subsoil. Dark orange brown clayey silt		
3402	Layer				Natural. Firm dark pink-red silty clay with gravels		
Trench 35							
General description						Orientation	NNW-SSE
Trench consists of topsoil overlying subsoil which overlies natural.						Length (m)	40
						Width (m)	1.5
						Avg. depth (m)	0.42
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
3500	Layer			0.19	Topsoil. Dark grey brown silty clay		
3501	Layer			0.24	Subsoil. Brown silty clay		
3502	Layer				Natural. Brown-red sandy clay with frequent gravel		
Trench 36							
General description						Orientation	WNW-ESE
Trench was relocated due to close proximity to a badger sett. Trench was devoid of archaeology. Consists of topsoil overlying subsoil overlying mixed clay and gravel geology.						Length (m)	40
						Width (m)	1.5
						Avg. depth (m)	0.5
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
3600	Layer			0.3	Topsoil. Light red brown clayey silt		
3601	Layer			0.2	Subsoil. Light red brown silty clay with some gravel		
3602	Layer				Natural. Light pink-red clay and gravel geology		
Trench 37							
General description						Orientation	N-S
Trench was relocated due to close proximity to a badger sett. Trench was devoid of archaeology. Consists of topsoil overlying subsoil overlying mixed bedrock and clay geology						Length (m)	40
						Width (m)	1.5
						Avg. depth (m)	0.35
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
3700	Layer			0.2	Topsoil. Grey-red clayey silt		
3701	Layer			0.35	Subsoil. Brown-red silty clay with frequent gravel		

3702	Layer				Natural. Light pink-red silty clay and bedrock geology		
Trench 38							
General description					Orientation	E-W	
Trench devoid of archaeology. Consists of topsoil overlying subsoil overlying mixed gravel and clay geology					Length (m)	40	
					Width (m)	1.5	
					Avg. depth (m)	0.6	
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
3800	Layer			0.3	Topsoil. Light grey-red clayey silt		
3801	Layer			0.45	Subsoil. Brown-red silty clay		
3802	Layer				Natural. Pink-red clay and gravel geology		
Trench 39							
General description					Orientation	NE-SW	
Trench contained a possible Gully. Consists of topsoil overlying subsoil overlying mixed clay and gravel geology.					Length (m)	40	
					Width (m)	1.5	
					Avg. depth (m)	0.6	
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
3900	Layer			0.28	Topsoil. Light grey-red clayey silt		
3901	Layer			0.58	Subsoil. Brown-red silty clay		
3902	Layer				Natural. Pink-red silty clay with frequent gravel		
3903	Cut		0.41	0.12	Gully. E-W aligned drainage gully with shallow sides and an irregular base		
3904	Fill	3903	0.41	0.12	Secondary Fill. Firm dark black grey with mottles of light brown grey silty clay		
Trench 40							
General description					Orientation	NE-SW	
Trench devoid of archaeology. Consists of topsoil overlying subsoil overlying mixed clay and gravel geology.					Length (m)	40	
					Width (m)	1.5	
					Avg. depth (m)	0.45	
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
4000	Layer			0.26	Topsoil. Dark brown grey clayey silt		
4001	Layer			0.45	Subsoil. Yellow-brown silty clay		
4002	Layer				Natural. Light pink-red with yellow-brown patches of silty clay with some gravels		
Trench 41							

General description						Orientation	NW-SE
Trench devoid of archaeology. Consists of topsoil overlying subsoil overlying mixed clay and gravel geology.						Length (m)	40
						Width (m)	1.5
						Avg. depth (m)	0.6
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
4100	Layer			0.19	Topsoil. Dark grey brown clayey silt		
4101	Layer			0.6	Subsoil. Yellow-brown silty clay		
4102	Layer				Natural. Red-brown silty clay and gravels		
Trench 42							
General description						Orientation	NW-SE
Trench consists of topsoil overlying subsoil which overlies natural						Length (m)	36
						Width (m)	1.5
						Avg. depth (m)	0.32
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
4200	Layer			0.22	Topsoil. Dark grey brown silty clay		
4201	Layer			0.13	Subsoil. Red brown silty clay with infrequent stones		
4202	Layer				Natural. Brown red brick earth with frequent moderate gravels and stone		
Trench 43							
General description						Orientation	
Not excavated.						Length (m)	
						Width (m)	
						Avg. depth (m)	
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
Trench 44							
General description						Orientation	
Not excavated.						Length (m)	
						Width (m)	
						Avg. depth (m)	
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
Trench 45							
General description						Orientation	NE-SW

Trench devoid of archaeology. Consists of topsoil overlying subsoil overlying mixed clay and gravel geology.						Length (m)	40
						Width (m)	1.5
						Avg. depth (m)	0.5
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
4500	Layer			0.2	Topsoil. Light grey-red clayey silt		
4501	Layer			0.5	Subsoil. Red-brown silty clay		
4502	Layer				Natural. Orange-red brown with patches of pink-red silty clay with frequent gravel and bedrock		
Trench 46							
General description						Orientation	NW-SE
Consists of topsoil overlying subsoil overlying mixed clay and gravel/bedrock geology.						Length (m)	40
						Width (m)	1.5
						Avg. depth (m)	0.7
Context No.	Type	Fill Of	Width (m)	Depth (m)	Description	Finds	Date
4600	Layer			0.23	Topsoil. Light red-grey clayey silt		
4601	Layer			0.7	Subsoil. Yellow-brown silty clay		
4602	Layer				Natural. Pink-red silty clay with some gravel/bedrock		
4603	Cut		1.31	0.38	Tree Throw. sub-oval with moderate-vertical sides and an irregular base		
4604	Fill	4603	1.31	0.38	Secondary Fill. Light grey-brown silty clay		

APPENDIX B BIBLIOGRAPHY

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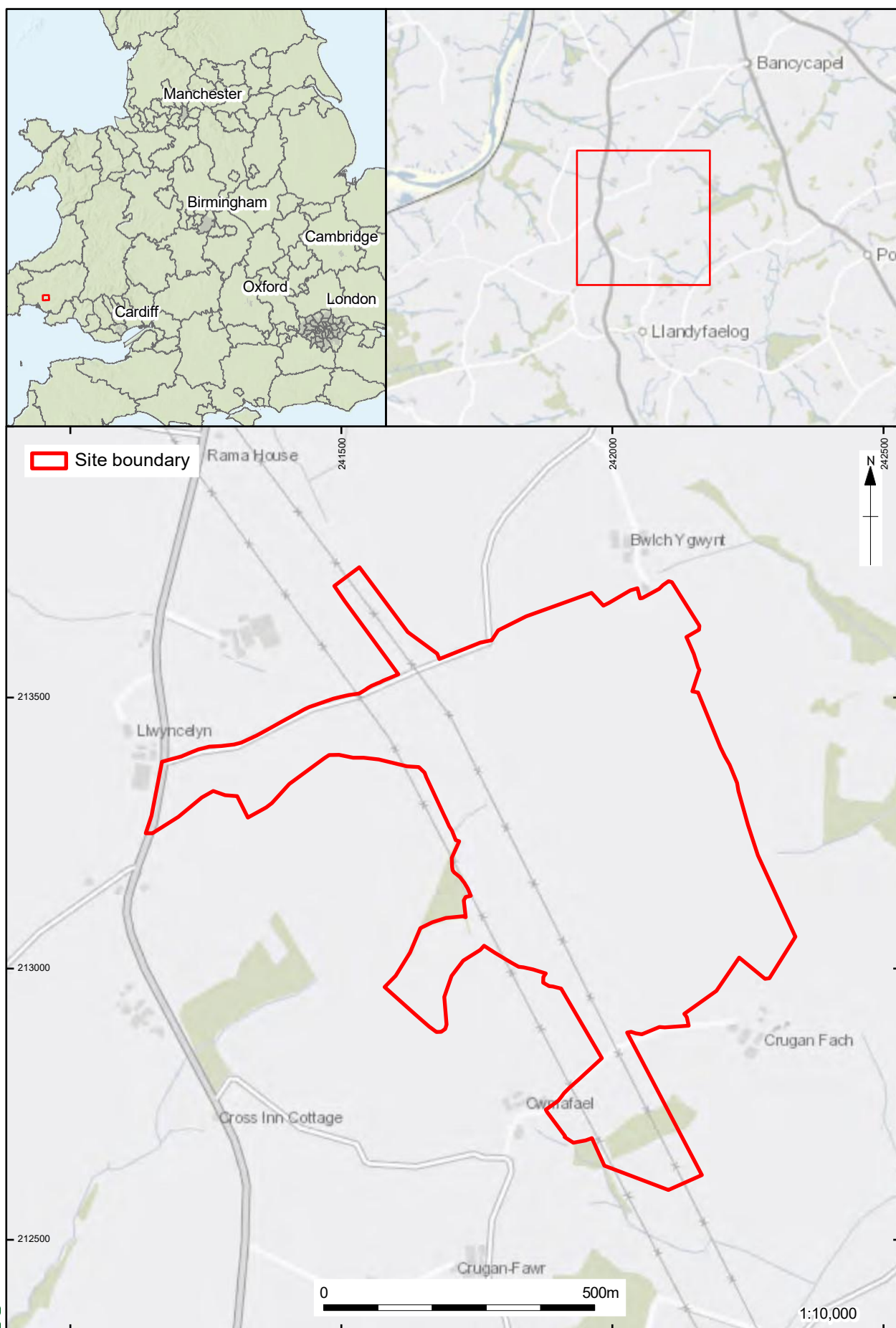
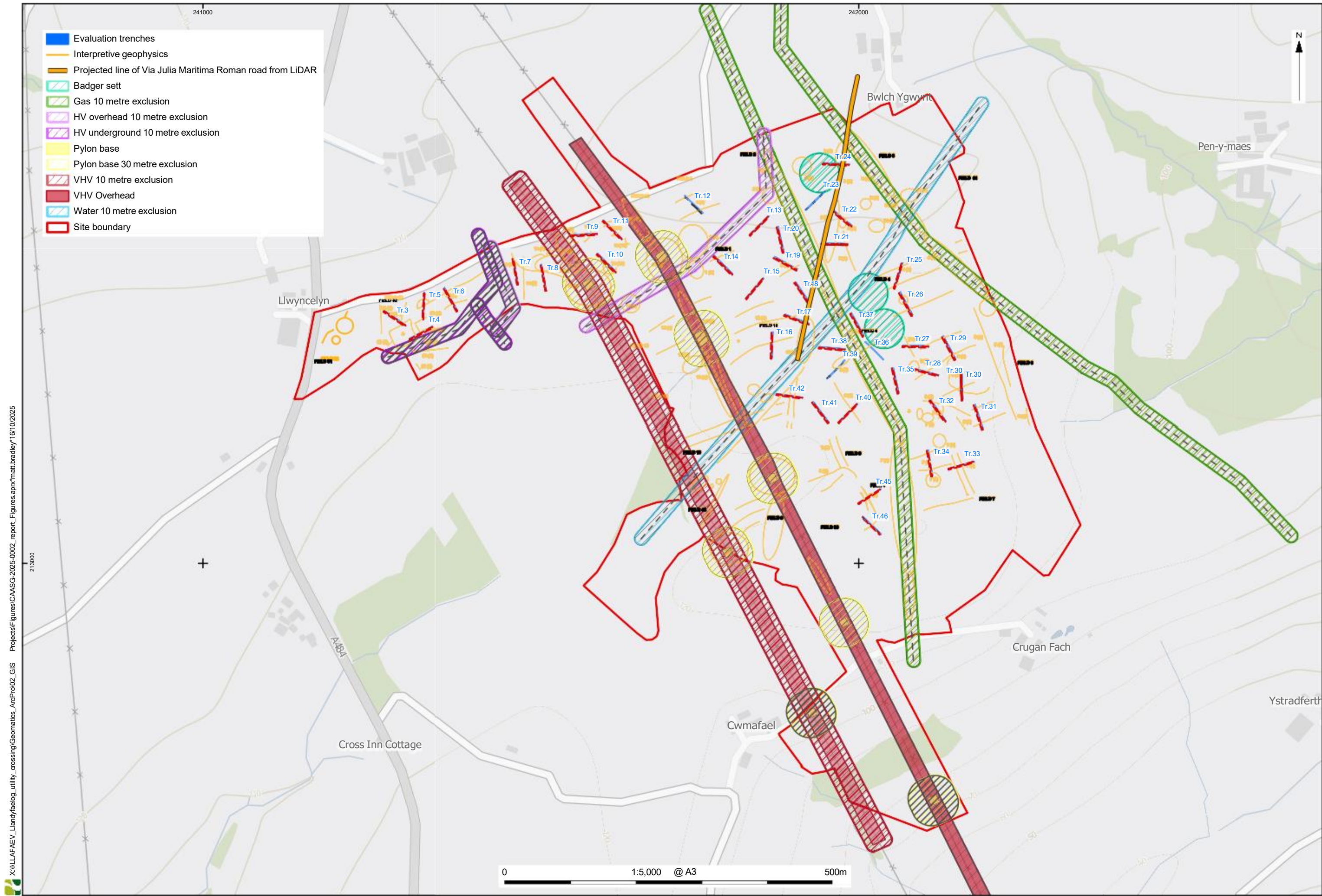


Figure 1: Site location

Terrain: Multi-Directional Hillshade: Source: Airbus, USGS, NGA, NASA, CGIAR, NLS,
OS, NMA, Geodatastyrelsen, GSA, GSI and the GIS User Community
Country - OS Boundary-Line: Contains OS data © Crown Copyright and database
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OS_Open_Background_2: Contains OS data © Crown Copyright and database right
2020
CTYUA_DEC_2024_UK_BFE:
Major Towns and Cities (December 2015) Boundaries EW BGG V2: Office for National
Statistics



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Figure 2: Overall trench plan showing constraints and interpretive geophysical survey

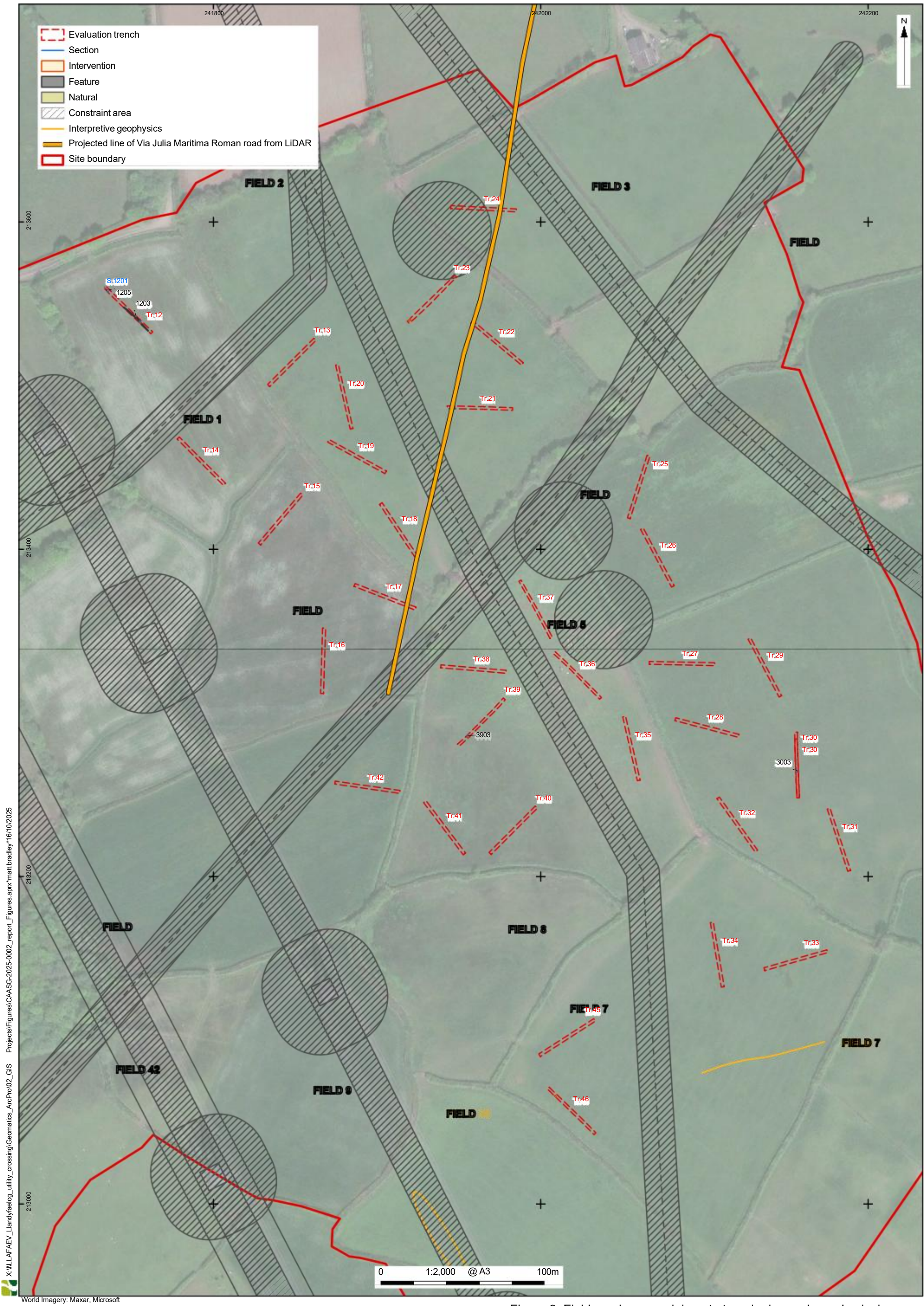


Figure 3: Field numbers overlain onto trench plan and geophysical survey



Figure 4: Field numbers overlain onto trench plan and geophysical survey

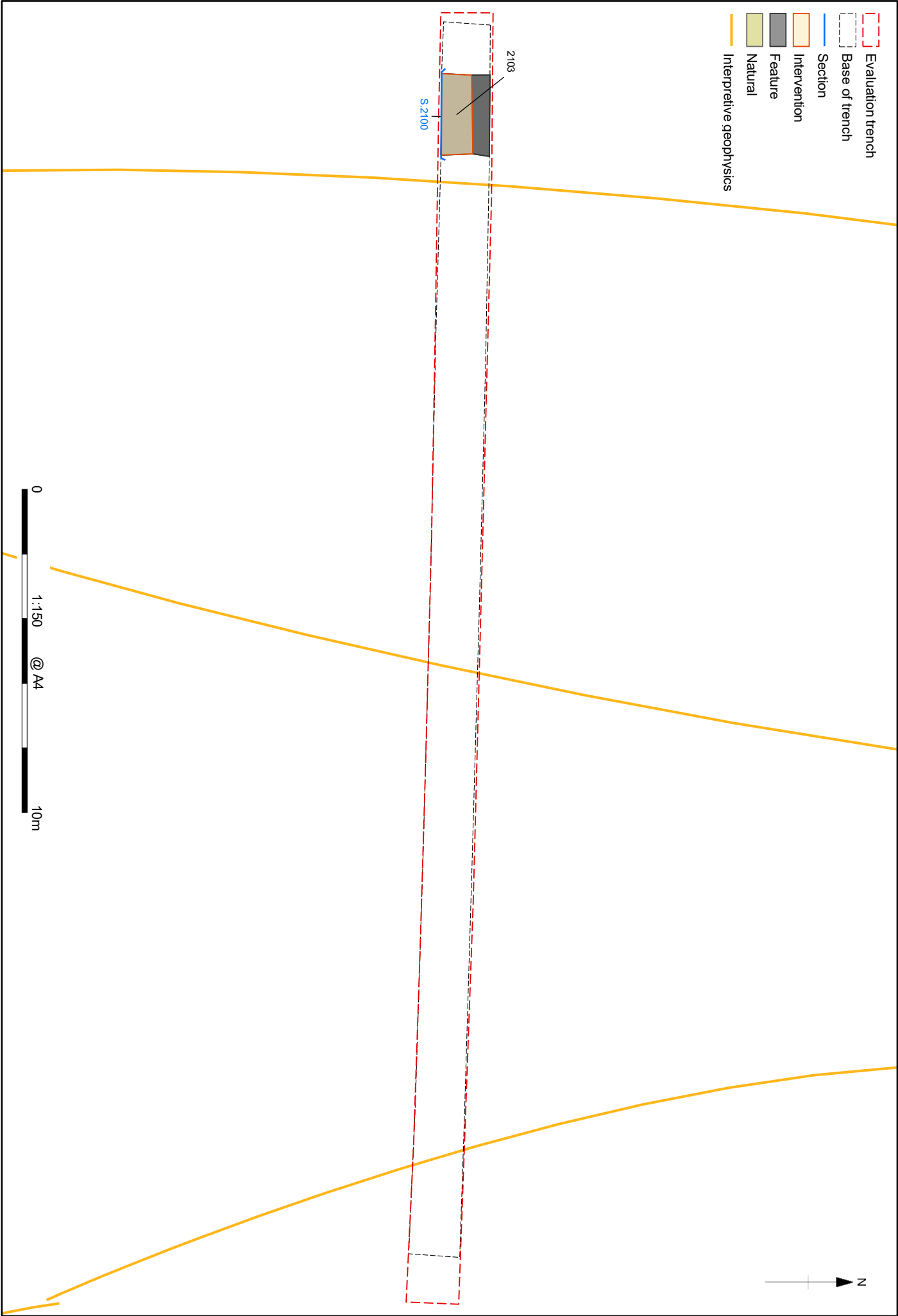
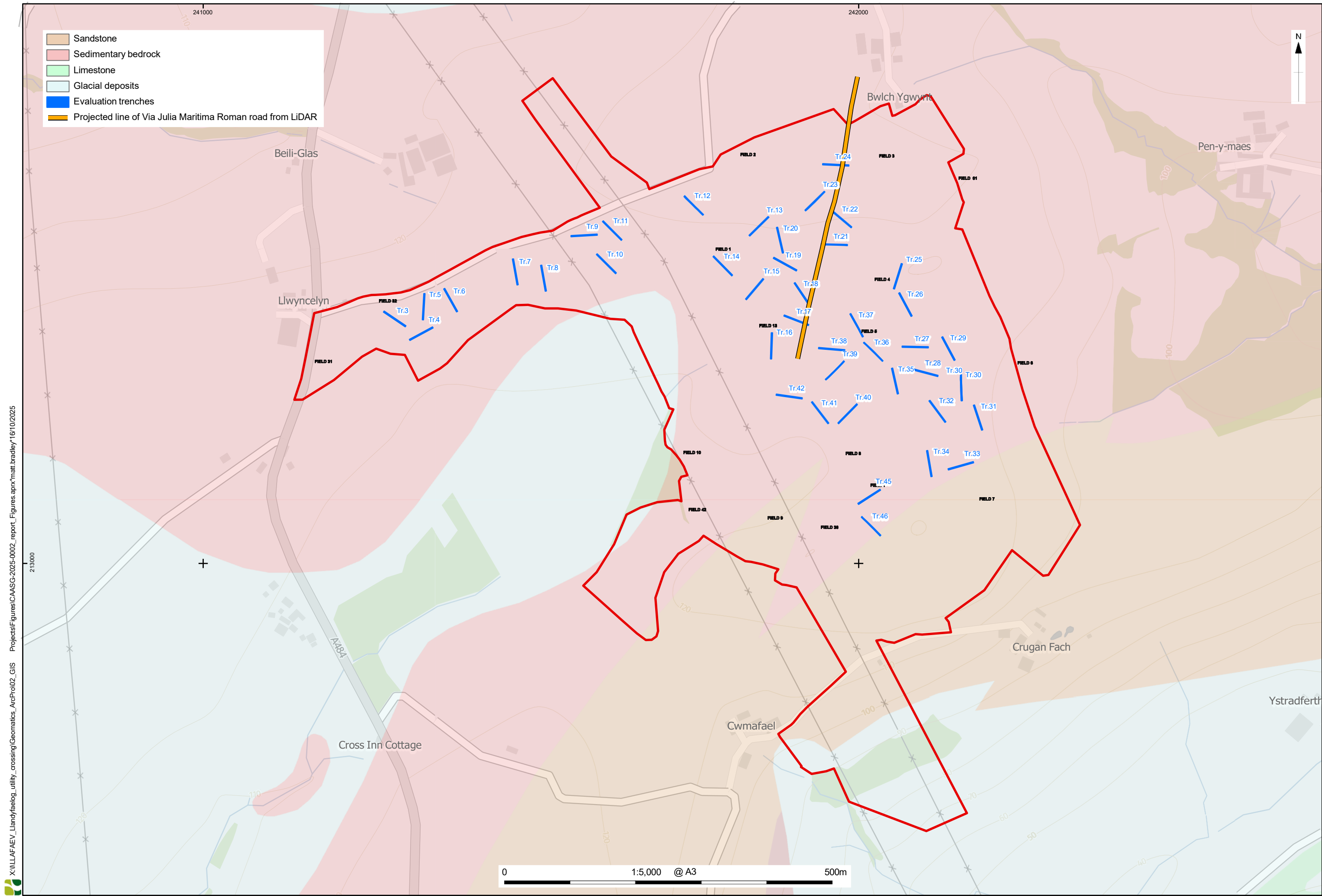


Figure 5: Detailed view of trench 21



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GB Background: Contains OS data © Crown Copyright and database right 2025
 Contains data from OS Zoomstack
 BGS 50000 scale digital geology:

Figure 6: Trench plan overlain onto BGS geology

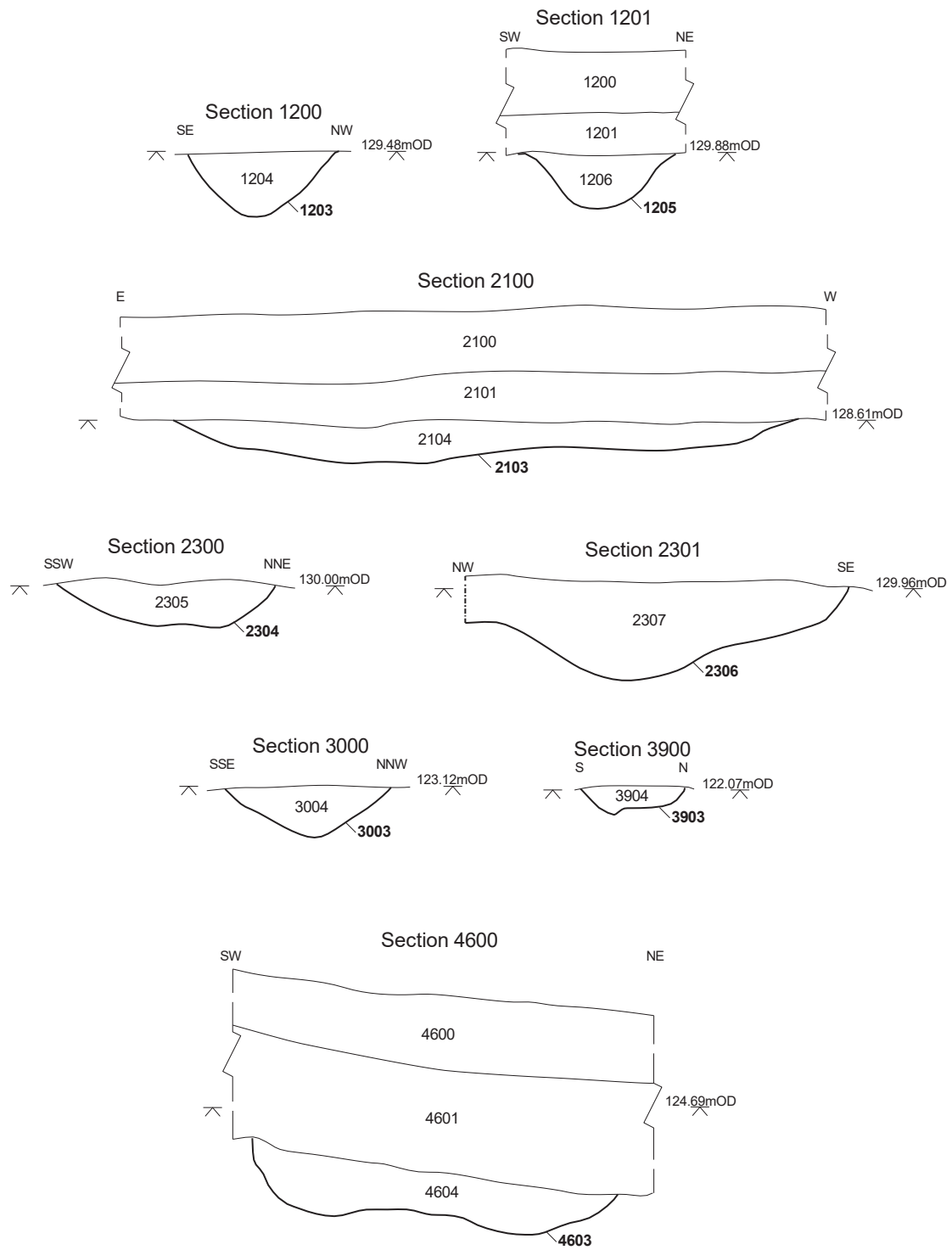


Figure _: _____



Plate 1: Trench 3, looking south-east



Plate 2: Trench 7, looking south-east



Plate 3: Trench 9 looking east



Plate 4: Trench 12, looking south-east



Plate 5: Trench 17 looking north-west



Plate 6: Trench 21, looking east



Plate 7: Trench 26, looking south-east



Plate 8: Trench 30 looking south



Plate 9: Trench 33, looking north-east



Plate 10: Trench 36 looking south-east



Plate 11: Trench 45 looking north-east



Plate 12: Trench 12, south facing section of periglacial scar 1203



Plate 13: Trench 12, north-east facing section of periglacial scar 1205



Plate 14: Trench 21, north facing section of ditch 2103



Plate 15: Trench 30, west facing section of gully
3003



Plate 16: Trench 39, west facing section of gully
3903

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