



Land off Antron Way, Mabe Burnthouse, Cornwall,
Archaeological Evaluation Trenching

Cornwall Archaeological Unit

Report No: 2018R038

Land off Antron Way, Mabe Burnthouse, Cornwall

Archaeological Evaluation Trenching

Client	Property Care, Redruth
Report Number	2018R038
Date	02/07/2018
Status	Final
Report authors	Ryan Smith & Adam Sharpe
Checked by	Dr Andy Jones
Approved by	Andrew Young

Cornwall Archaeological Unit

Cornwall Council

Fal Building, County Hall, Treyew Road, Truro, Cornwall, TR1 3AY

Tel: (01872) 323603

Email: enquiries@cau.org.uk Web: www.cau.org.uk

Acknowledgements

This study was commissioned by Property Care (Cornwall) and was carried out by Cornwall Archaeological Unit, Cornwall Council.

The Project Manager was Adam Sharpe.

The views and recommendations expressed in this report are those of Cornwall Archaeological Unit and are presented in good faith on the basis of professional judgement and on information currently available.

Freedom of Information Act

As Cornwall Council is a public authority it is subject to the terms of the Freedom of Information Act 2000, which came into effect from 1st January 2005.



Cornwall Archaeological Unit is a Registered Organisation with the
Chartered Institute for Archaeologists

Cover illustration

Ditch adjacent to field boundary wall, west side of evaluation area.

© Cornwall Council 2018

No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior permission of the publisher.

Contents

1	Summary	1
2	Introduction	3
2.1	Project background	3
2.2	Aims	3
2.3	Methods	3
3	Location and setting	3
4	Site history	4
5	Archaeological results	5
6	Conclusions/discussion	7
7	References	8
7.1	Primary sources	8
7.2	Printed sources	8
8	Project archive	8
	Appendix 1: Table of contexts	11

List of Figures

Figure 1: Location of site.

Figure 2: Locations of evaluation trenches.

Figure 3: Trench 1 showing location of ditches [104] and [107].

Figure 4: Southeast facing section of boundary ditch [107].

Figure 5: Photograph, showing southeast facing section of boundary ditch [107].

Abbreviations

CAU	Cornwall Archaeological Unit
CIfA	Chartered Institute for Archaeologists
HER	Cornwall and the Isles of Scilly Historic Environment Record
HLC	Historic Landscape Character
MCO	Monument number in Cornwall HER
NGR	National Grid Reference
NMP	National Mapping Programme
OD	Ordnance Datum – height above mean sea level at Newlyn
OS	Ordnance Survey

1 Summary

Cornwall Archaeological Unit was commissioned by Property Care, Redruth, to undertake the evaluation of the a selection of the results of a geophysical survey within three fields immediately west of Mabe Burnthouse, Penryn, Cornwall, which have been proposed as the location for a medium scale housing development for 27 dwellings (planning application PA18/04092) submitted in May 2018.

In June 2018 evaluation trenching was carried out on four trenches within the area under consideration. Most of the geophysical anomalies targeted for investigation proved to be near-surface outcrops of granite. One trench in the south-western part of the site traversing a linear anomaly revealed a section of a small ditch which was probably associated with an undocumented post-medieval boundary. At its south-western end, a further ditch was exposed adjacent to the existing Cornish hedge. This hedgeline appears to overlie the line of an external enclosure around Turnermere Round not far to the south-west.

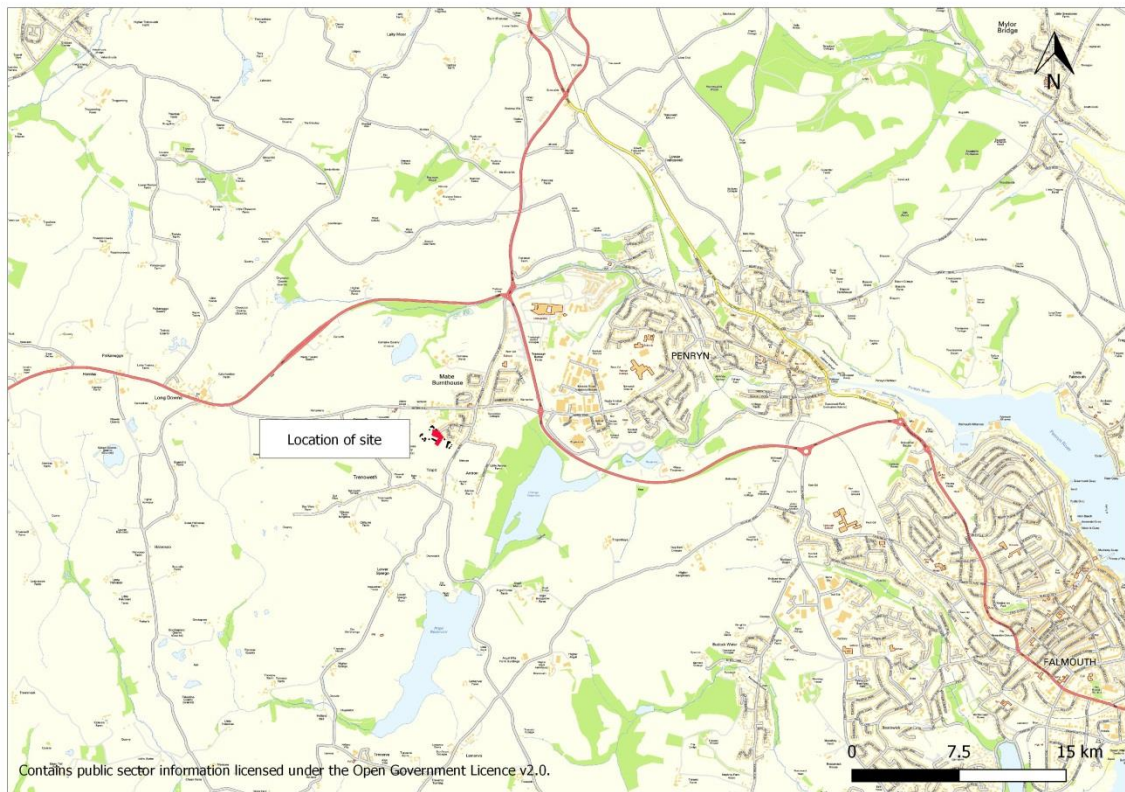


Figure 1: Location of site.

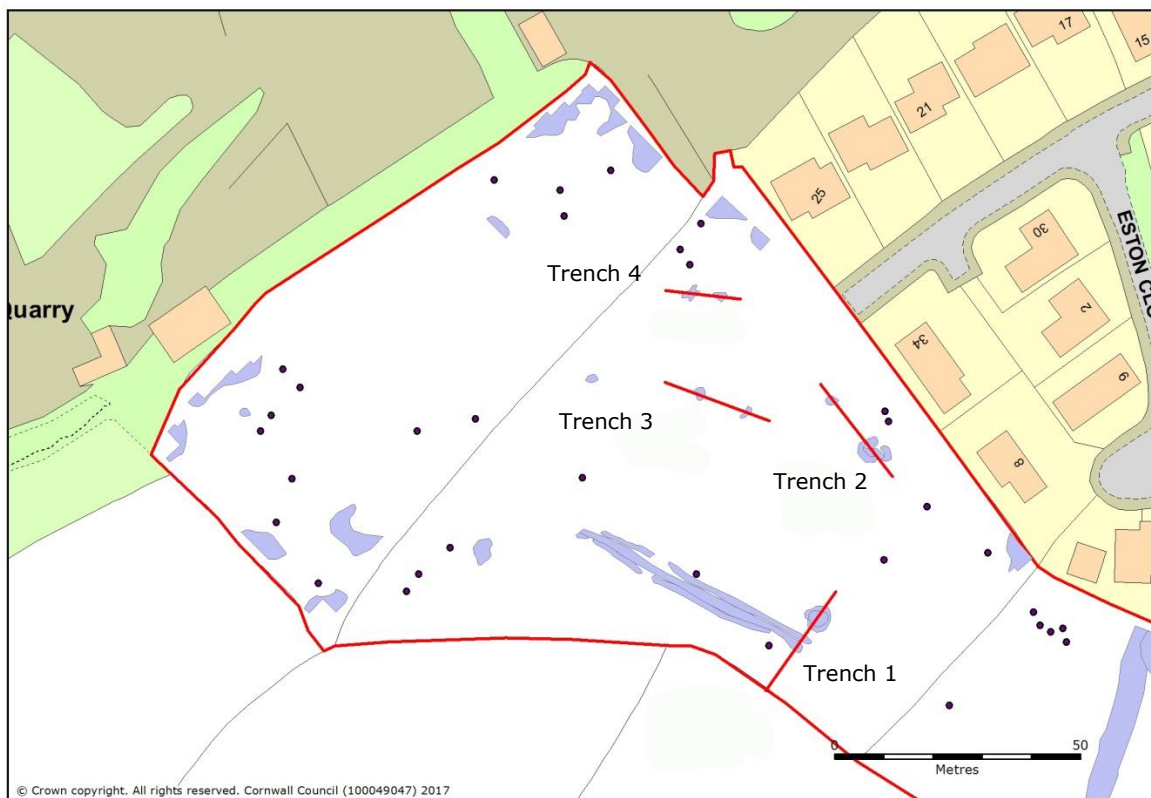


Figure 2: Locations of evaluation trenches (indicated by red lines).

2 Introduction

2.1 Project background

Cornwall Archaeological Unit was commissioned by Property Care, Redruth, to undertake evaluation trenching within the fields designated for a medium sized development to be located west of Antron Way, Mabe Burnthouse near Penryn, Cornwall. The area comprised three fields centred at SW 76131 33862. The project area extended to 17,525m² (Figs 1 and 2). The trenching plan was agreed with the archaeological advisor to the Local Planning Authority (LPA).

2.2 Aims

The principal aim of the trenching was to test whether the outer boundary of Turnermere Round which lies to the south-west was accompanied by an external ditch. A secondary aim was to evaluate a number of the magnetic anomalies located during the geophysical survey.

The objectives were to:

- Identify if the perimeter of Turnermere Round (MCO 8880) extended out to the fields associated with the development.
- To produce a report detailing the results of the site investigation.
- To produce an entry to the Historic England/ADS OASIS online national database of archaeological projects.

2.3 Methods

All recording work was undertaken according to the relevant Chartered Institute for Archaeologists (CIfA) guidance (CIfA 2014a; 2014b). CAU staff follow the CIfA *Code of Conduct* (2014a). The Chartered Institute for Archaeologists is the professional body for archaeologists working in the UK.

A wheeled digger fitted with a 1.6m wide grading bucket excavated four trenches under archaeological supervision. CAU archaeologists recorded all features identified within the trenches.

Site drawings (plans and sections) were made by pencil on drafting film; all plans have been linked to the Ordnance Survey Landline electronic maps; drawings were made at either 1:10 or 1:20 scale. All contexts were sequentially numbered (Appendix 1). No significant artefacts were found.

Photographs were taken using a Nikon D3300 Digital SLR with a resolution of 24.2MP.

3 Location and setting

3.1 Location

The evaluation trenches were located in a field centred at SW 76131 33862 to the west of Mabe Burnthouse, Penryn, Cornwall; the site is within the ecclesiastical parish of Mabe. There is no public access into or across the survey area (Figs 1 and 2).

3.2 Topography and setting

The site is located close to the highest point of an area of former downland to the west of Mabe Burnthouse. The fields slope from 168m OD in the north-west to 138m OD in the south-east.

3.3 Geology and Soils

The underlying bedrock consists of the Carnmenellis granite intrusion, whilst the soils are the granite-derived well-drained gritty loams of the Moretonhampstead association.

4 Site history

(Derived from Sharpe 2018)

A search of the Cornwall and Scilly Historic Environment Record (HER) shows that the Historic Landscape Character of the south-eastern part of the proposed development area consists of Anciently Enclosed Land (AEL – land which was enclosed to agriculture during the Prehistoric or Medieval periods) whilst the north-western fields are recorded as Recently Enclosed Land (REL – land enclosed from former downland during the post-medieval period). The land to the north-east of the project area is occupied by parts of the settlement of Mabe (and is recorded as Urban), whilst that to the north of the proposed development area is occupied by Burnthouse Quarry (and is recorded as Industrial). AEL often contains buried archaeological sites, whereas by contrast, REL is more often associated with upstanding monuments, such as round barrows.

The HER records few monuments within the immediately surrounding area with the exception of MCO8880, this being an Iron Age to Romano-British period round (an enclosed farming settlement) at Turnermere Farm. The round is centred at SW 76114 33656 not far to the south of the proposed development site. It is defined by field boundaries fossilising the original earthworks and is enclosed within a much larger (maximum 295m diameter) associated oval enclosure, this again now being defined by post-medieval field boundaries; its northern edge forms the southern boundary of the proposed development site. The circuit of the round itself survived intact in 1840, but its southern earthworks had been removed by the first decade of the 20th century. Some further removal has taken place since then. The contemporary Carnsew Round (MCO7771) is sited 330m to the north of the survey area.

The surrounding area contains a number of farmsteads of medieval origin. Trenoweth (Cornish Tre – farm + noweth – new) which was first recorded in AD 1314 is located 424m to the south-west of the survey area, of which it historically formed a part, whilst the now lost Trehembrys, which was also first recorded in 1314 but last recorded in 1621, was sited 95m to the north. The HLC mapping indicates that the majority of the fields in the surrounding area were laid out during the medieval period (though given the presence of the rounds it is likely that these replaced ones first established during late prehistory). The downland which lay to the west of Mabe Burnthouse was progressively enclosed during the post-medieval and modern periods.

Joel Gascoyne's map of Cornwall dating to 1699 and Martyn's map of Cornwall produced in 1748 both showed the crossroads at Burnthouse, also labelling Trenoweth nearby but throw no light on the development of the site. The Ordnance Surveyor's 1st Edition map drawing for the northern part of the Lizard and the western side of Carrick Roads (held at

the British Library) drawn up in 1802 and the 1st Edition OS 1" to a mile mapping produced from this a few years later show a small settlement at the crossroads at 'Burnt Ho' and the road leading across the downs to its west, as well as a developed farmstead at Trenoweth, but did not include any archaeological detail such as the presence of Turnermere Round.

The site was next depicted on the *circa* 1840 Mabe Tithe Map, which clearly showed the round at 'Turnermeer' and its outer enclosure, together with the three fields to the north (Plots 372, 379 and 380) which are within the development area. The apportionment to the Tithe Map provides some information about these three fields.

The small settlement of Mabe Burnthouse appears to have developed on a crossroads on a toll road during the late 18th century, and is likely to have provided housing for men working in the granite quarries which developed to its north, west and south-west during that period. Ordnance Survey maps dating to 1878 and 1908 show the later development of the settlement. Mabe Burnthouse has now become an outlier of Penryn and the majority of the houses making up the now-extensive settlement are of modern construction. The land to the west, south-west and south of the site remains open, rural farmland, predominantly down to pasture.

The *circa* 1878 OS 1st edition 25" mapping shows Turnermere Round being defined by field boundaries, except on its western side, where some of the original earthworks appear to have survived at the time when this mapping was undertaken. By 1908, the OS mapping showed that the field boundaries defining the southern circuit of the round had been removed. During the 20th century further sections of the original circuit of Turnermere Round continued to be removed, and only its northern section now survives, fossilised as a field boundary, though the removed boundaries still showed as cropmarks in 2005. Although the site is not Designated it is regionally significant and associated buried remains may extend beyond it.

The National Mapping Programme (NMP) do not show any cropmarks which might relate to prehistoric field systems in this area. These may have been ploughed out (particularly in the middle and southern fields of the project area, which were recorded as being in arable use in 1840); alternatively the local soil or crop conditions may not be amenable to revealing them. Most of the fields within the surrounding area are currently down to permanent pasture which does not usually produce cropmarks. The fields making up the project area appear to have been underused in recent years; the aerial survey undertaken for Cornwall County Council in 2005 and recent Google Earth mapping show areas of scrub had developed within them (Sharpe 2018). Most of this scrub was cleared by the developer in early 2018 to allow the 2017/18 geophysical survey to take place (Bonvoisin 2018).

5 Archaeological results

The archaeological evaluation involved the excavation of four trenches measuring between 20 and 25m in length, 1.6m wide and a maximum of 0.4m deep (Fig 2). Some pottery was recovered from the topsoil but all of this was found to date to the late 19th century or the 20th century (see Appendix 1 for detailed context descriptions).

Trench 1

(Figs 2 and 3)

Located between SW 76132 33823 and SW 76147 33843, this trench was laid out to intersect a geophysical point anomaly and a nearby linear anomaly and to terminate at the northern edge of the outer enclosure of Turnermere Round to determine whether this was associated with an outer ditch.

Orientated north-east to south-west, Trench 1 was 25m long and 1.6m wide. The topsoil (100) was a mid-reddish-brown friable sandy loam 0.2m deep and contained <10% unsorted fragmented stone inclusions. This overlaid subsoil (101), a light reddish-brown compacted sandy clay 0.2m deep, containing <20% small, unsorted fragmented stone inclusions. The trench contained two ditched features. However, nothing was found which might have produced the point anomaly near the northern end of the trench.

Ditch [104]

(Figs 2 and 3)

A north-west to south-east orientated linear feature identified both from the 1946 RAF aerial photograph and on the geophysical survey carried out in late 2017 and early 2018 (Bonvoisin 2018; Sharpe 2018) was identified in the middle of the trench. The ditch cut [104] was 0.6m wide and 0.19m deep; this had a well-defined northern edge, a U shaped profile and a concave base; the sides were angled at about 30°. The ditch contained two deposits. The uppermost of these was (103): a dark reddish-brown loose sandy loam 0.14m deep containing unsorted fragmented small angular stones. The basal fill (105) was a dark reddish-brown compact gritty sand 0.05m deep. The ditch may be associated with a removed hedge boundary and samples of the fills were taken for potential analysis.

Ditch [107]

(Figs 3, 4 and 5)

A linear feature running parallel to the field boundary on a north-west to south-east orientation was located at the south-east end of the trench. Only a small section of the ditch could be excavated owing to its proximity to the boundary, which was topped with small mature trees. The cut of the ditch [107] was very well-defined, and was 0.95m wide at the top and 0.6m deep. The north-eastern side of the ditch was the only one which could be revealed and was angled at about 70° and was cut into the rab all the way to its base, which appeared to be flat and well-defined. The ditch contained two deposits: (108) a light yellowish-brown friable sandy grit 0.27m deep, and basal fill (109): a dark yellowish-brown gritty sand 0.2m deep containing some larger pieces of granite at its base. This ditch appears to be associated with the boundary which fossilises the line of the outer circuit of the round (see concluding discussion, below).

The north-eastern edge of the ditch was 1.2m from the granite facing of the field boundary; further excavation of the ditch was not possible owing to the proximity of the boundary and the potential to damage tree roots.

Trench 2

(Fig 2)

Trench 2 was located between SW 76144 33885 and 76159 33865 and was laid out across a closely-set pair of geophysical anomalies. Orientated north-west to south-east, the trench was 25m long, 1.6m wide and a maximum of 0.4m deep. A large near-surface granite outcrop was found at the location suggested by the anomaly. No other features were identified within the trench.

Trench 3

(Fig 2)

This trench was located between SW 76134 33877 and 76112 33885. Orientated north-west to south-east, this trench was 20m long, 1.6m wide and a maximum of 0.4m deep. Several granite boulders or near-surface outcrops of bedrock were revealed within the trench; their locations corresponded with those of the geophysical anomalies. No other features were found within the trench.

Trench 4

(Fig 2)

This trench was located between SW 76112 33903 and 76128, 33901 and was laid out across a pair of geophysical point anomalies. Orientated almost east to west, this trench was 20m long, 1.6m wide and a maximum of 0.4m deep. The locations of several granite boulders in the base of the trench corresponded with those of the geophysical anomalies. No other features were found within the trench.

6 Conclusions/discussion

The evaluation trenching was required to test for the presence of an external ditch associated with the fossilised outer enclosure of Turnermere Round and to evaluate a representative sample of the anomalies revealed by the 2018 geophysical survey (Bonvoisin 2018; Sharpe 2018).

Ditch [107] which is adjacent to the post-medieval field boundary that appears to fossilise an outer enclosure to Turnermere Round. The dimensions do not appear to be characteristic of a prehistoric enclosure ditch and it is much more likely to have been associated with the post-medieval boundary.

The geophysical survey suggested that ditch [104] in Trench 1 would be one of a closely-set parallel pair of linear features which typically characterise ploughed-out Cornish hedges. The evaluation trenching revealed only one of these features, at the south-eastern end of the geophysical anomaly, and it is possible that paired ditches survive to the north-west. This boundary is not shown on any archive mapping and does not appear to be part of any field system represented by documented or surviving boundaries. The excavated ditch cannot be dated by reference to either to other related boundaries or from its morphology and it contained no artefacts. The geophysical survey suggests that the north-western and south-eastern ends of the feature have either been truncated or for some other reason are incomplete.

Four of the other five geophysical anomalies evaluated in 2018 were shown to have been produced by near-surface boulders or granite outcrops. These were identified as 'strong'

to 'medium' anomalies in the interpreted data plot. It is considered likely that the remaining 'medium' and 'weak' anomalies scattered across the proposed development site will have similar origins, and that the potential for the survival of archaeological features within the area covered by the geophysical survey is low. No further archaeological recording is likely to be required at this site in advance of or during its development.

7 References

7.1 Primary sources

Ordnance Survey, MasterMap Topography

7.2 Printed sources

Bonvoisin P 2018. *Land south of Antron Way, Mabe Burnthouse, Penryn Cornwall, Results of Geophysical Survey*, South West Archaeology report to CAU.

ClfA, 2014a. *Standard and guidance for an archaeological watching brief*, ClfA, Reading

ClfA, 2014b. *Code of Conduct*, ClfA, Reading.

Sharpe, A 2018. *Land off Antron Way, Mabe Burnthouse, Cornwall: Archaeological Assessment and geophysical survey*, CAU report 2017R080.

8 Project archive

The CAU project number is **146813**

The project's documentary, digital, photographic and drawn archive is maintained by Cornwall Archaeological Unit.

Electronic data is stored in the following location:

\\CAU\Archive\Sites M\Mabe Burnthouse evaluation 146813

Historic England/ADS OASIS online reference: cornwall2-321147

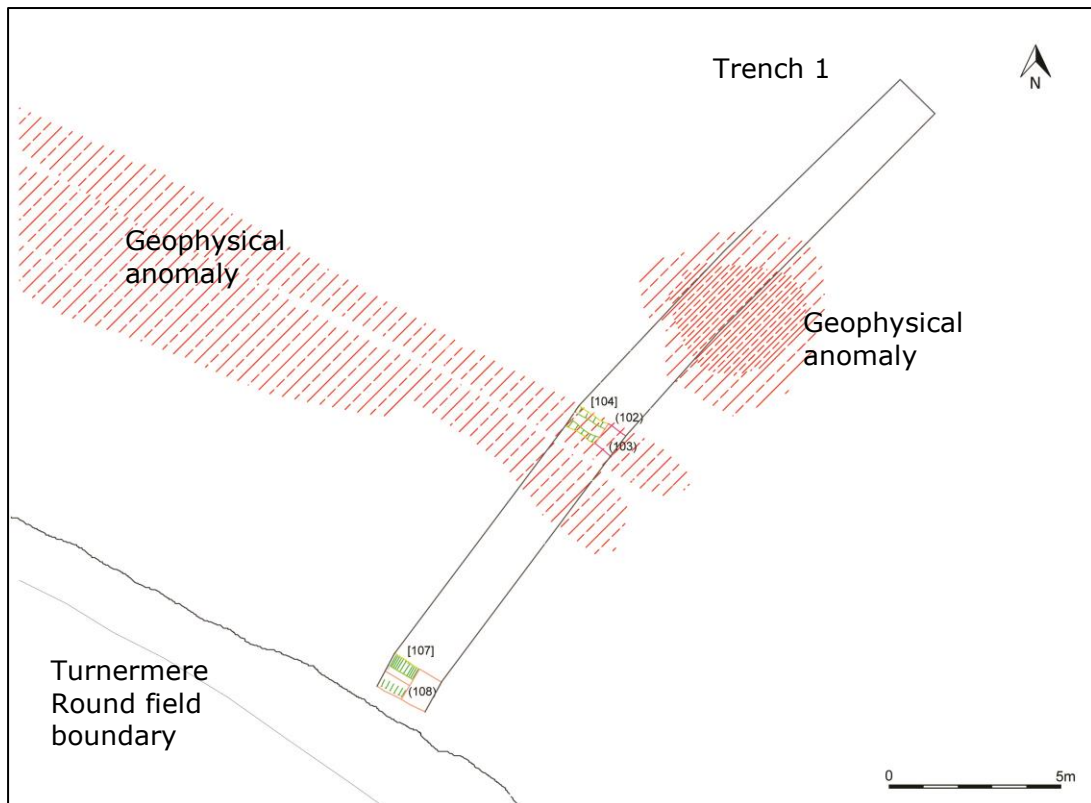


Figure 3: Trench 1 showing location of ditches [104] and [107].

Figure 4: South-east facing section of boundary ditch [107].



Figure 3: Photograph, showing south-east facing section of boundary ditch [107] (1m scale).

Appendix 1: Table of contexts

Context number	Description
(100)	Topsoil: a mid-reddish-brown friable sandy loam, between 0.2 and 0.3m thick depending on the trench excavated, contained small fragmented pieces of stone and some modern pottery sherds.
(101)	Subsoil: a light reddish-brown compact sandy clay, 0.2m thick, containing small fragments of killas and decayed granite.
(102)	Natural: a light reddish-brown compact sandy clay.
(103)	Fill of ditch [104], a dark reddish-brown loose, sandy loam, 0.19m thick, contained small angular fragments of stone.
[104]	Cut of shallow ditch, 0.6m wide, 1m wide, 0.19m deep, well-defined edge, with a 30 degree slope on the edges, U-shaped base, with concave sides, north-west to south-east orientation.
(105)	Basal fill of [104], a dark reddish-brown compacted gritty sand, rab(?), 0.05m thick.
(106)	Natural feature.
[107]	Cut of a north-west to south-east orientated field boundary ditch, only one side was excavated due to the proximity of a field boundary. 0.65m deep from the lip, 0.95m width excavated. A steep-sided well-defined edge, cut into the natural rab (very firm), easy to define with a trowel.
(108)	Fill of [107], a light yellowish-brown sandy grit deposit, friable, very grainy, 0.27m thick.
(109)	Basal fill of [107], a dark brown compact gritty sand containing larger pieces of granite stone. 0.4m thick.

Cornwall Archaeological Unit

Fal Building, County Hall, Treyew Road, Truro, Cornwall,
TR1 3AY

(01872) 323603
enquiries@cau.org.uk
www.cau.org.uk

