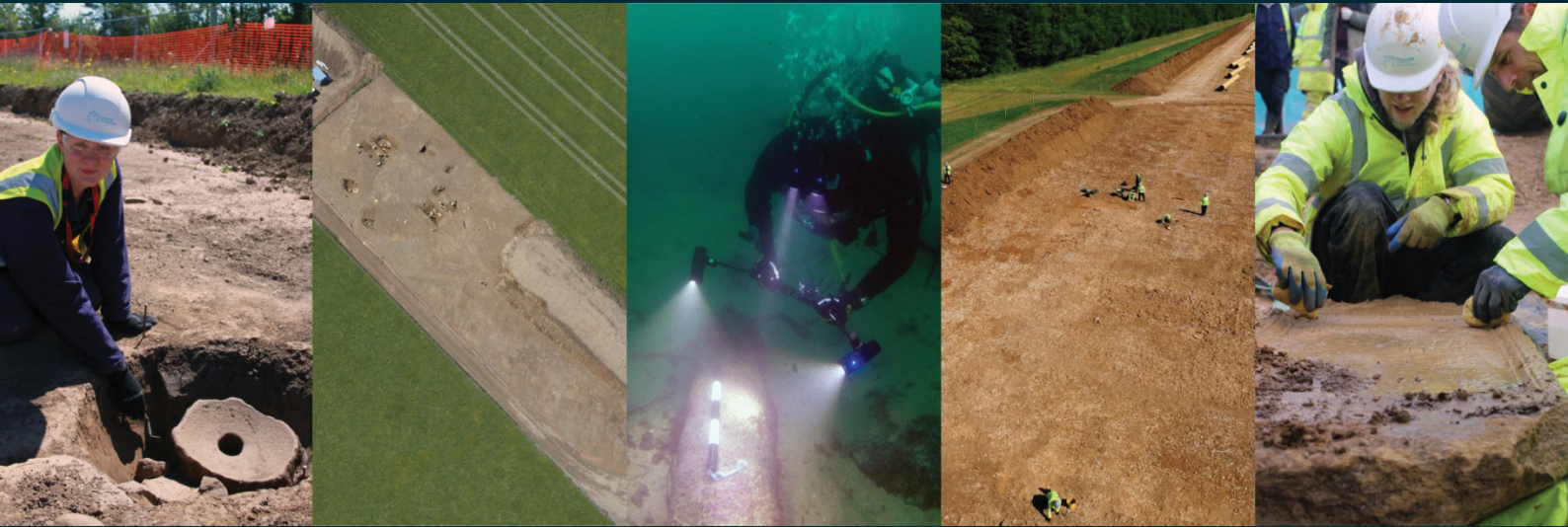


Mendennick Farm, Millbrook Cornwall

Archaeological Evaluation



for
Pegasus Group

on behalf of
REG Mendennick Solar Ltd

CA Project: 5290
CA Report: 15136

April 2015



Mendennick Farm
Millbrook
Cornwall

Archaeological Evaluation

CA Project: 5290
CA Report: 15136

Document Control Grid						
Revision	Date	Author	Checked by	Status	Reasons for revision	Approved by
A	14 April 2015	Jonathan Orellana	Laurie Coleman	Internal review		Simon Cox
B	15 April 2015	Jonathan Orellana	Laurie Coleman	Client review	Client comments addressed	Simon Cox
C	27 April 2015	Jonathan Orellana	Laurie Coleman	Final	Phil Copleston comments addressed	Simon Cox

This report is confidential to the client. Cotswold Archaeology accepts no responsibility or liability to any third party to whom this report, or any part of it, is made known. Any such party relies upon this report entirely at their own risk. No part of this report may be reproduced by any means without permission.

CONTENTS

SUMMARY	2
1. INTRODUCTION.....	3
2. ARCHAEOLOGICAL BACKGROUND.....	5
3. AIMS AND OBJECTIVES.....	7
4. METHODOLOGY	7
5. RESULTS (FIGS 2-5).....	8
7. CA PROJECT TEAM.....	9
8. REFERENCES.....	9
APPENDIX A: CONTEXT DESCRIPTIONS	11
APPENDIX B: OASIS REPORT FORM.....	12

LIST OF ILLUSTRATIONS

Fig. 1 Site location plan (1:25,000)

Fig. 2 Trench location plan showing archaeological features and geophysical survey results (1:2000 & 1:500)

Fig. 3 Trench 1: section and photograph (1:20)

Fig. 4 Trench 3: section and photograph (1:20)

Fig. 5 Trench 8: section and photograph (1:20)

SUMMARY

Project Name:	Mendennick Farm
Location:	Millbrook, Cornwall
NGR:	SX 4078 5300
Type:	Evaluation
Date:	16-18 March 2015
Planning Reference:	Cornwall Council PA14/04646
Location of Archive:	To be deposited with Royal Cornwall Museum
Site Code:	MEN 15

An archaeological evaluation was undertaken by Cotswold Archaeology in March 2015 at Mendennick Farm, Millbrook, Cornwall. A total of ten trenches was excavated.

The evaluation identified three undated ditches: Two ditches were identified at the south-western edge of the site and one ditch was identified in the north-eastern corner of the site. All three ditches correlated closely with anomalies depicted on a preceding geophysical survey of the site.



1. INTRODUCTION

1.1 In March 2015 Cotswold Archaeology (CA) carried out an archaeological evaluation for Pegasus Group on behalf of REG Mendennick Solar Ltd at Mendennick Farm, Millbrook, Cornwall (centred on NGR: SX 4078 5300; Fig. 1).

1.2 Planning permission for construction, operation and maintenance of a solar farm to include the installation of solar panels to generate renewable electricity with inverter structures, security fencing and cameras and other associated works was granted by Cornwall Council (CC) (planning reference PA 14/11090) conditional on a programme of archaeological work being undertaken as per an agreed Written Scheme of Investigation (WSI). Condition (no 13) specified that the WSI for archaeological works would include:

A. The programme and methodology of site investigation (including geophysical survey (already undertaken to support a previous application) and trial trenching) and recording.

B. The identification of mechanisms to protect heritage features of significance identified under A (note this may require exclusion zones of development from certain features).

C. The programme for post investigation assessment

D. Provision to be made for analysis of the site investigation and recording

E. Provision to be made for publication and dissemination of the analysis and records of the site investigation.

F. Provision to be made for archive deposition of the analysis and records of the site investigation.

G. Nomination of a competent person or persons/organisation to undertake the works set out within the Written Scheme of Investigation.

- 1.3 The detailed *Written Scheme of Investigation* (WSI) produced in response to Condition 13 by CA (2015) and approved by Phil Copleston, Senior Development Officer (Historic Environment) - Archaeologist, Cornwall Council. The fieldwork also followed the *Standard and guidance: Archaeological field evaluation* (CIfA 2014), the *Management of Archaeological Projects* (English Heritage 1991) and the *Management of Research Projects in the Historic Environment (MORPHE): Project Manager's Guide* (English Heritage 2006).
- 1.4 It should be noted that the site lies immediately to the north of a Second World War anti-aircraft battery and the geophysical survey (Archaeo-Physica 2011) identified anomalies which may have represented unexploded ordnance (UXO) and/or bomb craters (although an archaeological origin was also possible). A specialist contractor was appointed to undertake further UXO investigations comprising a magnetometer survey and investigation of identified anomalies; metallic objects identified by this survey were investigated by machine and/or hand excavation. None of the identified objects represented UXO.
- 1.5 Mr Copleston confirmed that an archaeological watching brief was not required during these works but the specialist contractor would record the location/depth of any artefacts of potential archaeological significance and these would be passed to CA on completion of the UXO investigation works. No finds of potential archaeological significance were identified by the specialist contractor. The archaeological evaluation was undertaken after the UXO investigation works had been completed.
- The site**
- 1.6 The proposed development site is located in the modern Parish of Millbrook on the Rame peninsula. The site is approximately 4.3ha in area and crosses two agricultural fields, currently under arable cultivation, approximately 500m to the south of the village of St John. The site is bounded by the B3247 to the south, and open agricultural fields to the north and west. On the eastern side the site is bounded by a minor road to St John. The city of Plymouth is located approximately 4km to the north-east of the site. A temporary construction compound is proposed in an area within the field to the east of the site (Fig. 2).

- 1.7 The fields at the site are featureless, containing no earthwork remains. Boundaries at the site are all of a similar form comprising stone-reveted Cornish hedges, substantial banks generally with scant hedgerows running parallel. Several boundaries were also marked by shallow ditches running alongside the banks.
- 1.8 Two different but similar bedrock types can be identified at the site. In the northern and western parts of the site (essentially the northern side of Mendennick Hill) the bedrock consists of Bovisand Formation Slate, Siltstone and Sandstone. This Sedimentary rock was formed approximately 398 to 411 million years ago in the Devonian Period. The southern part of the site (and across the whole of the south side of Mendennick Hill) consists of Whitsand Bay Formation Slate, Siltstone and Sandstone, sedimentary rock formed approximately 407 to 416 million years ago in the Devonian Period. The natural substrate exposed throughout all the excavated trenches comprised greyish siltstone bedrock and yellow clays.
- 1.9 The site is situated at the summit, and on the north-facing slopes, of Mendennick Hill. The hill is part of a substantial backbone of Lower Devonian hills running from east to west along the coastline and south-east to the tip of the Rame peninsula. To the north Mendennick Hill drops away steeply into a secluded valley around an estuary at St John. The estuary, a western arm of St Johns Lake is a part of the wider Tamar Estuary lying to the east which opens out onto Plymouth Sound. The landscape to the west and east is of rolling hills and deep, often wooded valleys. Approximately 1.3km to the south the ridge of hills meets the sea with high cliffs overlooking long sandy beaches.

2. ARCHAEOLOGICAL BACKGROUND

- 2.1 A desk-based assessment (DBA) has been compiled for the site (CA 2014) the results of which are summarised as follows:
- 2.2 No heritage assets (either designated or non-designated) are recorded on the Historic Environment Record or English Heritage Archives within the site. Prehistoric remains (including a barrow of probable Bronze Age and probable settlement sites) have been identified in the vicinity of the site.

- 2.3 No Roman activity has been identified in the vicinity of the site. However, a medieval settlement pattern (a dispersed pattern of farms, hamlets and villages within an agricultural landscape) is clearly visible. The village of St John developed around an early ecclesiastical centre and the current church dates to the 12th century.
- 2.4 The post-medieval period appears to have witnessed a drive for the enclosure of agricultural land across the landscape. Medieval open fields and commons were enclosed and taken into private ownership. Many of the area's historic farms date from the post-medieval period. Often these farms represent continuations of older settlement patterns. This is likely to be the case at Mendennick, located adjacent to the proposed development site. Mendennick farm dates from the 18th century but is surrounded by fields that appear to consist of enclosures of medieval strip fields or small fields that may represent a survival of even older enclosures.
- 2.5 The post-medieval and modern periods also saw an increasing military presence in the local area, a presence that continues to dominate the area today. The 1859 establishment of the Royal Commission on the Defence of the United Kingdom resulted in the construction of various forts and batteries designed to reinforce the defences around the strategically important naval city of Plymouth. Within the vicinity of the site are a few older military features, for example the probable remains of a gun position on the high slopes overlooking St John's Lake and the remains of a signal beacon site on the high hill overlooking Millbrook.
- 2.6 A number of 20th-century military installations are also present within the vicinity of the site and are associated with the considerable amount of local military activity at the time of the Second World War. For example, a four-gun anti-aircraft battery was located immediately to the south of the site on St John's Down. This battery was served by a camp consisting of a series of Nissen huts located to the west as well as other auxiliary buildings.
- 2.7 A geophysical survey was carried out by Archaeo-Physica (2011) within the site, and areas to the north-west and east, in support of a previous planning application (Fig. 2). This survey identified a number of anomalies including: Linear anomalies relating to post-medieval field boundaries and a former lane (not numbered). Linear anomalies and/or enclosures possibly relating to earlier activity (5-11, 14, 16, 19-23). A curvilinear anomaly (18). A possible small rectangular structure (1). A number of

discrete anomalies probably representing hearths, craters and/or unexploded ordnance (UXOs) (2, 4, 13, 17, 24 and 25).

3. AIMS AND OBJECTIVES

- 3.1 The objectives of the evaluation were to provide information about the archaeological resource within the site, including its presence/absence, character, extent, date, integrity, state of preservation and quality, in accordance with *Standard and guidance: Archaeological field evaluation* (ClfA 2014). This information will enable Cornwall Council to identify and assess the particular significance of any heritage asset, consider the impact of the proposed development upon it, and to avoid or minimise conflict between the heritage asset's conservation and any aspect of the development proposal, in line with the *National Planning Policy Framework* (DCLG 2012).

4. METHODOLOGY

- 4.1 The fieldwork comprised the excavation of 10 trenches in the locations shown on the attached plan (Fig. 2). Trenches 1, 2, 4, 5, 6, 7, 8 and 9 measured 20m in length, Trench 3 measured 40m in length and Trench 10 measured 30m in length. All the excavated trenches measured 1.6m in width. Trenches were set out on OS National Grid (NGR) co-ordinates using Leica GPS and surveyed in accordance with CA Technical Manual 4: *Survey Manual*.
- 4.2 All trenches were excavated by mechanical excavator equipped with a toothless grading bucket. All machine excavation was undertaken under constant archaeological supervision to the top of the first significant archaeological horizon or the natural substrate, whichever was encountered first. Where archaeological deposits were encountered they were excavated by hand in accordance with CA Technical Manual 1: *Fieldwork Recording Manual*.
- 4.3 Deposits were assessed for their palaeoenvironmental potential in accordance with CA Technical Manual 2: *The Taking and Processing of Environmental and Other Samples from Archaeological Sites*; no deposits were identified that required sampling. Despite visual scanning of spoil, no artefactual material was recovered.

4.4 The archive from the evaluation is currently held by CA at their offices in Kemble. It will be deposited with the Cornwall Record Office. A summary of information from this project, set out within Appendix B, will be entered onto the OASIS online database of archaeological projects in Britain.

5. RESULTS (FIGS 2-5)

5.1 This section provides an overview of the evaluation results; detailed summaries of the recorded contexts are to be found in Appendix A.

5.2 Three undated ditches were encountered in Trenches 1, 3 and 8 respectively. All three cut the natural substrate and the fills were sealed by topsoil.

5.3 A subsoil deposit was observed in the southern part of Trench 10. A north/south orientated furrow, corresponding with an anomaly (7) identified by the geophysical survey, was identified in Trench 2. A modern drain was identified in Trench 6. Again, this feature corresponded with an anomaly (unnumbered) identified by the geophysical survey. No archaeological features or deposits were identified in Trenches 2, 4, 5, 6, 7, 9 and 10. It is probable that the anomalies identified by the geophysical survey within the remaining trenches corresponded to variations in the natural substrate.

Trench 1 (Figs 2 & 3)

5.4 The natural substrate, 102, was identified at a depth of 0.35m below present ground level (bpgl). It was cut by east/west orientated shallow, flat-bottomed ditch 103 (Fig. 3, Section AA). No finds were recovered from its single fill 104, which was sealed by topsoil. The feature corresponded with the southern part of a small enclosure (1) identified by the geophysical survey.

Trench 3 (Figs 2 & 4)

5.5 The natural substrate, 302, was identified at a depth of 0.35m bpgl. Ditch 303 (Fig. 4, Section BB) was identified towards the south-western end of the trench. It measured 0.57m in width and had a maximum depth of 0.16m. It had steeply-sloping sides and a flat base, and contained a single fill, 304, from which no finds were recovered. The location of the ditch in Trench 3 roughly corresponded to a linear geophysical anomaly (6).

Trench 8 (Figs 2 & 5)

- 5.6 The natural substrate, 802, was identified at a depth of 0.25m bpgl. It was cut by north-east/south-west aligned ditch 803 (Fig. 5, Section CC) which had a concave base and steeply-sloping sides. It measured 0.65m in width and had a maximum depth of 0.26m. It contained a single undated fill 804. The ditch corresponded closely to a linear geophysical anomaly (unnumbered).

6. DISCUSSION

- 6.1 The evaluation has identified three ditches within the site. Where ditches were encountered there was a good correlation with the results of the preceding geophysical survey. However a number of anomalies were not identified by the evaluation and a geological origin is probable.
- 6.2 No finds were recovered from any of the three identified features which therefore remain undated. The ditches probably relate to land management, drainage or division of probable medieval and/or post-medieval date.

7. CA PROJECT TEAM

Fieldwork was undertaken by Jonathan Orellana, assisted by Ronan Mooney and Liam Wilson. The report was written by Jonathan Orellana. The illustrations were prepared by Aleksandra Osinska. The archive has been compiled by Jonathan Orellana, and prepared for deposition by Hazel O'Neill. The project was managed for CA by Laurent Coleman.

8. REFERENCES

Archaeo-Physica 2011 *St John Cornwall, Geophysical Survey Report*

BGS (British Geological Survey) 2015 *Geology of Britain Viewer*
http://maps.bgs.ac.uk/geology_viewer_google/googleviewer.html Accessed 13 February 2015

CA (Cotswold Archaeology) 2015 *Land at Mendennick, Cornwall: Written Scheme of Investigation for an Archaeological Evaluation*

CA (Cotswold Archaeology) 2014 *Land at Mendennick, Cornwall: Heritage Desk-Based Assessment*, CA Report No **14488**



APPENDIX A: CONTEXT DESCRIPTIONS

Trench No.	Context No.	Type	Fill of	Context interpretation	Description	L (m)	W (m)	D (m)	Spot-date
1	101	Layer		topsoil	dark reddish brown silty clay	20	1.6	0.35	
1	102	Layer		natural substrate	mid yellowish grey clay and siltstone	20	1.6		
1	103	Cut		ditch	east/west orientated, shallow sides, flat base	>1.5	0.64	0.05	
1	104	Fill	103	fill of ditch	mid brownish red silty clay	>1.5	0.64	0.05	
2	201	Layer		topsoil	dark reddish brown silty clay	20	1.6	0.35	
2	202	Layer		natural substrate	mid greyish clay and siltstone	20	1.6		
3	301	Layer		topsoil	dark reddish brown silty clay	40	1.6	0.35	
3	302	Layer		natural substrate	mid greyish clay and siltstone	40	1.6		
3	303	Cut		ditch	North/south orientated, flat base	>1.6	0.57	0.16	
3	304	Fill	303	fill of ditch	mid greyish red silty clay	>1.6	0.57	0.16	
4	401	Layer		topsoil	dark reddish brown silty clay	20	1.6	0.26	
4	402	Layer		natural substrate	mid greyish clay and siltstone	20	1.6		
5	501	Layer		topsoil	mid greyish brown silty clay	20	1.6	0.28	
5	502	Layer		natural substrate	mid grey clay and siltstone	20	1.6		
6	601	Layer		topsoil	dark reddish brown silty clay	20	1.6	0.34	
6	602	Layer		natural substrate	mid greyish clay and siltstone	20	1.6		
7	701	Layer		topsoil	dark reddish brown silty clay	20	1.6	0.4	
7	702	Layer		natural substrate	mid greyish clay and siltstone	20	1.6		
8	801	Layer		topsoil	dark reddish brown silty clay	20	1.6	0.28	
8	802	Layer		natural substrate	mid greyish clay and siltstone	20	1.6		
8	803	Cut		ditch	North-east/south-west orientated, steep sides, concave base	>1.9	0.65	0.26	
8	804	Fill	803	fill of ditch	mid reddish brown silty clay	>1.9	0.65	0.26	
9	901	Layer		topsoil	dark reddish brown silty clay	20	1.6	0.36	
9	902	Layer		natural substrate	mid greyish clay and siltstone	20	1.6		
10	1001	Layer		topsoil	dark reddish brown silty clay	30	1.6	0.56	
10	1002	Layer		subsoil	mid yellowish brown sandy clay	30	1.6	0.26	
10	1003	Layer		natural substrate	mid greyish clay and siltstone	5.2	1.6		

APPENDIX B: OASIS REPORT FORM

PROJECT DETAILS		
Project Name	Mendennick Farm, Millbrook, Cornwall	
Short description	<p>An archaeological evaluation was undertaken by Cotswold Archaeology in March 2015 at Mendennick Farm, Millbrook, Cornwall. A total of 10 trenches was excavated.</p> <p>The evaluation identified three undated linear features: two ditches were identified at the south-western edge of the site and one ditch was identified in the north-eastern corner of the site. All three ditches correlated closely with anomalies depicted on a preceding geophysical survey.</p>	
Project dates	16-18 March 2015	
Project type	Field Evaluation	
Previous work	Geophysical Survey Report (Archaeo-Physica 2011) Desk-Based Assessment (CA 2014)	
Future work	Unknown	
PROJECT LOCATION		
Site Location	Mendennick Farm, Millbrook, Cornwall	
Study area	4.3 ha	
Site co-ordinates (8 Fig Grid Reference)	SX 4078 5300	
PROJECT CREATORS		
Name of organisation	Cotswold Archaeology	
Project Brief originator	N/A	
Project Design (WSI) originator	Cotswold Archaeology	
Project Manager	Laurent Coleman	
Project Supervisor	Jonathan Orellana	
MONUMENT TYPE	None	
SIGNIFICANT FINDS	None	
PROJECT ARCHIVES	Intended final location of archive (museum)	
Physical	N/A	None
Paper	Cornwall Record Office	Trench recording forms, context sheets
Digital	Cornwall Record Office	Survey data, digital photos
BIBLIOGRAPHY		
CA (Cotswold Archaeology) 2015 <i>Mendennick Farm, Millbrook, Cornwall: Archaeological Evaluation</i> . CA typescript report no 15136		

Andover Office

Stanley House
Walworth Road
Andover
Hampshire
SP10 5LH

t: 01264 347630

Cirencester Office

Building 11
Kemble Enterprise Park
Cirencester
Gloucestershire
GL7 6BQ

t: 01285 771022

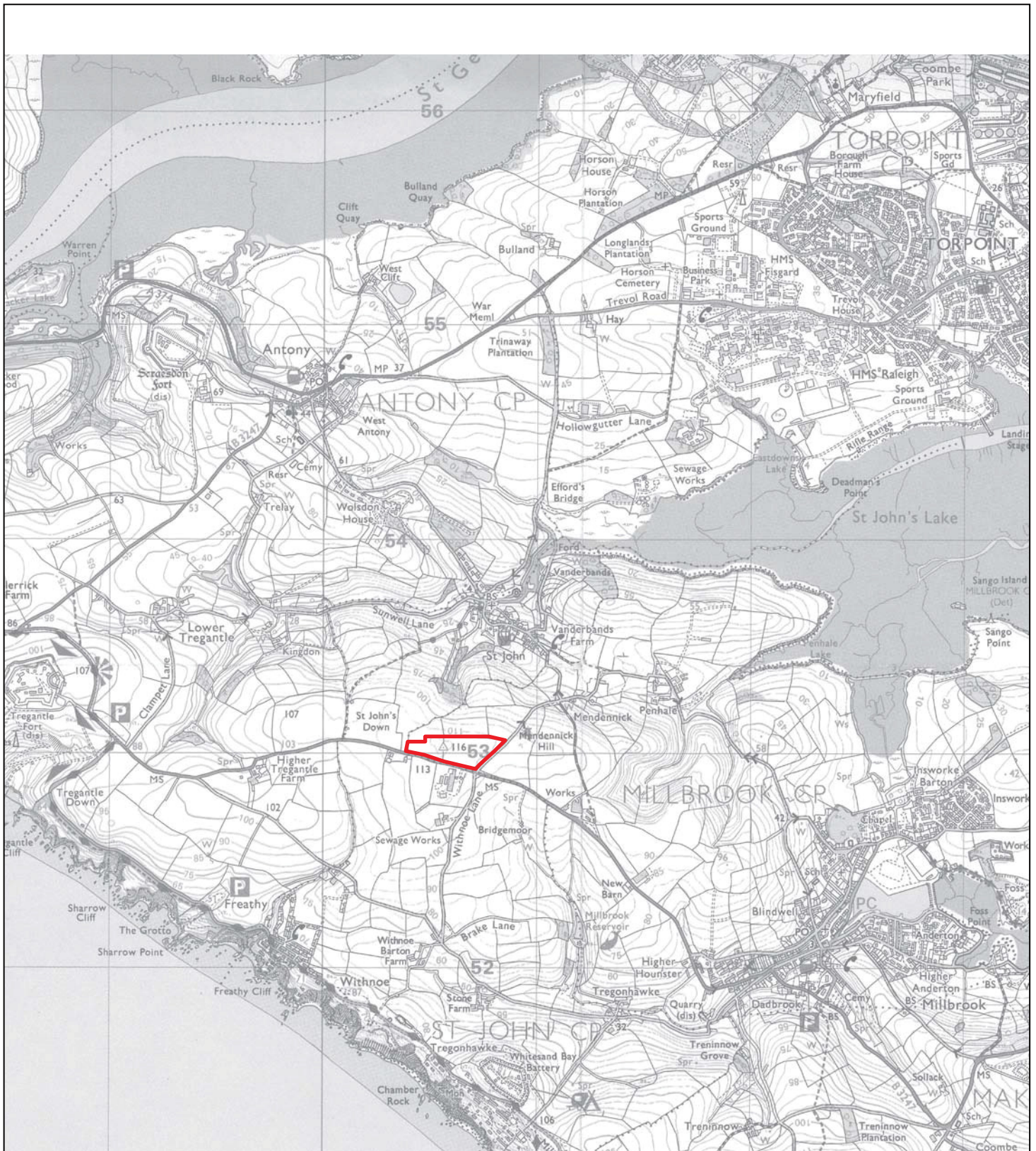
Milton Keynes Office

41 Burners Lane South
Kiln Farm
Milton Keynes
Buckinghamshire
MK1 3HA

t: 01908 564660

e: enquiries@cotswoldarchaeology.co.uk





0 1km

Reproduced from the 2006 Ordnance Survey Explorer map with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office © Crown copyright
Cotswold Archaeology Ltd 100002109



Cirencester 01285 771022
 Milton Keynes 01908 564660
 Andover 01264 347630
 www.cotswoldarchaeology.co.uk
 enquiries@cotswoldarchaeology.co.uk

PROJECT TITLE

Mendennick Farm, Millbrook, Cornwall

FIGURE TITLE

Site location plan

PROJECT NO. 5290 DATE 25/03/2015
 DRAWN BY AO REVISION 00
 APPROVED BY JB SCALE@A4 1:25,000

FIGURE NO.

1



- ▬ site boundary
- ▬ evaluation trench
- archaeological feature
- ▬ furrow
- ▬ field drain

Geophysics Key
(Archaeophysica Ltd)

- Catalogue**
- text Labels
 - Likely Field Boundaries
 - Ditch fills
 - Extant
 - Cultivation
 - Furrows
 - Discrete enhanced
 - Fills, hearths
 - Linear enhanced
 - Linear fills
 - Extant

Reproduced from the Ordnance Survey Digital mapping with the permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office © Crown copyright Cotswold Archaeology Ltd 10002105.

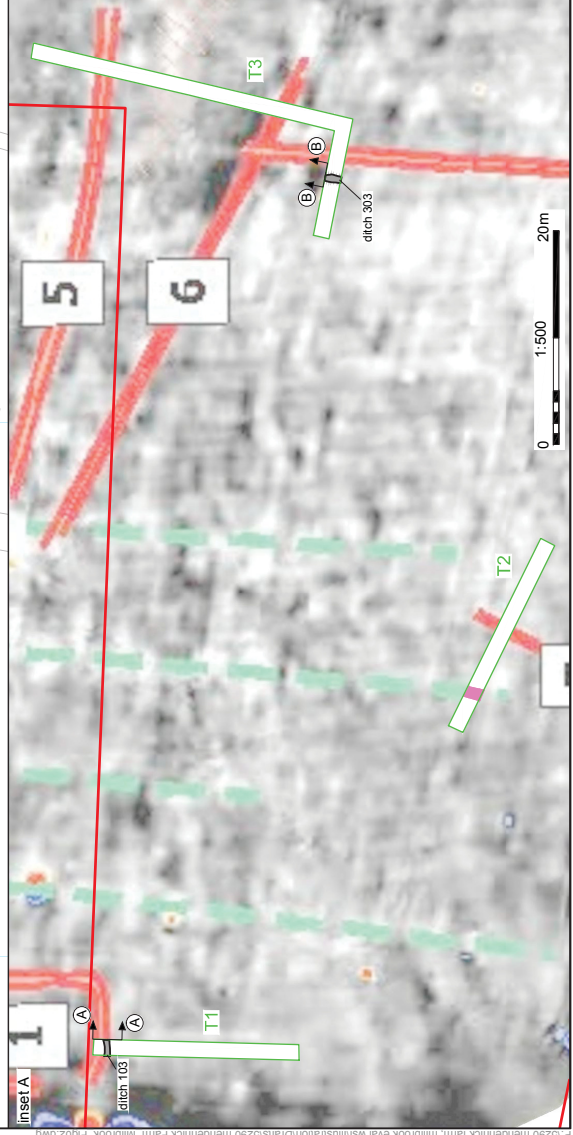
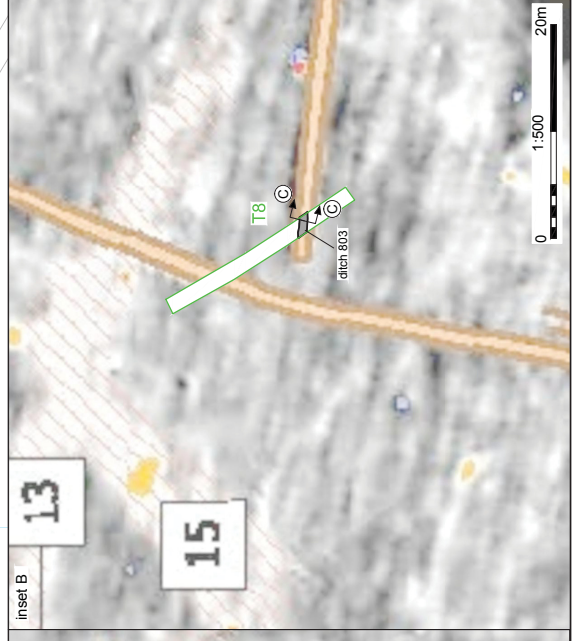
Cotswold Archaeology
 Gloucester 01285 771022
 Milton Keynes 01908 564660
 Andover 01264 347630
 www.cotswoldarchaeology.co.uk
 enquiries@cotswoldarchaeology.co.uk

PROJECT TITLE
 Mendennick Farm, Millbrook, Cornwall

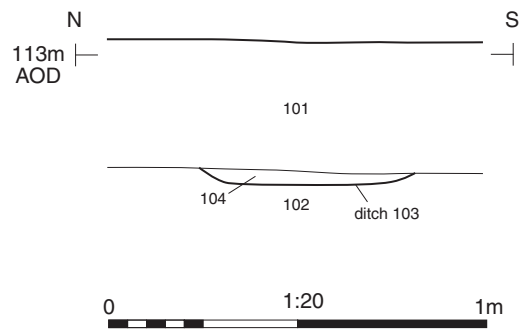
FIGURE TITLE
Trench location plan showing archaeological features and geophysical survey results

DRAWN BY	AO	PROJECT NO.	5290
CHECKED BY	JB	DATE	23.03.2015
APPROVED BY	LECC	SCALE@A3	1:2000 & 1:500

FIGURE NO.
2



Section AA



Ditch 103, looking east (1m scale)



Cirencester 01285 771022
Milton Keynes 01908 564660
Andover 01264 347630
www.cotswoldarchaeology.co.uk
enquiries@cotswoldarchaeology.co.uk

PROJECT TITLE

Mendennick Farm, Millbrook, Cornwall

FIGURE TITLE

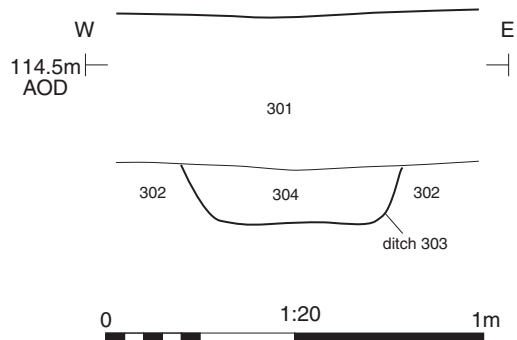
Trench 1: section and photograph

DRAWN BY AO PROJECT NO. 5290
CHECKED BY JB DATE 23/03/2015
APPROVED BY LECC SCALE@A4 1:20

FIGURE NO.

3

Section BB



Ditch 303, looking north (1m scale)



Cirencester 01285 771022
 Milton Keynes 01908 564660
 Andover 01264 347630
www.cotswoldarchaeology.co.uk
enquiries@cotswoldarchaeology.co.uk

PROJECT TITLE

Mendennick Farm, Millbrook, Cornwall

FIGURE TITLE

Trench 3: section and photograph

DRAWN BY	AO	PROJECT NO.	5290	FIGURE NO.
CHECKED BY	JB	DATE	23/03/2015	
APPROVED BY	LECC	SCALE@A4	1:20	4

Section CC



Ditch 803, looking north-east (1m scale)



Cirencester 01285 771022
Milton Keynes 01908 564660
Andover 01264 347630
www.cotswoldarchaeology.co.uk
enquiries@cotswoldarchaeology.co.uk

PROJECT TITLE

Mendennick Farm, Millbrook, Cornwall

FIGURE TITLE

Trench 8: section and photograph

DRAWN BY AO PROJECT NO. 5290
CHECKED BY JB DATE 23/03/2015
APPROVED BY LECC SCALE@A4 1:20

FIGURE NO.

5