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Land East of Thorney Lane South Iver, Buckinghamshire

Detailed Gradiometer Survey Report

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Document Information

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County	Buckinghamshire
National grid reference	504054 179694 (TQ 04054 79694)
Statutory designations	Scheduled monument (NHLE No. 1006944)
Planning authority	South Buckinghamshire District Council
WA project code	T24137
Dates of fieldwork	22 – 23 January 2018
Fieldwork directed by	Rok Plesnicar
Project management by	Marie Kelleher
Document compiled by	Alexander Schmidt
Contributions from	Tom Richardson
Graphics by	Will Foster

Quality Assurance

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1	Draft for Comment	AJS/TR	LJP

Contents

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Summary

A detailed gradiometer survey was conducted over land at Land East of Thorney Lane South, Iver, Buckinghamshire (centred on NGR 354400 410205). The project was commissioned by Stratland Estates with the aim of establishing the presence, or otherwise, and nature of detectable archaeological features in support of a planning application for a proposed residential development within the site.

The site comprises pasture fields located to the east of Thorney Lane South, covering an area of 5.8 ha. The geophysical survey was undertaken on 22 and 23 January 2018. The detailed gradiometer survey has demonstrated the presence of anomalies relating to the scheduled monument and other archaeological features, as well as identifying areas of quarrying or landfill activity.

The survey identified the double ring-ditched scheduled monument. However, the north-eastern portion of the monument appears to have been damaged or removed by a modern trackway. A series of prehistoric ditched enclosures have also been identified in close proximity to the scheduled monument.

The survey has also highlighted areas of quarrying and landfill in the north and north-west of the site. Made ground associated with the M25 embankment works can also be seen across the east of the site.

Additionally, this archaeological investigation has detected a modern service and numerous linear trends.

Acknowledgements

Wessex Archaeology would like to thank Stratland Estates for commissioning the geophysical survey. The assistance of Andy Wright is gratefully acknowledged in this regard.

The fieldwork was undertaken by Rok Plesnicar and Jen Smith of the Wessex Archaeology in-house geophysics team. Alexander Schmidt processed and interpreted the geophysical data. The report was written by Alexander Schmidt with contributions from Tom Richardson. The geophysical work was quality controlled by Lucy Parker. Illustrations were prepared by Will Foster. The project was managed on behalf of Wessex Archaeology by Marie Kelleher.

Land East of Thorney Lane South Iver, Buckinghamshire

Detailed Gradiometer Survey Report

1 INTRODUCTION

1.1 Project background

1.1.1 Wessex Archaeology was commissioned by Stratland Estates to carry out a geophysical survey at Land East of Thorney Lane South, Iver, Buckinghamshire (centred on NGR 504054 179694) (**Figure 1**). The survey forms part of an ongoing programme of archaeological works being undertaken in support of a planning application for a proposed residential development.

1.2 Scope of document

1.2.1 This report presents a brief description of the methodology followed by the detailed survey results and the archaeological interpretation of the geophysical data.

1.3 The site

1.3.1 The site is located 1.6 km south-east of Iver and 4.6 km west of Hayes, Buckinghamshire.

1.3.2 The survey comprises 5.8 ha of grassland, currently utilised for pasture. The site is bordered to the east by Thorney Lane South, to the north by the Great Western Railway Line, to the south by Thorney Mill Road, and to the east by the M25.

1.3.3 The site has seen subjected to a number of activities that have altered its topography. These include the excavation of a quarry in the northern section of the site (Costain's Pit), the creation of an embankment as part of the M25, and the use of the site as a landfill. The northern section of the site stands at 36 m above Ordnance Datum (aOD), sloping down before rising to approximately 46 m aOD at the centre, which is the original ground level. From the centre, the land gently descends to 29 m aOD at its southern extent. The eastern section of the site is at 38 m aOD, a result of the construction of the M25 embankment that continues to rise outside the eastern site boundary.

1.3.4 A trackway and areas of standing water run north-south through the centre of the site.

1.3.5 The solid geology comprises Clay, Silt, and Sand of the London Clay Formation. There are no recorded superficial geological deposits (BGS 2015).

1.3.6 The soils within the survey area are not recorded due to the urban environment (SSEW SE Sheet 6 1983).

2 ARCHAEOLOGICAL BACKGROUND

2.1 Introduction

2.1.1 The archaeological and historical background was assessed in a desk based assessment (DBA) (Wessex Archaeology 2017), which summarised the known historic environment baseline within a 1 km study area of the proposed development. The DBA consulted several primary sources including the National Heritage List for England (NHLE) and Buckinghamshire Historic Environment Record (BHER). A summary of the results is presented here for reference.

2.2 Summary of the archaeological resource

2.2.1 A scheduled monument is recorded in the southern part of the survey area (NHLE No. 1006944). This comprises two concentric ring ditches, the outer being 28 m in diameter and the inner 18 m. The function of these ditches is not clear; they either relate to a prehistoric barrow or round house. Several linear and pit features have been identified in close proximity to the ring ditches. These are seen on aerial photography as crop marks.

2.2.2 Four Grade II listed buildings are recorded in the surrounding area. These all date to the 18th century, with the closest, The Towers Arms public house, lying 25 m south of the site.

2.2.3 Several non-designated assets are also recorded within the site boundary and the surrounding area. Three ditches containing sherds of prehistoric pottery are recorded to the south-west of the scheduled ring ditches, and it is considered likely that these features are contemporaneous. These ditches were identified during a 1965 excavation, which also found 35 worked flints dating to the Mesolithic and Neolithic periods.

2.2.4 The northern section of the site has been previously used as a quarry, known as Costain's Pit, from which prehistoric finds and features have been identified. These include two ditches, one containing Iron Age pottery and the other containing four Mesolithic flint blades.

2.2.5 Various other prehistoric finds are recorded within the study area. These include 12 Palaeolithic hand axes 540 m north of the site, a number of Palaeolithic flints and a hand axe 930 m to the west, and a Neolithic greenstone Type IIIA axe 950 m to the north-east. Later prehistoric activity is also evident in the form of Bronze Age flints and a single sherd of pottery found at Iver Quarry 800 m south of the site.

2.2.6 A large quantity of early Iron Age and Romano-British pottery was recovered 230 m to the east of the site at Thorney Farm, where several pits and a Romano-British hearth were recorded during rescue excavations in the 1960s. 320 pottery sherds were recorded, 230 of which dated to the early Iron Age and 90 to the Romano-British period.

2.2.7 Further Iron Age and Romano-British activity is recorded 830 m to the south of the site at Labourne Farm. This includes an Egyptian ushabti figurine, a Roman jet bowl, Roman pottery, and tile fragments.

2.2.8 Recorded Anglo-Saxon activity in the area is limited to the besiegement of a Danish camp on an island named Thorney, thought to have been 780 m south-east of the site. The location of the camp is based on Aetherwald's description; there is, however, no archaeological evidence to confirm this.

2.2.9 During the medieval period, the site is likely to have formed part of the agricultural hinterland around the town of Iver; the manorial estate known as Richings Park lies 780 m south-west of the site. This land was first acquired in 1397, with further land added between the 15th and 17th centuries. This once included a villa-style house, pleasure gardens, and a grotto. However, these were demolished following severe bombing in WWII.

2.2.10 Various post-medieval features are recorded in the surrounding area. These include the Slough branch of the Grand Union Canal 110 m to the north of the site and numerous gravel pits in the study area. A WWII anti-aircraft battery was located 700 m north-east of the site at Iver brickworks.

2.2.11 A map regression of the area has shown the site to have been agricultural land since at least 1838. Boundaries within the site have changed and there is evidence of quarrying activity in the surrounding areas. The largest change to the site is evident on the 1989 OS map, which shows part of the site being used to construct the embankment for the M25 motorway.

2.3 Recent investigations in the area

2.3.1 A magnetometry survey was conducted over the scheduled monument in the south of the site by Oxford Archaeotechnics (1993). This formed part of a wider scheme of works as part of the widening of the M25 motorway. The survey found the concentric ring ditches of the scheduled monument as well as other ditch features surrounding the monument. The ring ditches in the geophysical data appear to lie 25 m to the east of the location detailed in the scheduling list entry.

2.3.2 The site was also subjected to a limited excavation in 1965 during the installation of a new cable along the western site boundary; three ditches thought to be prehistoric in date, Iron Age pottery, and Mesolithic and Neolithic worked flints were found.

3 METHODOLOGY

3.1 Introduction

3.1.1 The geophysical survey was undertaken by Wessex Archaeology's in-house geophysics team between the 22 and 23 January 2018. The site was wet at the time of survey, with areas of standing water. Whilst this meant some small areas were not available for survey, it is not thought to have affected the data quality. An overall coverage of 5.1 ha was achieved. 0.2 ha were not available for survey due to a trackway and standing water in the centre of the site, with a further 0.5 ha covered by overgrown vegetation.

3.2 Aims and objectives

3.2.1 The aims (or purpose) of the geophysical survey, in compliance with the CIfA *Standards and guidance for archaeological geophysical survey* (CIfA 2014a), are:

- To determine, as far as is reasonably possible, the nature of the detectable archaeological resource within a specified area using appropriate methods and practices.
- To inform either the scope and nature of any further archaeological work that may be required; or the formation of a mitigation strategy (to offset the impact of the development on the archaeological resource); or a management strategy.
- To identify the scheduled ring ditches (NHLE No. 1006944) and any associated features.

3.2.2 To achieve the above aims, the objectives of the geophysical survey are:

- To conduct a geophysical survey covering as much of the specified area as possible, allowing for on-site obstructions.
- To clarify the presence/absence of anomalies of archaeological potential. In particular, the scheduled ring ditches (NHLE No. 1006944) and any associated features, as well as any evidence of quarrying activity.
- Where possible, to determine the general nature of any anomalies of archaeological potential.

3.3 Fieldwork methodology

3.3.1 Individual survey nodes were established using a Leica Viva RTK GNSS instrument GPR surveys at regular intervals tailored for each survey area. The cart-based gradiometer system used a Leica Captivate RTK GNSS instrument, which receives corrections from a network of reference stations operated by the Ordnance Survey (OS) and Leica Geosystems. Both instruments allow positions to be determined with a precision of 0.02 m in real-time is precise to approximately 0.02 m and therefore exceed Historic England recommendations (2008).

3.3.2 The detailed gradiometer survey was undertaken using four Bartington Grad-01-1000L gradiometers spaced at 1 m intervals and mounted on a non-magnetic cart with an effective sensitivity of 0.03 n. Data were collected at a rate of 10 hz, producing intervals of *c.* 0.15 m along transects spaced 3.5 m apart, therefore exceeding Historic England guidelines (2008)

3.4 Data processing

3.4.1 Data from the survey was subject to minimal data correction processes. These comprise a 'Destripe' function (±5 nT thresholds), applied to correct for any variation between the sensors, and an interpolation used to grid the data and discard overlaps where transects have been collected too close together.

3.4.2 Further details of the geophysical and survey equipment, methods and processing are described in **Appendix 1**.

4 GEOPHYSICAL SURVEY RESULTS AND INTERPRETATION

4.1 Introduction

4.1.1 The detailed gradiometer survey has identified a range of magnetic anomalies across the site. Results are presented as a series of greyscale plots and archaeological interpretations at a scale of 1:2500 (**Figures 2** to **3**). The data are displayed at -2 nT (white) to +3 nT (black) for the greyscale image.

4.1.2 The interpretation of the datasets highlights the presence of potential archaeological anomalies, ferrous/burnt or fired objects, and magnetic trends (**Figure 3**). Full definitions of the interpretation terms used in this report are provided in **Appendix 2**.

4.1.3 Numerous ferrous anomalies are visible throughout the dataset. These are presumed to be modern in provenance and are not referred to, unless considered relevant to the archaeological interpretation.

4.1.4 It should be noted that small, weakly magnetised features may produce responses that are below the detection threshold of magnetometers. It may therefore be the case that more archaeological features may be present than have been identified through geophysical survey.

4.1.5 Gradiometer survey may not detect all services present on site. This report and accompanying illustrations should not be used as the sole source for service locations and appropriate equipment (e.g. CAT and Genny) should be used to confirm the location of buried services before any trenches are opened on site.

4.2 Gradiometer survey results and interpretation

4.2.1 The geophysical survey has identified several features that are considered archaeological in origin. These correspond with the scheduled monument, offset approximately 25 m to the east as well as in the immediate vicinity.

4.2.2 A positive sub-circular anomaly has been identified in the centre of the site at **4000**. The anomaly has a diameter of 26 m and is 1.5 m wide. This is indicative of a ditch feature, and relates to the scheduled ring ditches recorded in the area. A second, much weaker circular anomaly has also been identified within the outer anomaly as a trend. This corresponds to crop marks and the scheduled monument's description as a double ring-ditch. However, the weak nature of the anomaly makes a confident interpretation difficult. Several discrete positive anomalies at the centre of the ring ditch are indicative of pit-features. These are between 0.5 m and 1 m in diameter and may be evidence of activity associated with the ring ditches. The south-west of the ring-ditch is obscured by a large, probably modern, ferrous response. There is clear evidence of damage to the north-eastern portion of the ring-ditch, which appears to have been cut by a modern trackway, possibly as part of the M25 embankment works.

4.2.3 To the west, south-west and south of the ring-ditch, there is a network of positive recti-linear and linear anomalies at **4001**. These form at least eight roughly 15 m by 25 m rectangular features on a north-west to south-east alignment. These are likely to be evidence for ditched enclosures or a field system. These anomalies are probably associated with the prehistoric ditches discovered during a 1965 excavation for a cable route (Wessex Archaeology 2017). It is not possible to conclude whether these linear and recti-linear anomalies are contemporary to the ring-ditch from the results of this survey alone, as their alignment (broadly north-west to south-east) may incorporate the ring-ditch.

4.2.4 Several smaller and weaker discrete anomalies have been identified surrounding the network of anomalies at **4000** and **4001**. The anomalies vary in diameter from 0.5 m to 3 m. A cluster of these anomalies has been identified at **4002**. These are indicative of pit features and are considered to be of a possible archaeological origin. However, they could equally be evidence of natural pitting in the bedrock.

4.2.5 In the north of the site, a widespread area of magnetically strong dipolar responses has been identified at **4003**. This covers a roughly rectangular area 155 m north-south by 55 m east-west. This is indicative of a dense spread of ferrous debris, as would be expected from an area of landfill. It is possible that this represents an area of earlier quarrying activity that has since been used for landfill. Further, more diffuse spreads of dipolar responses are seen to the south at **4004**. These are also thought to be evidence of quarrying or landfill activity.

4.2.6 Across the east of the site, numerous large dipolar responses have been identified. A concentration of these responses is evident at **4005**. These anomalies likely relate to ferrous or fired objects within the material used to construct the M25 embankment. An area of these larger dipolar anomalies can also be seen in the centre of the site at **4006**. Whilst the characteristics of the anomalies suggests they are most likely part of the embankment material, it is also possible that they are evidence of quarrying or landfill activity.

4.2.7 To the south of the site, another area of magnetically strong dipolar responses has been identified at **4007**. This dense spread of dipolar responses is indicative of modern made ground. Given that this corresponds to a slight depression on the surface it is considered unlikely that the anomaly relates to landfill or construction of the M25 embankment. It is possible that this is evidence of quarrying activity, which is recorded in the surrounding area on historic mapping.

4.2.8 Also to the south of the site, a highly magnetic, linear anomaly has been identified on a north-west to south-east alignment for 90 m at **4008**. The anomaly then appears to extend south for 47 m from its south-eastern end. This is indicative of a modern service.

4.2.9 Several linear trends are noted throughout the survey area. It is possible these linear anomalies are indicative of earlier archaeological activity; however, it is considered more likely they are evidence of modern services or land drains.

5 DISCUSSION

5.1.1 The detailed gradiometer survey has been successful in detecting anomalies of archaeological origin within the survey area. The survey identified the south-west portion of the scheduled ring ditches. However, the north-east of the monument appears to have been partly damaged or removed by a modern trackway, possibly associated with the M25 embankment works.

5.1.2 The survey also identified a network of recti-linear anomalies in close proximity to the scheduled monument. These features are likely associated with the prehistoric ditches discovered during a 1965 excavation for a cable route (Wessex Archaeology 2017). The ditches likely form a series of small ditched enclosures or a field system. The relationship between these enclosure feature and the scheduled ring ditches is not clear from the geophysical data alone. This concentration of archaeological features supports the findings of the DBA, which identified records of prehistoric finds within the site and the surrounding landscape.

5.1.3 The remaining anomalies identified within the survey area are consistent with the quarrying and subsequent landfill activity, outlined in the DBA. This is located predominantly in the north and north-west of the site, with a further possible area in the south. It is considered likely that any archaeological remains in these areas would have been lost during this activity. This is supported by prehistoric finds recorded as being found during quarrying.

5.1.4 Furthermore, evidence of works associated with the M25 embankment is evident across the eastern boundary of the site. These may have impacted on the scheduled monument, as well as potentially masking or damaging any further archaeological activity in this area of the site.

5.1.5 The remaining anomalies are consistent with modern land use and underground services; however, the results of this survey should not be the sole means of identifying any such features.

REFERENCES

Bibliography

English Heritage 2008 Geophysical Survey in Archaeological Field Evaluation. Research and Professional Service Guideline No 1. Swindon (2nd Edition)

Oxford Archaeotechnics 1993 *M25 Widening: Junctions 15-16, Buckinghamshire Magnetic Susceptibility and Magnetometer Survey* Ref: 023293/IVB/BCM

Schmidt, A, Linford, P, Linford, N, David, A, Gaffney, C, Sarris, A and Fassbinder, J. 2015 Guidelines for the use of geophysics in archaeology: questions to ask and points to consider. EAC Guidelines 2, Belgium: European Archaeological Council.

Wessex Archaeology 2017 *Land East of Thorney Lane South, Iver, Buckinghamshire Archaeological Desk-Based Assessment.* Ref. 117970.02

Cartographic and documentary sources

Ordnance Survey 1983 Soil Survey of England and Wales Sheet 6, Soils of South-East England. Southampton.

Online resources

British Geological Survey Geology of Britain Viewer (accessed January 2018) http://mapapps.bgs.ac.uk/geologyofbritain/home.html

Old Maps (accessed January 2018) https://www.old-maps.co.uk

APPENDICES

Appendix 1: Survey Equipment and Data Processing

Survey methods and equipment

The magnetic data for this project will be acquired using a non-magnetic cart fitted with 4x Bartington Grad-01-1000L magnetic gradiometers. The instrument has four sensor assemblies fixed horizontally 1 m apart allowing four traverses to be recorded simultaneously. Each sensor contains two fluxgate magnetometers arranged vertically with a 1m separation, and measures the difference between the vertical components of the total magnetic field within each sensor array. This arrangement of magnetometers suppresses any diurnal or low frequency effects.

The gradiometers have an effective resolution of 0.03 nT over a ±100 nT range, and measurements from each sensor are logged at intervals of 0.25 m. All of the data are then relayed to a Leica Viva CS35 tablet, running the MLgrad601 program, which is used to record the survey data from the array of Grad601 probes at a rate of 10 Hz. The program also receives measurements from a GPS system, which is fixed to the cart at a measured distance from the sensors, providing real time locational data for each data point.

The cart-based system relies upon accurate GPS location data which is collected using a Leica Viva system with rover and base station. This receives corrections from a network of reference stations operated by the Ordnance Survey and Leica Geosystems, allowing positions to be determined with a precision of 0.02m in real-time and therefore exceed the level of accuracy recommended by Historic England (English Heritage 2008) for geophysical surveys.

Data may be collected with a higher sample density where complex archaeological anomalies are encountered, to aid the detection and characterisation of small and ephemeral features. Data may be collected at up to 0.125 m intervals along traverses spaced up to 0.25m apart.

Post-processing

The magnetic data collected during the detail survey are downloaded from the Bartington cart system for processing and analysis using both commercial and in-house software. This software allows for both the data and the images to be processed in order to enhance the results for analysis; however, it should be noted that minimal data processing is conducted so as not to distort the anomalies.

The cart-based system generally requires a lesser amount of post-processing than the handheld Bartington Grad 601-2 fluxgate gradiometer instrument. This is largely because mounting the gradiometers on the cart reduces the occurrence of operator error; caused by inconsistent walking speeds and deviation in traverse position due to varying ground cover and topography.

Typical data and image processing steps may include:

- GPS Destripe – Determines the median of each transect and then subtracts that value from each datapoint in the transect. May be used to remove the striping effect seen within a survey caused by directional effects, drift, etc.
- GPS Base Interpolation – Sets the X & Y interval of the interpolated data and the track radius (area around each datapoint that is included in the interpolated result).
- Discard Overlaps - Intended to eliminate a track(s) that have been collected too close to one another. Without this, the results of the interpolation process can be distorted as it tries to accommodate very close points with potentially differing values.

Typical displays of the data used during processing and analysis:

- Greyscale – Presents the data in plan view using a greyscale to indicate the relative strength of the signal at each measurement point. These plots can be produced in colour to highlight certain features but generally greyscale plots are used during analysis of the data.

Appendix 2: Geophysical Interpretation

The interpretation methodology used by Wessex Archaeology separates the anomalies into four main categories: archaeological, modern, agricultural and uncertain origin/geological.

The archaeological category is used for features when the form, nature and pattern of the anomaly are indicative of archaeological material. Further sources of information such as aerial photographs may also have been incorporated in providing the final interpretation. This category is further sub-divided into three groups, implying a decreasing level of confidence:

- Archaeology – used when there is a clear geophysical response and anthropogenic pattern.

- Possible archaeology – used for features which give a response but which form no discernible pattern or trend.

The modern category is used for anomalies that are presumed to be relatively modern in date:

- Ferrous – used for responses caused by ferrous material. These anomalies are likely to be of modern origin.

- Modern service – used for responses considered relating to cables and pipes; most are composed of ferrous/ceramic material although services made from non-magnetic material can sometimes be observed.

The agricultural category is used for the following:

- Former field boundaries – used for ditch sections that correspond to the position of boundaries marked on earlier mapping.

- Ridge and furrow – used for broad and diffuse linear anomalies that are considered to indicate areas of former ridge and furrow.

- Ploughing – used for well-defined narrow linear responses, usually aligned parallel to existing field boundaries.

- Drainage – used to define the course of ceramic field drains that are visible in the data as a series of repeating bipolar (black and white) responses.

The uncertain origin/geological category is used for features when the form, nature and pattern of the anomaly are not sufficient to warrant a classification as an archaeological feature. This category is further sub-divided into:

- Increased magnetic response – used for areas dominated by indistinct anomalies which may have some archaeological potential.

- Trend – used for low amplitude or indistinct linear anomalies.

- Superficial geology – used for diffuse edged spreads considered to relate to shallow geological deposits. They can be distinguished as areas of positive, negative or broad bipolar (positive and negative) anomalies.

Appendix 3: OASIS form

Project Details:

Project name	Land East of Thorney Lane South, Iver, Buckinghamshire				
Type of project	Detailed gradiometer Survey (Field evaluation)				
Project description	The detailed gradiometer survey has been successful in detecting anomalies of archaeological origin within the survey area. The area surrounding the scheduled monument is believed to be rich in archaeological features including a possible double ring-ditch and network on recti-linear anomalies. These anomalies are likely to date to the prehistoric, but may relate to several periods as it is not possible to determine the relationship between the anomalies from the survey results. This supports the archaeological background and earlier DBA, that identified prehistoric finds within the site and the landscape. The remaining anomalies identified within the survey area are consistent with the known land use identified by the DBA. The most prevalent evidence of this is where landfill and embankment activity has been identified by a highly elevated magnetic response in the northern portion of the survey area.				
Project dates	**Start:** 22-01-2018		**End:** 23-01-2018		
Previous work	DBA, geophysical survey				
Future work	Unknown				
Project Code: T24137	**HER event no.**	N/A	**OASIS form ID:**	wessexar1-307228	
	NMR no.	N/A			
	SM no.	106944			
Planning Application Ref.	N/A				
Site Status	Scheduled Monument (SM)				
Land use	Pasture				
Monument type	Double Ring-Ditch	**Period**	Bronze Age – Romano-British		

Project Location:

Site Address	Thorney Lane South, Iver, Buckinghamshire			**Postcode**	SL0 9AD
County	Buckinghamshire	**District**	Slough	**Parish**	Iver CP
Study Area	5.8 ha	**Height OD**	29 – 46 m aOD	**NGR**	354400 410205

Project Creators:

Name of Organisation	Wessex Archaeology		
Project brief originator	Stratland Estates	**Project design originator**	WA
Project Manager	Marie Kelleher	**Project Supervisor**	RP
Sponsor or funding body	Stratland Estates	**Type of Sponsor**	

Project Archive and Bibliography:

Physical archive	N/A	**Digital Archive**	Geophysics, survey and report	**Paper Archive**	N/A
Report title	Land East of Thorney Lane South, Iver, Buckinghamshire			**Date**	2018
Author	Wessex Archaeology	**Description**	Unpublished report	**Report ref.**	T24137.01

Appendix 4: Historic England Geophysical Survey Summary Questionnaire

Survey Details

Name of Site: Land East of Thorney Lane South, Iver, Buckinghamshire

County: Buckinghamshire

NGR Grid Reference (Centre of survey to nearest 100m): 504054 179694

Start Date: 22/01/2018 **End Date:** 23/01/2018

Geology at site (Drift and Solid):
Solid: Clay, Silt, and Sand of the London Clay Formation
Drift: None Recorded.

Known archaeological Sites/Monuments covered by the survey (Scheduled Monument No. or National Archaeological Record No. if known)

106944

Archaeological Sites/Monument types detected by survey (Type and Period if known. "?" where any doubt).

Ring-Ditch (possible secondary internal ring-ditch?), Pre-historic? Barrow?

Surveyor (Organisation, if applicable, otherwise individual responsible for the survey):

Wessex Archaeology – Rok Plesnicar and Jennifer Smith

Name of Client, if any:

Stratland Estates

Purpose of Survey:

Part of a phased approach to determine the archaeological potential of the site, in particular the scheduled ring-ditches and any associated features, as well as any evidence of quarrying activity, ahead of development for a proposed residential site.

Location of:

a) Primary archive, i.e. raw data, electronic archive etc:

Wessex Archaeology Internal Archive

b) Full Report:

Wessex Archaeology Internal Archive

Technical Details

(Please fill out a separate sheet for each survey technique used)

Type of Survey (Use term from attached list or specify other):
Magnetometer (Gradiometer)

Area Surveyed, if applicable (In hectares to one decimal place):
5.1 ha

Traverse Separation, if regular:
4 m

Reading/Sample Interval:
0.2 m

Type, Make and model of Instrumentation:

Bartington Grad-01-1000L Cart based Gradiometer

Land use at the time of the survey (Use term/terms from the attached list or specify other):

Grassland - Pasture
Wasteland
Other - Fallow

Additional Remarks (Please mention any other technical aspects of the survey that have not been covered by the above questions such as sampling strategy, non standard technique, problems with equipment etc.):

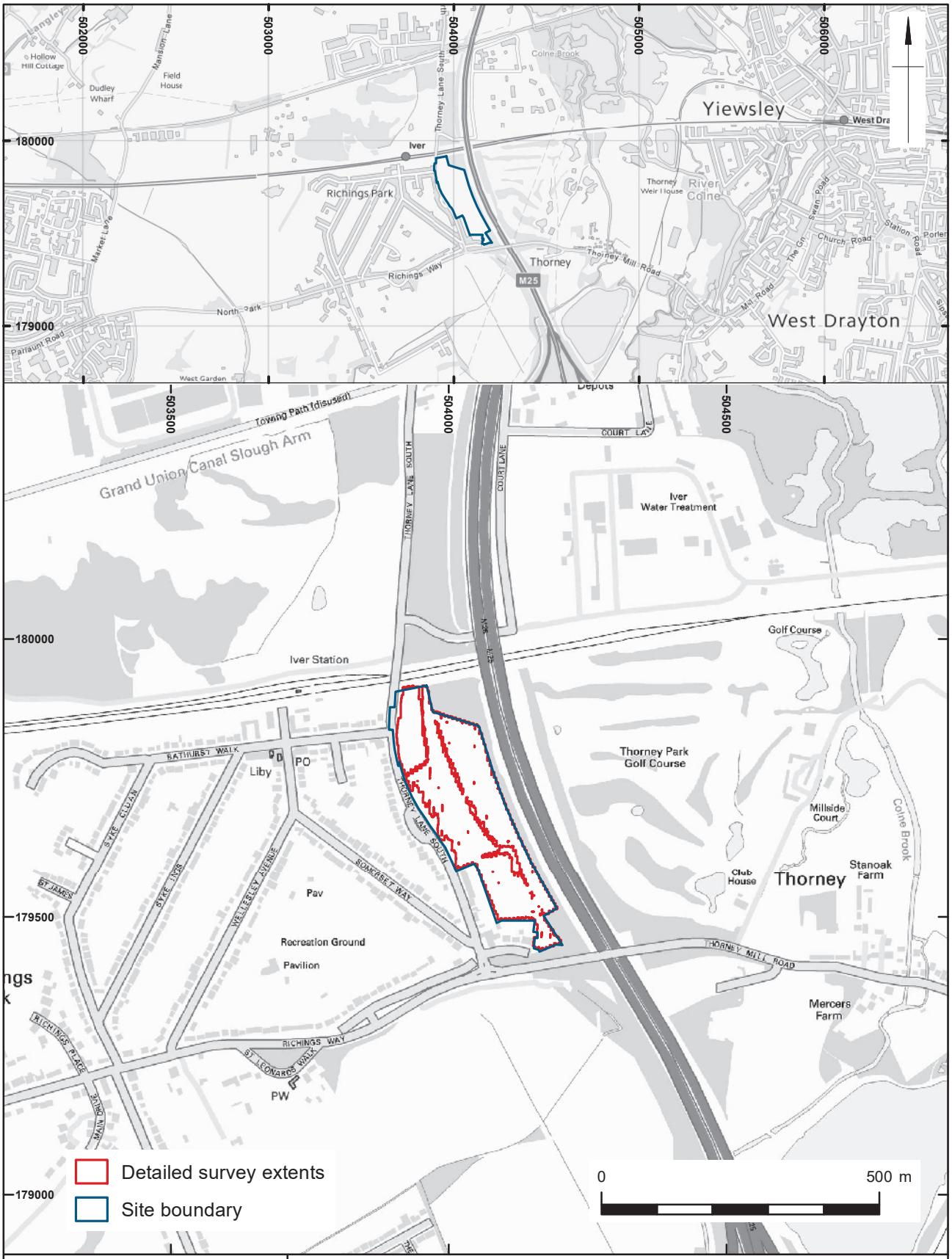
N/A

List of terms for Survey Type

Magnetometer (includes gradiometer)
Resistivity
Resistivity Profile
Magnetic Susceptibility
Electro-Magnetic Survey
Ground Penetrating Radar
Other (please specify)

List of terms for Land Use:

Arable
Grassland - Pasture
Grassland - Undifferentiated
Heathland
Moorland
Coastland - Inter-Tidal
Coastland - Above High Water
Allotment
Archaeological Excavation
Garden
Lawn
Orchard
Park
Playing Field
Built-Over
Churchyard
Waste Ground
Woodland
Other (please specify)



Coordinate system:
OSGB36 (OSTN15/OSGM15)

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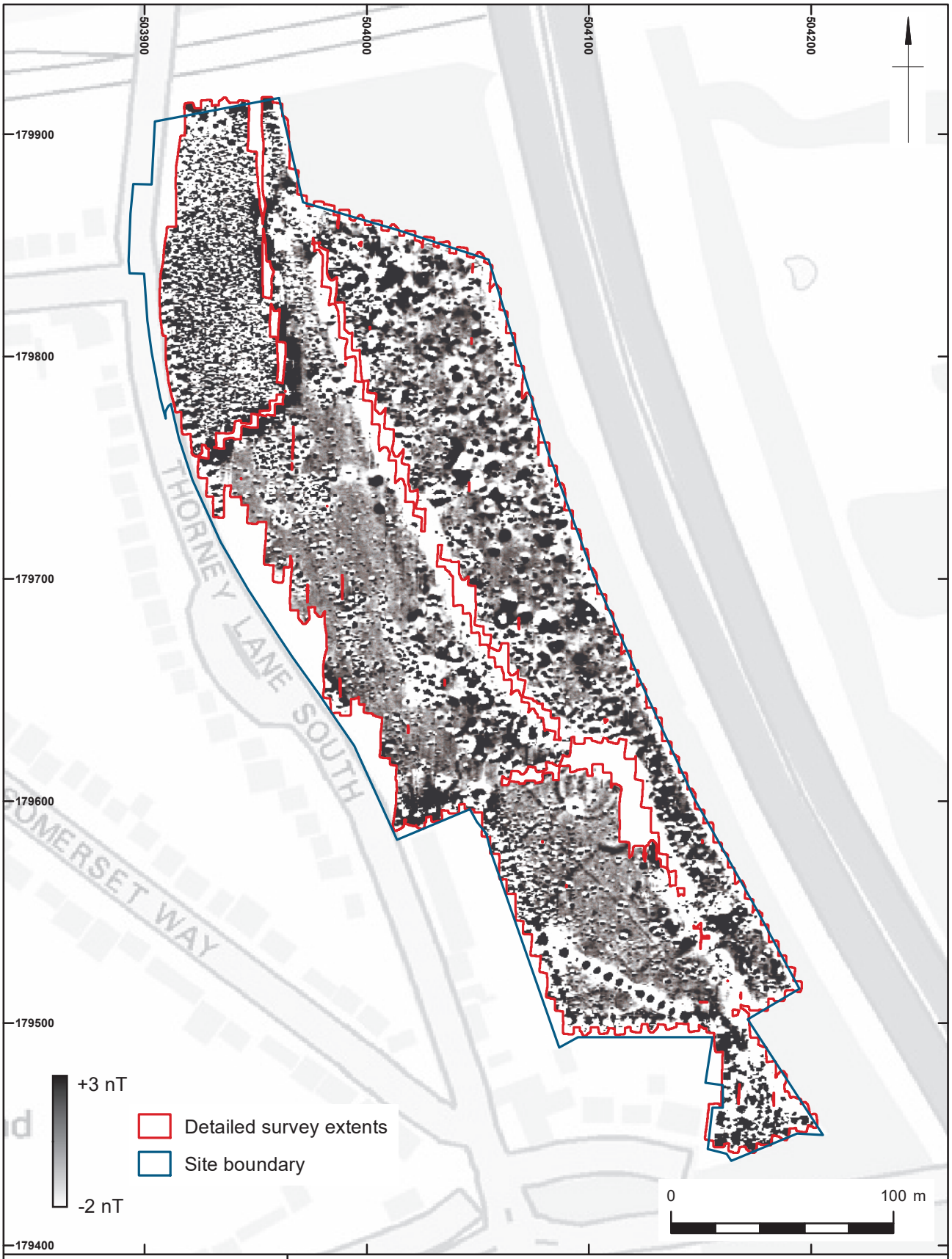
Site Location

Figure 1

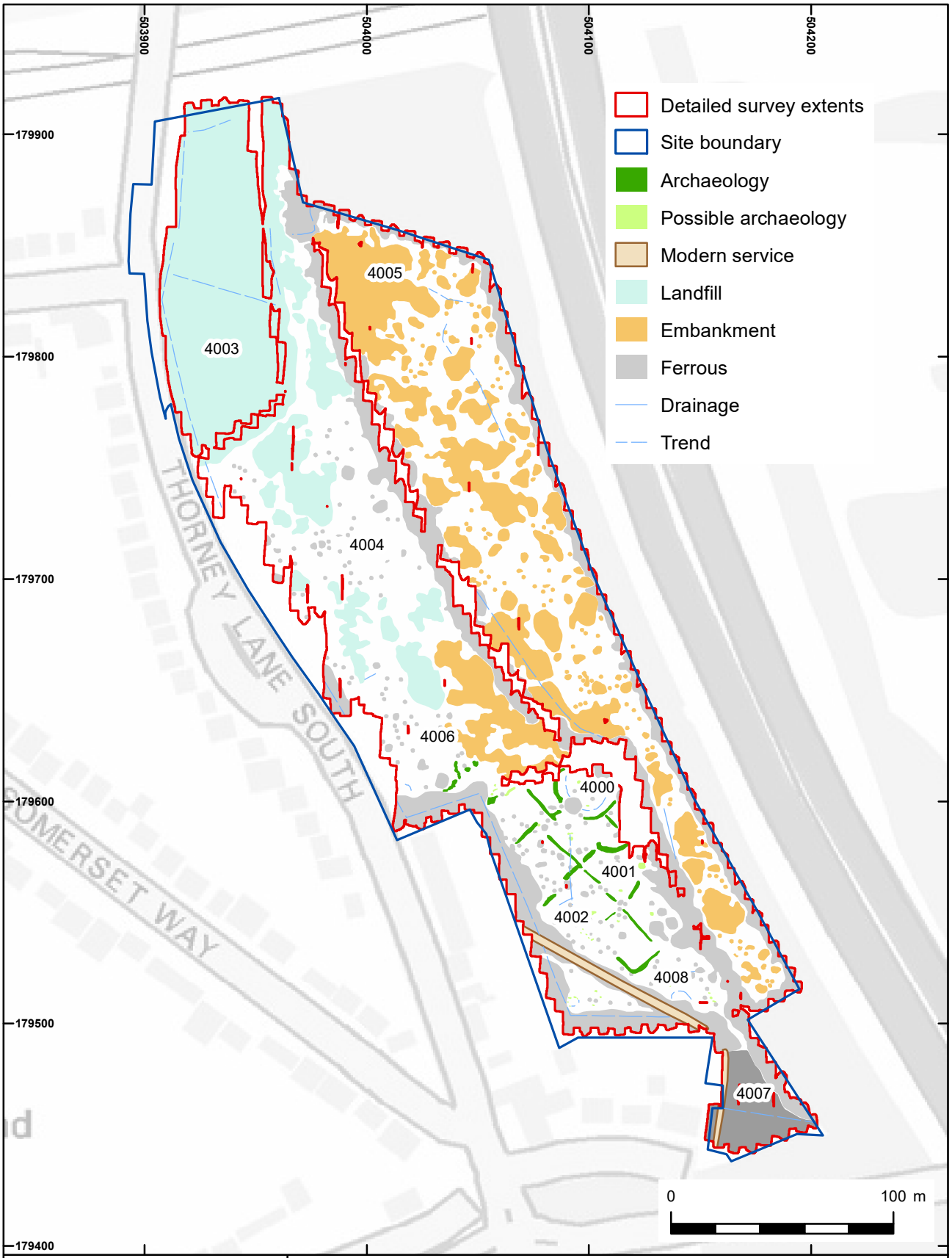


Coordinate system:
OSGB36 (OSTN15/OSGM15)

Date:	01/02/2018	Revision Number:	0
Scale:	1:2500 at A4	Illustrator:	WAF
Path:	X:\TENDERS\T24137\Graphics_Office\Report figs\Geophysics\2018_02_01\T24137_Geophys_Fig02.mxd		

Detailed Gradiometer Survey: Greyscale Plot

Figure 2



Coordinate system:
OSGB36 (OSTN15/OSGM15)

Date:	01/02/2018	Revision Number:	0
Scale:	1:2500 at A4	Illustrator:	WAF
Path:	X:\TENDERS\T24137\Graphics_Office\Report figs\Geophysics\2018_02_01\T24137_Geophys_Fig03.mxd		

Detailed Gradiometer Survey: Interpretation

Figure 3

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