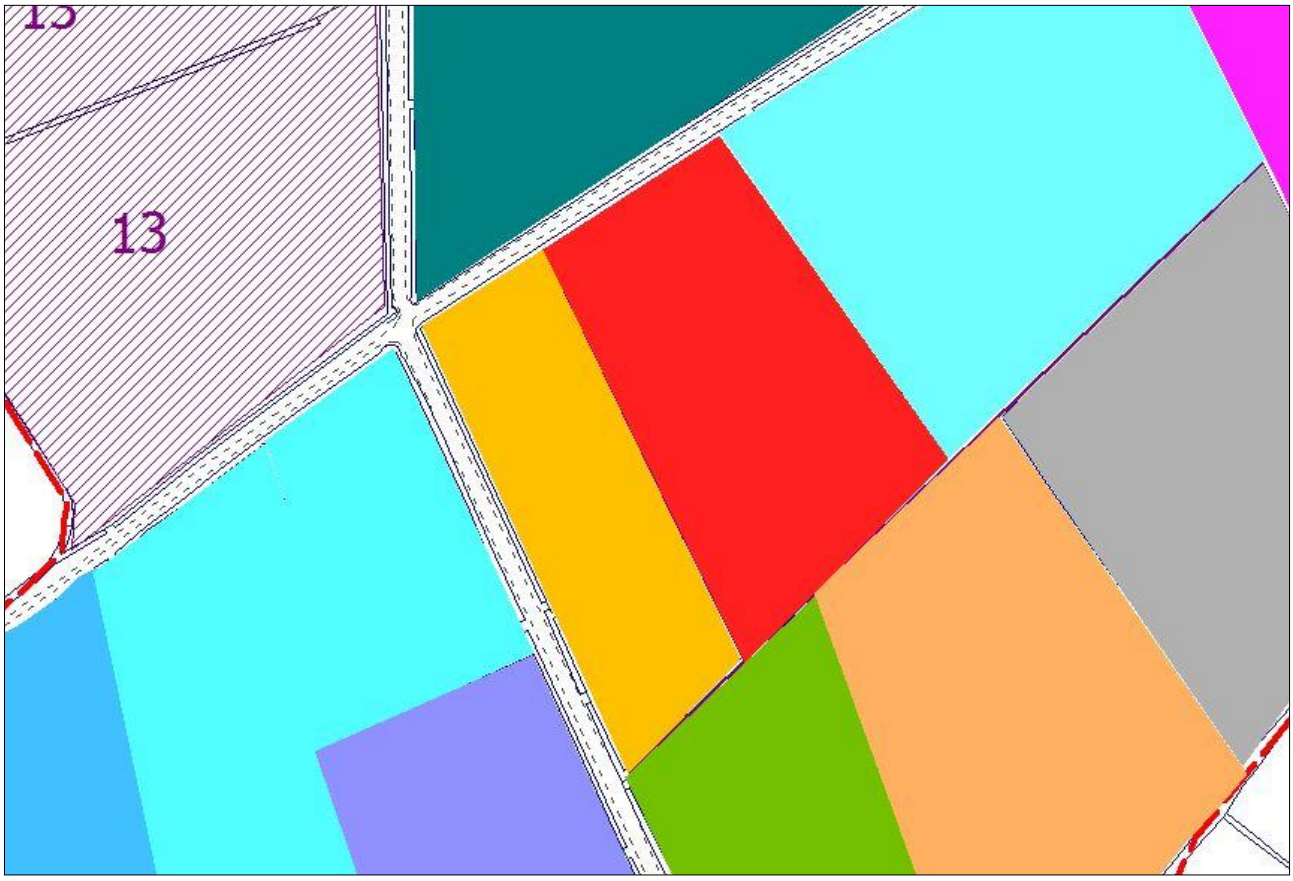
YCCCART 2017/Y7

Gradiometry survey off Moor Road, Yatton

YATTON, CONGRESBURY, CLAVERHAM AND CLEEVE ARCHAEOLOGICAL RESEARCH TEAM (YCCCART)

General Editor: Vince Russett



The fields as allocated by the 1805-15 Kenn Moor Inclosure Act

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Abstract

A gradiometer survey of the two fields in the south-east corner of the cross-roads at Kenn Moor revealed a segment of the field with intense activity, potentially of Roman date, as others in the Moor have proved. The later history and archaeology of the site indicates that the fields were not enclosed in the form envisaged by the 1815 Inclosure Act.

Acknowledgements

A Heritage Lottery Grant enabled the purchase, by YCCCART, of a Geoscan RM 15 resistivity meter and a Bartington Gradiometer 601 without which this survey could not have been undertaken.

This survey would also not have been carried out without the willing permission of the landowner, Mr G Burdge.

The authors are grateful for the hard work by the members of YCCCART in performing the surveys and Vince Russett for editing.

Introduction

Yatton, Congresbury, Claverham and Cleeve Archaeological Research Team (YCCCART) is one of a number of Community Archaeology teams across northern Somerset, formerly supported by the North Somerset Council Development Management Team.

Our objective is to undertake archaeological fieldwork to enable a better understanding and management of the heritage of the area while recording and publishing the activities and locations of the research carried out.

Site location

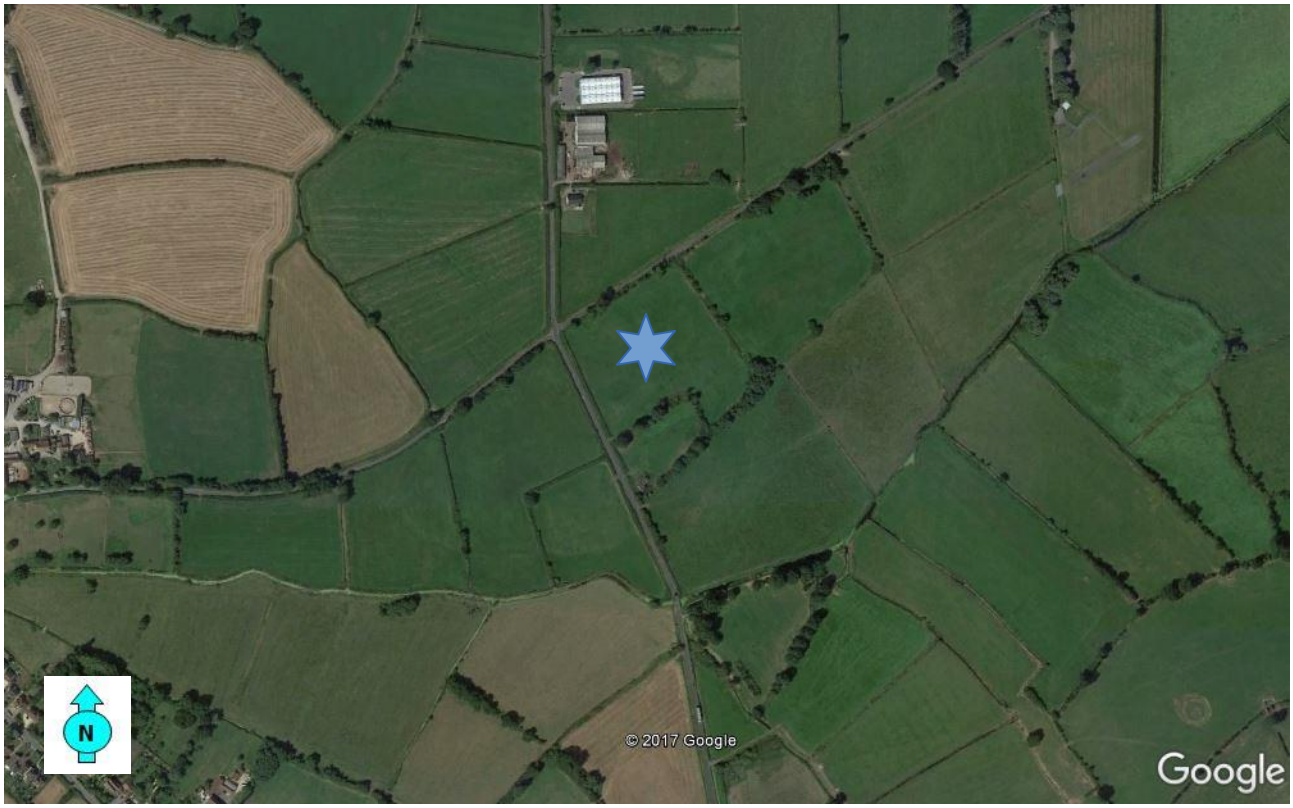


Fig 1: Fields at the junction of Claverham Drove and Moor Road (starred)

The site lies in the SE quadrant of the staggered crossroads of Claverham Drove, Moor Road, Ham Lane and Kenn Moor Road. The centre of the site is at ST42636737, NE of North End, in the parish of Yatton, in North Somerset.

Land use and geology

The site is currently under permanent pasture. It lies on the alluvium of the Northmarsh, with an outcrop of the Mercia mudstones at its southern edge, and the peats of Kenn Moor to its east. From lidar data (Fig 2), the Mercia mudstones may extend into the survey area. The ditches surrounding the site fall within the Tickenham, Nailsea and Kenn Moor SSSI (1995) (http://www.english-nature.org.uk/citation/citation_photo/2000021.pdf).

Historical & archaeological context

The site in question was open moorland until the enclosure of the area in 1815 (Kenn Moor and Cleeve Hill Inclosure Act SHC Q/RDE/135). As recorded on the plan accompanying that Act, the two fields were to have been laid out slightly differently, with a central ditch joining Claverham Drove to the southern ditch, and the fields were allotted in this manner at the Inclosure (see cover: our site is represented by the tan and light scarlet areas at the centre of the image: the colours represent the different tenements to whom land was allocated in the Act). The reason for the mismatch between the intended plan, and that exisiting today, is unknown.

The site therefore fell within Kenn Moor before the Act, a large moor with common rights in it held by tenements in Kenn, Yatton and Claverham. Two lists of commoners are known, one in 1720 (SHC A\DFG/2) and the other around the very end of the 18th century (SHC D\RA/1/2/124), but these have not yet been matched with their tenements.

Both fields were still known as 'At Kenn Moor' by the time of the 1840 Yatton Tithe Map (SHC D\D/Rt/M/368).

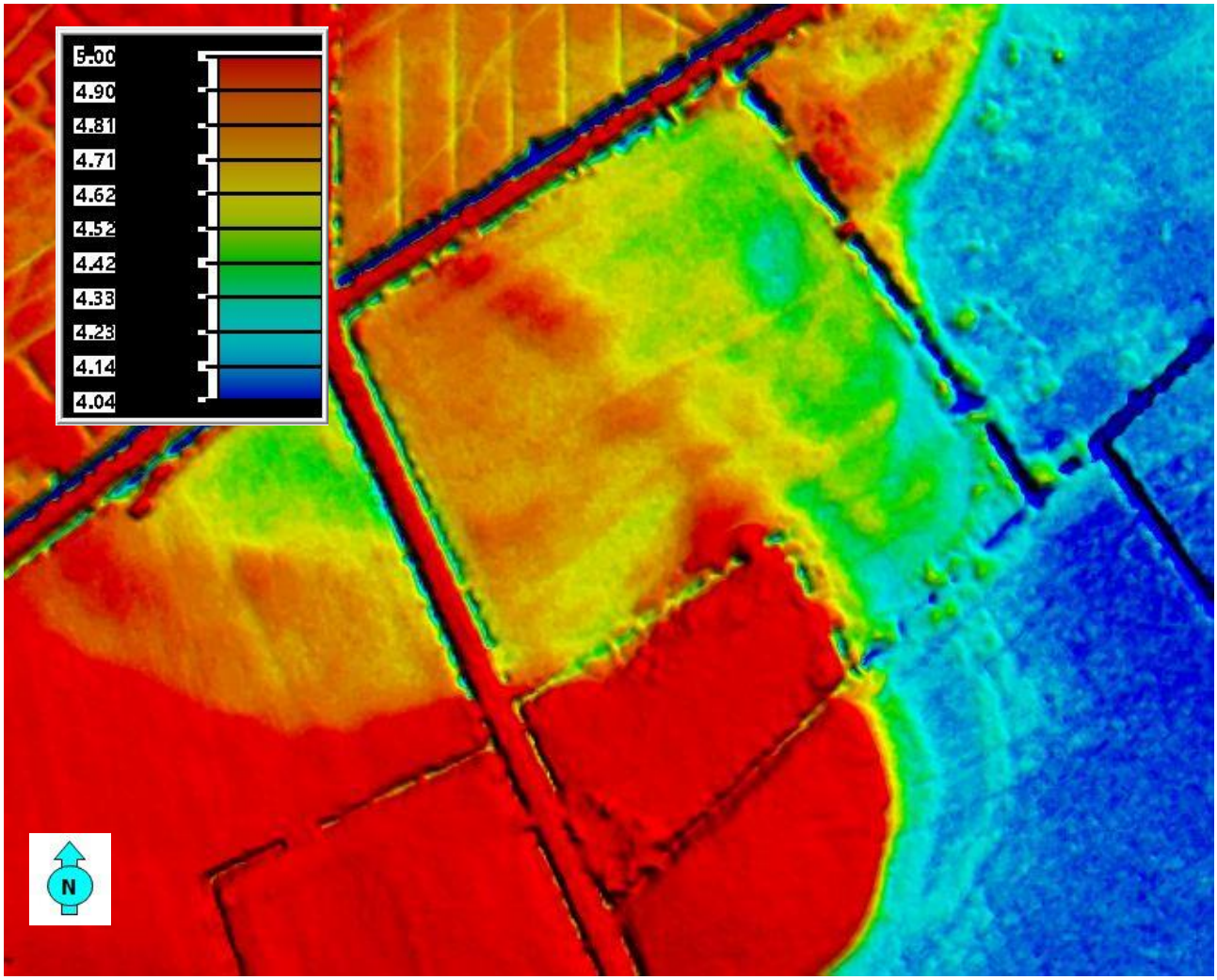


Fig 2: Lidar image of the survey area (data from https://data.gov.uk/dataset/lidar-composite-dsm-

1m1)

The lidar image of the survey area is intriguing. The slightly higher land to the south is clear on the image, and a small strip of land 20-30cm higher than the surroundings joins the tip of the higher ground to Claverham Drove. It is not clear whether this is a natural phenomenon: it can also be seen on early oblique air photographs (see Fig 3 below).

Fig 3: Oblique air photograph of site from NE, c1980

This air photograph is problematic. It clearly shows two raised 'causeway'-type features crossing close to the corner of the smaller field, as well as a system of linear grype-type features that pre-date the 1815 enclosure. These also clearly pre-date the current grypes in the fields, which pass under the modern eastern ditch to the fields. The fields and that to the east were allocated to different grantees in the Inclosure Act, and thus perhaps indicate more complexity in the way enclosure grants were realised than is supposed.

This seems to be a feature increasingly commonly found on the higher edges of pre-enclosure moors in the area, which look like there has been agricultural and other activity prior to (and possibly, long before) formal enclosure. Similar evidence can be seen immediately to the north-west of this site in previously published work (http://www.ycccart.co.uk/index_htm_files/Yatton%20Geophysical%20surveys%20Moor%20Ham%20Lane%202017-Y3%20v1.pdf) and is obvious at (for example) the Great Moor in Congresbury (Russett, forthcoming) and Tickenham Moor in northern Somerset. Such activity is clear at other Somerset moors (MacDonnell 1978, for example), and indicates

that, certainly around their higher edges, the moors were sites of complex agricultural activity outside of the formally enclosed areas. Further work to clarify this whole subject at Kenn Moor is underway.

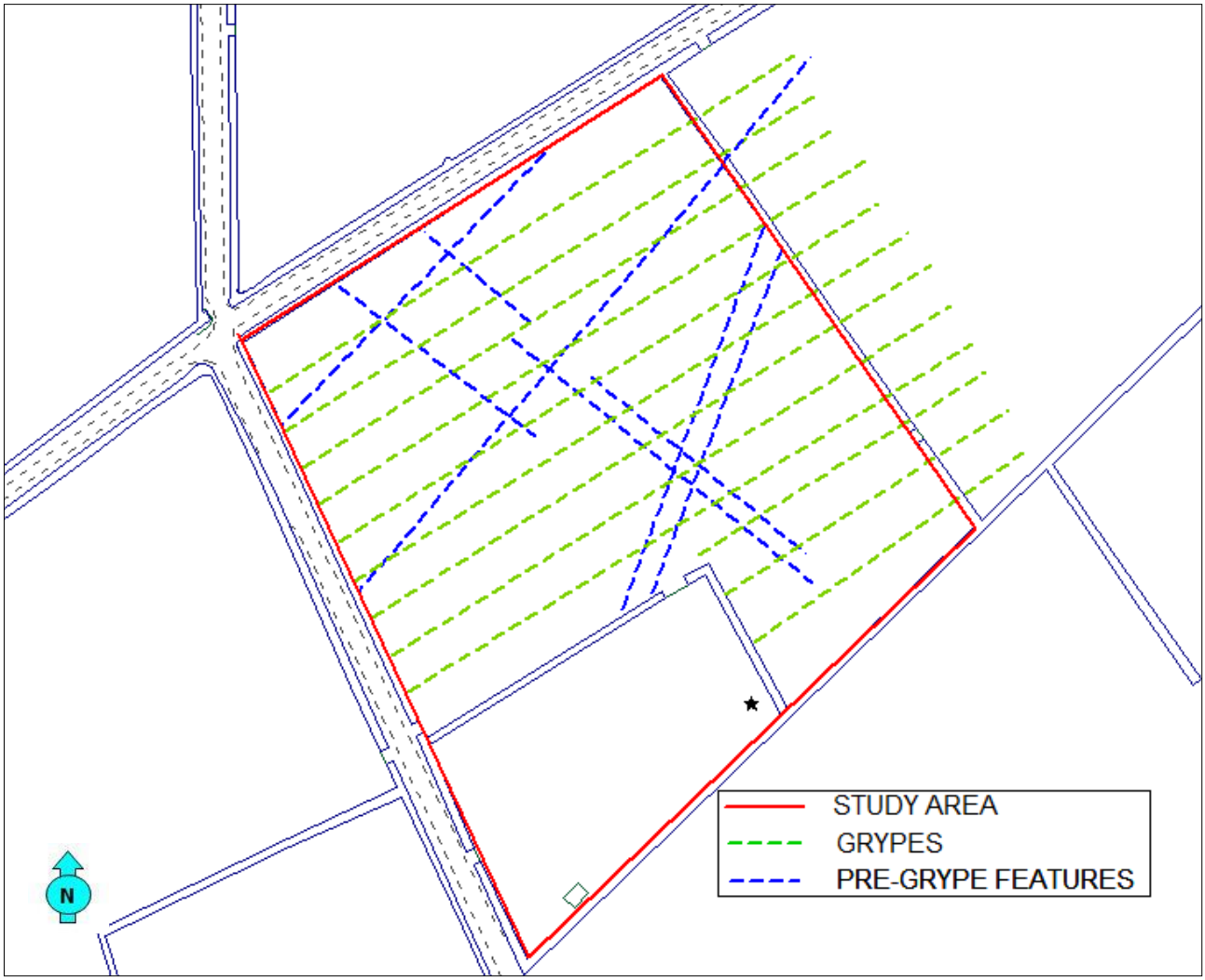


Fig 4: Earthworks in survey area from air photographs (crossroads is at ST42506742)

Figure 4 makes this (and its complications) plain. The fields around the survey area have long been ploughed to the extent that continuations of the earthworks are not generally visible. Neither are these earthworks clearly visible in the gradiometry study (see below).

The fields had reached more or less their current layout by the time of the Tithe Map in 1840 (Fig 5 below). The exception is the narrow strip of field seen there enclosed against Claverham Drove, which is reflected in the larger size of the northernmost grype seen in the air photograph (see Fig 2). These 'edge-fields' seem to have been common in the area (others being laid out along the Little River, for example) and were largely intended for withy beds, both for timber and probably quick-growing shelter for animals in the newly enclosed moor. Field 1226 is indeed described as 'Plantation' on the Tithe Apportionment.

The small star in Fig 4 represents the site of a building constructed between 1840 and 1885, probably a field barn, still visible on 1970s OS maps, but missing by 1991 air

photographs.

Fig 5: Survey area from the Yatton Tithe Map 1840 (SHC D\D/Rt/M/368)

Perhaps a hint at the differing field plans to the accepted may be that (from W to E), they were allotted in the 1815 plan to Morris's tenement, the Cross's tenement (area making up field 1228 and 1229 on Fig 5), and field 1225 to the east was allotted to Voules's. All of these alotments were to John Norman. By 1840 and the Tithe map, all these plots belonged to John Hugh Smyth-Pigott, a wealthy local landowner, and were tenanted by John Lyons, and it is possible that he bought up the plots around the time of enclosure, when the cost of enclosure (whish was borne by the grantees) may have been sufficient to encourage them to sell.

This would also account for why the grypes in Figs 3 and 4 ignore the eastern ditch of the survey area: the two fields were drained as a unit by Smyth-Pigott.

Survey objectives

The existence of earthworks of unknown date in this and adjoining fields led to a programme of geophysical survey (largely gradiometry) to attempt a clarification of their date and nature. In this particular case, the object was to clarify whether geophysical anomalies similar to those seen elsewhere in the vicinity existed.

Methodology

The survey of the fields was undertaken during the period by teams from YCCCART using a Bartington 601-2 gradiometer.

The completed survey was downloaded to a TerraSurveyor programme and the resultant composite adjusted using the following filters:

Gradiometry

Colour - Red Blue Green 2
Band weight equaliser
Grad shade
Destriped
Despiked
Clip SD2

The report was written in Libre Office 5 Writer.

Results

Fig 6: Gradiometry survey results

These are fairly extraordinary results, and all the more so since there is little correlation between them, the lidar data and evidence from air photographs. In the larger, northern field, for example, there is an abrupt dividing line between largely uneventful survey results, and a zone of activity in the north-eastern part of the field. This is clearly a real effect, since it crosses a number of survey grids at an angle. It also corresponds to the trend in the lidar data (Fig 2 above) although the geophysical anomalies with this 'activity zone' do not correspond to anything on the lidar results, other than a tendency to lie in area of the field some 0.3m below the rest. It is tempting to look for an explanation for this rectangular lower area in human activity, but judging by the surrounding geological formations, it is probably a natural feature.

One thing all three data sets can agree on is a SE-NW trend in the results. From the results in Fig 6, the 'causeway' visible running SE – NW on the air photographs (Fig 4), is visible (1 in Fig 7 below). This is parallel with the edge of the activity in the survey (line 2-2 in Fig 7 below), and may even represent a ditch edging the activity area, although this actual line does not correspond to anything in the lidar or air photo data.

The results in the activity area are remarkably similar to those captured on the other side of the cross-roads. Assuming they are Roman, the linear high responses, which are at an angle to both modern and enclosure period activity, probably represent domestic and / or industrial activity. In the absence as yet of data from the field to the east, this is really all

that can usefully be said regarding the gradiometry results. The very sharp straight edge to the activity area is puzzling, and if not resulting from some modern agricultural activity, cannot yet be adequately explained.

Fig 7: Gradiometry interpretation

Recommendations for further work

The obvious further work here would be a gradiometry survey of fields to the north and east of the survey area, to better define the area of pre-modern activity revealed in this work.

References

MacDonnell, R. 1978	The Upper Axe Valley, An Interim Statement *Proceedings of the Somerset Archaeological and Natural History Society* 123: 75–83
Russett, forthcoming	*Pre-enclosure activity at the Great Moor, Congresbury* To be published at http:\\ycccart.co.uk

Author

Vince Russett June 2017

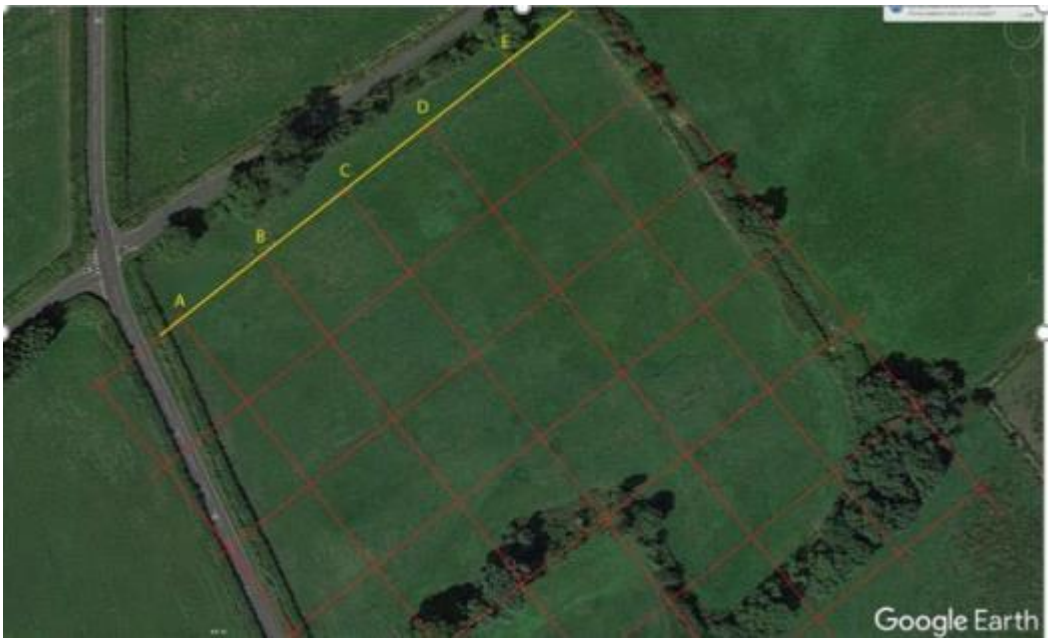
Appendices

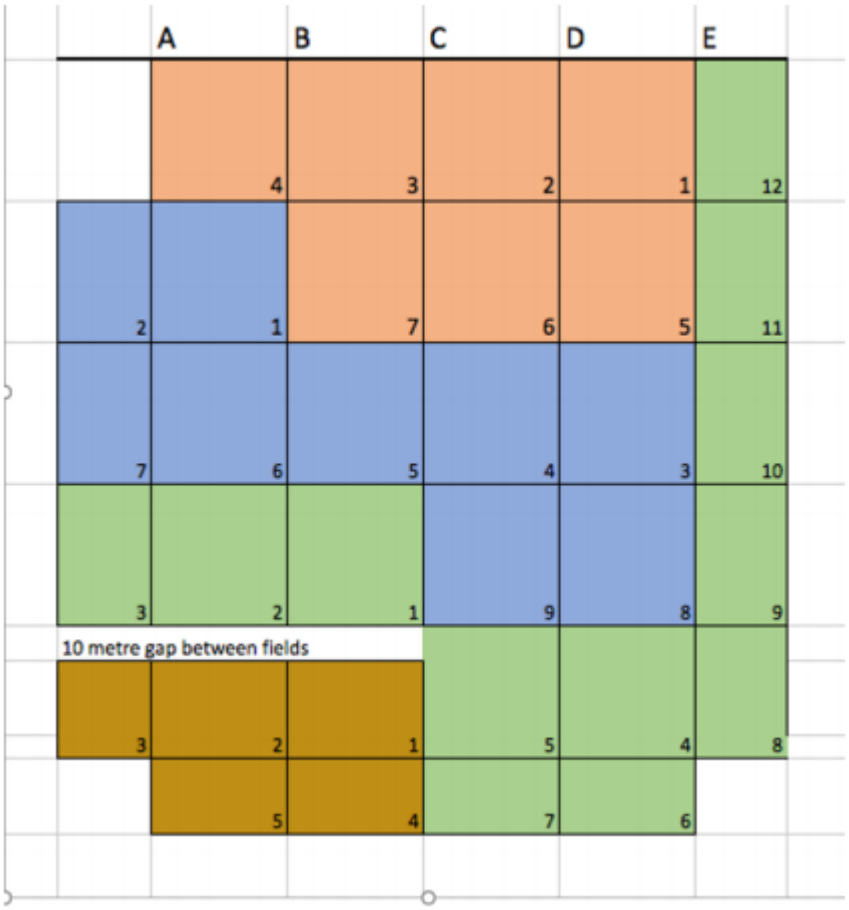
YCCCART Site Survey Project – Burge 2 – Yatton Moor			
Survey date		27 April 2017	
Report date		27 April 2017	
Type /Instrument		Grad 601	
		Pace :1.4m/s Lines/m : 1 Range:100nT Volume: High Sensors:2	Grid size: 30m x30m Pattern : Zig Zag Samples/m:2 Samples/m:4 (other grids) Audio: On Threshold:30nT Reject:50 Hz
Location		Claverham Drove, Yatton.	
Ref		none	
Site name		D Burge 2	
Landowner		Mr D Burge	
Tenant			
HER ref			
Site type		Grass	
Description		Large open field surrounded by hedges and rhynnes	
Period			
Geology			
Land use		Grazing	
Survey team and conditions			
06/04/2017	Team	Pete Wright, Ferdie, Arthur Langley, David W & Ian	
	Weather	Bright, sunny and quite warm	
13/04/2017	Team	Pete Wright, Ferdie, Arthur Langley, Phillipa, Janet & Ian	
	Weather	Mainly overcast, but quite warm	
20/04/2017	Team	Pete Wright, Ferdie, Arthur Langley, Phillipa, & Ian	
	Weather	Mainly overcast, but quite warm	
27/04/2017	Team	Arthur Langley, Phillipa, & Ian	
	Weather	Bright, cool, wet grass underfoot	

Survey area		notes		readings		
		size	walk direction	max	min	mean
Date	Grid number					
06/04/2017		Setting out base line and grids for base line and first two rows				
	1	30 x 30	SE	+96.3	-24.9	+1.2
	2	30 x 30	SE	+15.4	-7.7	+0.5
	3	30 x 30	SE	+99.0	-16.1	-0.1
	4	30 x 30	SE	+94.5	-93.8	-1.5
	5	30 x 30	SE	+17.0	-21.3	-0.3
	6	30 x 30	SE	+99.0	-100.0	+0.1

Survey area		notes		readings		
		size	walk direction	max	min	mean
Date	Grid number					
	7	30 x 30	SE	+43.0	-100	-1.3
13/04/2017	1	30 x 30	SE	+39.0	-10.2	0.0
	2	Partial M & R	SE	+33.8	-17.9	-0.4
	3	30 x 30 cables crossing grid	SE	+80.2	-100	-0.2
	4	30 x 30	SE	+38.8	-10.9	-0.1
	5	30 x 30	SE	+70.0	-50.2	0.0
	6	30 x 30	SE	+28.9	-17.4	-0.0
	7	Partial M & R	SE	+40.3	-35.3	-0.2
	8	30 x 30 Telegraph pole between traverses 7 - 8	SE	64.3	-23.9	-0.5
	9	30 x 30 M & R	SE	97.7	-13.5	+0.4
20/04/2017	1	Partial M & R	SE	+33.1	-5.3	+0.7
	2	30 x 30	SE	+98.8	-31.7	+0.3
	3	Partial M & R	SE	+60.0	-100	-0.4
	4	Partial M & R	SE	+4.1	-18.5	-1.3
	5	Partial M & R	SE	+15.8	-20.3	-0.8
	6	Partial M & R	SE	+20.7	-7.6	-1.4
	7	Partial M & R	SE	+3.5	-7.5	-0.7
	8	Partial M & R	NW	+38.0	-24.1	-1.8
	9	Partial M & R	NW	+16.7	-11.7	-1.3
	10	Partial M & R	NW	+15.0	-10.0	-1.4
	11	Partial M & R	NW	+12.5	-9.1	-0.7
	12	Partial M & R	NW	+13.7	-97.7	-2.4
27/04/2017	1	30 x 30	SE	+36.6	-36.6	-0.5
	2	30 x 30	SE	+39.4	-10.0	-0.9
	3	Partial M & R	SE	+98.9	-100	-3.0
	4	Partial M & R	SE	+27.5	-7.0	-1.3
	5	Partial M & R	SE	+10.5	-9.1	-1.2

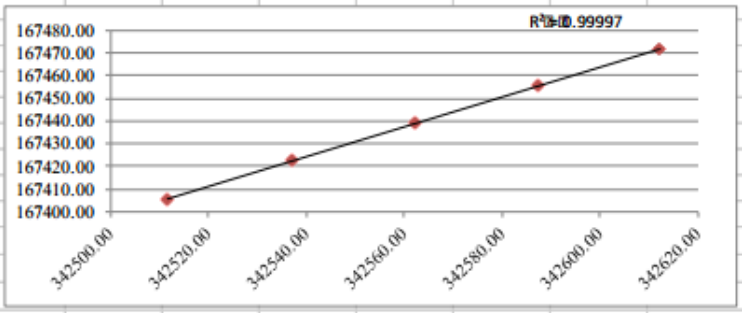
Burge Fields 2a and b, Yatton Moor





All grids 1 – 7 walked South East on 06/04/2017 – light brown

Grid Ref.	All ST	
	eastings	northings
A	342511.7	167405.9
B	342537.1	167422.6
C	342562.2	167439
D	342587.2	167455.4
E	342612.4	167471.5
quiet spot	342545.3	167379.5



Position A is 7300 to fence post on left and 11400 to fencepost by tree.

Position of quiet spot – 23 m 500 to northern white mark on hedge projected from grid and 32m 900 to southern white mark on hedge projected from grid.

E 342545.3
N 167379.5

Terra Surveyor grids & charts