

**YCCCART 2015 / Y 8
North Somerset HER 2016/011
Gradiometry Survey at Congresbury
(Mr P Edwards Field 2)**

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

General Editor: Vince Russett



The RM15 team enjoying the sun.

Congresbury /601/RM 15/P Edwards 2 2015-Y8 ver 1

Page	Contents
3	Abstract Acknowledgements Introduction
4	Site location Land use and geology
5	Historical & archaeological context
7	Survey objectives Methodology
8	Results
12	Recommendations References
13	Appendix – Site Records

Abstract

YCCCART has a project to establish the extent of the Congresbury Roman kiln sites. A gradiometry survey has revealed a possible enclosure, trackway and what may be the results of trench digging. A resistivity survey revealed no significant archaeological features to confirm this.

Acknowledgements

A Heritage Lottery Grant enabled the purchase, by YCCCART, of a Bartington 601 gradiometer and a Geoscan RM 15 resistivity meter 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 P Edwards.

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

Introduction

YCCCART is a Community Archaeology teams in North Somerset, supported by the North Somerset Development Management Team.

Site Location

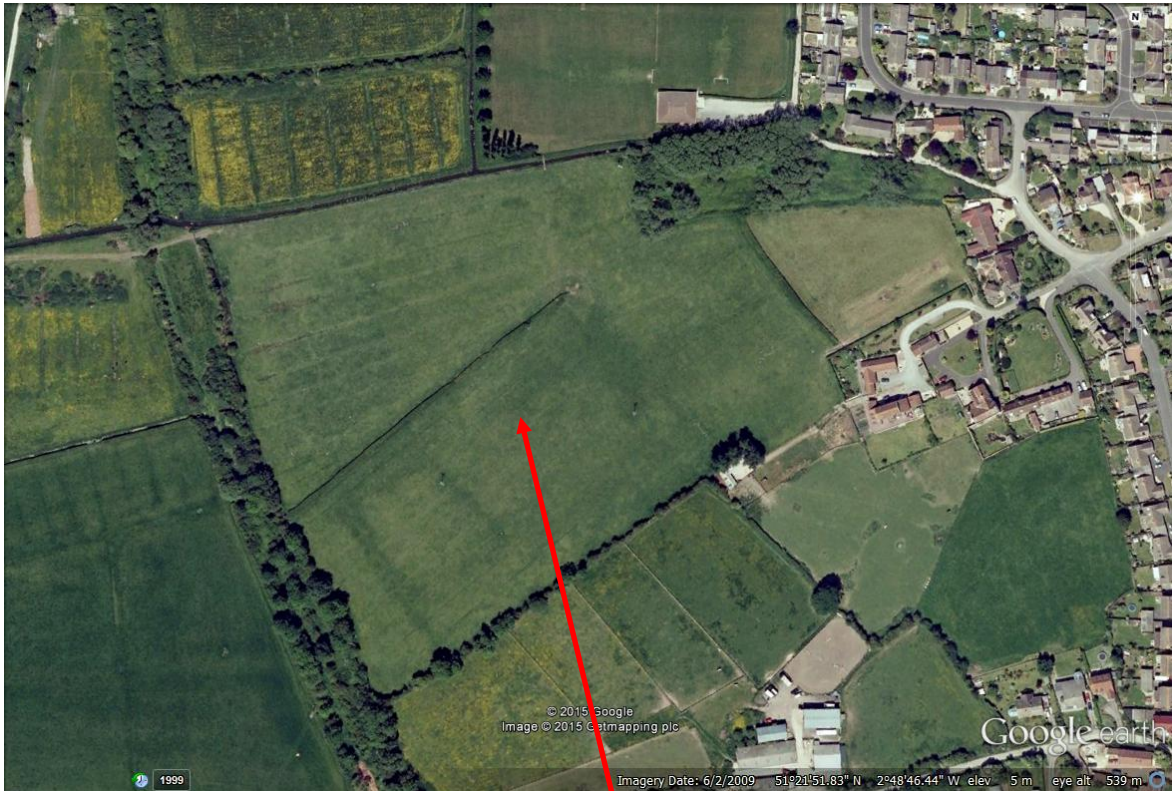


Fig 1: Site location indicated by the red arrow.

The field is privately owned. There is no formal public access or footpath.

Land use and geology

The field is used for grazing.

Geology is the Murcia Mudstone group – Mudstone and Halite stone.

Historical & archaeological context



Fig 2: De Wilstar map of 1739. Courtesy of Bristol Record Office. Reference 33041/BMC/4/PL1/2. Please note north is at bottom of the map

The area of the current field is indicated on the 1739 map in Fig 2 above by the red arrow.

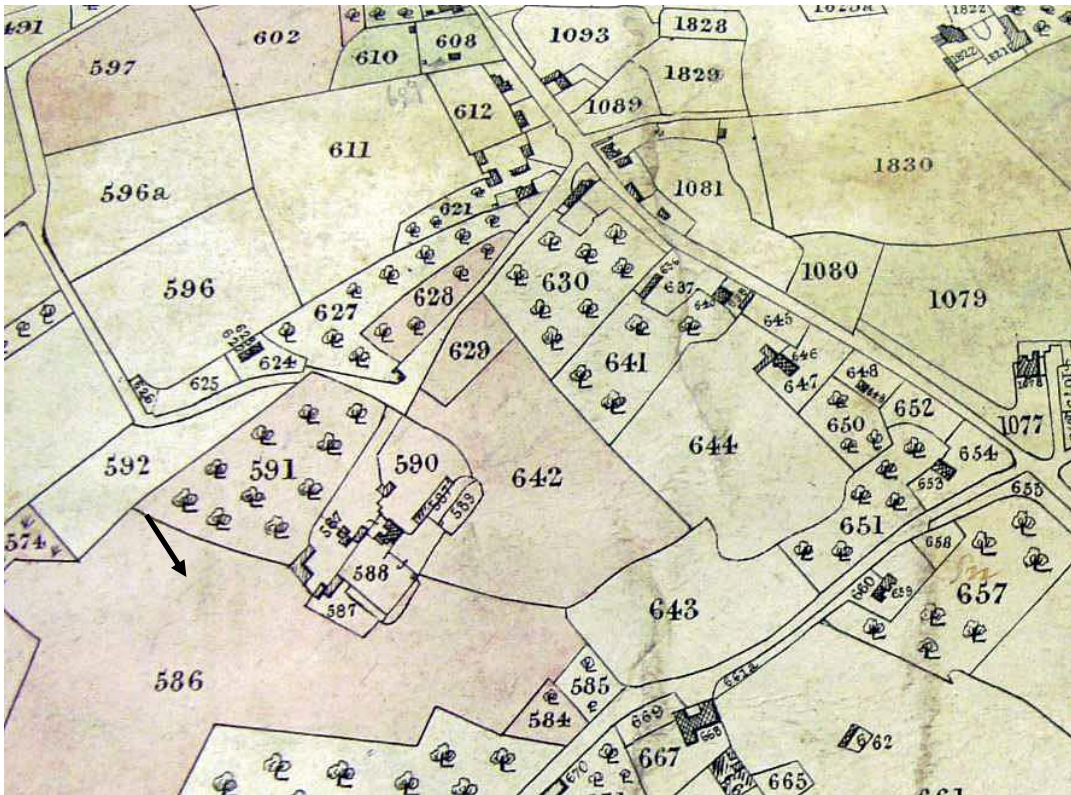


Fig 3: 1839 Map. Courtesy of Bristol Record Office BRO 37959/9. The surveyed field is 591 on the map.

The Tithe apportionment record, relating to the 1839 map above, shows the field numbers as follows:

Number	Owner	Occupier	Name	Type
586	Robert Beakes Simmons Esq	John Ford	Home Ground	Pasture
587	Robert Beakes Simmons Esq	John Ford	Farm house, outbuildings and barton	
588	Robert Beakes Simmons Esq	John Ford	Garden	
589	Robert Beakes Simmons Esq	John Ford	Plantation	
590	Robert Beakes Simmons Esq	John Ford	The Barbary	Pasture
591	Robert Beakes Simmons Esq	John Ford	Orchard	Orchard
642	Robert Beakes Simmons Esq	John Ford	The Five Acres Home Ground	Pasture

Survey objectives

The survey was undertaken in order to continue to investigate the extent of the Congresbury Romano British pottery kiln field.

Methodology

The survey of field was undertaken during June and July 2015 by teams from YCCCART, using a Bartington 601 gradiometer and Geoscan RM 15 resistivity meter with settings as per the site records in the Appendix

The completed survey was downloaded to a TerraSurveyor program.

TerraSurveyor composites were adjusted using the following filters:

Gradiometer

- 1) Colour - Red Blue Green 2
- 2) Band weight equaliser
- 3) Grad shade
- 4) Despiked
- 5) Destriped
- 6) Clip SD2

Resistivity

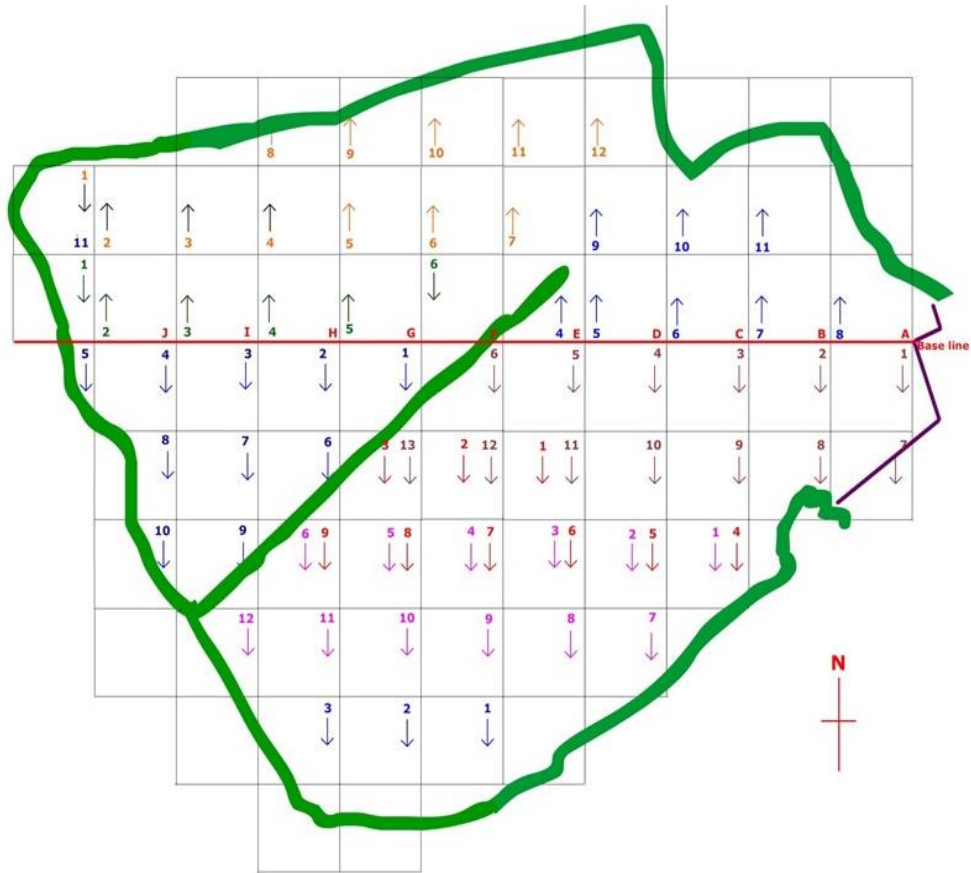
- 1) Band weight equaliser
- 2) Grad shade
- 3) Despiked
- 4) Clip SD2
- 5) High Pass filter.

The report was written in Microsoft Word 2013.

Photographs were taken by members of YCCCART, and remain the copyright of YCCCART.

Results

A) Gradiometry survey



Key to Setting out detail - dates and grids completed

04/06/2015	Grids 1 - 13
11/06/2015	Grids 1 - 9
18/06/2015	Grids 1 - 12
25/06/2015	Grids 1 - 11
2/07/2015	Grids 1 - 6
16/07/2015	Grids 1 - 12
23/07/2015	Grids 1 - 11

Fig 4: Grid lay out

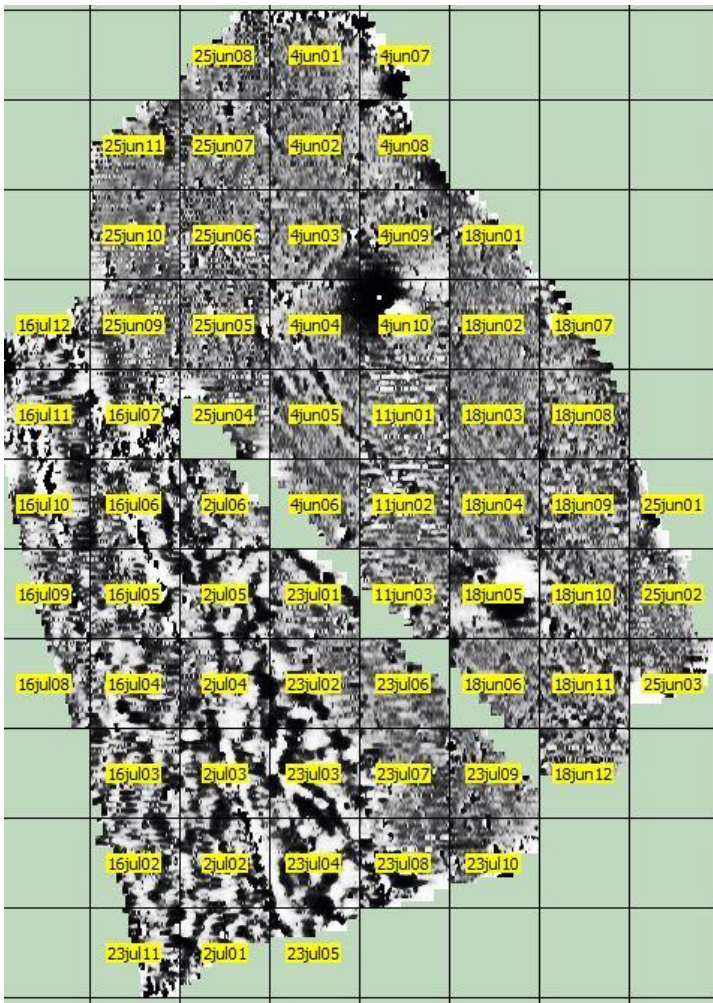


Fig 5: TerraSurveyor grids.

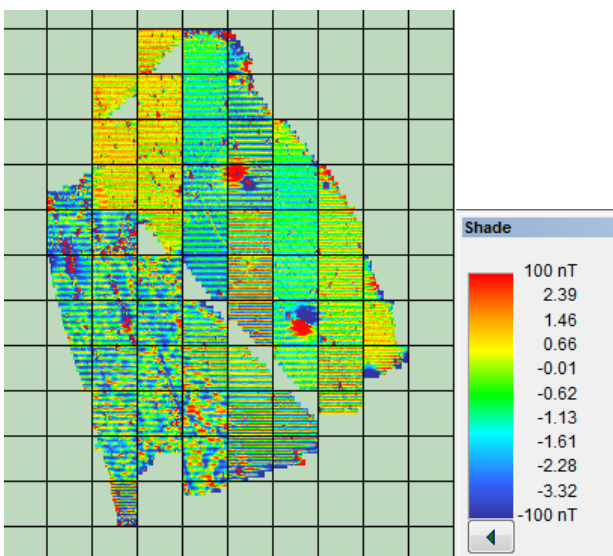


Fig 6: Base filters only

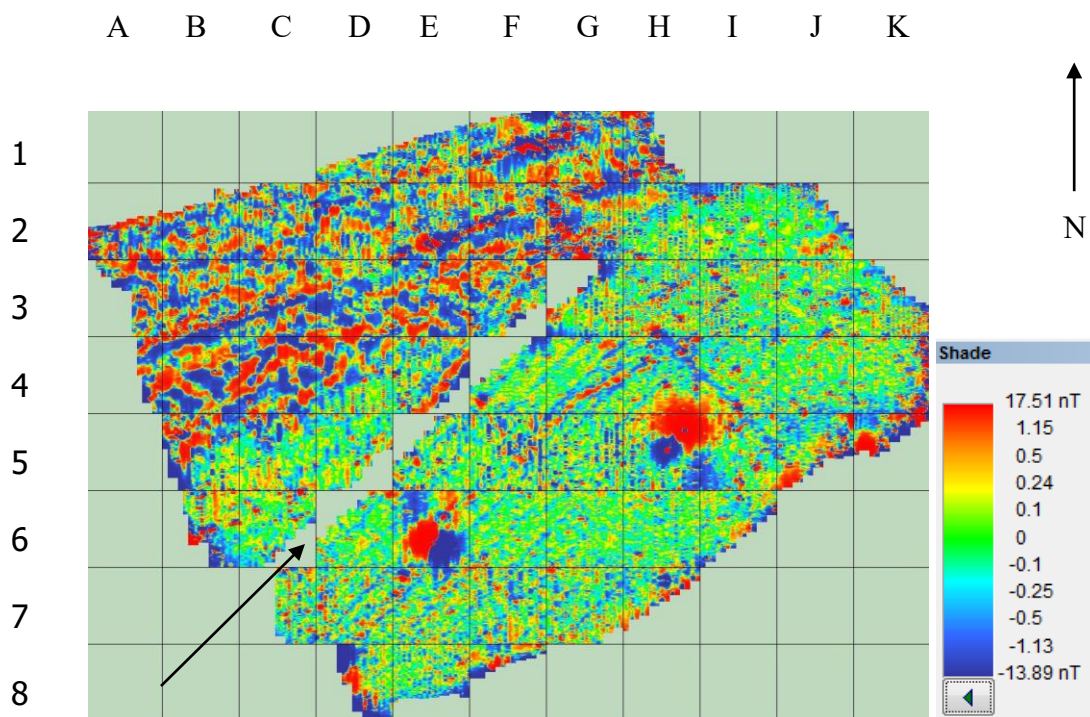


Fig 7: TerraSurveyor shade view colour image. High readings are red.

The results shown in Fig 6 above reveal the following:

- 1) A possible enclosure, indicated by a red line, commencing at the bottom left of grid 4F and running south west into grid 5F before turning and running north east along the lower part of grid 4G and 4H.
- 2) Large red and adjacent blue circular features in grids 6E and 5H which relate to emissions from telegraph poles.
- 3) A possible trackway / ditch indicated by a blue line commencing in Grid 5I and running north east into the middle top of Grid 4 H.
- 3) The most interesting results are the anomalies shown at the top left in Fig 6 to the north of the hedge indicated in the result by a break in the survey (see the black arrow above).
A possible trackway indicated by the blue (low) anomaly running from Grid 4A to the bottom left of Grid 1H.
The other red (high) and blue (low) anomalies for example in Grids 4B and 4C are puzzling. It has been suggested that these may be the result of practise trench dug during World War 1 but there is no historical evidence to back this up.

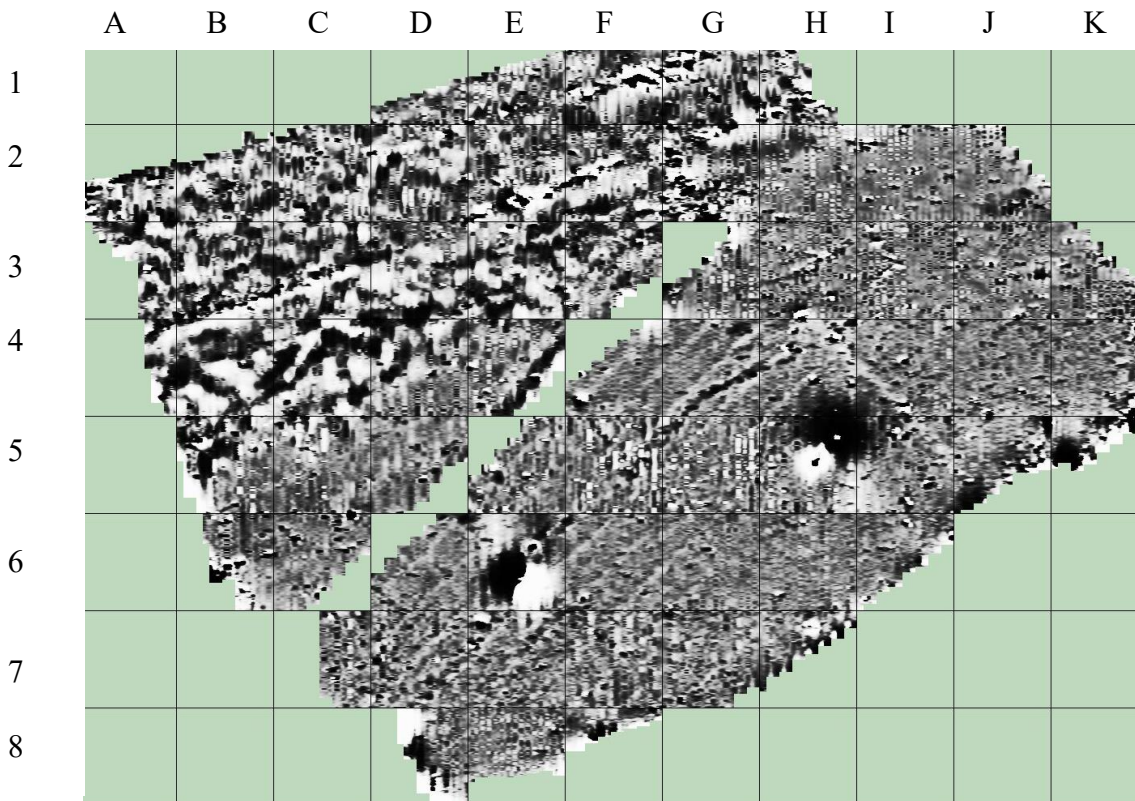


Fig 8: TerraSurveyor shade view black and white image. High readings are black.

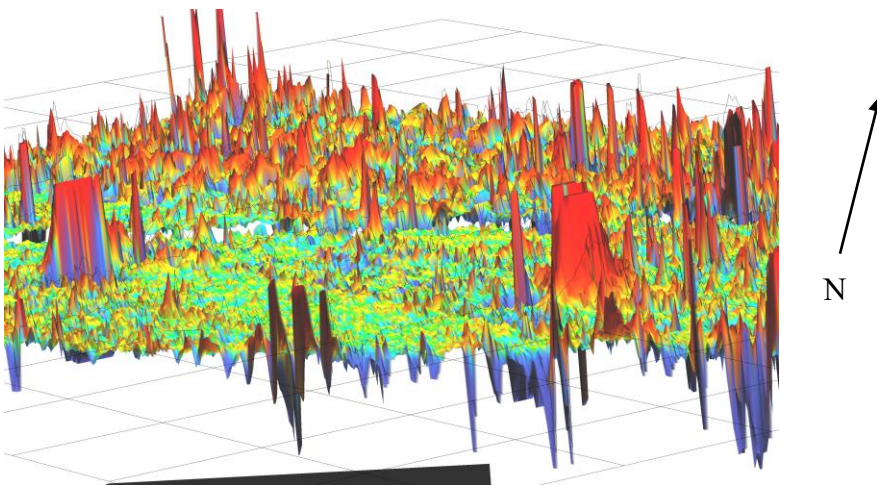
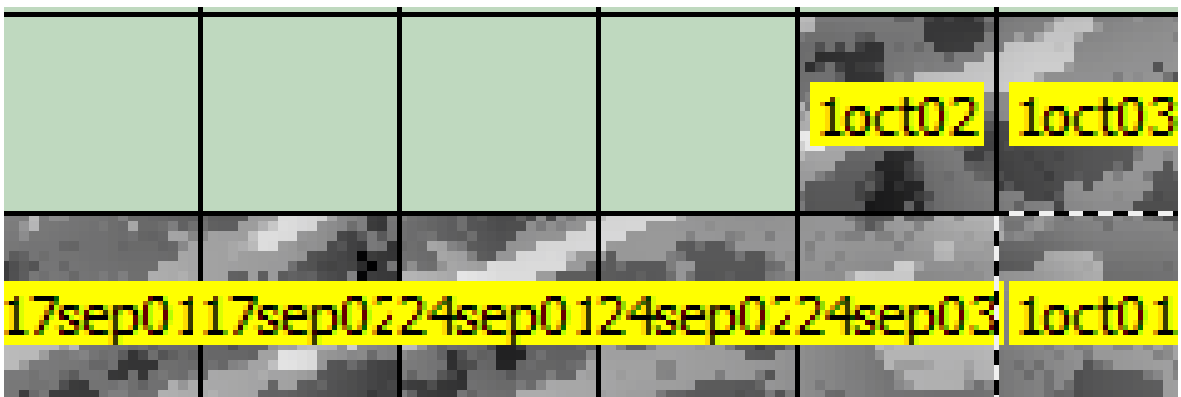


Fig 9: TerraSurveyor axonometric view.

The black and white image and 3 D image of the results, in Figs 8 and 9 above, reflect the details reported above and reveal no additional anomalies.

B) Resistivity Survey



	Grid 1 Oct1	Grid 3 24 Sep	Grid 2 24 Sep	Grid 1 24 Sep	Grid 2 17 Sep	Grid 1 17Sep
	Grid 3 Oct1	Grid 2 Oct1				

Fig 10: TerraSurveyor grids (top) and grid layout (below).

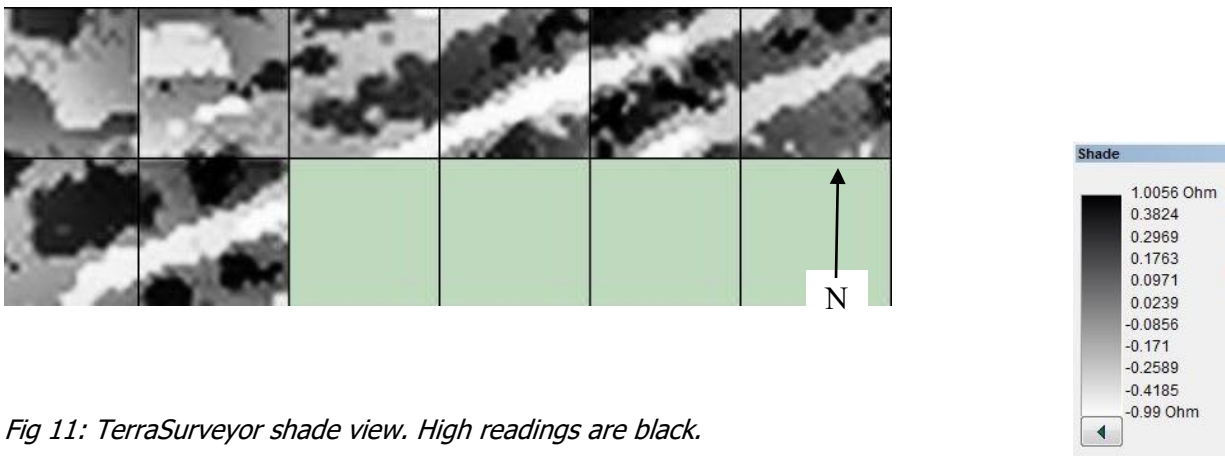


Fig 11: TerraSurveyor shade view. High readings are black.

Resistivity results in Fig 11 above show no additional significant archaeological features. The two white parallel lines are probably drainage grypes.

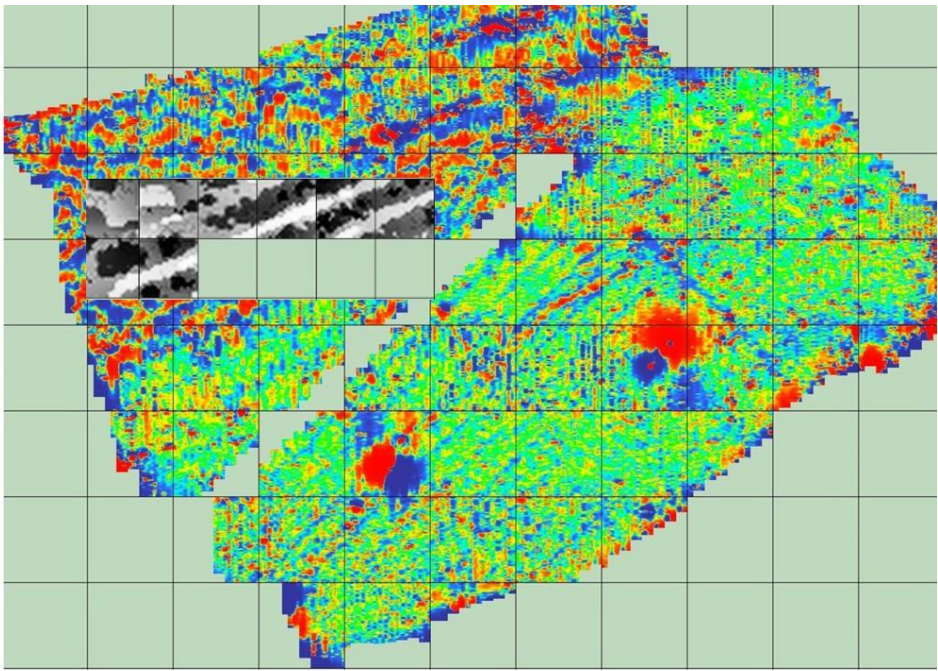


Fig 12: Resistivity results superimposed over the gradiometry results.

Recommendations

No further action

References

Congresbury Tithe Map

Bristol Record Office BRO 37959/9

1739 De Wilstar Map

Bristol Record Office BRO 33041/BMC/4/PL1/2

Author: Chris Short

Date October 2015

Appendix

YCCCART Site Survey		
Project – P Edwards 2 – Congresbury Kilns projects		
Survey date	23 July 2015	
Report date	23 July 2015	
Type /Instrument	Grad 601	
	Pace :1.5m/s Lines/m : 1 Range:100nT Volume: High Sensors:2	Grid size: 30m x30m Pattern : Zig Zag Samples/m:2 (grid 1 only on 26/3/15 as reference) Samples/m:4 (other grids) Audio: On Threshold:10nT Reject:50 Hz
Location		
Ref	none	
Site name	P Edwards 2	
Landowner	P Edwards	
Tenant		
HER ref		
Site type	Open land	
Description	Grass land	
Period		
Geology		
Land use	Grazing	
Survey team and conditions		
28/05/2015	Team	Peter Wright, Janet Dickson, DW, JW, PE
	Weather	Dry & sunny
04/06/2015	Team	Peter Wright, Ferdi & Janet Dickson, Arthur Langley, JW, JH, DW.
	Weather	Dry and mainly sunny
11/06/2015	Team	Peter Wright, Ian, Arthur Langley, David W.
	Weather	Overcast, sunny intervals, warm
18/06/2015	Team	Peter Wright, Janet Dickson, Arthur Langley, David W, JH
	Weather	Sunny and dry
25/06/2015	Team	Peter Wright, Janet Dickson, Arthur Langley, David W, JW, Ferdie, Ian
	Weather	Sunny and dry
02/07/2015	Team	Peter Wright, Janet Dickson, Arthur Langley, David W, Ferdie, Ian
	Weather	Overcast, humid, warm
16/07/2015	Team	Peter Wright, Janet Dickson, Arthur Langley, David W, Ferdie, Ian
	Weather	Overcast, humid, warm
23/07/15	Team	Peter Wright, Janet Dickson, Arthur Langley, David W, Ferdie,
	Weather	Overcast, humid, warm – wet underfoot

Survey area		notes		readings		
Date	Grid number	size	walk direction	max	min	mean
28/05/2015		Setting out base line and grids for whole field				
04/06/2015	1	30 x 30m	S	+73.7	-100	-1.1
	2	30 x 30m	S	+36.9	-16.0	-1.2
	3	30 x 30m	S	+98.5	-30.3	-1.3
	4	30 x 30m Overhead wires crossing grid	S	+99.4	-9.5	-1.4
	5	30 x 30m Overhead wires crossing grid	S	+1.2	-4.1	-2.2
	6	30 x 30m M & R from Trav 4 Overhead wires crossing grid	S	+0.8	-12.7	-2.8
	7	Partial grid M & R for all traverses Wire fence and rails	S	+99.1	-100	-1.1
	8	30 x 30m M & R for all except last traverse	S	+88.6	-100	-2.0
	9	30 x 30m Overhead wires crossing grid	S	+24.1	-46.6	-2.6
	10	30 x 30m Overhead wires crossing grid & pole	S	+100	-19.9	-0.5
	11	30 x 30m	S	+2.0	-53.7	-3.8
	12	30 x 30m Overhead wires crossing grid	S	+0.8	-5.3	-3.3
	13	30 x 30m M & R from Trav 4/5 Overhead wires crossing grid	S	+13.8	-22.0	-3.5
11/06/15	1	30 x 30m REPEATED GRID	S	+57.3	-8.7	-1.0
	2	30 x 30m Overhead wires crossing grid REPEATED GRID	S	+3.5	-5.1	-1.3
	3	30 x 30m M & R from Trav 4/5 Overhead wires crossing grid REPEATED GRID	S	+14.7	-7.4	-1.8

Survey area		notes		readings		
Date	Grid number	size	walk direction	max	min	mean
	4	M & R	S	+16.9	-35.1	-1.7
	5	30 x 30m	S	+10.2	-10.6	-1.9
	6	30 x 30m	S	+2.8	-11.1	-1.0
	7	30 x 30m	S	+23.9	-9.2	-2.1
	8	30 x 30m	S	+32.9	-40.1	-2.5
	9	M & R	S	+13.7	-13.1	-2.3
18/06/2015	1	M & R REPEATED GRID	S	+12.9	-24.8	-0.6
	2	30 x 30m REPEATED GRID	S	+6.5	-10.0	-1.1
	3	30 x 30m REPEATED GRID	S	+2.4	-9.7	-1.1
	4	30 x 30m REPEATED GRID	S	+19.5	-7.9	-1.1
	5	30 x 30m Pole and Overhead wires crossing gri REPEATED GRID	S	+34.7	-38.3	-1.3
	6	M & R REPEATED GRID	S	+6.2	-4.4	-1.4
	7	M & R	S	+19.5	-16.3	-0.3
	8	M & R Trav 1 - 7	S	+20.8	-11.8	-0.7
	9	30 x 30m	S	+6.5	-11.3	-0.6
	10	30 x 30m Overhead wires crossing grid	S	+24.2	-7.8	-0.6
	11	30 x 30m Overhead wires crossing grid	S	+67.8	-6.6	-1.1
	12	Part grid M & R Last 3 traverses	S	+9.7	-17.9	-1.5
25/06/2015	1	Part grid M & R	S	+18.0	-44.2	-0.6
	2	Part grid M & R Large hole in field mid-grid	S	+9.1	-31.2	+0.3
	3	Part grid M & R	S	+5.1	-100	-7.2
	4	M & R Traverse 1 to 6 Overhead wire X Traverse 1	N	+99.4	-33.4	+1.8
	5	30 x 30m	N	+17.7	-100	-0.7
	6	30 x 30m	N	+22.6	-9.8	+1.3
	7	30 x 30m	N	+17.2	-13.6	-1.0
	8	M & R Part grid from traverse 5	N	+14.7	-53.3	+1.1

Survey area		notes		readings		
Date	Grid number	size	walk direction	max	min	mean
	9	30 x 30m	N	+16.4	-14.7	+0.3
	10	30 x 30m	N	+14.6	-5.6	+0.6
	11	Part grid M & R last 4 traverses	N	+12.0	-3.7	+1.0
2/07/2015	1	Part grid M & R	S	+60.1	-26.4	-0.5
	2	30 x 30m	N	+20.1	-13.7	-0.5
	3	30 x 30m	N	+11.6	-15.4	-0.7
	4	30 x 30m	N	+6.0	-5.1	-0.8
	5	30 x 30m	N	+13.9	-36.1	-0.5
	6	Part grid M & R	S	+100	-46.5	-0.1
16/07/2015	1	Part grid M & R	S	+85.1	-42.4	-2.8
	2	Part grid M & R	N	+23.2	-14.0	-2.0
	3	Part grid M & R first 4 traverses	N	+66.4	-43.8	-1.9
	4	30 x 30m	N	+11.0	-5.7	-2.0
	5	30 x 30m	N	+99.3	-100	-1.6
	6	30 x 30m	N	+25.5	-26.5	-1.8
	7	30 x 30 Power lines crossing grid	N	+99.6	-79.5	-1.7
	8	Part grid M & R	N	+2.4	-14.3	-2.6
	9	Part grid M & R	N	+27.5	-21.6	-1.7
	10	Part grid M & R	N	+99.2	-100	-2.6
	11	30 x 30m Traverse 4 sign in ground Power lines crossing grid	N	+99.3	-41.0	-1.1
	12	Part grid M & R Pylon by side of grid	N	+98.9	-100	-1.4
23/07/2015	1	Part grid M & R	S	+9.8	-12.8	-1.8
	2	30 x 30m	S	+11.1	-9.6	-1.8
	3	30 x 30m	S	+12.1	-12.0	-1.3
	4	30 x 30m	S	+5.7	-6.0	-1.4
	5	Part grid M & R full traverses 1 & 2 wire fence	S	+12.8	-98.4	-3.7

Survey area		notes		readings		
Date	Grid number	size	walk direction	max	min	mean
	6	Part grid M & R 3 full traverses	S	+4.7	-4.4	-1.5
	7	30 x 30m	S	+2.0	-47.3	-2.7
	8	Part grid M & R for final 2 traverses – wire fence	S	+100	-100	-4.7
	9	Part grid M & R Last 6 traverses were full 30m	S	+13.3	-49.8	-3.0
	10	Part grid M & R First 6 traverses full 30m	S	+58.8	-38.6	-3.7
	*11	Part grid M & R * repeat of grid 1 15/07/15	S	+39.4	-100	-4.4

Key to Setting out detail - dates and grids completed

04/06/2015 Grids 1 - 13

11/06/2015 Grids 1 - 9

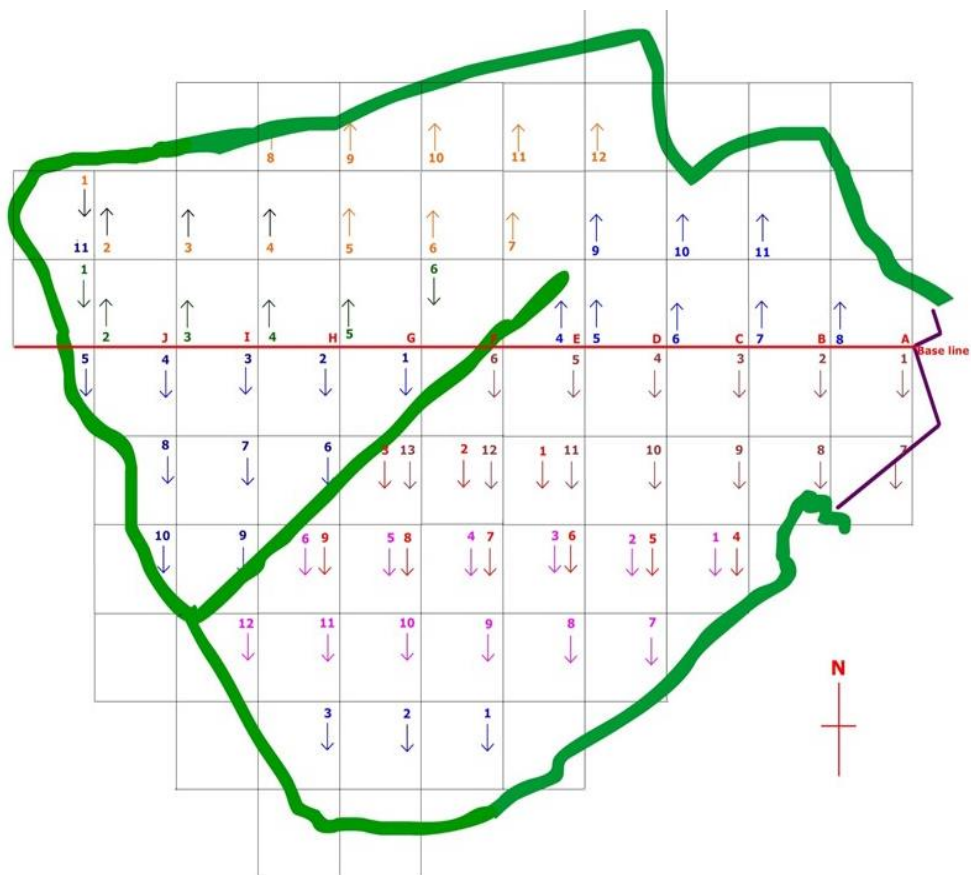
18/06/2015 Grids 1 - 12

25/06/2015 Grids 1 - 11

2/07/2015 Grids 1 - 6

16/07/2015 Grids 1 - 12

23/07/2015 Grids 1 - 11



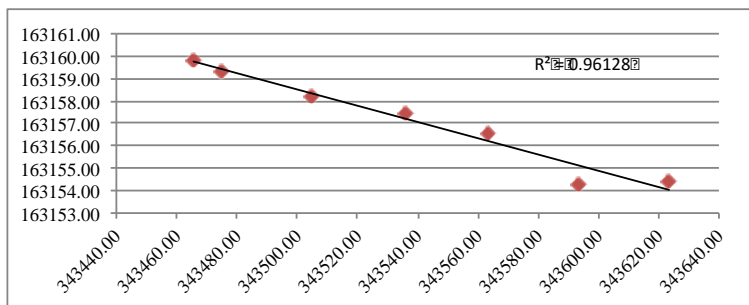
Position A on base line –
 To gate posts 1 – 1.75m
 To gate post 2 – 24.50m

Position G on base line –
 To hedge 1.65m
 To T pole – 530m

Position of quiet spot –
 E 343667.58 N 163197.81

Grid Ref. All ST

	eastings	northings
A	343623.45	163154.45
B	343593.35	163154.26
C	343563.60	163156.54
D	343535.91	163157.47
E	343504.53	163158.21
F	343474.65	163159.35
G	343465.63	163159.84
H		
I		
J		



quiet spot E 343667.58 N 163197.81

HAZARD AND RISK ASSESSMENTS

Severity of hazard: 1= Minor injury 2= Serious injury 3= Major injury or fatality	Likelihood: 1= Unlikely 2= Likely 3= Very likely or inevitable	Population (no. of persons who could be affected): 1= 1-5 persons 2= 6-20 persons 3= 21+ persons	Risk Factor : Severity x Likelihood x Population (min 1, max 27)
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Location: P Edwards 2 **Activity/Equipment:** 601 **Date of assessment:** 28 May 2015

Assessor: Arthur Langley

Nature of hazard	Slips, trips, falls	Dust	Noise	Fire/Explosion	Exposure to harmful substances	Entrapment	Impact	Contact	Entanglement	Ejection	Electric shock	RSI/Eyestrain	Manual handling	Other Dog faeces	MAX. RISK FACTOR
Severity	1	0	0	0	0	0	0	1	0	0	0	1	1	2	1
Likelihood	1	1	1	1	1	1	1	1	1	1	1	1	1	2	
Population	1	1	1	1	1	1	1	1	1	1	1	1	1	1	

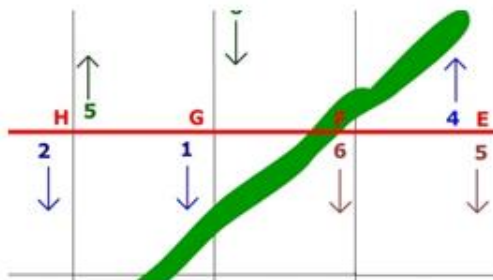
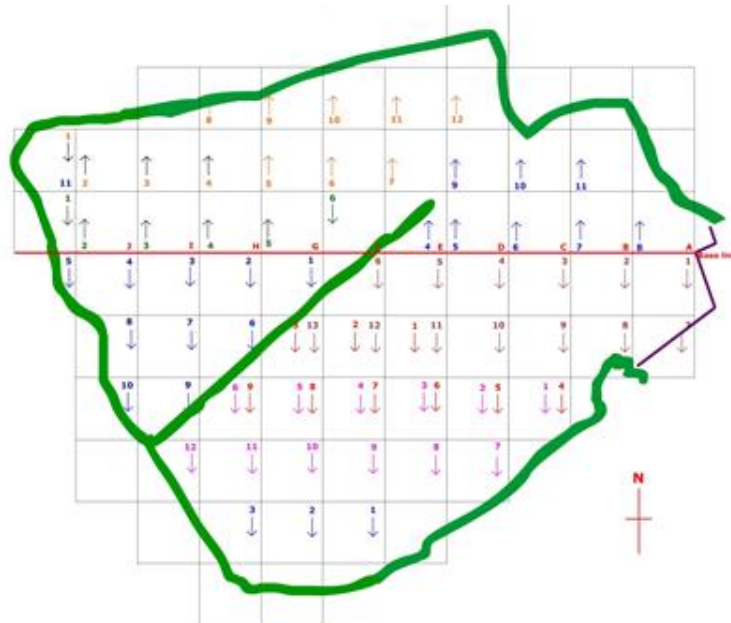
Control methods and timescale

Ground is generally fairly flat, uneven some places by hedge end. Some hidden holes. Care will be taken when walking 601. The area is popular with dog walkers and may have occurrences of dog faeces. Need to wear gloves and/or wash hands after surveying. Sheep in field – care will be taken not to frighten. Members will wear substantial footwear and long trousers which will deal with the uneven ground, wet grass and some muddy areas to protect skin from any stumbles plus any infection by deer ticks. The boots/Wellington boots will reduce risk of contamination by the dog faeces. Need to wear gloves and/or wash hands after surveying.

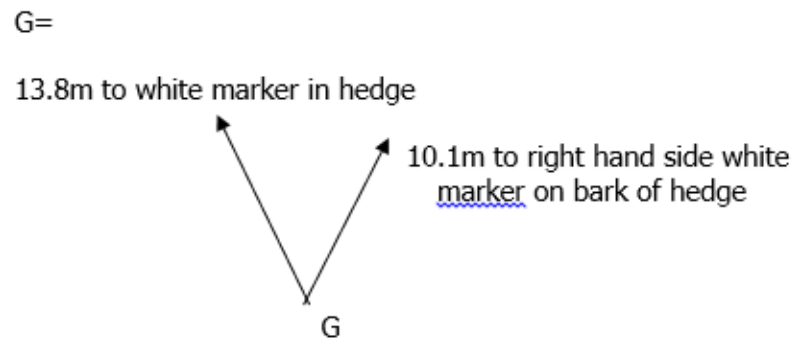
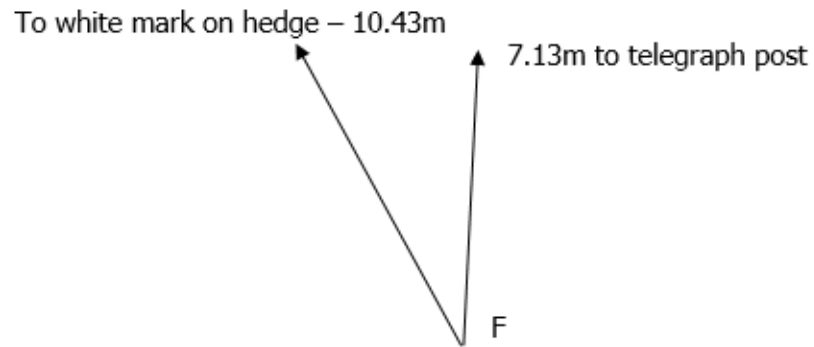
YCCCART Site Survey Project: Romano British Pottery		
Survey date	17 September 2015 to 1 October 2015	
Report date	1 October 2015	
Type /Instrument	RM15	
Location	South of Stonewell Estate	
Ref		
Site name	P Edwards 2	
Landowner	Mr P Edwards	
Tenant	None	
HER ref	TBC	
Site type	Grass	
Description	Open land/field	
Period		
Geology		
Land use	Grazing sheep	
Survey team and conditions		
17 September 2015	Team	David Long, Chris Short. Pete English, John Wilcox, Arthur Langley and Vince Russett. <i>Weather overcast /sunny. Grass damp.</i>
24 September 2015		David Long, Chris Short. Robert Cleland, Ian Morton, Pete Wright, Arthur Langley, Ferdi and Vince Russett. <i>Weather sunny / odd shower. Grass very wet.</i>
1 October 2015		David Long, Chris Short. Pete Wright, Ian Morton Arthur Langley. <i>Weather sunny/ grass dry</i>

Survey area		Notes	
		Size	Walk direction
17 September	Grids 1&2	20x20m	W

24 September	Grids 1 to 3	20x20m	W
1 October	Grids 1 to 3	20x20m	w



Position F (Confirmed ~~approx~~ 150m from A along base line)



G & start point for RM15

	Grid 1 Oct1	Grid 3 24 Sep	Grid 2 24 Sep	Grid 1 24 Sep	Grid 2 17 Sep	Grid 1 17Sep
	Grid 3 Oct1	Grid 2 Oct1				