

**Substrata**

Archaeological Geophysical Surveyors

An archaeological magnetometer survey

## Land at Lankelly Lane, Fowey, Cornwall

Centred on NGR (E/N): 211260,051720

Report: 1801FOY-R-1

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16 February 2018

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## Project archive

Report .....	Adobe PDF format
Raw and processed grid & composite files.....	DW Consulting TerraSurveyor 3 formats
Minimal processing data plots and metadata.....	DW Consulting TerraSurveyor 3 formats
Final data processing data plots and metadata.....	DW Consulting TerraSurveyor 3 formats
GIS project, shape files and classification schema	
GIS project.....	Manifold 8 '.map' file
GIS shape files.....	ESRI standard
GIS classification schema.....	Adobe PDF format
AutoCAD version of the survey interpretation.....	AutoCAD DXF

*Website: [substrata.co.uk](http://substrata.co.uk)*

*For an overview of Substrata, our archaeological geophysical surveying techniques and the results we obtain.*

## 1 Survey description and summary

### 1.1 Survey

Type: twin-sensor fluxgate gradiometer  
Date: 12 February 2018  
Area: 2.2ha  
Lead surveyor: Mark Edwards BA  
Authors: Ross Dean BSc MSc MA MifA  
Mark Edwards BA

### 1.2 Clients

AC Archaeology Ltd, 4 Halthaies Workshops, Bradninch Nr Exeter, Devon EX5 4QL

### 1.3 Location

Site: Land at Lankelly Lane, Fowey  
Civil parish: Fowey  
District: Restormel  
County: Cornwall  
Nearest Postcode: PL23 1HN  
NGR: SX 11260 51720 (point)  
NGR (E/N): 211260,051720 (point)

### 1.4 Archive

OASIS number: substrat1-309412  
Archive: At the time of writing, the archive of this survey will be held by Substrata Ltd. Depending on local authority policy, an archive of the unprocessed data may be deposited with the Archaeological Data Service

### 1.5 Introduction

This report presents the results of an archaeological magnetometer survey at the above site, hereafter referred to as the survey area. It has been prepared for AC Archaeology Ltd on behalf of clients. The survey area location is shown in Figure 1.

### 1.6 Summary

*The magnetic responses across the survey area were sufficient to be able to differentiate between anomalies representing possible archaeological features and background magnetic responses.*

*Twenty-five magnetic anomaly groups were mapped as representing potential archaeological deposits. One and possibly three groups are likely to represent a former field boundary recorded on historic maps between 1839 and 1970. One group is likely to represent a field boundary mapped between 1882 and 1888. One group may represent a ditch-flanked, metalled track or road. Seven groups may represent a cluster of filled pits although natural origins cannot be ruled out. One group could represent a rubble or stone filled pit, a former mine shaft or a prospection pit. Two parallel, linear anomalies may represent a former field lane. One group has a curvilinear form not seen elsewhere in the dataset and its archaeological provenance is uncertain. The remaining groups have characteristics typical of anomalies representing former field and enclosure boundaries.*

*There are two distinct orientations of the linear anomalies within the dataset implying at least two distinct phases of land division with elements of the earlier phase surviving in the modern pattern as an extant property boundary and as a field wall until its demolition between 1970 and 1973.*

## 2 Survey aims and objectives

### 2.1 Aims

To establish the presence or absence, extent and character of any archaeological features and deposits within the survey area.

## 2.2 Survey objectives

1. Complete a magnetometer survey across agreed parts of the survey area.
2. Identify any magnetic anomalies that may be related to archaeological deposits, structures or artefacts.
3. Within the limits of the techniques and dataset, archaeologically characterise any such anomalies or patterns of anomalies.
4. Accurately record the location of the identified anomalies.
5. Produce a report based on the survey that is sufficiently detailed to inform any subsequent development on the survey area about the location and possible archaeological character of the recorded anomalies.

## 3 Methodology

The work was undertaken in accordance with the survey methodology statement (Dean, 2018).

The survey grid location information and grid plan were recorded as part of the project in a suitable GIS system (Table 3).

Data processing was undertaken using appropriate software (Table 3), with all anomalies being digitised and geo-referenced. The final report (this document) includes a graphical and textual account of the techniques undertaken, the data obtained and an archaeological interpretation of that data and conclusions about any likely archaeology.

## 4 Standards

The standards used to complete this survey are defined by the Chartered Institute for Archaeologists (2014a) and Historic England (2008). The codes of approved practice that were followed are those of the Chartered Institute for Archaeologists (2014b) and Archaeology Data Service (undated).

## 5 Site description

### 5.1 Landscape and land use

The survey area comprises one field situated between Lankelly Lane and Rashleigh Lane on the western edge of Fowey (Figure 1). Domestic dwellings and infrastructure lie on the northern boundary. Rashleigh Lane lies on the eastern boundary with fields and a steep-sided valley beyond. The southern boundary is bordered by a single field and further fields beyond. The western boundary comprises a lane with a rugby club beyond. The field boundaries are a mix of thick hedges and wire fencing with some walling and wooden panelling on the northern side. The land slopes from approximately 65m AOD on the western side to approximately 55m AOD on the eastern side.

### 5.2 Geology

The bedrock across the site comprises mudstone and siltstone of the Devonian Trendrean Mudstone Formation. The superficial deposits for the site are unknown (British Geological Survey, undated).

## 6 Archaeological background

### 6.1 Historic landscape characterisation

Farmland; Medieval

The agricultural heartland, with farming settlements documented before the 17th century AD and whose field patterns are morphologically distinct from the generally straight-sided fields of later enclosure. Either medieval or prehistoric origins (Cornwall Council, undated).

### 6.2 Summary of archaeological background

This section is not designed to provide a comprehensive understanding of the historic environment of the surrounding area and should not be used as a source for further work.

An assessment of the historic environment of the survey area and two further fields to the south is presented in Morris (2012).

The Devon County Council Historic Environment Record (DHER) was examined via the Heritage Gateway (Historic England, undated) to gain an appreciation of historic assets pertinent to the geophysical survey data within approximately 500m of the survey area perimeter. Table 1 provides a summary of the DHER entries though relevant to the survey.

## 7 Results, discussion and conclusions

### 7.1 Scope and definitions

This survey was designed to record magnetic anomalies. A magnetic anomaly is a local variation in the Earth's magnetic field. Such variations can result from changes in the magnetism of the underlying solid geology, superficial geology and other near-surface deposits including those altered and created by past human activities. Near-surface artefacts can also create magnetic anomalies.

The terms 'archaeological deposit', 'structure' and 'feature' refer to any artefacts, material deposits or disturbance of natural deposits thought to be the result of human activity, excluding recent land maintenance and farming.

Magnetic anomalies cannot be regarded as physical archaeological deposits, structures or features and the dimensions of the anomalies shown do not represent the dimensions of any associated archaeology.

The analysis presented below identifies and characterises anomalies and anomaly groups that may relate to archaeological deposits, structures and features.

The reader is referred to section 8.

### 7.2 Results

Figure 2 shows the interpretation of the survey data which includes the anomaly groups identified as possibly relating to archaeological deposits along with their identifying numbers. Table 2 is an extract of the detailed analysis of the survey data sourced from the attribute tables of the GIS project provided in the project archive.

Figure 2 along with Table 2 comprise the analysis of the survey data.

Figures 3 and 4 are plots of processed data as specified in Table 4. Figure 5 is a plot of the unprocessed data with its metadata.

### 7.3 Discussion

#### 7.3.1 General points

##### Discussion scope

Not all anomalies or anomaly groups identified in Table 2 are necessarily discussed below. All identified anomaly groups are recorded in the GIS project held the survey archive.

##### Data collection

Data collection along the survey area edges was restricted as shown in the figures due to the presence of magnetic materials within and adjacent to boundaries. Strong magnetic responses mapped close to the boundaries are likely to relate to these materials except where otherwise indicated in Figure 2 and Table 2.

High, dense vegetation in the south-western corner of the survey area impeded the survey as shown in the figures.

##### Anomaly characterisation and mapping

There are a number of anomaly groups that could be interpreted as relating to large postholes or pits although most will have natural origins. Anomalies of this sort were mapped as potential archaeology when they were associated with other significant anomaly groups or otherwise formed recognisable patterns as listed in Table 2.

Anomalies thought to relate to natural features and recent man-made objects such as manholes, water management equipment, drains, cables and other services were only mapped where they comprised significant magnetic responses across the dataset that needed clarification.

Numerous dipole magnetic anomalies are present within the dataset. These are likely to represent recent ferrous objects. They are only mapped if they could influence the analysis of anomaly groups thought to have an archaeological origin.

#### Data trends

North-north-east to south-west-south trends in the data were attributed to former ploughing disturbance of unknown date (Figures 2, 3 and 4).

#### 7.3.2 Data relating to historic maps and other records

Magnetic anomaly group **19** coincides with, and likely represents, a former field boundary recorded on historic maps (Table 2) between 1839 and 1970 and removed before 1973. An extant garden boundary is likely to be a northern extension of this feature. Group **17** may be associated with 19. If so, this would indicate that the field boundary was a Cornish Hedge. Group **18** may also be associated with 19 and may indicate the presence of rubble associated with the demolition of the field boundary, although near-surface geology cannot be ruled out.

Anomaly group **24** coincides with, and likely represents, a former field boundary recorded on historic maps (Table 2) between 1882 and 1888 and removed before 1907. It is not certain, but the anomaly pattern suggests a former Cornish Hedge boundary.

#### 7.3.3 Data with no previous archaeological provenance

Magnetic anomaly group **4** may represent a ditch-flanked, metalled track or road although only further archaeological investigations could confirm the actual nature of the deposits.

Anomaly group **10** has characteristics of a stony deposit. A shallow sub-circular pit was noted by the surveyors at this location. Such a magnetic signature can also represent a former mine shaft. There is no record of mining activities in the vicinity of the survey area but this anomaly could represent a prospection pit.

Groups **9, 11, 12, 14, 15** and **16** have characteristics often associated with large, earth-filled pits although natural origins cannot be ruled out. They are recorded as potential archaeological deposits because of their proximity to each other.

Groups **21** and **22** are parallel anomaly groups that could, if related archaeologically, represent ditches the flanking ditches of a field lane or field boundaries with a lane between.

Anomaly group **23** stands out in the dataset as having a curvilinear shape not seen elsewhere. Whether this is indicative of an archaeological deposit representing an enclosure boundary rather than a field boundary could not be ascertained.

The remaining anomaly groups (**1, 2, 3, 5 to 8, 13, 20** and **25**) have characteristics often associated with former ditches representing field and enclosure boundaries of unknown date.

There are two distinct orientations of the linear anomalies within the dataset; one approximately west to east and following the trends of the extant fields in the immediate vicinity (groups 1, 2, 3, 7 and 20) and one north-north-east to south-west-south (groups 4, 5, 6, 8, 17, 18, 19, 21, 22 and 25). Two other groups are on different alignments (13 and 23). The implication is that there are at least two, and possibly three, distinct phases of land division with elements of the north-north-east to south-west-south phase surviving in the modern pattern, group 19 being extant until its removal between 1970 and 1973. The ploughing trends mapped in Figure 2 also follow a north-north-east to south-west-south trend.

#### 7.4 Conclusions

The magnetic responses across the survey area were sufficient to be able to differentiate between anomalies representing possible archaeological features and background magnetic responses.

Twenty-five magnetic anomaly groups were mapped as representing potential archaeological deposits. One and possibly three groups (19 with 17 and 18) are likely to represent a former field boundary recorded on historic maps between 1839 and 1970. One group (24) is likely to represent a field boundary mapped between 1882 and 1888. One group (4) may represent a ditch-flanked, metalled track or road. Seven groups (9, 11, 12, 14, 15 and 16) may represent a cluster of filled pits although natural origins cannot be ruled out. One group (10) could represent a rubble or stone filled pit, a former mine shaft or a prospection pit. Two parallel, linear anomalies (21 and 22) may represent a former field lane. One group (23) has a curvilinear shape not seen elsewhere in the dataset and its archaeological provenance is uncertain. The remaining groups (1, 2, 3, 5 to 8, 13, 20 and 25) have characteristics typical of anomalies representing former field and enclosure boundaries.

There are two distinct orientations of the linear anomalies within the dataset implying at least two distinct phases of land division with elements of the earlier phase surviving in the modern pattern as an extant property boundary and as a field wall (19) until its demolition between 1970 and 1973.



## 8 Disclaimer and copyright

The description and discussion of the results presented in this report are the author's, based on his interpretation of the survey data. Every effort has been made to provide accurate descriptions and interpretations of the geophysical data set. The nature of archaeological geophysical surveying is such that interpretations based on geophysical data, while informative, can only be provisional. Geophysical surveys are a cost-effective early step in the multi-phase process that is archaeology. The evaluation programme of which this survey is part may also be informed by other archaeological assessment work and analysis. It must be presumed that more archaeological features will be evaluated than those specified in this report.

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## 9 Acknowledgements

Substrata would like to thank John Valentin of AC Archaeology Ltd for commissioning us to complete this survey.

## 10 Bibliography

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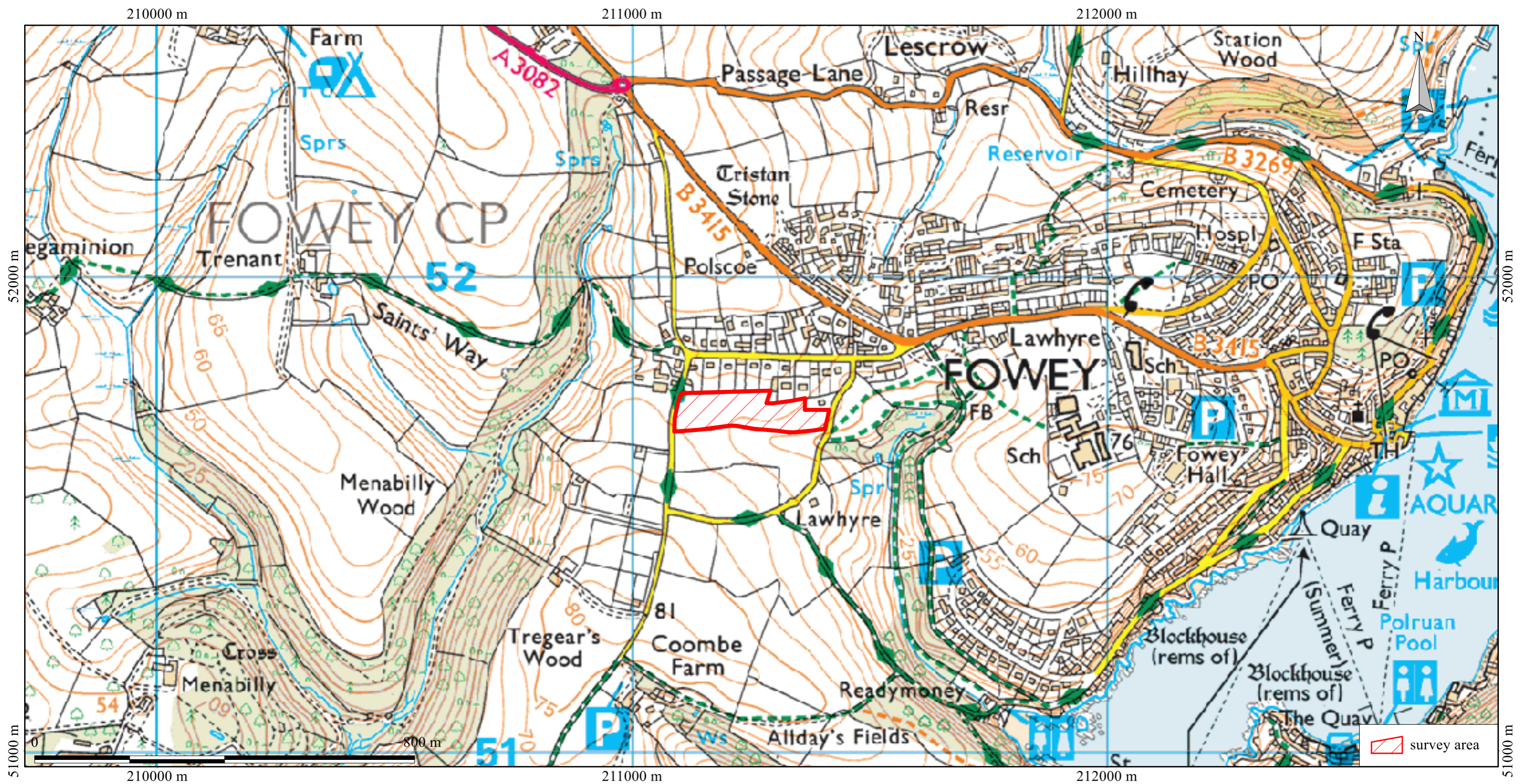
Morris, B. (2012) *Land at Landkelly [sic] Lane, Fowey, Cornwall, Results of a Cartographic Desk-Based Assessment & Walkover Survey*, Southwest Archaeology Ltd unpublished report 120303

## Appendix 1     Figures

### General Guidance

The anomalies represented in the survey plots provided in this appendix are magnetic anomalies. The apparent size of such anomalies and anomaly patterns are unlikely to correspond exactly with the dimensions of any associated archaeological features .

A rough rule for interpreting magnetic anomalies is that the width of an anomaly at half its maximum reading is equal to the width of the buried feature, or its depth if this is greater (Clark, 2000: 83). Caution must be applied when using this rule as it depends on the anomalies being clearly identifiable and distinct from adjacent anomalies. In northern latitudes the position of the maximum of a magnetic anomaly will be displaced slightly to the south of any associated physical feature.



British Grid  
centre X: 211272.46 m, centre Y: 51747.97 m

Scale: 1:8000 @ A3. Spatial Units: Meter. Do not scale off this drawing

Geophysical survey: Copyright Substrata Limited.  
Base map: Ordnance Survey (c) Crown Copyright 2018.  
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An archaeological magnetometer survey  
Land at Lankelly Lane, Fowey, Cornwall  
Centred on NGR (E/N): 211260,051720 (point)  
Report: 1801FOW-R-1

Figure 1: location map

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Web: substrata.co.uk



British Grid  
 centre X: 211254.47 m, centre Y: 51696.11 m

Scale: 1:1000 @ A3. Spatial Units: Meter. Do not scale off this drawing

Geophysical survey: Copyright Substrata Limited.  
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An archaeological magnetometer survey  
 Land at Lankelly Lane, Fowey, Cornwall  
 Centred on NGR (E/N): 211260,051720 (point)  
 Report: 1801FOW-R-1

Figure 2: survey interpretation

Substrata Limited  
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 Barnstaple, Devon EX32 7LZ  
 Tel: 01271 342721  
 Email: geophysics@substrata.co.uk  
 Web: substrata.co.uk



British Grid  
 centre X: 211254.50 m, centre Y: 51700.10 m

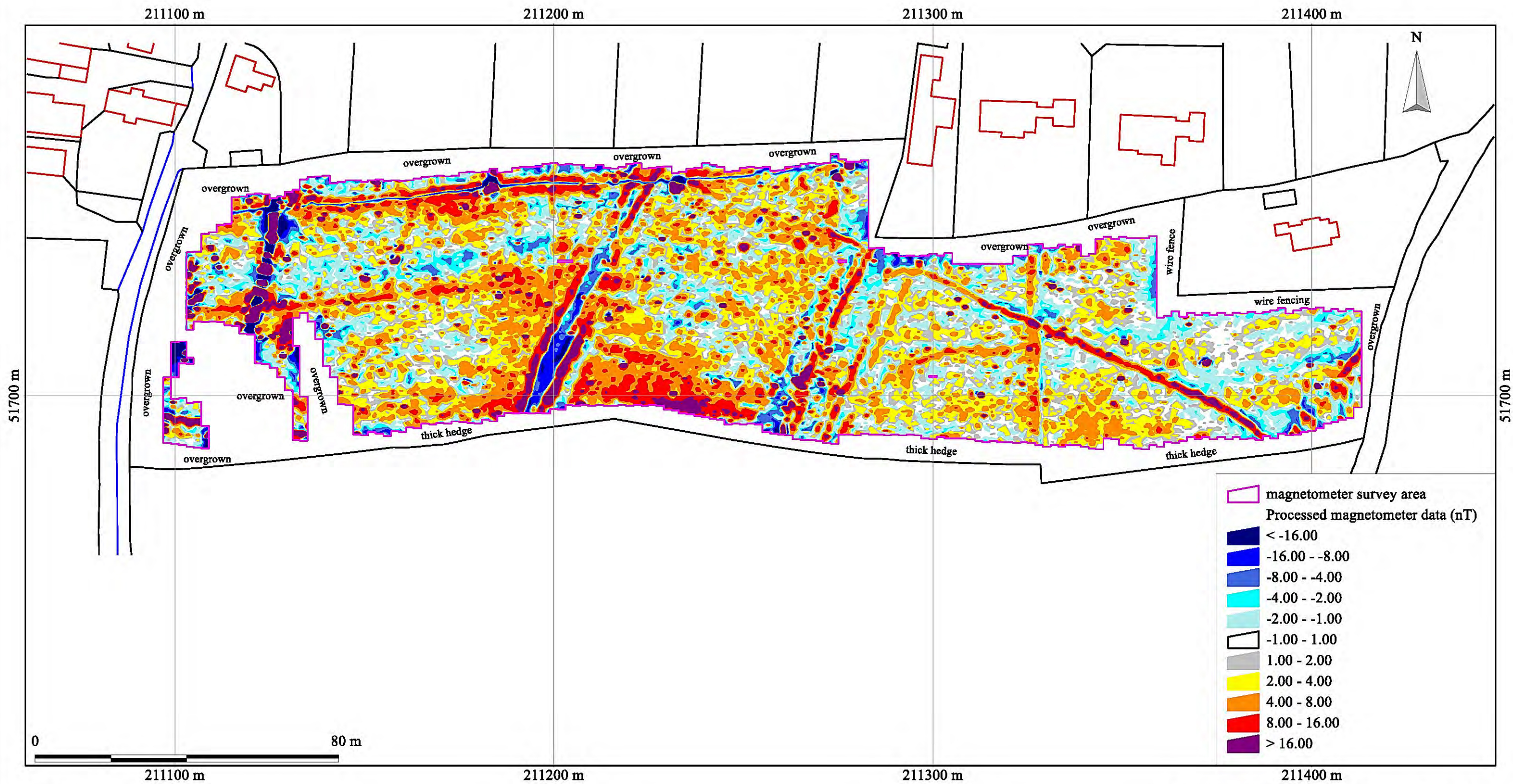
Scale: 1:1000 @ A3. Spatial Units: Meter. Do not scale off this drawing

Geophysical survey: Copyright Substrata Limited.  
 Base map: Ordnance Survey (c) Crown Copyright 2018.  
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An archaeological magnetometer survey  
 Land at Lankelly Lane, Fowey, Cornwall  
 Centred on NGR (E/N): 211260,051720 (point)  
 Report: 1801FOW-R-1

Figure 3: shade plot of processed data

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 Barnstaple, Devon EX32 7LZ  
 Tel: 01271 342721  
 Email: geophysics@substrata.co.uk  
 Web: substrata.co.uk



British Grid  
 centre X: 211254.50 m, centre Y: 51700.10 m

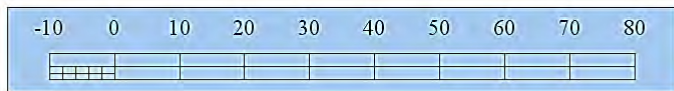
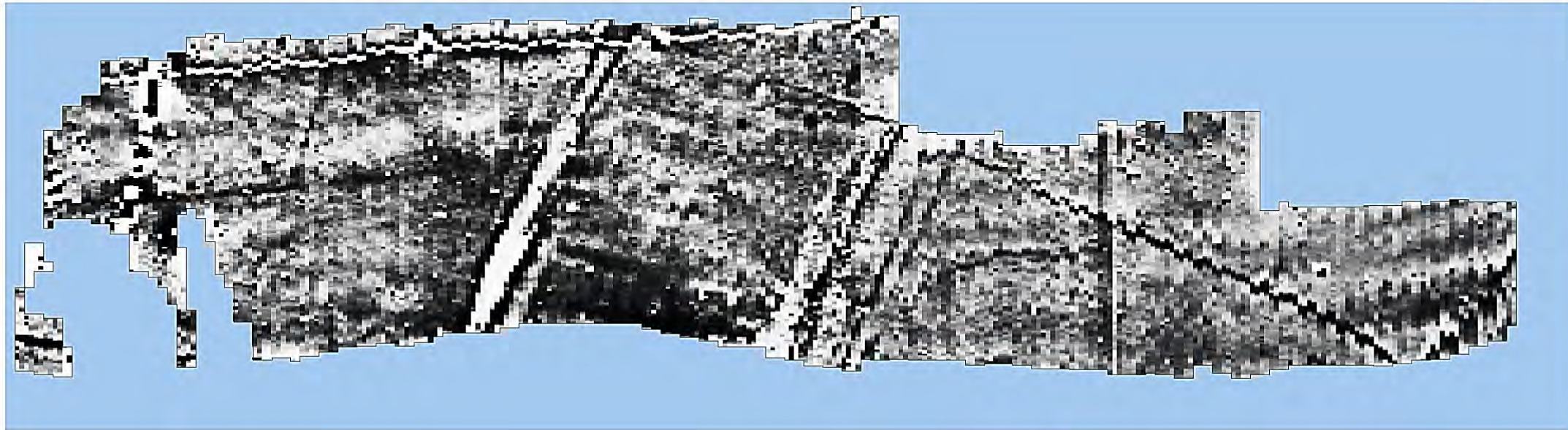
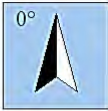
Scale: 1:1000 @ A3. Spatial Units: Meter. Do not scale off this drawing

Geophysical survey: Copyright Substrata Limited.  
 Base map: Ordnance Survey (c) Crown Copyright 2018.  
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An archaeological magnetometer survey  
 Land at Lankelly Lane, Fowey, Cornwall  
 Centred on NGR (E/N): 211260,051720 (point)  
 Report: 1801FOW-R-1

Figure 4: contour plot of processed data

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 Email: geophysics@substrata.co.uk  
 Web: substrata.co.uk



Instrument Type: Bartington Grad 601-2  
Units: nT  
Direction of 1st Traverse: 0 deg  
Collection Method: ZigZag  
Sensors: 2 @ 0.00 m spacing.  
Dummy Value: 32702  
Dimensions  
Grid Size: 30 m x 30 m  
X Interval: 0.25 m  
Y Interval: 1 m  
Stats  
Max: 3000.00  
Min: -3000.00  
Std Dev: 198.17  
Mean: -0.18  
Median: 1.30  
PROGRAM  
Name: TerraSurveyor  
Version: 3.0.33.6

Processes: 1  
1 Base Layer

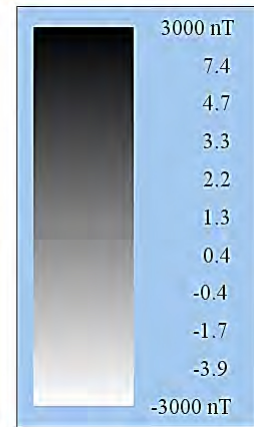


Figure 5: shade plot of unprocessed magnetometer data

## Appendix 2 Tables



An archaeological magnetometer survey  
 Land at Lankelly Road  
 Fowey, Cornwall  
 Centred on NGR (E/N) 211260, 051720  
 Report: 1801FOW-R-1

County: Cornwall  
 District: Fowey  
 Parish: Fowey  
 Source: Heritage Gateway

HER number	grid reference	designations	type	period	description	distance (m) from site centre	bearing (GN) from site centre
26699	SX 1111 5184		Settlement	Medieval - 1066 AD to 1539 AD	The settlement of Lankelly is first recorded in 1308 when it is spelt "Lengelly" Lankelly is still occupied	190	309
57655	SX 1126 5197		Field boundary	Post Medieval - 1540 AD to 1900 AD	Field boundaries visible as low earthworks on aerial photographs	249	0
26700	SX 1169 5187		Settlement Lann	Medieval - 1066 AD to 1539 AD Early Medieval - 410 AD to 1065 AD	The settlement of Lawhyre is first recorded as "Lanwoer" in 1200. The name is Cornish and contains the elements lann 'enclosed cemetery' and wuir 'sister'. The placename suggests the site of a lann, an early Christian enclosure and cemetery in the vicinity of the present settlement. However there are no indications of the actual location of the site.	457	71
26707	SX 1107 5129		Enclosure	Early Iron Age to Romano British - 800 BC to 409 AD	A cropmark of a circular enclosure, possibly a round, is visible on aerial photographs	470	204
26840	SX 108 515		Field system	Medieval - 1066 AD to 1539 AD Post Medieval - 1540 AD to 1900 AD	The field boundaries around lankelly farm (one group centred at SX 108 515 and another, larger centred at SX 116 520) appear to be the remains of enclosed strips of a medieval open field system	509	244
57656	SX 1112 5112		Quarry	19th Century - 1801 AD to 1900 AD	A quarry is marked at this location on the OS 1st edition map. It is visible as an extant feature on aerial photographs	617	193
57658	SX 1144 5098		Ditch Pit Minefield	Unknown Unknown World War Two - 1939 AD to 1945 AD	Parallel linear ditches and pits are visible as cropmarks on aerial photographs in All Day's Field, Fowey. These features are of uncertain origin, but may relate to the minefield erected on the field during World War II (SMR 57659). The minefield is also recorded as AH353 for the Defence of Britain project.	763	116
26794	SX 1050 5228		Enclosure Field boundary	Unknown Unknown	A rectilinear enclosure is visible as a cropmark on aerial photographs on the south-west facing slopes between Newtown and Trenant. It is 108m by 78m in size with a possible entrance facing south-west. A linear ditch to the north may be the remains of a second enclosure or an associated field boundary	942	306

Table 1: Historical Environment Entries thought relevant to geophysical survey

Site: An archaeological magnetometer survey  
Land at Lankelly Lane, Fowey, Cornwall  
Centred on NGR (E/N): 211260,051720 (point)  
Report: 1801FOW-R-1

anomaly group	associated anomalies	anomaly characterisation certainty & class	anomaly form	additional archaeological characterisation	comments	supporting evidence
1		possible, positive	linear			
2		possible, positive	linear			
3		possible, positive	linear			
4		possible, negative/positive/negative	broad linear	ditch-flanked, metalled, track/road		
5	20?	possible, positive	disrupted linear			
6		possible, positive	linear			
7		possible, positive	linear			
8		possible, positive	linear			
9		possible, positive	oval	large pit or natural deposit		
10		possible, negative	oval	stone-filled pit, mine shaft	anomaly group coincides with a shallow, sub-circular negative earthwork noted by the surveyors	
11		possible, positive	oval	large pit or natural deposit		
12		possible, positive	oval	large pit or natural deposit		
13		possible, positive	disrupted linear			
14		possible, positive	oval	large pit or natural deposit	anomaly groups are spatially clustered but no archaeological relationship is inferred	
15		possible, positive	oval	large pit or natural deposit	anomaly groups are spatially clustered but no archaeological relationship is inferred	
16		possible, positive	oval	large pit or natural deposit	anomaly groups are spatially clustered but no archaeological relationship is inferred	
17	19 ?	possible, positive	linear	archaeological deposit or cultivation trace		
18	19	possible, negative spread	broad linear	stony spread associated with former field boundary or near-surface geology		
19	17? 18	likely, positive	disrupted linear	field boundary	anomaly group coincides with and likely represents a field boundary mapped between 1839 and 1970, removed before 1973; anomaly group may be associated with group 17, if so the field boundary may have been a Cornish Hedge	1839 Fowey Tithe map, Ordnance Survey 1882 1:2500 to 1973-76 1:10000
20	5?	possible, positive	linear		it is not clear from the data whether this group is associated with group 5 or is a separate group	
21	22?	possible, positive	linear	field track ditch?		
22	21?	possible, positive	disrupted linear	field track ditch?		
23		possible, positive				
24		likely, positive/negative/positive	disrupted linear	field boundary - possibly a Cornish Hedge	anomaly group coincides with and likely represents a field boundary mapped between 1882 and 1888 and removed before 1907	Ordnance Survey 1882 1:2500 to 1907-8 1:10560
25		possible, positive	linear			
301		possible, low contrast linear		service trench		
302		possible, high contrast linear		ferrous pipe or cable		
303		possible, low contrast linear		service trench		

Table 2: data analysis

<b>Grid</b> <i>Method of Fixing:</i> DGPS set-out using pre-planned survey grids and Ordnance Survey coordinates. <i>Composition:</i> 30m by 30m grids <i>Recording:</i> Geo-referenced and recorded using digital map tiles. <i>DGPS used:</i> Spectra Precision PM5V2 GPS with external antenna and survey pole and DigiTerra Explorer 7 as the survey control program.	
<b>Equipment</b> <i>Instrument:</i> Bartington Instruments grad601-2 <i>Firmware:</i> version 6.1	<b>Data Capture</b> <i>Sample Interval:</i> 0.25m <i>Traverse Interval:</i> 1 metre <i>Traverse Method:</i> zigzag <i>Traverse Orientation:</i> GN
<b>Data Processing, Analysis and Presentation Software</b> QCAD Professional 3 DW Consulting TerraSurveyor3 Manifold System 8 GIS Microsoft Corp. Office Excel 2013 Microsoft Corp. Office Publisher 2013 Adobe Systems Inc Adobe Acrobat 9 Pro Extended	

Table 3: methodology information

<b>Instrument</b> Type: Bartington Grad-601 gradiometer Units: nT Direction of 1st Traverse: see below Collection Method: ZigZag Sensors: 2 @ 1.00 m spacing. Dummy Value: 32702	
<b>Program</b> Name: TerraSurveyor Version: 3.0.33.6	
<b>Statistics</b> Max: 48.36 Min: -45.29 Std Dev: 7.50 Mean: 1.29 Median: 1.10	<b>Processing</b> 1 Base Layer 2 Clip at 1.00 SD 3 Clip at 3.00 SD 4 De Stagger: Grids: All By: 0 intervals, 25.00cm 5 De Stagger: Grids: SubGrid (Area: Top 42, Left 240, Bottom 49, Right 359) By: 0 intervals, -25.00cm 6 De Stagger: Grids: a4.xgd a9.xgd By: 0 intervals, 25.00cm 7 Move (Area: Top 52, Left 240, Bottom 59, Right 359) to X -2, Y 0 8 De Stagger: Grids: a5.xgd By: 0 intervals, -25.00cm 9 De Stagger: Grids: a9.xgd By: 0 intervals, -25.00cm 10 Move (Area: Top 76, Left 240, Bottom 83, Right 343) to X -4, Y 0 11 Move (Area: Top 106, Left 241, Bottom 109, Right 345) to X 3, Y 0 12 De Stagger: Grids: SubGrid (Area: Top 112, Left 240, Bottom 123, Right 359) By: 0 intervals, 25.00cm 13 Move (Area: Top 113, Left 242, Bottom 115, Right 346) to X -3, Y 0 14 De Stagger: Grids: SubGrid (Area: Top 136, Left 240, Bottom 139, Right 359) By: 0 intervals, 25.00cm 15 Move (Area: Top 136, Left 241, Bottom 139, Right 342) to X -4, Y 0 16 Move (Area: Top 146, Left 241, Bottom 149, Right 351) to X -3, Y 0 17 Move (Area: Top 180, Left 241, Bottom 181, Right 354) to X 3, Y 0 18 Move (Area: Top 204, Left 120, Bottom 205, Right 253) to X 2, Y 0 19 De Stagger: Grids: a23.xgd By: 0 intervals, 25.00cm 20 De Stagger: Grids: a26.xgd a27.xgd By: 0 intervals, 25.00cm 21 Move (Area: Top 258, Left 121, Bottom 259, Right 274) to X -2, Y 0 22 De Stagger: Grids: a29.xgd a28.xgd By: 0 intervals, 25.00cm 23 Move (Area: Top 270, Left 52, Bottom 271, Right 203) to X -2, Y 0 24 De Stagger: Grids: a30-a.xgd a31.xgd By: 0 intervals, 25.00cm 25 DeStripe Median Traverse: Grids: a29.xgd a30-a.xgd a28.xgd a31.xgd

Table 4: processed data metadata