

RECTANGULAR CROP-MARKED ENCLOSURES IN SOUTH CEREDIGION 2004



THE UNIVERSITY *of York*



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Paratowyd gan Archaeoleg Cambria
Ar gyfer Cadw
Prepared by Cambria Archaeology
For Cadw: Welsh Historic Monuments



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ARCHAEOLEG CAMBRIA ARCHAEOLOGY

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RECTANGULAR CROP-MARKED ENCLOSURES IN SOUTH CEREDIGION 2004

Gan / By

K Murphy, H Mytum, R Carver and H Wilson
Assisted by R Briscoe, K Belsey, J Kilroy and S Dooley

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ARCHAEOLEG CAMBRIA
Ymddiriedolaeth Archaeolegol Dyfed Cyf
Neuadd y Sir, Stryd Caerfyrddin, Llandeilo, Sir Gaerfyrddin SA19
6AF
Ffon: Ymholiadau Cyffredinol 01558 823121
Adran Rheoli Treftadaeth 01558 823131
Ffacs: 01558 823133
Ebost: cambria@acadat.com Gwefan: www.acadat.com

CAMBRIA ARCHAEOLOGY
Dyfed Archaeological Trust Limited
The Shire Hall, Carmarthen Street, Llandeilo, Carmarthenshire
SA19 6AF
Tel: General Enquiries 01558 823121
Heritage Management Section 01558 823131
Fax: 01558 823133
Email: cambria@acadat.com Website: www.acadat.com

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SUMMARY

Over 55 crop-marked enclosures have been discovered by aerial photography in south Ceredigion since the early 1980s. Thirty-one are rectangular. Aerial photographs indicate that all sites are crop-marks and that little or no earthwork evidence survives. However, prior to this project, none of these sites had been inspected on the ground. The non-rectangular sites conform to known late Iron Age defended settlement types in southwest Wales. The rectangular enclosures form a distinctive and unique group, and while they may be of a similar function and date to the non-rectangular sites, earlier or later dates are possible, and their designation as settlements is not certain. During the summer of 2004, geophysical and topographic survey was conducted on eight rectangular enclosures. This work confirmed that only rarely did any surface evidence for the rectangular enclosures exist, and where present it was very slight. Geophysics, however, demonstrated that important below-ground archaeology is likely to survive in addition to the crop-marked ditches recorded on aerial photographs. In particular circular gullies, probably indicating the location of round-houses, hearths, post-holes and internal divisions of the enclosures were detected. This evidence is similar to that obtained by excavation on Iron Age defended settlement sites.

INTRODUCTION

Since the early 1980s a number of crop-marked enclosures of presumed later prehistoric or Romano-British date have been recognised through aerial photography in south Ceredigion. Prior to these discoveries few later prehistoric settlements were known, and these were confined to a couple of substantial hillforts with upstanding earthwork defences such as Castell Nadolig to the southeast of Aberporth. Evidence for Romano-British settlement in south Ceredigion is absent. A series of dry summers, 1983-83, 1994-95 and 2003, and an increasing awareness by aerial archaeologists that the terrain of south Ceredigion was conducive for crop-mark archaeology, has resulted in the recording of over 55 new enclosure sites, and the enhancement of knowledge of the few previously known settlements.

The late prehistoric settlement of southwest Wales is characterised by hillforts and smaller defended enclosures. Typically these consist of earthworks - defensive banks and ditches - enclosing an internal area that is oval or irregularly oval in shape. Rarely, some defended enclosures are rectangular. In the course of the discoveries in south Ceredigion it became increasingly clear that a high proportion of the crop-marked enclosures were rectangular. Currently, 31 of the 58 enclosures recorded in the area are rectangular.

The rectangular enclosures are remarkably similar indicating similar function and date. They are defined by crop-marked ditches, between about 3m - 5m wide, with only very occasional evidence for banks or other features. The aerial photographs only rarely indicate that low earthworks may be present. The enclosures usually approximate to a square, with dimensions between 40m - 50m by 45m - 55m. Most have an entrance through the ditch mid-way along one side. Although the ditches, and assumed accompanying banks, indicate a defensive function, rectangular enclosures are not located in defensive locations. Most in south Ceredigion are sited on hill-slopes/valley sides, often just below a crest or summit, but locations towards the base of slopes are also known.

The area in which the crop-marked enclosures have been discovered comprises a roughly triangular dissected plateau, approximately 100 square kilometres, between 80m to 150m above sea level, and lying between Cardigan, Aberporth and Newcastle Emlyn. The settlement pattern comprises dispersed farms with a few hamlet/village clusters. Apart from on the steepest slopes almost all the land is parcelled into fields and intensively farmed. The western section of the area is exposed to the prevailing Atlantic winds. Improved pasture is the chief agricultural land-use, with an arable element producing mainly fodder crops.

AIMS AND OBJECTIVES

In 1996, Cambria Archaeology were grant-aided by the RCAHMW to plot all the known cropmark enclosure sites in south Ceredigion and mid Pembrokeshire/Carmarthenshire. Since then other sites have been identified and plotted by RCAHMW staff. Thus, although over 55 enclosures, including 31 rectangular enclosures, have been identified and plotted it is not known what archaeological evidence survives underground, and their function and date is not known. The aim of this Cadw grant-aided project was to conduct geophysical and topographic surveys on at least five rectangular enclosures in order to assess their potential for buried archaeology with the objectives of:

- assessment of the archaeological significance of these sites in both a regional and national context
- assessment of the vulnerability of the sites
- formulation of scheduling criteria, which may be appropriate regionally and nationally, and the formulation of future management strategies
- enhancement of the Regional Sites and Monuments Record and END

SUMMARY OF METHODOLOGY AND RESULTS

In total it was possible to conduct geophysical surveys on eight rectangular enclosures and topographic survey on seven of these. The sites surveyed were: Blaenfflyman, Blaensaith, Ffynnoncyff, Hafod, Penbwliaid I, Penbwliaid II, Penparc and Troedyrhiw (Fig. 1). K Murphy of Cambria Archaeology was responsible for the overall management of the project and the final reporting. H Wilson of Cambria Archaeology conducted the topographic survey. The geophysical survey was directed by H Mytum and carried out by R Carver with the assistance of R Briscoe, K Belsey and J Kilroy, all of the University of York, and S Dooley, a field-school student on the Castell Henllys project. Aerial photographs and plotted data were supplied by the RCAHMW.

The results from individual sites are presented below. It was intended to conduct both gradiometer and resistivity surveys on all sites, supplemented by selected magnetic susceptibility, but owing to the extremely dry soil conditions only gradiometer survey was possible. Topographic survey using a Total Station Theodolite with data recorder was undertaken on all sites apart from Blaenfflyman.

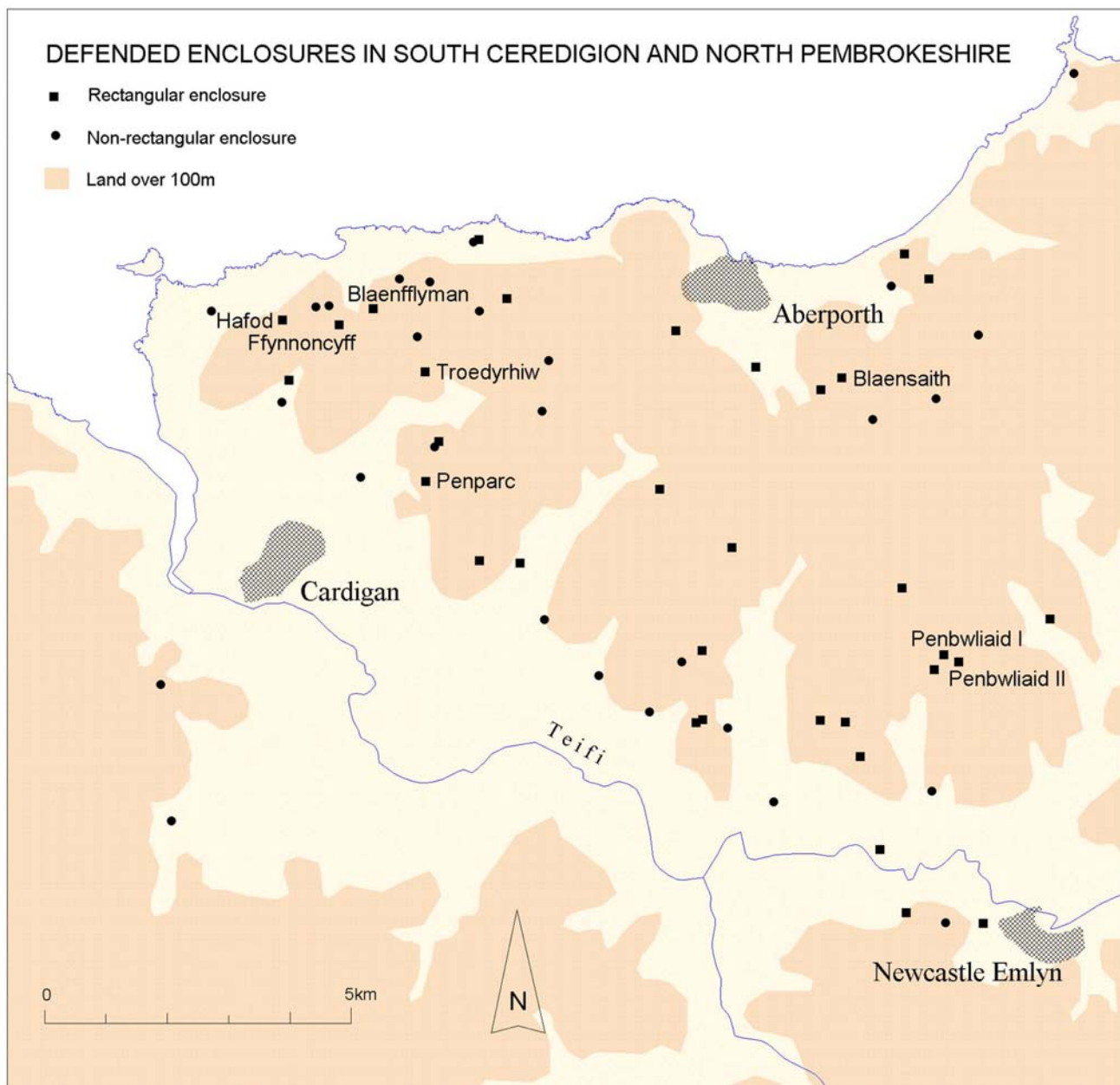


Figure 1. Location map with survey sites named.

Various gradations of grid spacing and intensity of readings were tested for the gradiometer survey. The coarsest was a grid traverse of 1m with readings every 0.5m. This method was employed at Ffynnoncyff, the first site surveyed, and one of the clearest crop-marked enclosures. The main ditch and less substantial ditches were detected, but no internal features. At Troedyrhiw a 1m grid, with readings every 0.25m, detected some internal features. Finally a 0.5m grid and readings every 0.25m was used, except at Hafod, a doubtful site, where only evidence of presence or absence was required, and therefore the 1m grid and 0.5m reading intensity was considered appropriate.

The higher intensity readings produced positive results, with internal features detected at most sites. Of particular note is Blaensaith, where two round-houses and other internal features are visible on the plot, and also Penbwliaid I and Blaenfflyman. The size and character of the round-houses suggests a later prehistoric date (Iron Age) rather than either an earlier prehistoric date, Romano-British date, or later, date.

Geophysics showed that two sites, Hafod and Penbwliaid II were not archaeological. The cropmarks here are poorly defined on aerial photographs and are now considered geological.

The surveys have demonstrated that substantial archaeological features survive, and that these rectangular enclosures are likely to be of regional and national importance. However, their date, form, function and importance can only be established by further fieldwork. Formulation of scheduling and management criteria will depend on this fieldwork.

ACKNOWLEDGEMENTS

Several institutions and individuals have contributed to the success of this project. Toby Driver and Tom Pert of the RCAHMW assisted in providing data and aerial photographs. The fieldwork headquarters was based at the Castell Henllys site in Pembrokeshire, and we are grateful to the Pembrokeshire Coast National Park for allowing us to use their facilities. We are also extremely grateful to all the landowners who allowed us to conduct the surveys and assisted in many ways: Lloyd Williams for Ffynnoncyff and Blaenfflyman, Mr M. W. and Mrs V. J. Davies for Blaensaith, Morris Davies for Hafod, D.J. Davies for Penbwliaid I and II, Emyr Jones for Penparc and John Williams for Troedyrhiw.

BLAENFFLYMAN

Geophysical surveyors: Rebecca Carver
James Kilroy
Shana Dooley

Site name: Blaenfflyman

Grid reference: SN19755083

SMR no.: 35716

Date of survey: 05/08/04 – 06/08/04

Owner's name: Lloyd Williams

Aerial photograph and plot: A well defined ditched enclosure, almost square, internally measuring approximately 44m east-southeast to west-northwest and 45m north-northeast to south-southwest, giving an internal area of 0.19 ha. The ditch is sharp-cornered with an average width between 3.2m and 4m, but up to 5.8m wide on the northern side. The single entrance through the ditch in the centre of the eastern side is 2.5m wide. There is no trace of a bank.

Topographic setting: No topographic survey was undertaken on this site. The enclosure is set on a flat area, approximately 118m O.D., on land that gently slopes down from east to west, and towards the head and on the east side of a small valley.

Visible earthwork features: None were visible.

Gradiometer survey: The northwestern corner of the enclosure is located 70m from the field corner with gate, 10m into the field. Because the enclosure is set at an angle to the fence, the survey grid was established around it along the angles of the fence, and any grid squares that were unlikely to contain any of the enclosure were not investigated. The grid was 70m x 80m, 5m in from the hedge.

Survey was undertaken with a Geoscan Fluxgate Gradiometer F36, with traverse intervals of 0.5m and sample intervals of 0.25m in forty 10m x 10m squares. Conditions for the survey were good.

Gradiometer survey interpretation: The data was processed by interpolation and zero mean grid, but unfortunately this was not enough to get rid of all the striping effect. The results were good, with ditch, bank, entrance and deposition areas clearly represented. The ditch is a more consistent width than is apparent on the aerial photograph, with an average width close to 3m. The bank is clearly visible on the south, east and north sides, less so on the west, and there is evidence for a counterscarp bank surrounding the ditch. Strong magnetic anomalies inside the bank on the north and south side suggest dumped occupation deposit. There is strong evidence for rectilinear internal divisions in the enclosure. Possible circular buildings are sited immediately inside and south of the entrance and in the southwest corner of the enclosure. A possible path leads away from the entrance.

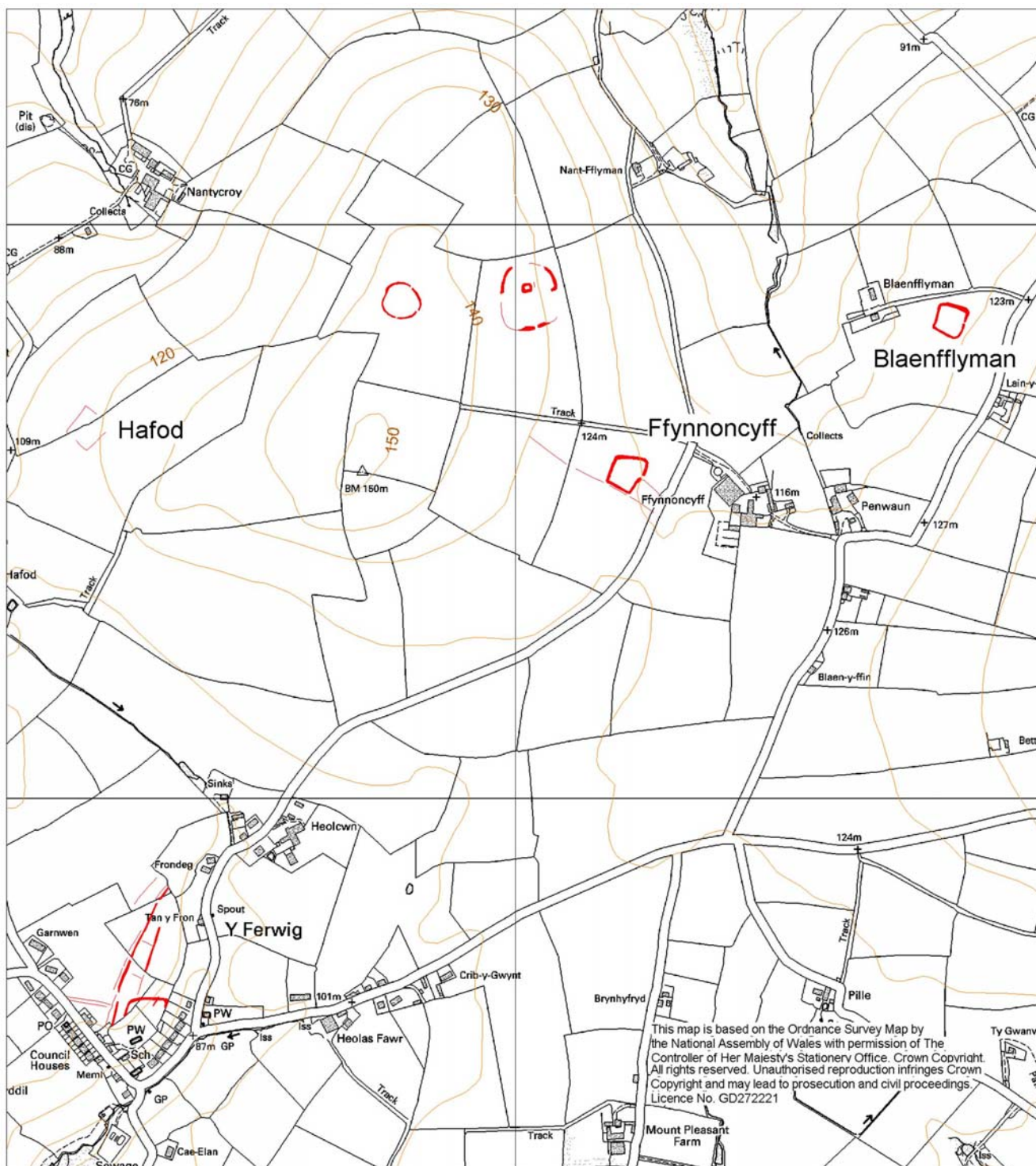


Figure 2. Location of Blaenfflyman, Ffynnoncyff and Hafod enclosures. Scale approximately 1:10,000.

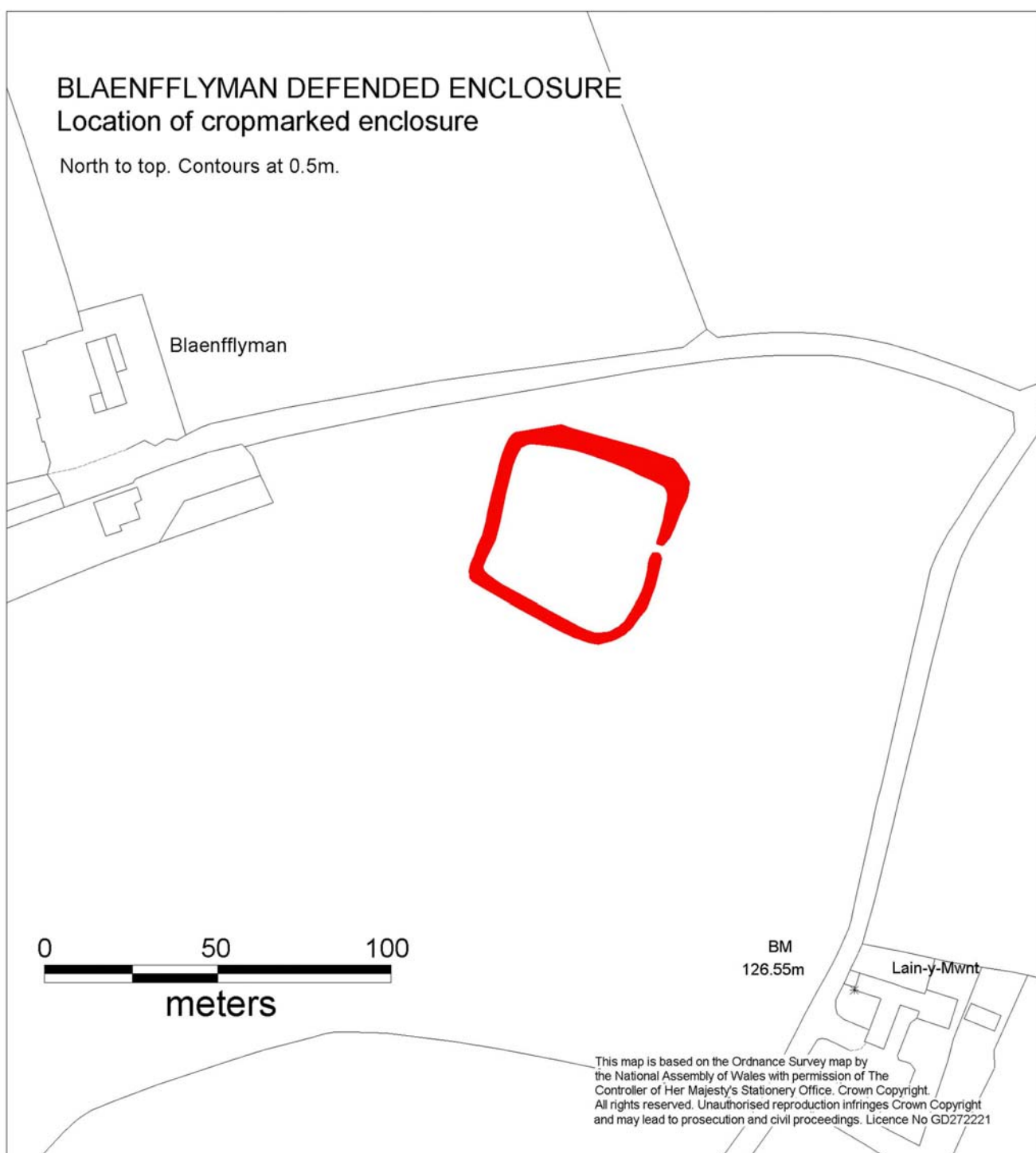


Figure 3. Plot of the crop-marked enclosure of Blaenfflyman. © Crown copyright: RCAHMW. No topographic survey of this site was undertaken and therefore the geophysical survey is only approximately located.



Figure 4. Aerial photograph of Blaenfflyman crop-marked enclosure. © Crown Copyright: RCAHMW. Photograph reference 89-CS-649.

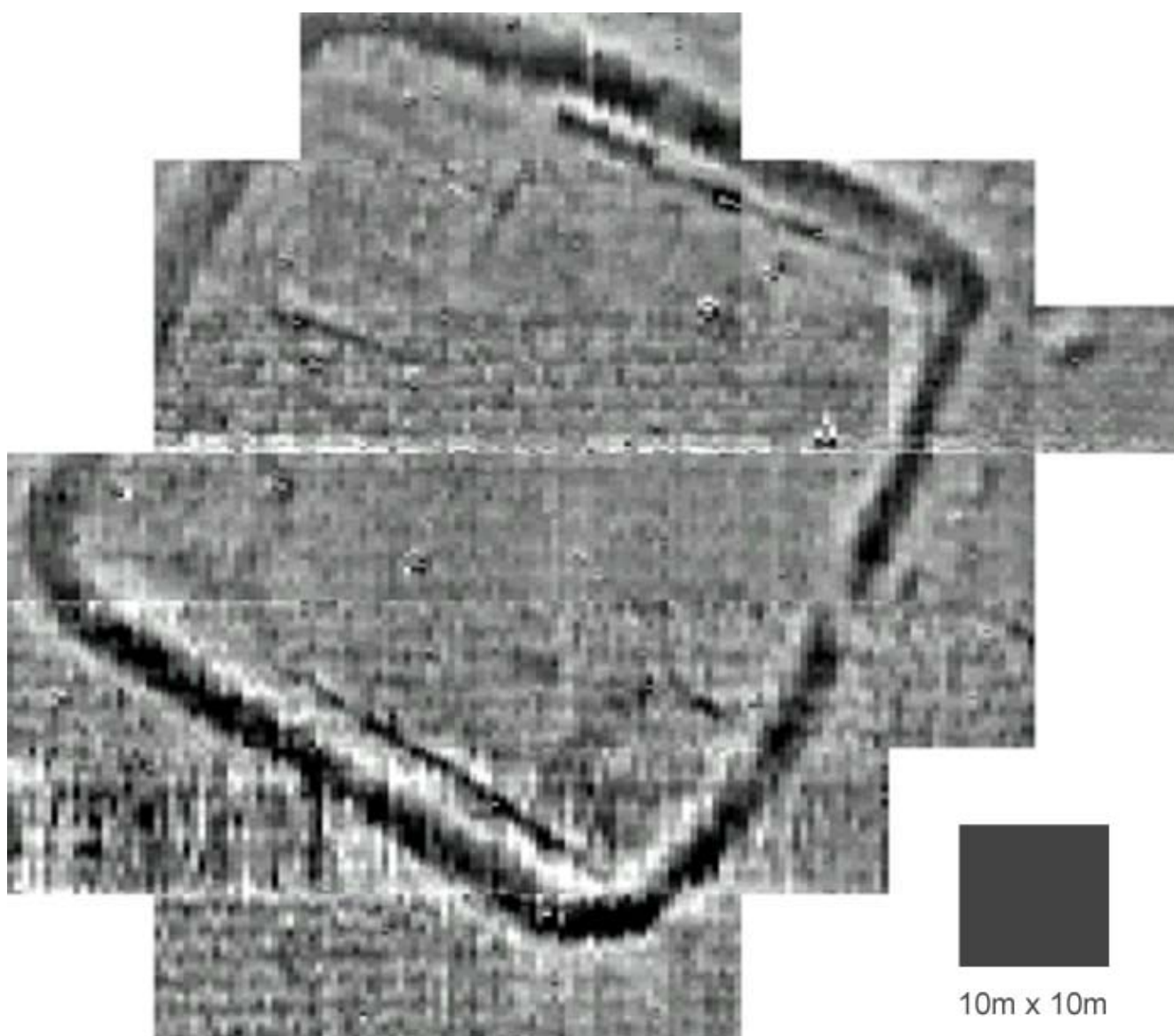


Figure 5. Geophysical survey of Blaenfflyman enclosure.

BLAENSAITH

Geophysical Surveyors: Rebecca Carver
Kelly Belsey
Rebecca Briscoe

Topographic surveyor: Hubert Wilson

Site name: Blaensaith

Grid reference: SN27594966

SMR no.: 35733

Date of visit: 22/07/04 – 25/07/04

Owner's name and address: Mr M. W. and Mrs V. J. Davies

Aerial photograph and plot: A well defined, sharp cornered, crop-marked enclosure, assumed to be almost square (the northwest side is assumed to lie beneath a hedgebank), internally measuring approximately 52m north-northeast to south-southwest and 47m north-northwest to south-southeast, 0.24 ha in area. The ditch is between 2.7 and 3.5m wide. The entrance must lie on the northwest side beneath the hedgebank. Internal crop-marks parallel to the ditch on the southwest and northeast may represent occupation deposits against a bank. The aerial photographic evidence suggests that this enclosure may survive as a slight earthwork.

Topographic setting: The enclosure lies at about 175m about 120m northwest of a summit of a rounded hill. Land to the southwest through to the north falls gently away providing panoramic views to the coast and beyond.

Visible earthwork features: Banks on the southwest and northeast sides of the enclosure are apparent as low earthworks up to c. 0.20m high.

Gradiometer survey: Survey was undertaken with a Geoscan Fluxgate Gradiometer F36, with traverse intervals of 0.5m and sample intervals of 0.25m in thirty-one 10m x 10m squares. A problem faced at this site was the long, wet grass, which caused the surveyors to slip down-slope, causing a slight drift in results.

Resistivity survey: Resistivity survey was considered inappropriate for the conditions and so was abandoned for this site.

Gradiometer survey interpretation: Very little processing was needed for this site, since the results were so impressive, apart from zero mean grid and interpolation of the X and Y axes. Ditches, banks and internal features were detected.

The geophysics suggests that this is a well preserved site. An internal bank accompanies the enclosure ditch, which is surrounded by a counterscarp bank. The results from the east ditch area show how the bank has collapsed into the ditch; the different intensities representing different types of material from bank (light) and

ditch (dark). The bands of assumed occupation deposit on the northeast and southwest side of the enclosure, visible on aerial photographs, are also shown on the geophysical plot. The location of two round-house gullies are clearly visible. The one in the south corner of the enclosure is approximately 12m in diameter, possibly with an east-facing entrance defined by two post-holes, and also possibly a west-facing entrance. The house in the north corner is smaller, approximately 10m in diameter and is of two phases, with a southwest-facing entrance. There are hints of other internal features, including post-holes and other possible round-houses. Overall the richness of the readings over the ditches and gullies suggests deeply-cut features, or fills of high magnetic content.

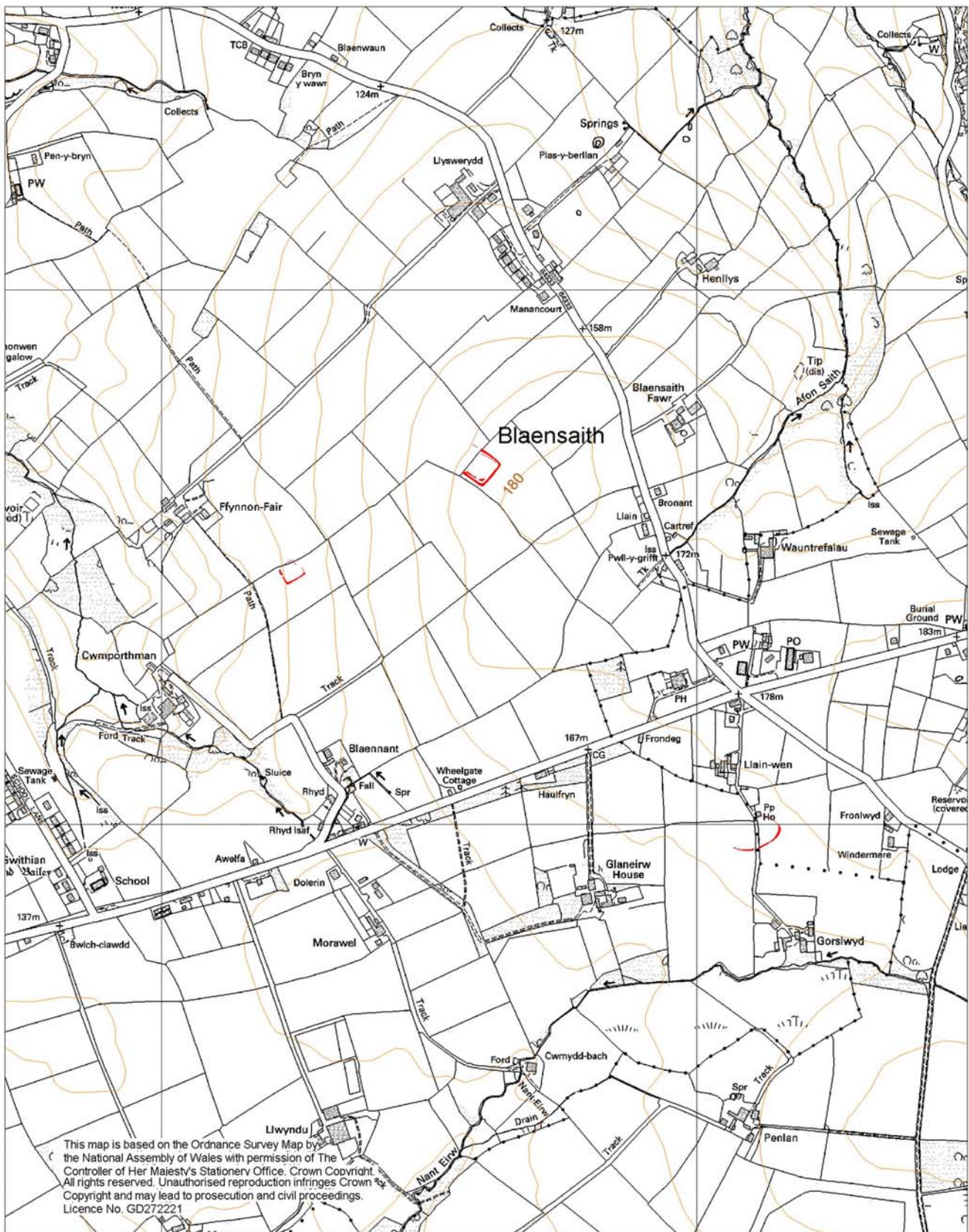


Figure 6. Location of Blaensaith enclosure. Scale approximately 1:10,000

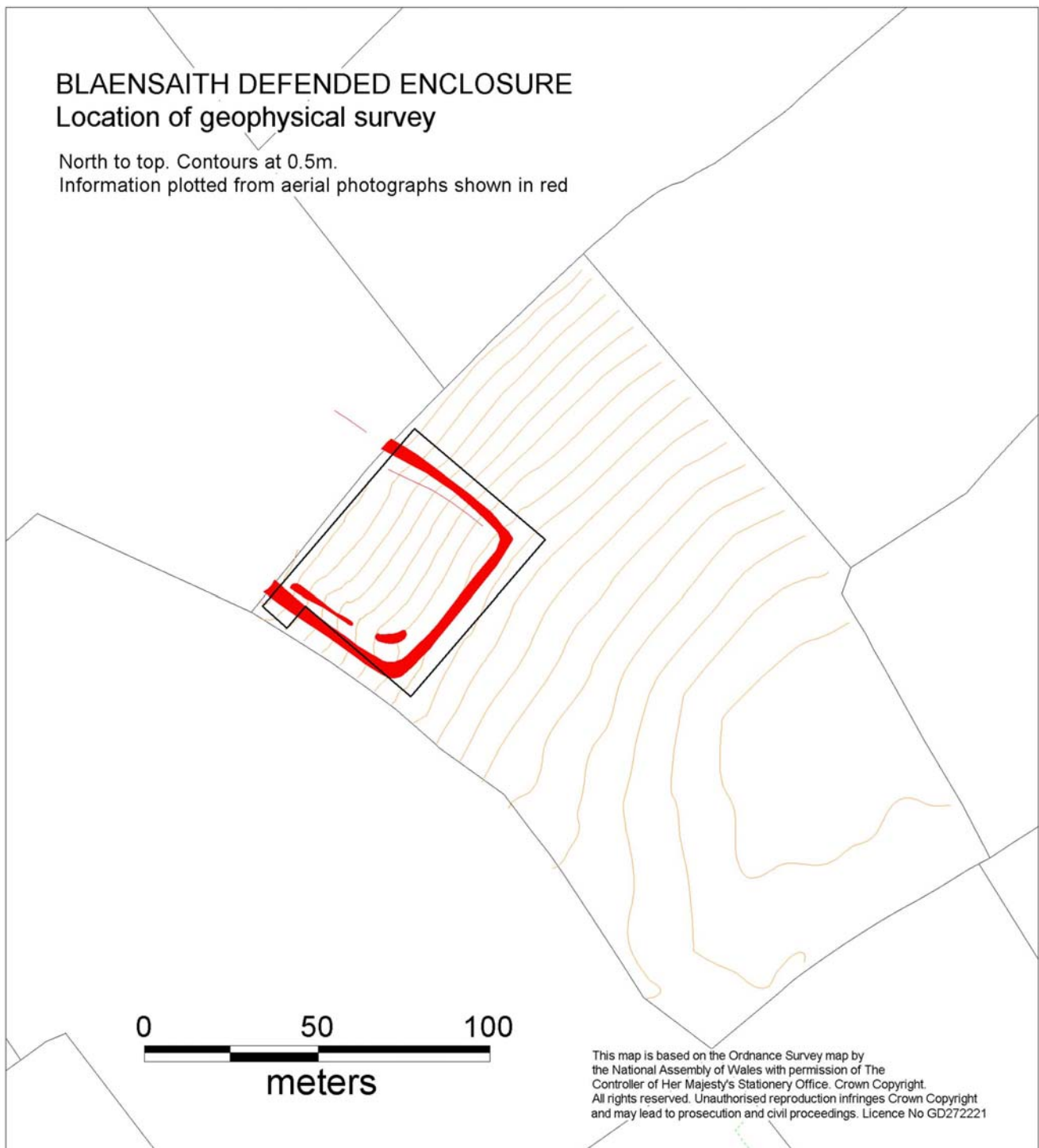


Figure 7. Plan of Blaensaith crop-marked enclosure (© Crown Copyright: derived from RCAHMW data) and the area of the geophysical survey.

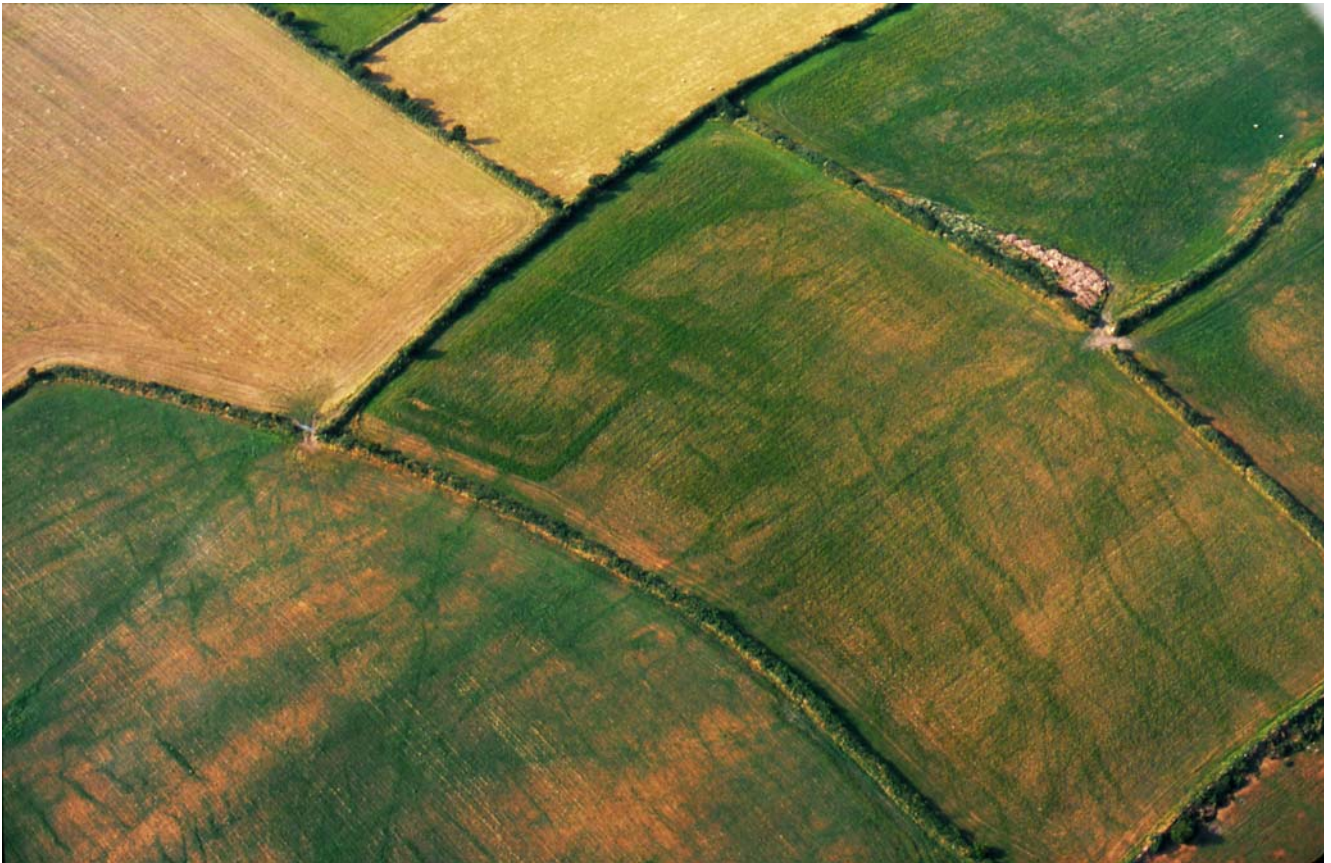


Figure 8. Aerial photograph of Blaensaith crop-marked enclosure. © Crown Copyright: RCAHMW. Photograph reference 95-CS-1731.

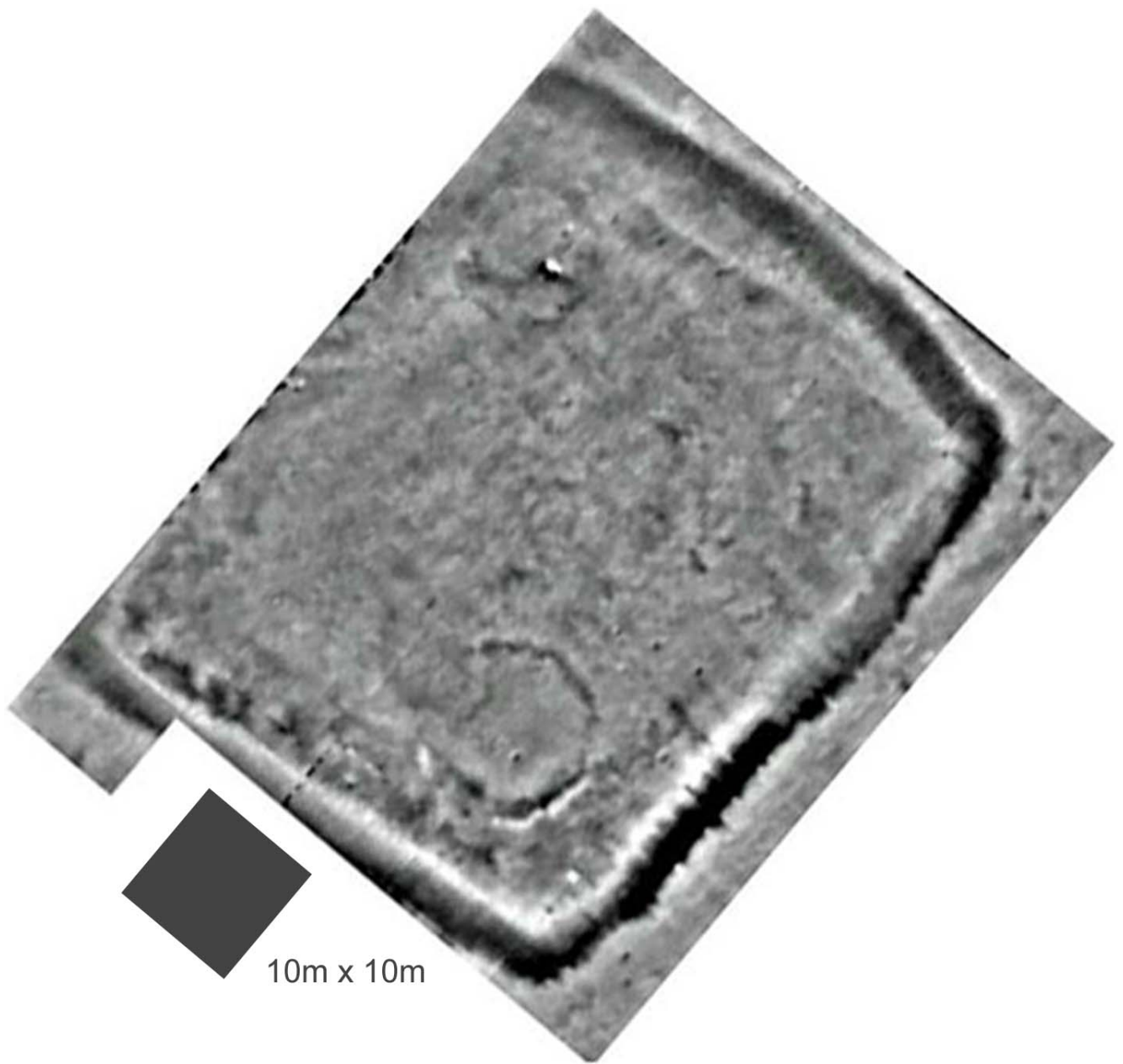


Figure 9. Geophysical survey of the Blaensaith enclosure.

FFYNNONCYFF

Geophysical surveyors: Rebecca Carver

James Kilroy

Kelly Belsey

Rebecca Briscoe

Topographic surveyor: Hubert Wilson

Site name: Ffynnoncyff

Grid reference: SN19192556

SMR no.: 35715

Date of visit: 13/07/04 – 15/07/04

Owner name and address: Lloyd Williams

Aerial photograph and plot: A strongly marked, ditched, sharp-cornered trapezoid crop-marked enclosure measuring internally approximately 50m north to south and 47m east to west, 0.23 ha in area. The ditch is between 4m and 5.5m wide. A 5.4m wide entrance lies in the centre of the east side. There are no internal features visible, but a slight ditch runs east from the south terminal ditch, and a second, similar ditch runs approximately east - west immediately adjacent and parallel to the southern side of the enclosure. This ditch continues into the field to the west. Both these ditches seem to belong to field systems contemporaneous with the enclosure.

Topographic setting: The enclosure is located towards the foot of a southeast-facing slope at 120m almost at the watershed of a stream flowing to the north and one flowing southwest. Land within the enclosure slopes down 2.5m from west to east. The land is very well drained, with bedrock close to the surface.

Visible earthwork features: No earthworks were visible.

Gradiometer survey: Survey was undertaken with a Geoscan Fluxgate Gradiometer F36, with traverse intervals of 1m and sample intervals of 0.5m in fifteen 20m squares. Processing tools used for the final presentation of the results include zero mean grid, interpolation on the X- and Y-axes, despiking and edge-matching functions.

Gradiometer survey interpretation: The enclosure ditch is clearly visible on the geophysical plot, together with traces of an internal bank around most of the circuit and traces of a counterscarp bank on most sides. The slighter ditch parallel to the south side of the enclosure is also clearly visible. A slight ditch running north from the northeast corner of the enclosure is also visible. No internal features are shown on the plot, possibly owing to the low resolution of the survey, but possibly also owing to absence within this intensively cultivated, shallow-soil site.

Resistivity survey: The survey was undertaken with a Geoscan Resistivity Meter (RM15), with traverse intervals of 1m and sample intervals of 1m in eight 20m squares. It was difficult to find and sustain a background reading because of the shallow nature of the soil. The readings from the machine were found to be very high. This was probably because of the close proximity to the bedrock and the very dry soils. Processing of the results was limited to zero mean grid.

Resistivity survey interpretation: The plot of the resistivity is not shown. Because the ground was very dry, conduction between the mobile probes of the RM15 was very difficult, making the results unreliable. All the machine picked up was the background geology, again because of the dry conditions. Nothing was translated, not even the substantial ditches known from the aerial photographs and the gradiometer results.

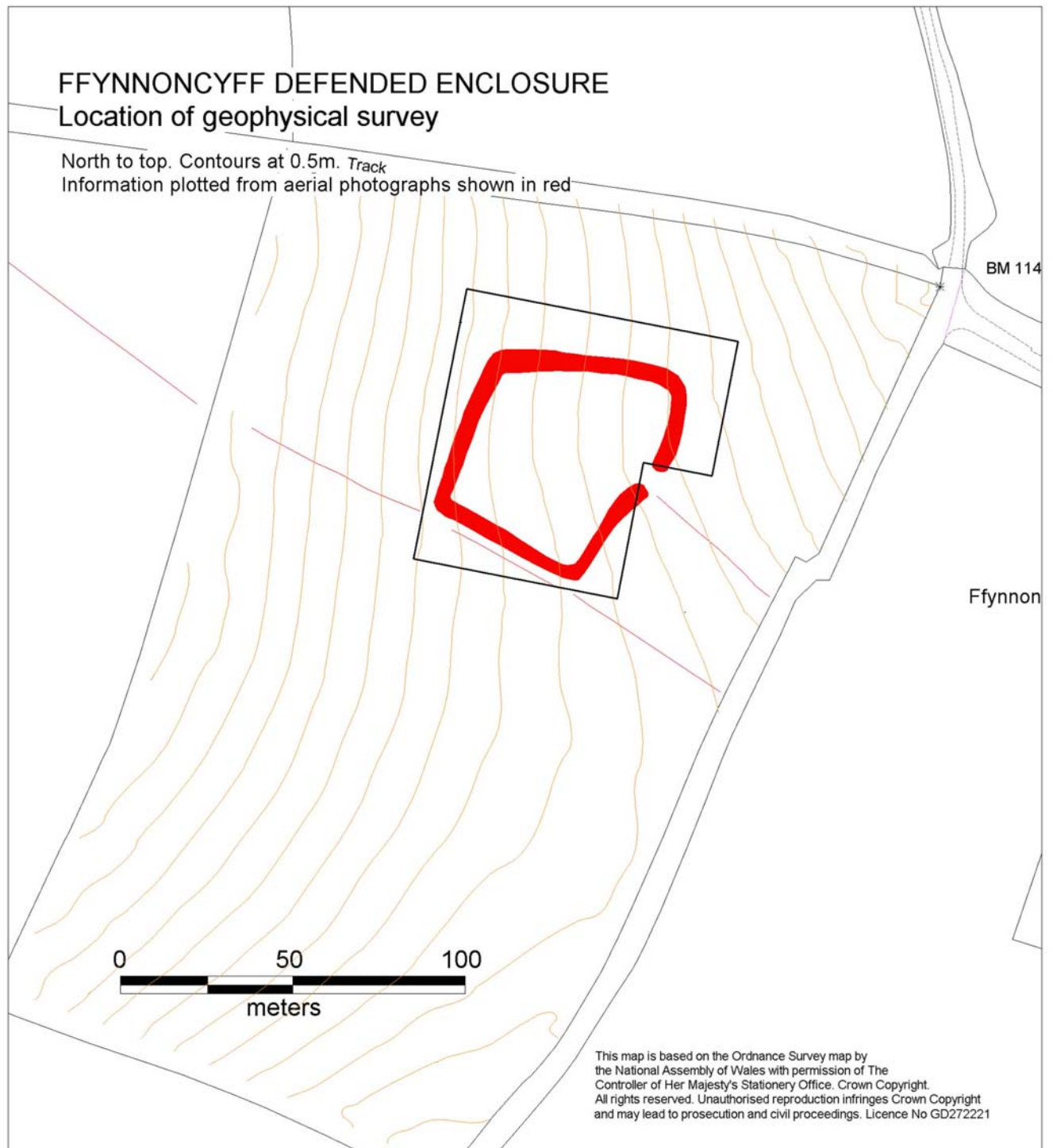


Figure 10. Plan of Ffynnoncyff crop-marked enclosure (© Crown Copyright: derived from RCAHMW data) and the area of the geophysical survey.



Figure 11. Aerial photograph of Ffynnoncyff crop-marked enclosure. © Crown Copyright: RCAHMW. Photograph reference 89-CS-646.

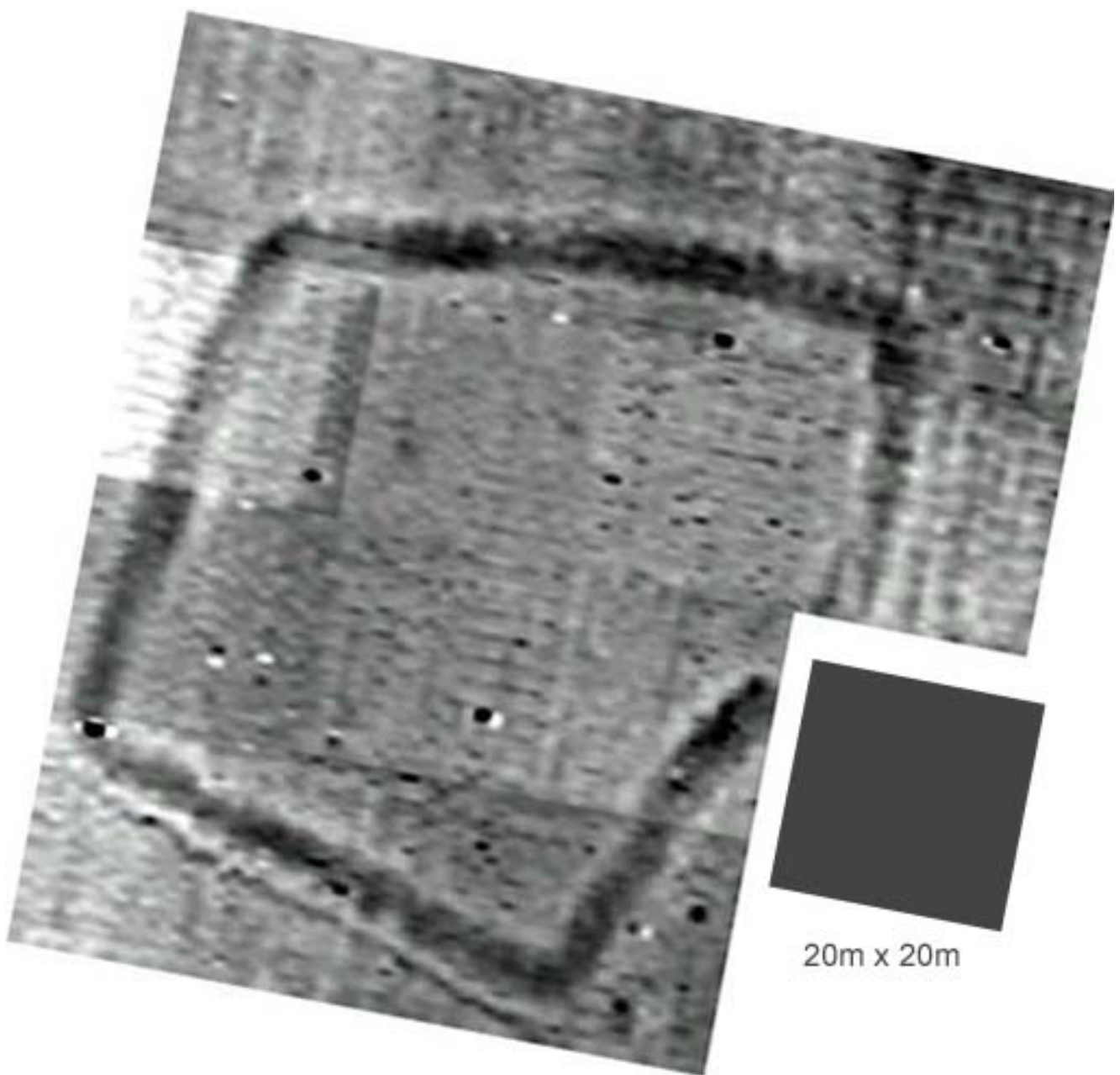


Figure 12. Geophysical survey of Ffynnoncyff enclosure.

HAFOD

Geophysical Surveyors: Rebecca Carver
Kelly Belsey
Rebecca Briscoe

Site name: Hafod

Grid reference: SN18255064

SMR no.: 35712

Date of visit: 16/07/04 and 28/07/04

Owner name and address: Morris Davies

Aerial photograph and plot: Very faint markings of what may be a crop-marked enclosure are visible on aerial photographs. The possible enclosure is rectangular, approximately 57m by 53m.

Topographic setting: The possible enclosure is located on fairly steep west-facing slopes at approximately 118m, 500m west of a rounded summit at 150m. Within the enclosure the land slopes down 9m from west to east. Topsoil is very thin with bedrock visible in a few locations.

Visible earthwork features: None are visible. (Fig. 3)

Gradiometer survey: Survey was undertaken with a Geoscan Fluxgate Gradiometer F36, with traverse intervals of 1m and sample intervals of 0.5m in eight 20m squares. A low resolution was used since this is an uncertain site, and the main objective was to confirm or disprove the presence of an enclosure.

Gradiometer survey interpretation: Some anomalies can be seen, although these do not generally seem to relate to the cropmarks, apart from one line in the northern most corner, which can be seen in the top right of the geophysics plot. Other anomalies seem to be geological.

Resistivity survey: Resistivity was attempted, but found it impossible to get the probes into the ground because of the dryness and shallowness of the soil.

Conclusions: Given the rather faint crop-marks, the steep natural slope and unconvincing geophysical results it is probable that this is not an archaeological site. The crop-marks and geophysical anomalies are likely to be due to geological differences.

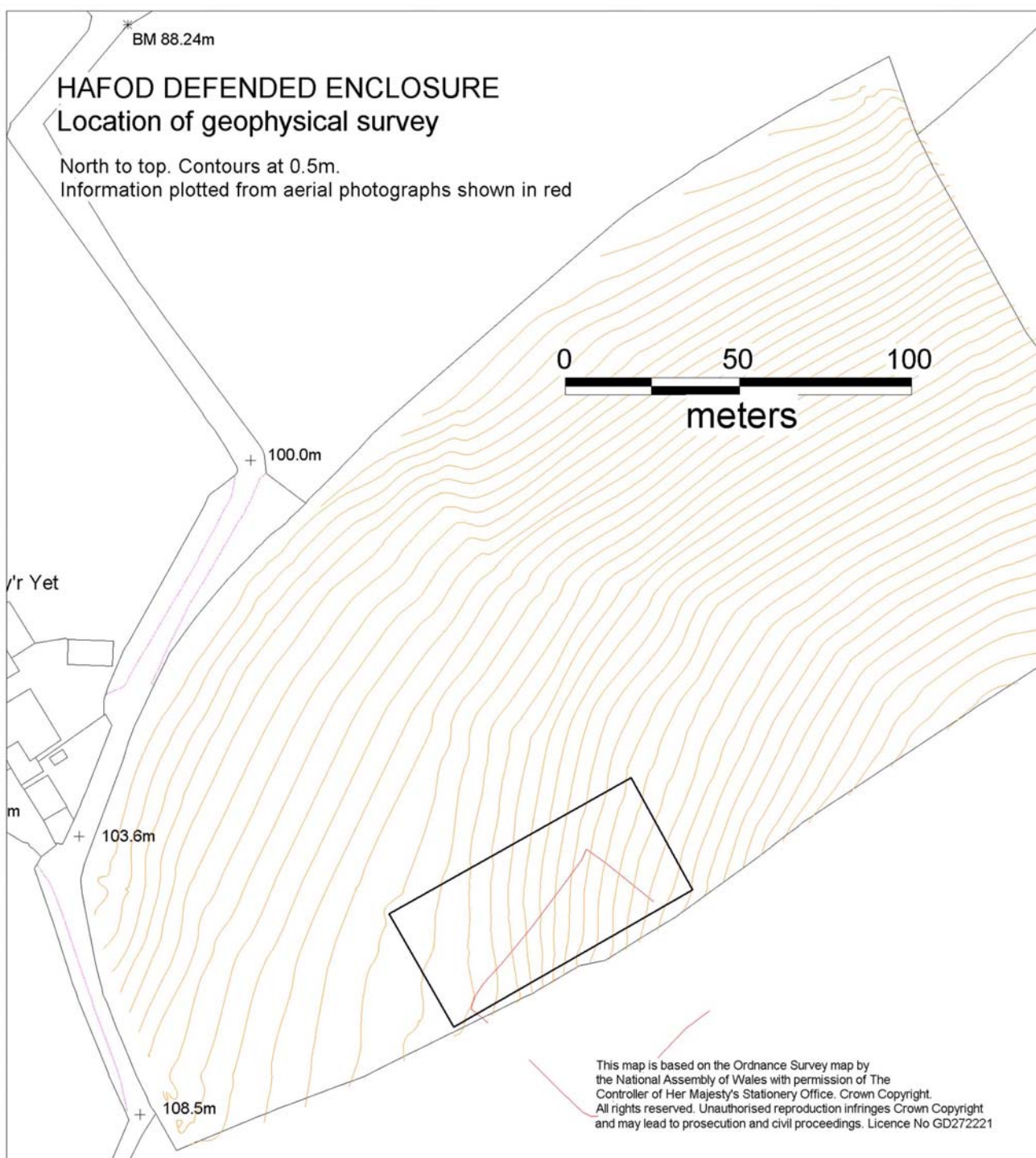


Figure 13. Plan of Hafod crop-marked enclosure (© Crown Copyright: derived from RCAHMW data) and the area of the geophysical survey.



Figure 14. Aerial photograph of Hafod enclosure. © Crown Copyright: RCAHMW. Photograph reference 895052-35.

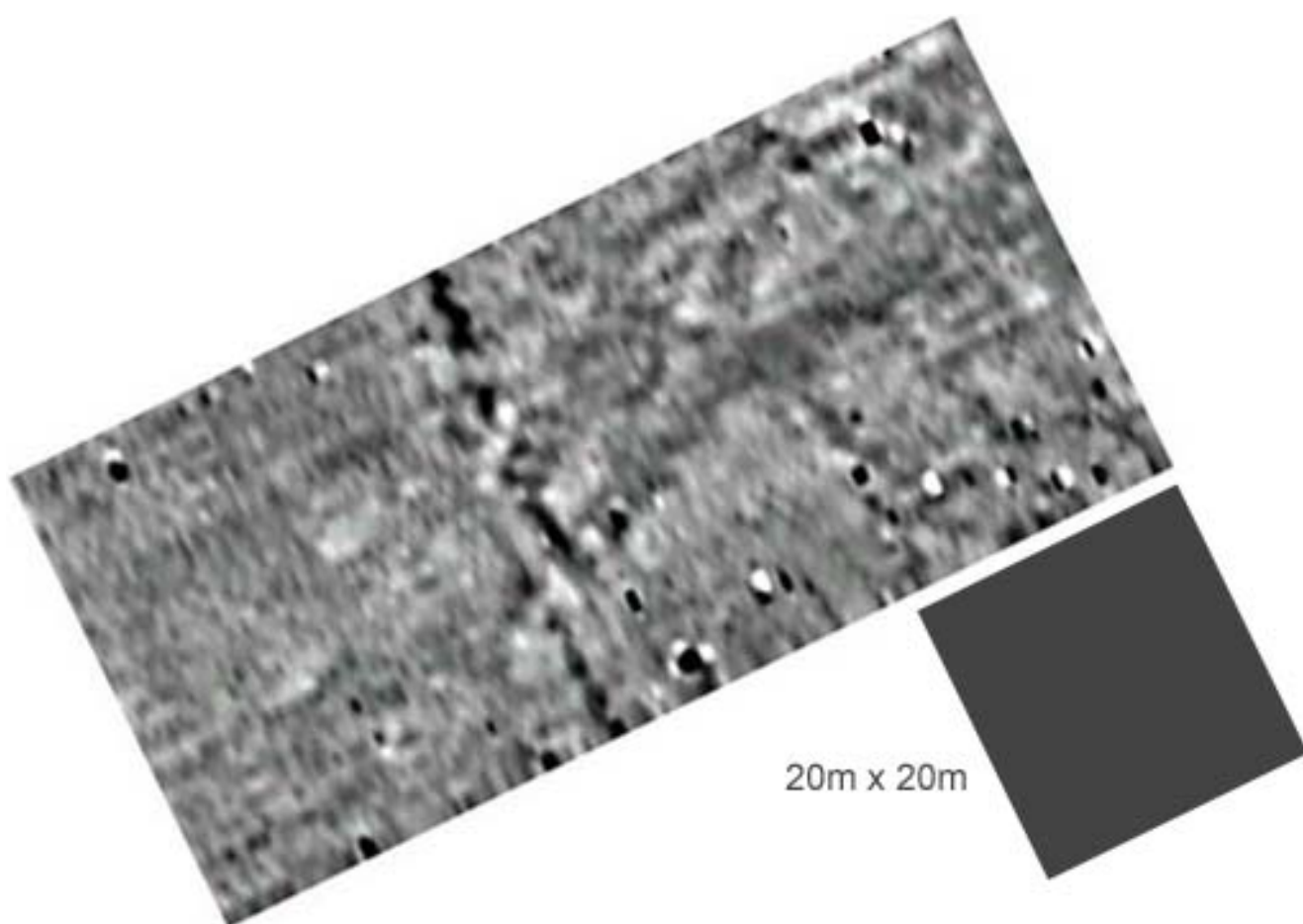


Figure 15. Geophysical survey of Hafod enclosure.

PENBWLIAID I

Geophysical Surveyors: Rebecca Carver
Kelly Belsey
Rebecca Briscoe

Topographic surveyor: Hubert Wilson

Site name: Penbwliaid 1

Grid reference: SN29294504

SMR no.: 35738

Date of visit: 29/07/04 – 03/08/04

Owner name and address: D.J. Davies

Aerial photograph and plot: A strong crop-marked ditched enclosure, a trapezium, internally measuring approximately 40m north to south and 37m east to west, 0.19 ha in area. The ditch is between 2.5m and 3m wide. A 4m wide entrance lies in the centre of the southern side. A dip alongside the hedgebank on the western side of the enclosure may mark the line of the ditch.

Topographic setting: The enclosure is located midway down a fairly steep slope towards the head of a small, open valley at approximately 133m above sea level. The site is overlooked on all sides. A stream formerly ran on the western side of the hedgebank immediately to the west of the enclosure. The enclosure itself is sited on slightly flatter land than the general slope. Even so there is a east to west down slope of 4.5 across the interior of the enclosure. To the southwest the slope steepens considerably.

Visible earthwork features: Apart from the dip alongside the hedge, none is present.

Gradiometer survey: Survey was undertaken with a Geoscan Fluxgate Gradiometer F36, with traverse intervals of 0.5m and sample intervals of 0.25m in twenty-eight 10m squares. Unfortunately not all of the feature could be surveyed due to the proximity of the western hedge bank with a barbed wire fence. Some corruption of data across the centre of the site occurred.

Gradiometer survey interpretation: The geophysical survey plot clearly shows the main enclosure ditch. The shape of the enclosure is squarer than on the aerial photography plot. An internal bank and a counterscarp bank are visible on the plot. Several internal features are present. These include a roughly circular area, c. 8m diameter, of high readings in the southwest corner of the enclosure which may be a floor deposit of a round-house. A possible round-house gully, c. 10m diameter, in the northeast corner and other possible round-house gullies in the centre of the enclosure. An internal dividing ditch runs north from the eastern side of the entrance.

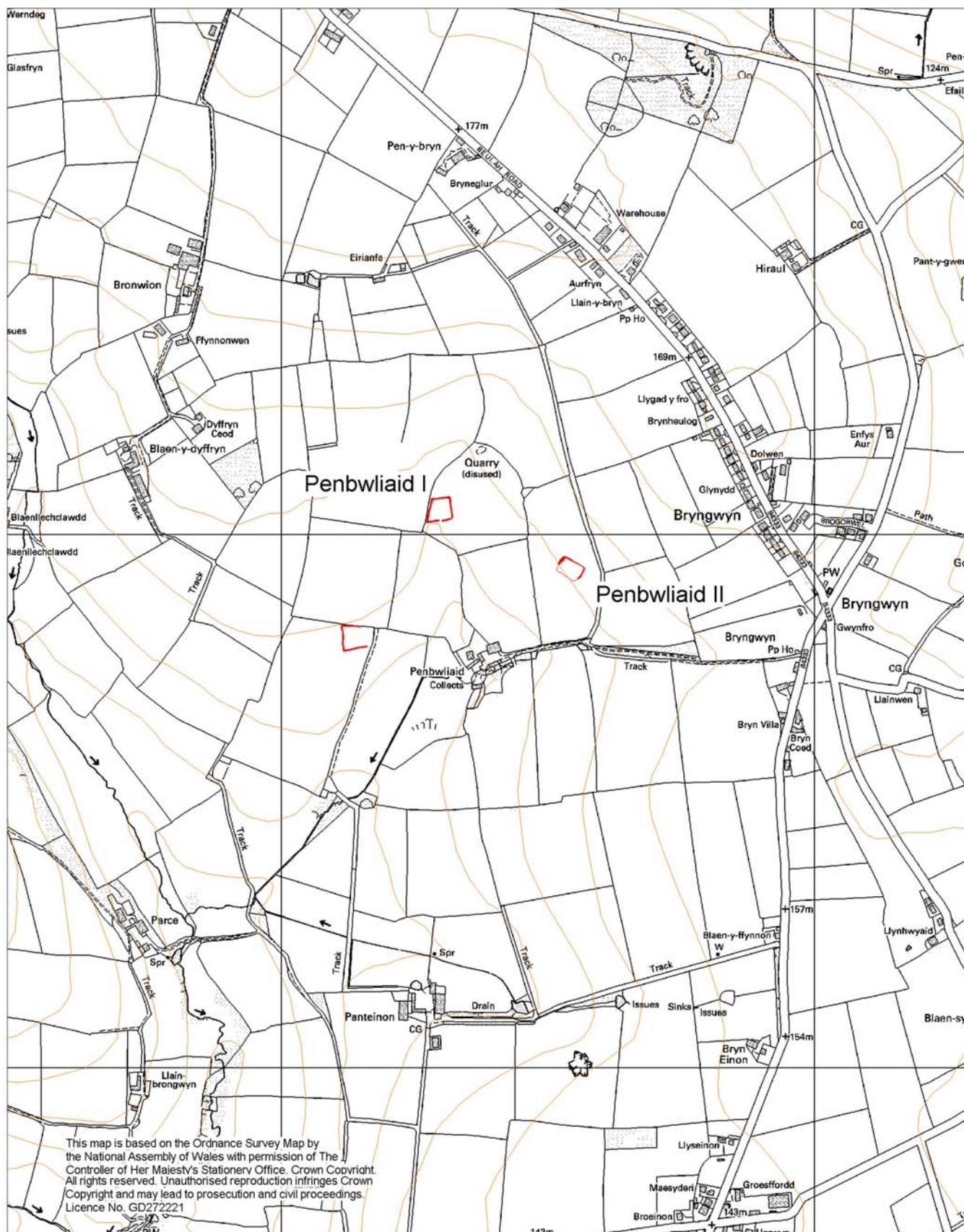


Figure 16. Location of Penbwliaid I and Penbwliaid II. Scale approximately 1:10,000.

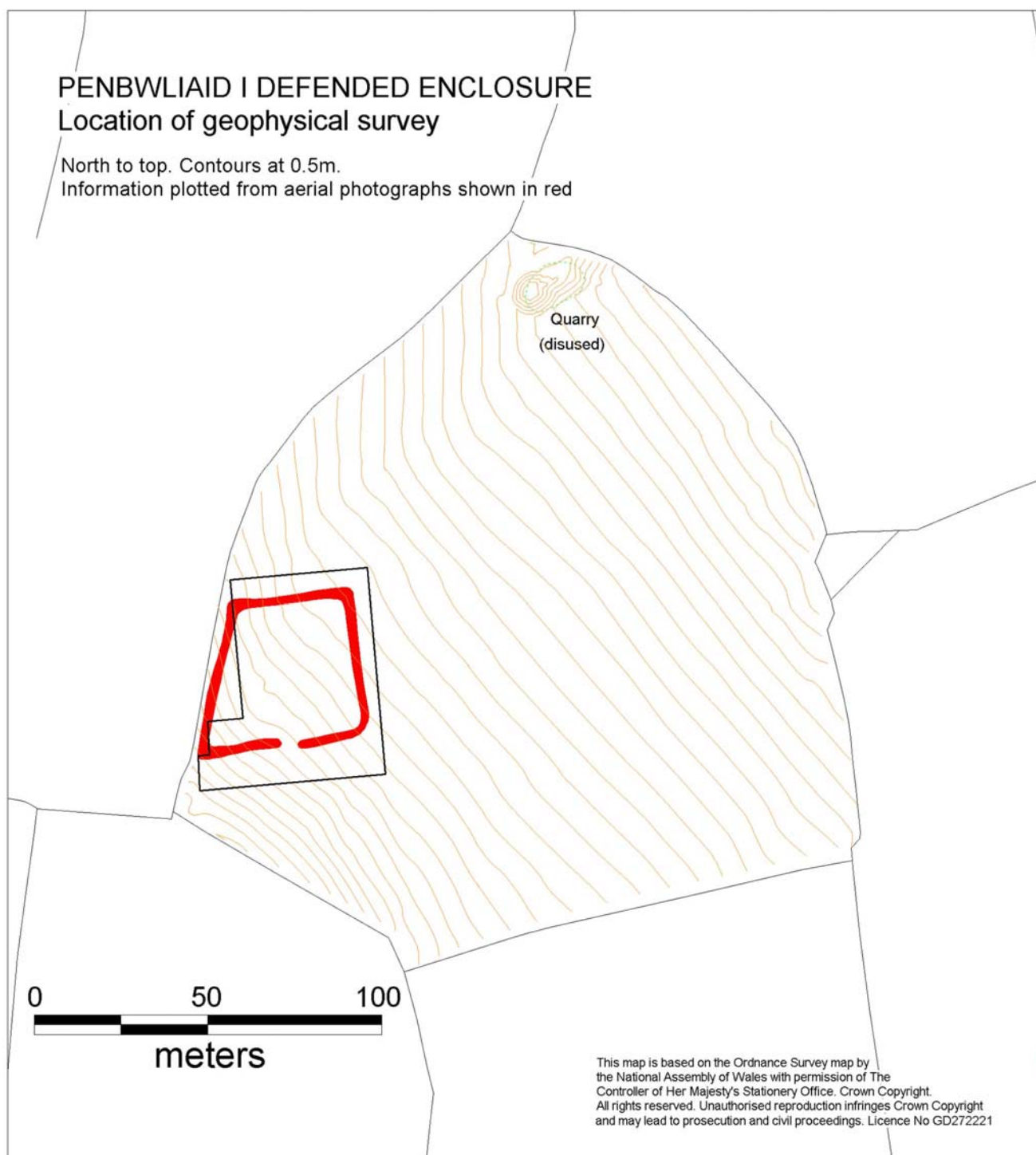


Figure 17. Plan of Penbwliaid I crop-marked enclosure (© Crown Copyright: derived from RCAHMW data) and the area of the geophysical survey.



Figure 18. Aerial photograph of Penbwliaid I enclosure. © Crown Copyright: RCAHMW. Photograph reference 89-CS-732.

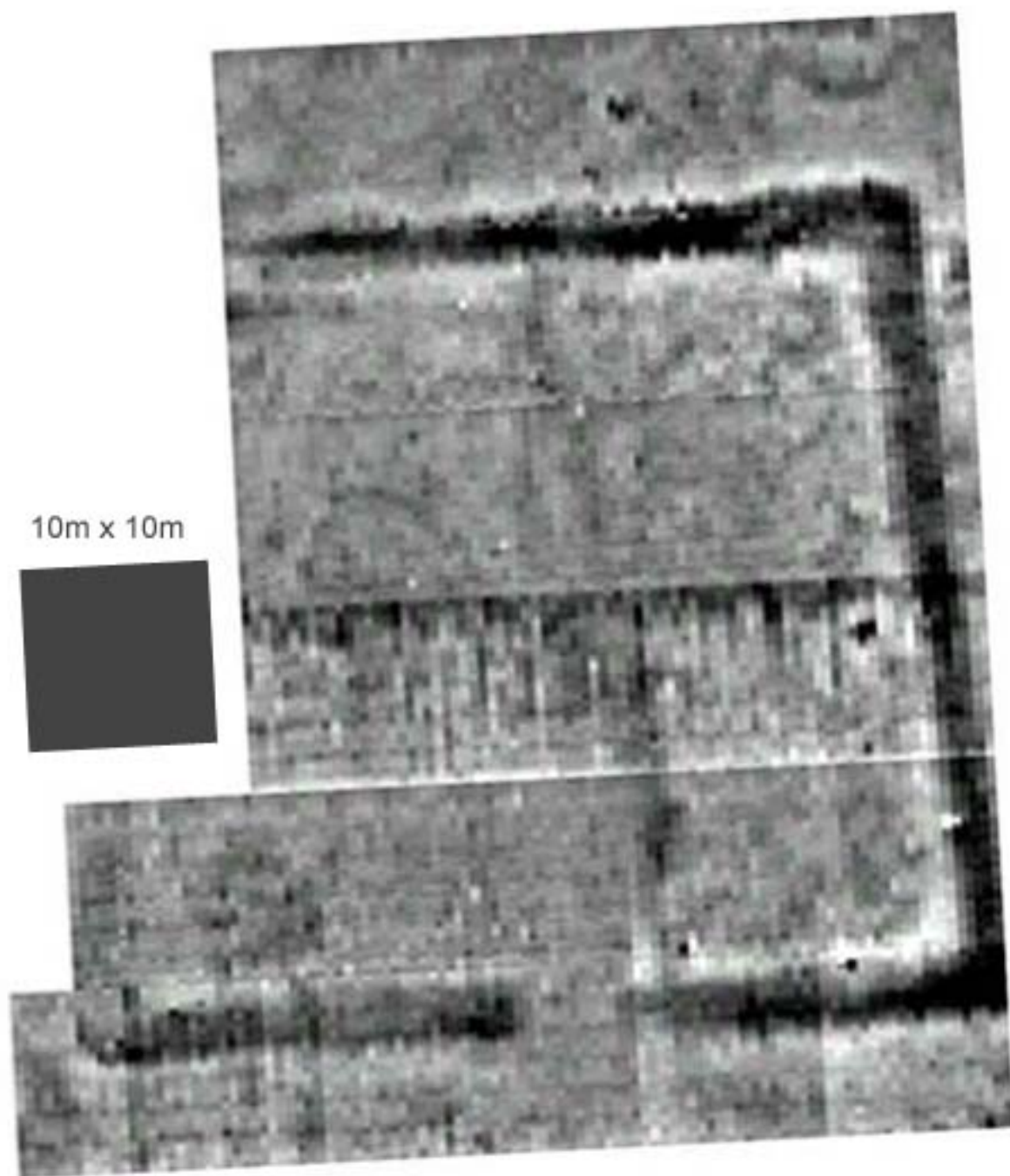


Figure 19. Geophysical survey of Penbwliaid I enclosure.

PENBWLIAID II

Geophysical surveyors: Rebecca Carver
James Kilroy

Topographic surveyor: Hubert Wilson

Site name: Penbwliaid II

Grid reference: SN29544493

SMR no.: 35744

Date of visit: 29/07/04 – 03/08/04

Owner name and address: Mr. D. J. Davies

Aerial photograph and plot: A weakly defined rectangular ditched enclosure, 43m x 31m internally, is visible on aerial photographs. The ditch on the northeast, southeast and western sides is better defined than on the southwest side. There is a possible entrance in the northwest side.

Topographic setting: Penbwliaid II is located on a fairly steep and consistent southwest-facing slope at approximately 140m above sea level.

Visible earthwork features: None is visible.

Gradiometer survey: Survey was undertaken with a Geoscan Fluxgate Gradiometer F36, with traverse intervals of 0.5m and sample intervals of 0.25m in thirty 10m squares. The magnetic background appeared stable at the start of the first day's survey. However, a series of thundery showers disrupted the balance of the instrument, corrupting some data. The second day's results were better, but the atmospheric conditions were still unreliable.

Gradiometer survey interpretation: the plot is confused by unreliable data. Allowing for this, it would seem that the apparent enclosure detected on aerial photographs is not an archaeological feature, and is more likely to be caused by geological anomalies.

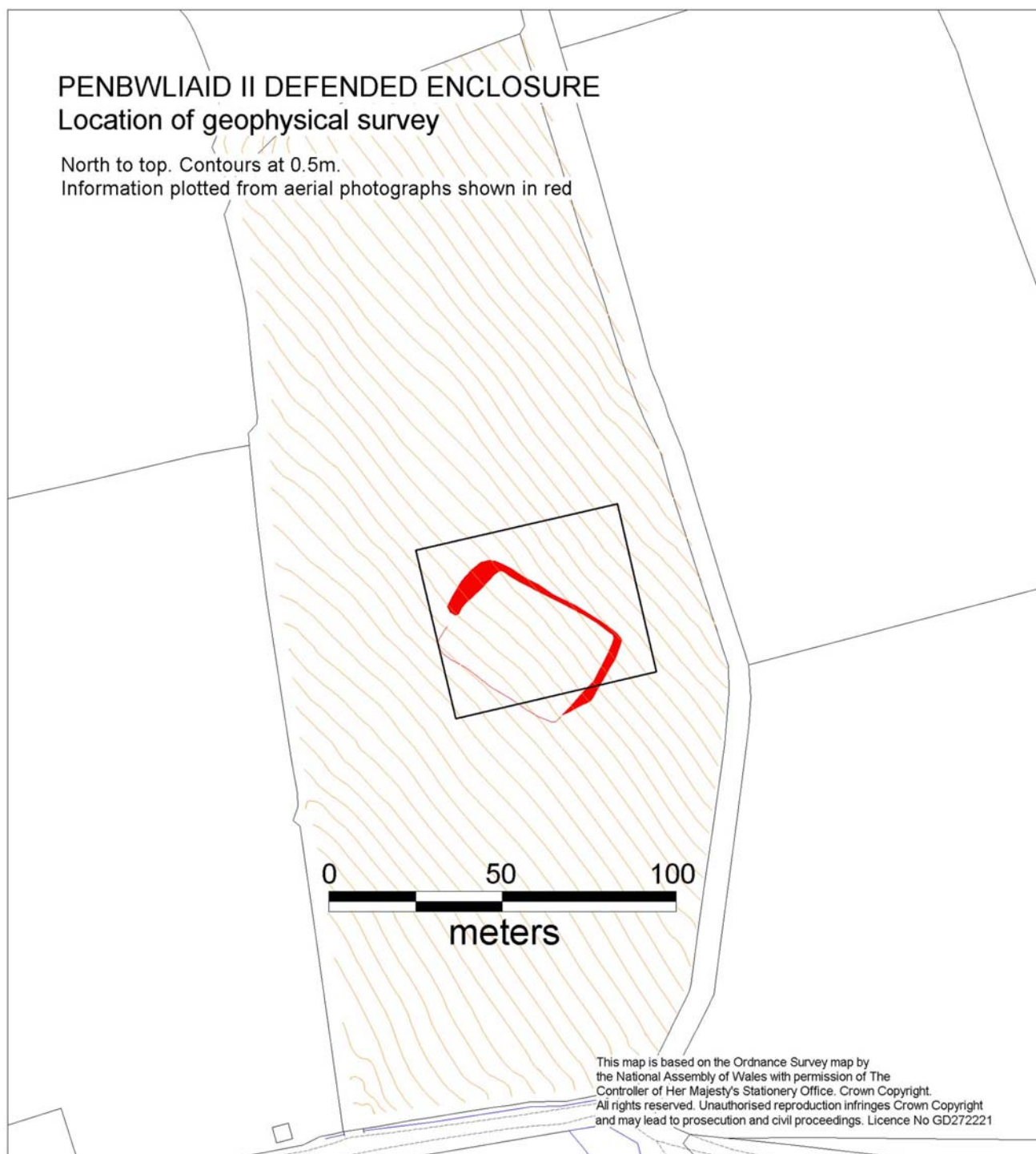


Figure 20. Plan of Penbwliaid II crop-marked enclosure (© Crown Copyright: derived from RCAHMW data) and the area of the geophysical survey.

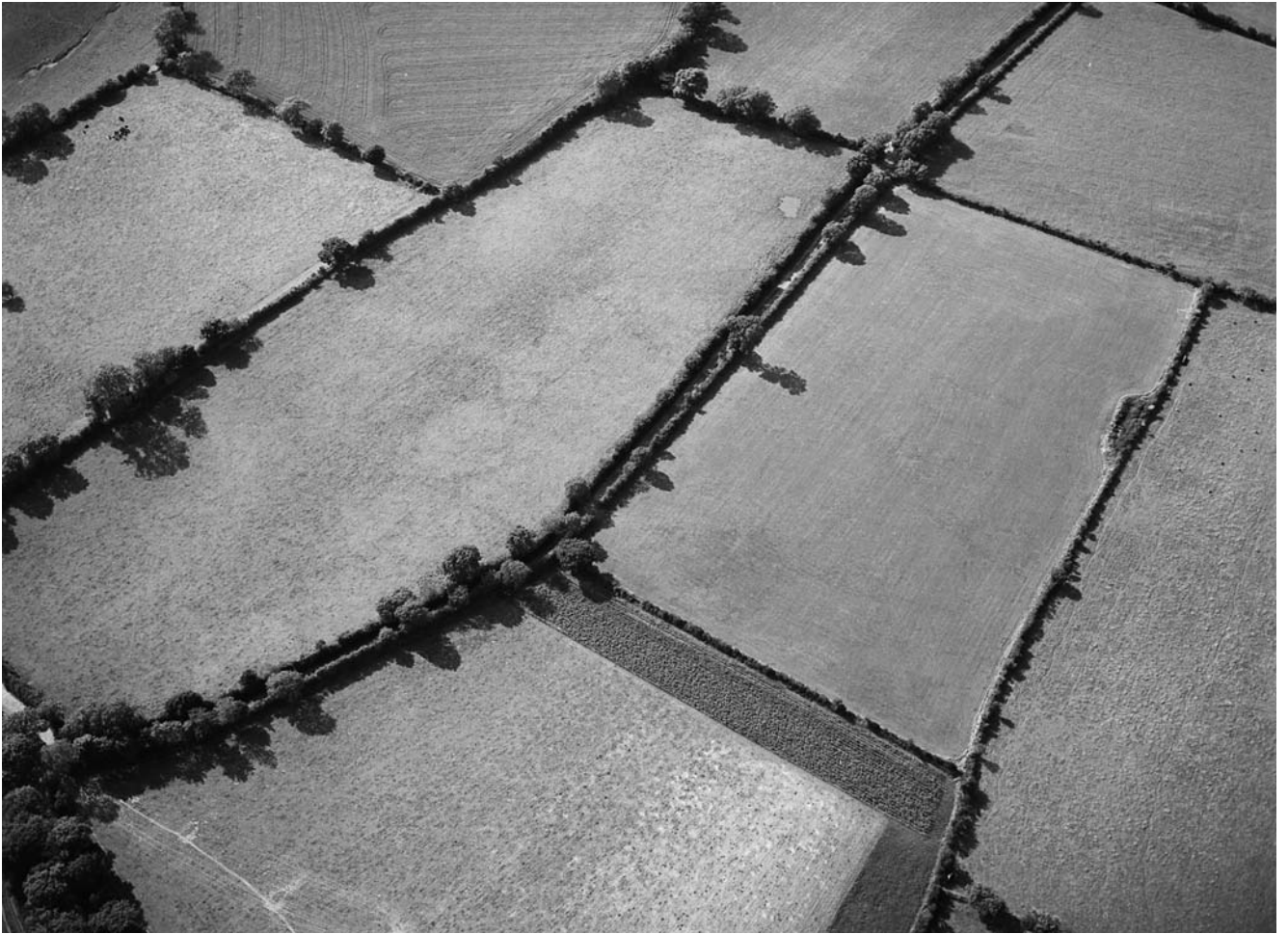


Figure 21. Aerial photograph of Penbwliaid II enclosure. © Crown Copyright: RCAHMW. Photograph reference 895051-08.

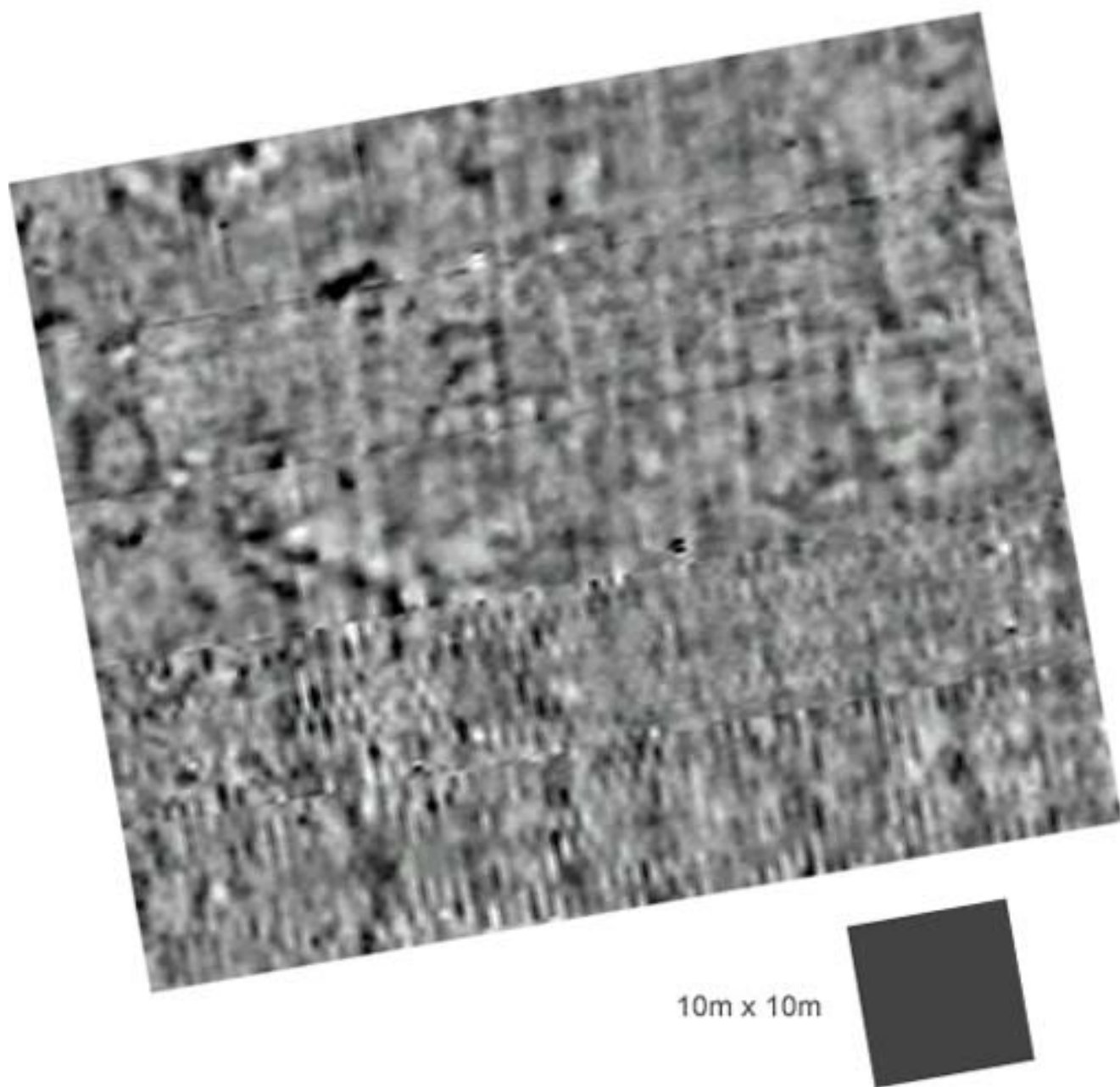


Figure 22. Geophysical survey of Penbwliaid II.

PENPARC

Geophysical surveyor: Rebecca Carver

Topographic surveyor: Hubert Wilson

Site name: Penparc

Grid reference: SN20644798

SMR no.: 52060

Date of Visit: 26/07/04 – 27/07/04

Owner name and address: Emyr Jones

Aerial photograph and plot: A very strong crop-mark of a trapezium, ditched enclosure, internally measuring 47m northeast to southwest and 40m northwest to southeast, 0.18 ha in area. The ditches are between 2.2m and 2.5m wide. A 6m wide entrance is located midway along the southeast side. No external or internal features are visible.

Topographic setting: Penparc enclosure is located in a landscape of small hillocks and valleys - probably composed of glacial and fluvio-glacial sands and gravels. The enclosure itself is sited in a saddle at about 130m above sea level. To the northeast and to the south, land rises to low summits 3m and 10m respectively above the site of the enclosure. The land falls away steadily to the southeast, which is the direction in which the entrance faces, and also to the west. Soils are loose and sandy, with a scattering of stones, and well drained.

Visible earthwork features: None are visible. (Fig. 3)

Gradiometer survey: Survey was undertaken with a Geoscan Fluxgate Gradiometer F36, with traverse intervals of 0.5m and sample intervals of 0.25m in thirty 10m squares. The magnetic background was very regular.

Gradiometer survey interpretation: The results were very faint with a very low range of readings. The ditched enclosure is visible on the plot, but its magnetic range is limited. Traces of an internal bank can be seen on the southwest side. Apart from a possible circular ditched anomaly towards centre of the enclosure there are no internal features. Given the loose soils, it is likely that this site has suffered agricultural degradation and that apart from the main ditch nothing may survive below ground.

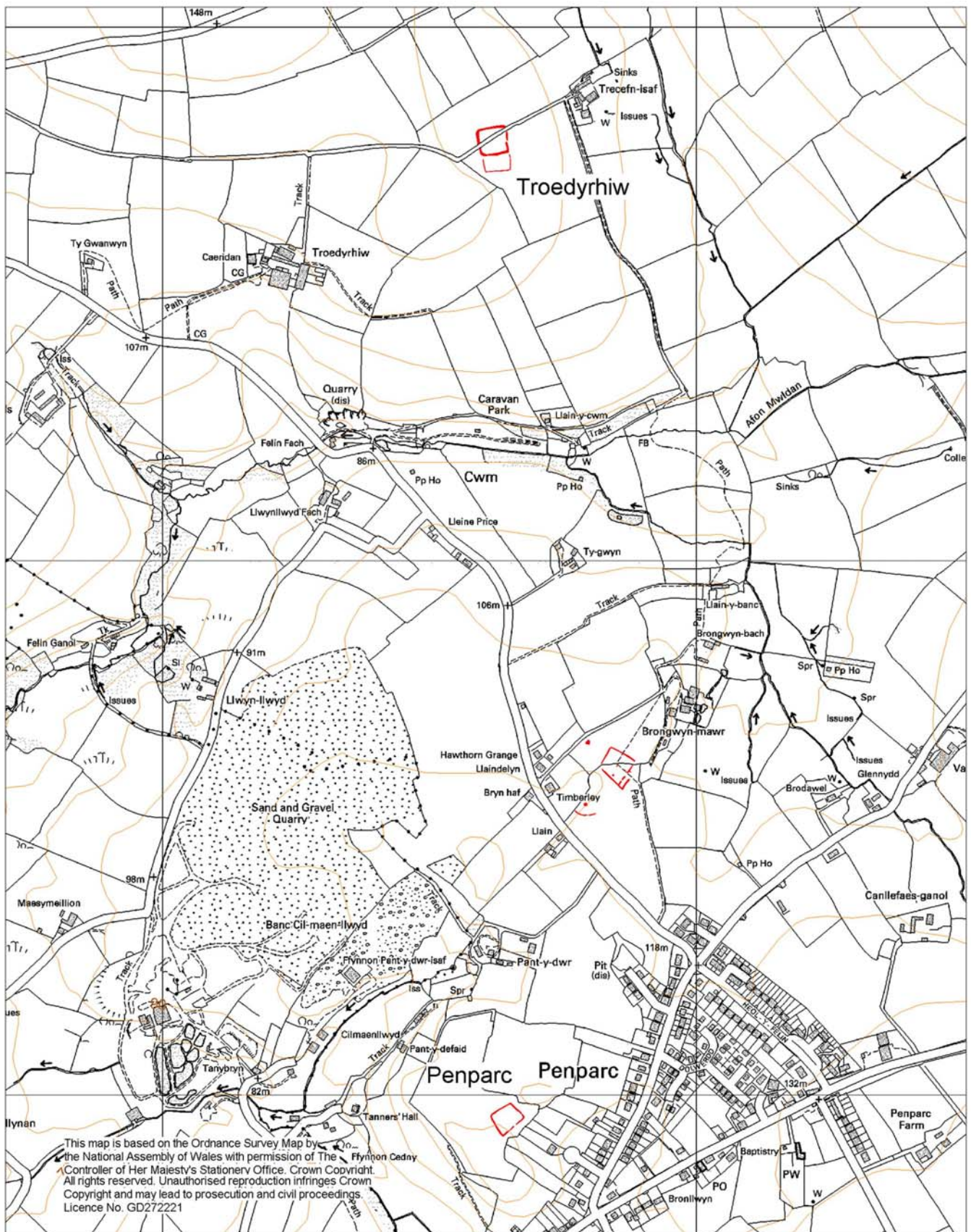


Figure 23. Location of Penparc enclosure and Troedyrhiw enclosure. Scale approximately 1:10,000

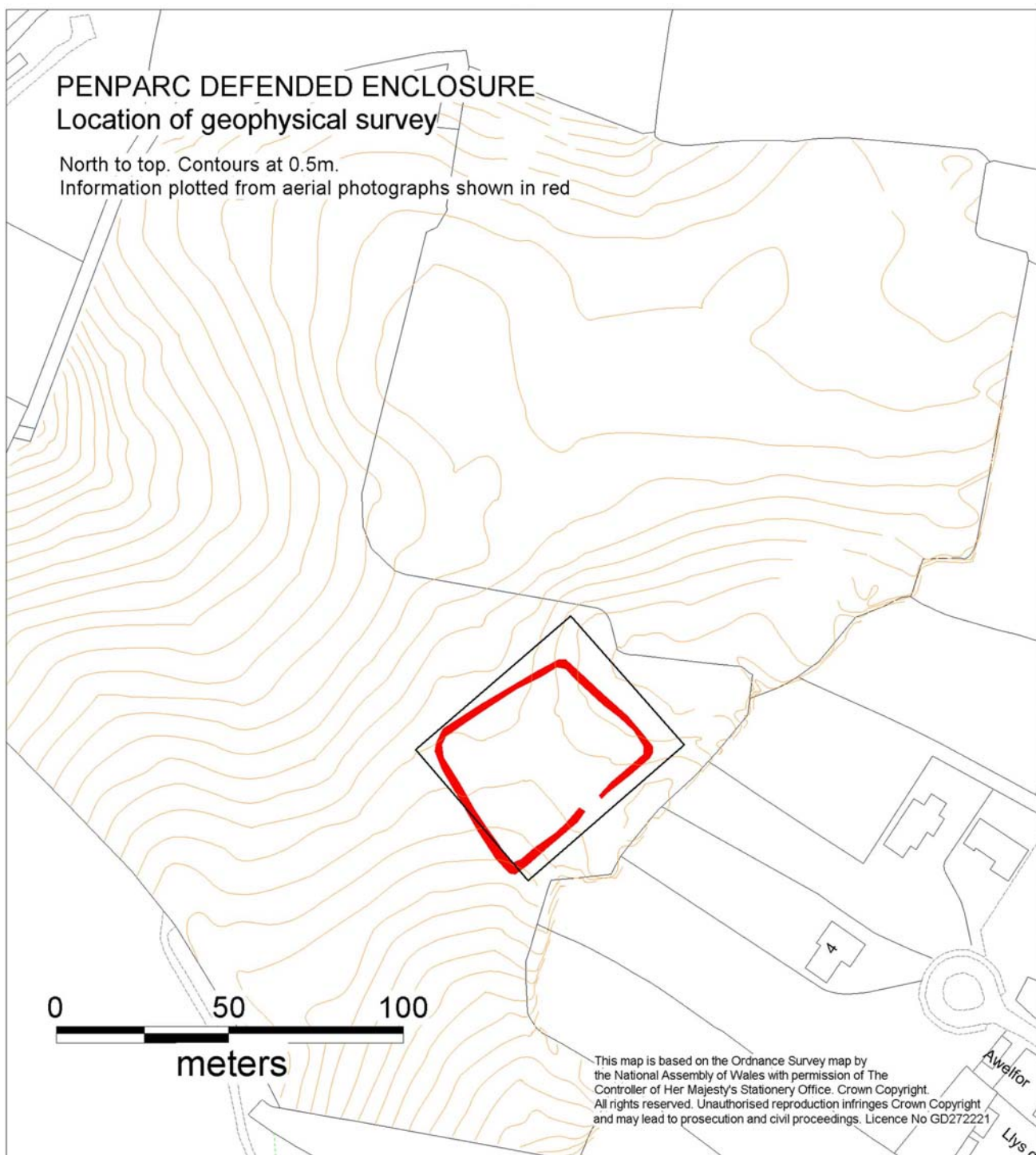


Figure 24. Plan of Penparc crop-marked enclosure (© Crown Copyright: derived from RCAHMW data) and the area of the geophysical survey.



Figure 25. Aerial photograph of Penparc enclosure. © Crown Copyright: RCAHMW. Photograph reference 2003-CS-1583.

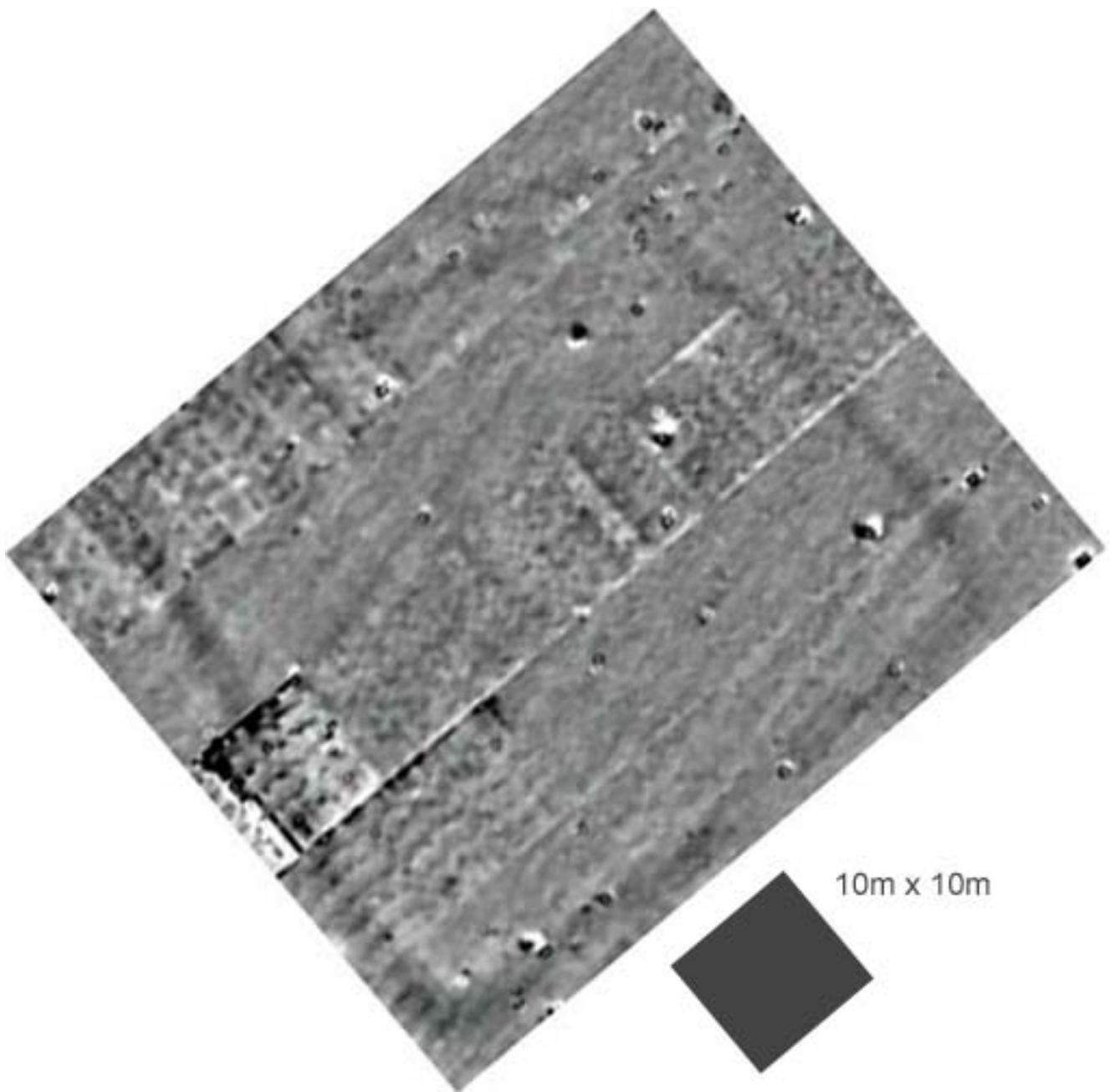


Figure 26. Geophysical survey of Penparc enclosure.

TROEDYRHIW

Geophysical surveyors: Rebecca Carver
Kelly Belsey
Rebecca Briscoe

Topographic surveyor: Hubert Wilson

Site name: Troedyrhiw (Trecefn-isaf)

Grid reference: SN20614978

SMR no.: 52064

Date of visit: 19/07/04 – 21/07/04

Owner name and address: John Williams

Aerial photograph and plot: A strong ditched crop-marked rectangular enclosure, internally measuring 50m east to west and 45m north to south, 0.22 ha in area. A lane bisects it. The ditch is between 3.5m and 5m wide. A 3.8m wide entrance lies slightly off-centre of the mid point on the eastern side. A rectangular annexe, 50m by 28m, marked defined by a 1m wide crop-marked ditch lies on the south side of the main enclosure. A 1.75m wide entrance into this annexe is visible on its east side.

Topographic setting: Troedyrhiw enclosure is located on gentle east-facing slopes at 125m above sea level. To the west the land rises very gently for c. 5m to a summit plateau. To the east the land falls 30m - 35m into the valley of a small stream.

Visible earthwork features: No earthwork features are visible.

Gradiometer survey: Survey was undertaken with a Geoscan Fluxgate Gradiometer F36, with traverse intervals of 1m and sample intervals of 0.25m in thirty-eight 10m squares. The magnetic background was stable save for sudden jumps near the fence to the northwest. On talking to the previous owner, Simon Bowen, it turns out that these jumps were due to an iron water pipe coming from a covered reservoir in the west corner of the field.

Gradiometer survey interpretation: The survey plot clearly identified the ditches, banks and water pipe. There is little trace on a bank internal to the main enclosure ditch. However, the annexe ditch does seem to be accompanied by an internal bank. There are faint traces of a possible circular ditch southwest of the entrance through the main enclosure, although this is cut through by the water pipe. Faint traces of internal features are visible in the annexe including possible hearths. A track/path can also been seen running through the entrance of the annexe.

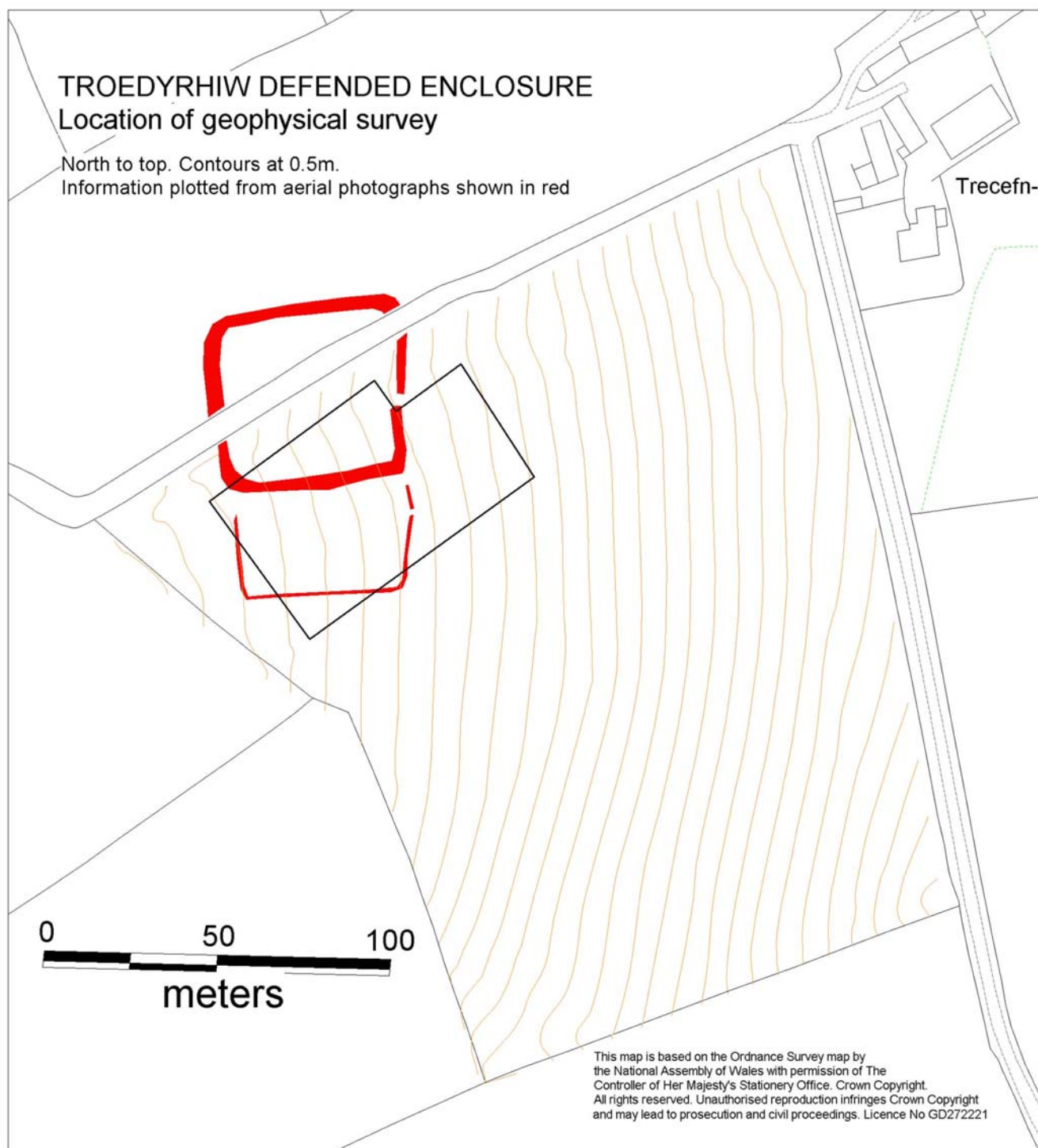


Figure 27. Plan of Troedyrhiw crop-marked enclosure (© Crown Copyright: derived from RCAHMW data) and the area of the geophysical survey.



Figure 28. Aerial photograph of Troedyrhiw enclosure. © Crown Copyright: RCAHMW. Photograph reference 2003-CS-1451.

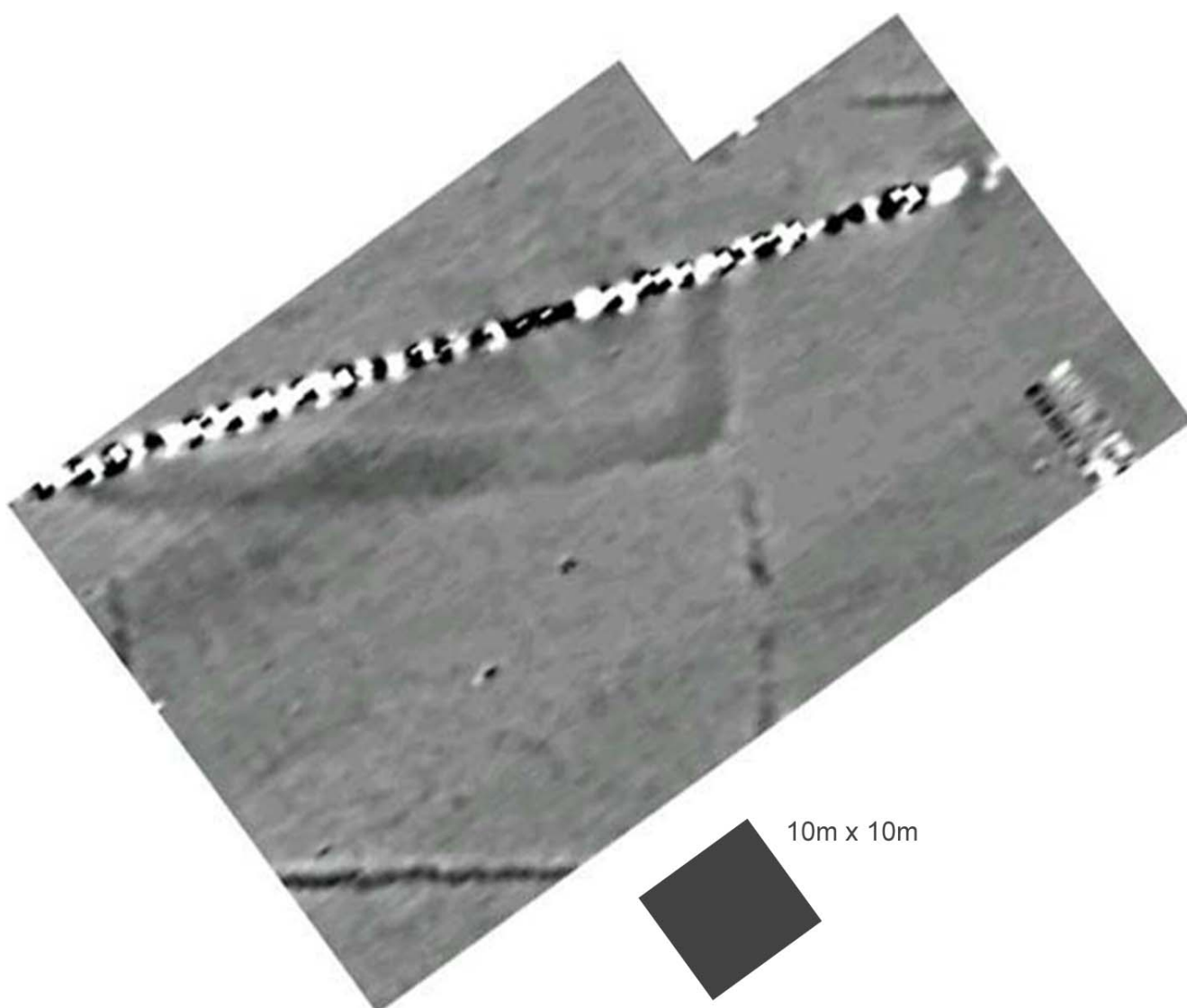


Figure 29. Geophysical survey of Troedyrhiw enclosure.

RECTANGULAR CROP-MARKED ENCLOSURES IN SOUTH CEREDIGION 2004

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October 2004**

Paratowyd yr adroddiad hwn gan / This report has been prepared by Ken Murphy

Swydd / Position: Principal Archaeologist - Field Services

Llofnod / Signature Dyddiad / Date

Mae'r adroddiad hwn wedi ei gael yn gywir a derbyn sêl bendith
This report has been checked and approved by

Gwilym Hughes

ar ran Archaeoleg Cambria, Ymddiriedolaeth Archaeolegol Dyfed Cyf.
on behalf of Cambria Archaeology, Dyfed Archaeological Trust Ltd.

Swydd / Position: Director

Llofnod / Signature Dyddiad / Date

Yn unol â'n nôd i roddi gwasanaeth o ansawdd uchel, croesawn unrhyw sylwadau sydd gennych ar
gynnwys neu strwythur yr adroddiad hwn

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on the content or presentation of this report