

**Hindlip Hall,
Worcestershire
Geophysical Survey
and Archaeological
Evaluation**

Client: West Mercia Police and Crime
Commissioner

AB Heritage Project No:10800, OASIS ID
abherita1-254716 & 254720, Worcestershire
Archaeology & Archive Service Ref.
WSM67932 & WSM67933

Date:23/05/2016

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Rev Number	Description	Undertaken	Approved	Date
1.0	Draft	DD	AB	12/05/2016

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EXECUTIVE SUMMARY

This report presents the results of an archaeological investigation on land immediately to the east of Hindlip Hall, Headquarters of West Mercia Police Force. A new development has been proposed to erect a new building over the existing dog training field, beyond this there will be a new pond and ornamental planting.

Because of the presence of archaeological remains contacted during previous works at the site, a planning condition was applied to the planning permission. The condition required that a geophysical survey and a targeted trench evaluation be undertaken prior to the commencement of construction on the site.

Neither the geophysical survey nor the trench evaluation discovered any features or deposits of archaeological significance.

1. INTRODUCTION

1.1 Project Background

- 1.1.1 A planning application (W/15/02662/FULL) was submitted to Wychavon District Council in October 2015 for a new operations and communications centre with car parking, other facilities and associated works and water attenuation pond on land at Hindlip Hall, The Drive, Hindlip, Worcester, WR3 8SP.
- 1.1.2 The application has subsequently been approved subject to a suite of conditions, one of which (condition 12) pertains to the recommended programme of archaeological works. These works comprise an initial geophysical survey (magnetometry) of the development area, followed by trial trenching to investigate any features of possible archaeological origin identified by the geophysical survey and as a means of prospection for remains of a type or period that may not respond to magnetic survey.
- 1.1.3 The Police and Crime Commissioner of West Mercia Police has commissioned AB Heritage Ltd, to undertake the archaeological work in accordance with a brief produced by Worcestershire County Council. This document forms the report of the result of the works.

1.1.2 Site Location & Description

- 1.1.3 The proposed development site at Hindlip Hall, in Worcester (hereafter referred to as the site), covers approximately 2.5 hectares (ha) and is centred at NGR SO 88252 58704. It is situated c. 900m north of the A449 and c. 1 mile north-west of the M5. The site is c. 1 mile east of the centre of Fernhill Heath, and just over a mile to the north-east of the centre of the city of Worcester (Figure 1).
- 1.1.4 The site comprises an artificially levelled sports pitch which is used for dog training, and by arable agricultural land. The site has been extensively landscaped to the north to allow for the main access road which runs north east to south west. In the south east the site is bounded by woodland, and to the south of the sports field the boundary is demarcated by a fence which encloses a shooting range. At the western side of the site there are currently areas of hard standing used for the storage of police fleet vehicles.

1.1 Geology & Topography

- 1.1.3 The underlying bedrock geology comprises of Sidmouth Mudstone Formation overlain in part of the site by superficial Spring Hill Sand and Gravel Member (BGS 2016). The soils on site are slightly acid loamy and clayey soils with impeded drainage (Soilscape, 2016).
- 1.1.4 This form of geology is likely to create an variable response within the geophysical data, the bedrock has an average response which can be variable and the superficial is very variable, likely ranging from moderate to good (English Heritage, 2008).
- 1.1.5 Topographically the application site is relatively flat with an average height of about 62m Above Ordnance Datum. However the sports field is banked up on its northern side to make the playing surface flat.

2 ARCHAEOLOGICAL & HISTORICAL BACKGROUND

2.1 Overview

2.1.1 The archaeological and historical background to the site and its environs has been presented in brief in a Heritage Statement by Bailey Garner *Historical, Heritage and Archaeological Statement: Operations and Communications Centre (OCC) Hindlip Park, Hindlip, Worcestershire* (Bailey Garner 2016), and by Worcestershire County Archaeological Services in their *Requirements for Archaeological Field Evaluation on land at Hindlip Hall, The Drive, Hindlip, Worcester, WR3 8SP* (2016).

2.1.2 The Archaeological and Historical Background presented here is a synthesis of the Historic Environment Records (HER) obtained for a 250m buffer zone centred on the sports/dog training pitch. This should be read in conjunction with the documents mentioned in the preceding paragraph.

2.1.3 There are no Scheduled Ancient Monuments, Registered Parks and Gardens or Battlefields within the site or the wider study area. There is a total of five Listed Buildings within the study area, comprising the timber framed Police Museum, the parish church and memorials in the churchyard.

Buildings

2.1.4 The current Hindlip Hall is an early 19th century building which was erected on the site of 2 earlier manor houses – the first being a timber construction the second of brick (built in 1572 and burned down in 1820). The current building houses the offices of the Headquarters of West Mercia Police, and has been much altered and extended.

2.1.5 A timber framed building of c. 1470 now houses the Police Museum. It dates from a period when the Hindlip Estate was to be divided for two sons, one of whom inherited the main house, the other this building. The house shows considerable evidence of alteration during nineteenth century and after.

2.1.6 The parish church of St James the Great is the only other notable building in the study area. This church has its origins in the 14th century, but was almost completely altered and enlarged in the latter half of the nineteenth century by W.J. Hopkins. The Churchyard contains listed memorials.

Findspots

2.1.7 A number of findspots are recorded in the HER, and these broadly tie in with the records of archaeological sites in the study area.

2.1.8 A Palaeolithic Hand Axe is recorded from the study area, found just to the east of Hindlip Hall. Further prehistoric finds include a Neolithic flint flake, Iron Age pottery, plant and animal remains discovered during archaeological investigation in 2009 (see below).

2.1.9 Finds from the Roman period include pottery and metalwork some of which was recovered from the works in 2009.

- 2.1.10 A brooch dating from the Anglo Saxon period as well as metal objects from the medieval and post medieval period are attested.

Sites/Monuments

- 2.1.11 The HER records contains entries for a Deserted Medieval village in the study area, but the extent and location of this is unknown. It is thought that the extensive landscaping of the Hindlip Hall grounds has masked clues to the location of this asset.
- 2.1.12 Archaeological works in 2009 uncovered evidence for Iron Age activity – particularly in the form of an Iron Age pit alignment. This feature had a direct bearing on the works presented in this report and is described below.
- 2.1.13 Also contacted in 2009 was evidence of Romano-British settlement. This was found to the east of the Iron Age pits, further along the route of the main Headquarters access road.

Archaeological Work

- 2.1.14 In 2009, in advance of works to construct a new access road to join the Headquarters complex to the A4538 Pershore Lane, with gatehouse, visitor car parking and landscaping a scheme of archaeological investigations was put in place.
- 2.1.15 Initial investigations comprised an evaluation on the line of a proposed tree planting belt and a "strip map and sample" exercise undertaken within the footprint of the new road. These investigations identified two areas of interest within the site. To the immediate east of Hindlip Hall was an Iron Age pit alignment, while in the centre of the site a cluster of Roman features, largely pits and ditches in the location of the proposed gatehouse was recorded.
- 2.1.16 Following the results of these exercises and consultation with the Curator and client, a programme of excavation was undertaken, targeting Roman features and the pit alignment within the development area.
- 2.1.17 The pit alignment consisted of 22 oval or sub-circular pits, orientated from east to west on the crest of the slope slightly to the east of Hindlip Hall. No pottery was recovered from the pit fills but the presence of slag and hammerscale (by-products of metalworking) allied to the absence of Roman pottery, supports an Iron Age date.
- 2.1.18 Other evidence for Iron Age occupation across the site included small quantities of Late Iron Age pottery recovered from the area of Roman settlement and a vessel which was set into the natural ground as a storage jar or perhaps as an animal drinking trough.
- 2.1.19 Excavation of the Roman features revealed the presence of a small to medium sized rural settlement spanning the period from the mid 2nd to 4th centuries AD. The main focus of activity took place from the mid 2nd to mid 3rd centuries with the construction of four enclosures with occasional outlying ditches and pits. The smaller of these are interpreted as stock enclosures while a larger, multi-ditched enclosure, may have been occupied by a family unit or several family units. Occupation must have been largely confined within the enclosures but the archaeological evidence for this was sparse, although later agricultural activities may have removed any shallow features. The artefactual, environmental and faunal evidence points to a settlement reliant on pastoral farming with occupation peaking sometime in the 2nd and 3rd centuries.

- 2.1.20 The late 3rd to 4th century activity appears to contract and shift northwards. Three southern enclosures went out of use, while the northern enclosure was re-designed and shifted westwards. A cobbled surface to the east of this enclosure probably represented a floor which perhaps had a building situated on it. An occupation layer above these cobbles contained quantities of pottery, fragments of oven superstructure, nails and querns. It can be suggested that this surface was used for the production of flour and bread. The presence of large quantities of charred spelt chaff from environmental samples collected in this area supports this hypothesis.
- 2.1.21 Analysis of animal bone from the site demonstrates that few of the animals which died or were slaughtered in this location were of marketable age. It is suggested that the enclosures, in particular the very large example dated to the late 3rd to 4th centuries, were used for the corralling of cattle, perhaps brought to Hindlip prior to being taken on to market at Worcester. Presumably the Roman road, situated less than a kilometre to the west, would have been the route taken (Worcestershire County Archaeological Service 2009).

3 SCOPE OF WORKS

3.1 Scope of Works

- 3.1.1 The works comprised the detailed magnetometer survey of the whole of the designated and agreed development area.
- 3.1.2 Subsequent to, and in relation to the results of the geophysical survey, a series of seven archaeological evaluation trenches were excavated across the site. The trenches were placed to attempt to intercept the known alignment of Iron Age pits identified in 2009, and to test the geophysical survey results.

3.2 Limitations

- 3.2.1 Much of the site has been extensively landscaped, particularly at the artificially levelled sports/dog training field and in association with the recently constructed gatehouse and access road. This landscaping reduced the efficacy of the geophysical survey, which in some places could not penetrate the depth of made ground.
- 3.2.2 For the subsequent trenching, the usual limitations associated with trial trenching were evident – namely the reliance on long narrow trenches to attempt to discover and identify potentially ephemeral archaeological deposits.

4 GEOPHYSICAL SURVEY

4.1 Methodology of Survey Works Summary

Site Specific Information

- 4.1.1 A geophysical survey was undertaken covering c. 2.5 ha of ground at Hindlip Hill, Worcester on the 29th of March 2016.
- 4.1.2 The AB Heritage staff members who undertook the works were Glenn Rose (Project Officer), and Peter Bonvoisin (Archaeological Technician).
- 4.1.3 The weather conditions were mostly dry for the duration of the survey, with occasional heavy showers these conditions had no material impact upon the survey.

Equipment

- 4.1.4 The magnetic survey equipment used was two Bartington Grad-601 (fluxgate magnetometers). Please see Appendix A, which contains a detailed methodology for the works undertaken; however, briefly, Table 1, below, shows site specific information on how the magnetometer was set up:

Table 1: Setting Parameters of Magnetometer

Grid Size	30x30 metres
Data Capture Distances	1m x 0.25m
Sensors	2
Sensitivity	0.1nT

- 4.1.5 A Trimble Geo XR GPS was used to setup the geophysical survey. This has sub-centimetre accuracy suitable for this survey.

4.2 Known Constraints

- 4.2.1 The site to the west is situated on the sports/dog training ground, which has been banked to create a flat playing surface and the area of banking was unable to be traversed (plate 1).
- 4.2.2 To the north of the site is the entrance road to Hindlip Hall and the area of landscaped ground running along its northern edge (Plate 2).
- 4.2.3 To the western side of the sports ground is an area of hard standing, which is currently being used for storage of police fleet vehicles (Plate 3).



Plate 1: View of the area of banking for the sports ground in the north east corner, facing south west.



Plate 1 View of the road running along the northern edge of the site, facing north east.



Plate 2 View of hardstanding area in the western edge of the site currently used for storage of police fleet vehicles, facing south west.

4.3 Results

- 4.3.1 For the purposes of this detailed magnetic survey, results for the geophysics data have been shown within Figures 2-4, with interpretations shown in Figure 4. Below is a factual account of the results
- 4.3.2 A large rectangular feature [**GP 1**] is located within the centre of the sports ground covering an area of 200 sq m with a range of readings between -20nT to 10nT.
- 4.3.3 A positive linear feature [**GP 2**] runs from the north east corner of the sports ground and extends in a north east to south west direction, with a reading of 1nT to 6nT.
- 4.3.4 Across the sports ground are also multiple positive linears [**GP3**] with associated negatives, running in an organised pattern covering the majority of the sports ground, with a range of 10nT to -10nT.
- 4.3.5 Di-Polar anomalies [**GP 4**] are situated throughout the site in an amorphous pattern, with a higher density within the eastern side of the site.
- 4.3.6 Areas of magnetic disturbance [**GP 5**] are seen throughout the survey area with majority associated with the landscaping in the north western side of the site.

4.4 Interpretation & Discussion

- 4.4.1 Interpretation of the results of geophysical survey is based on professional judgement as to the likely/probable cause of an anomaly or reading. For example, strong dipolar discrete anomalies of small size are often associated with ferrous debris or similarly magnetic debris. In addition, where a positive linear anomaly is recorded, which has a negative anomaly associated alongside either side of it, is often likely to relate to the line of a modern utility.

- 4.4.2 GP numbers have been used to place interpretations into categories. Below is a discussion of the results, there has also been applied a confidence rating to the features identified (See Appendix 1). As with English Heritage 2008 guidelines for geophysical survey for archaeological field evaluation, this is an acceptable additional option only on the clear understanding that such ratings are subjective and potentially fallible assessments which can only really be tested through excavation.

Table 2: Interpretation of Geophysical Anomalies

AB No	Appearance	Potential Cause
GP 1	Positive/negative rectangular feature	Possible drainage tank
GP 2	Positive linear	ditch
GP 3	Positive with associated negative linears	Field Drains
GP 4	Di-polar Anomalies	Amorphous Magnetic debris
GP 5	Negative and positive readings	Modern ground disturbance

- 4.4.3 The majority of the site has been extensively landscaped, with the eastern side of the site the only area currently used as agricultural land. The sports/dog training ground contains an extensive drainage system as shown within the results of the geophysical survey [**GP 1 & 3**], and has been raised to create a flat playing surface as shown in the magnetic disturbance [**GP 5**].
- 4.4.4 A possible ditch [**GP 2**] identified within the north eastern corner of the site, is most likely caused by the re-landscaping of the northern area, bounded by the entrance road into Hindlip Hall. This ditch was excavated in Trench 2, and was shown to be of modern derivation (see section 5.2.4).
- 4.4.5 Based on the known archaeological potential within the site, the extensive landscaping has been shown to be a hindrance to the overall efficacy of the geophysical survey, in being able to identify archaeological features within the site.

5 ARCHAEOLOGICAL EVALUATION

5.1 Methodology

- 5.1.1 AB Heritage Ltd enlisted the services of Cotswold Archaeology (CA) for the field evaluation aspect of this project. AB Heritage Ltd fully acknowledges the hard work and expertise that Cotswold Archaeology brought to bear on the project, both in the field and at report stage.
- 5.1.2 The evaluation comprised the excavation of seven trenches in the locations shown on the attached plan (Fig. 5). Trenches 1 to 5 measured 50m long and 1.8m wide, equating to a 4% sample of this 1.2ha area. Trenches 6 and 7 measured 10m in length and 1.8m in width. Trenches were set out on OS National Grid (NGR) co-ordinates using Leica GPS and surveyed in accordance with *CA Technical Manual 4: Survey Manual*.
- 5.1.3 All trenches were excavated by mechanical excavator equipped with a toothless grading bucket. All machine excavation was undertaken under constant archaeological supervision to the top of the first significant archaeological horizon or the natural substrate, whichever was encountered first. Where archaeological deposits were encountered they were excavated by hand in accordance with *CA Technical Manual 1: Fieldwork Recording Manual*.
- 5.1.4 Deposits were assessed for their palaeoenvironmental potential in accordance with *CA Technical Manual 2: The Taking and Processing of Environmental and Other Samples from Archaeological Sites*, although no deposits were identified that required sampling. All artefacts recovered were processed in accordance with *CA Technical Manual 3: Treatment of Finds Immediately after Excavation*.
- 5.1.5 The archive from the evaluation is currently held by CA at their offices in Milton Keynes, prior to its final deposition with Worcestershire Museum Collection Store. A summary of information from this project, set out within Appendix B, will be entered onto the OASIS online database of archaeological projects in Britain.

5.2 Results

- 5.2.1 This section provides an overview of the evaluation results (Figs. 5-7). Detailed summaries of the recorded contexts are to be found in Appendix 2.
- 5.2.2 The evaluation recorded an undated ditch within Trench 2 (Figs. 5 and 7). No archaeological finds, features or deposits were observed within the remaining trenches.

Trenches 1 & 2

- 5.2.3 Trenches 1 and 2 were located within the northern part of the site, partially excavated through a modern embankment. These trenches were specifically located in order to try to capture the continuation of the Iron Age pit alignment identified in 2009. A broadly similar stratigraphic sequence was identified within both trenches. The natural geological substrate, which comprised mid grey red clay with small stone inclusions, was observed at between 1.33m (Trench 1) and 1.85m (Trench 2) below present ground level (bpgl). This was overlain by a buried soil layer, up to 0.4m in thickness, which comprised grey brown compact clay silt with small stone inclusions. This most likely represents the former topsoil. This was overlain by redeposited natural, comprising light brown red compact clay with stone inclusions, up to

0.74m thick. This material was presumably deposited during modern landscaping associated with the creation of a new site entrance to the immediate north-west of the site. This was in turn sealed by topsoil, up to 0.34m thick.

- 5.2.4 Located towards the south-eastern end of the trench was north-east/south-west orientated ditch 204 (Fig.7). It measured up to 3.3m wide and 0.3m deep, with moderately sloping sides and a flat base. It contained a single fill 205 comprising fragments of CBM in a grey clay matrix. It was deposited as a deliberate act of backfilling, most likely during the construction of earthen banks at the northern end of the site during modern landscaping.
- 5.2.5 The pit alignment identified in 2009 to the west of the site was not observed within Trench 1 or Trench 2.

Trenches 3, 4 & 5

- 5.2.6 A similar stratigraphic sequence was identified within Trenches 3, 4 and 5. The geological substrate, comprising light pink brown compact sandy clay, with small stone inclusions was observed at an average depth of 0.26m bpgl. This was directly overlain by topsoil, up to 0.26m thick. No features, finds or deposits of archaeological interest were observed within these trenches.

Trenches 6 & 7

- 5.2.7 Trenches 6 and 7 were 10m long and 2m wide. The natural geological substrate (602) within Trench 6 was observed at a depth of 0.77m bpgl and comprised pink brown sandy clay with occasional small stone inclusions. This was overlain by a deliberately dumped deposit of mixed red brown and grey brown compact sandy clay (601) measuring up to 0.57m thick. This represents landscaping/levelling deposit associated with the construction of modern sports pitches. This was sealed by mid grey brown topsoil (600) measuring up to 0.2m thick. The natural substrate within Trench 7 consisted of bands of pink brown sandy clay and friable clayey sand, encountered at an average depth of 0.18m bpgl. This was directly overlain by topsoil which measured 0.18m in thickness.

5.3 Discussion

- 5.3.1 The site lies within close proximity to a high concentration of archaeological remains, most notably an Iron Age and Roman settlement located to the north-east of the site. An Iron Age pit alignment is recorded immediately north-west of the site, with the projected alignment of a Roman road traversing the north-western corner of the site. The geophysical survey did not identify any evidence for features relating to this activity within the site. Evaluation was undertaken to determine if the archaeological remains associated with these features extended into the site.
- 5.3.2 The evaluation identified a single undated ditch within Trench 2. The ditch corresponds with the general alignment of the surrounding field systems depicted on historic and current Ordnance Survey mapping, which predominantly relate to Parliamentary Enclosures of the post-medieval period (see Fig. 1).

- 5.3.3 Evidence for modern landscaping, most probably associated with the construction of an access road was revealed throughout the northern part of the site, with landscaping and truncation of the ground surface identified in the area of modern sports pitch (Trench 6).

6 CONCLUSIONS

- 6.1.1 Despite the archaeological potential of the application area (see archaeological background above), neither the geophysical survey nor the evaluation identified any archaeological remains pre-dating the post-medieval/modern period within the site. The absence of archaeological deposits may indicate that the remains associated with the Iron Age and Roman occupation site excavated to the north-east of the site and the postulated alignments of further Iron Age and Roman features as seen in 2009 either do not extend as far as the development area, or that they may have been removed during previous development.

7 OUTLINE RECOMMENDATIONS

- 7.1.1 No further archaeological investigations are recommended in light of the results of the fieldwork, however, the final decision on such matters lies with the Worcestershire Archive and Archaeology Service.

8 REFERENCES

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APPENDIX 1 GEOPHYSICAL METHODOLOGY

FLUXAGTE MAGNETOMETRY SURVEY

The magnetic survey is carried out using a fluxgate gradiometer, which is a passive instrument consisting of two sensors mounted vertically 1m apart. The instrument is carried about 30cm above the ground surface and the top sensor measures the Earth's magnetic field, whilst the lower sensor measures the same field but is also more affected by any localised buried field. The difference between the two sensors will relate to the strength of a magnetic field created by a buried feature, if no field is present the difference will be close to zero as the magnetic field measured by both sensors will be the same.

Factors affecting the magnetic survey may include soil type, local geology, previous human activity, disturbance from modern services etc.

Survey equipment

The Bartington Grad 601-2 dual magnetic gradiometer is capable of surveying to an accuracy of 0.1 nanotesla (nT).

Sample interval and depth of scan

The magnetometer data is collected in 30mx30m grids at a resolution of 1m x 0.25m. This sample density is recommended for site evaluation (English Heritage, 2008). This equates to 3600 points per 30mx30m grid. The magnetometer has a typical depth of penetration of 0.5m to 1.0m. This would be increased if strongly magnetic objects are buried within the site.

Data capture

The readings are logged continually by the data logger during the survey, which is then downloaded on site to a site laptop. At the end of each job, data is transferred to the office PC's for processing and presentation.

This 'regular xy' data is then downloaded into specialist data processing software, at user defined sample intervals (in this case 1 m by 0.25 m). This is processed as standard magnetometer data.

Processing

Standard Raw Magnetometer data processing consists of:

Zero mean Traverse- This process sets the background mean of each traverse within each grid to zero, the operation allows for the removal of striping effects.

Destagger- The collection of geophysical data can lead to errors with time due to a slight variation in speed of traverses or time lag within the collection of data. The process corrects the errors of stagger within the data.

Non-Standard Magnetometer processing:

Interpolation- The results of greyscale geophysical data can sometimes appear blocky in nature. Interpolation is a process which calculates and inserts values between existing data to give a smoother grey scale image.

Clipping – The clipping process will clip extreme values from the data set and increase the contrast in the data values closer to the mean. As most data within a data set is concentrated around the mean clipping can produce a better visualisation of standard data sets, particularly very weak signals that tend to be lost in a myriad of grey shades.

Some degree of heading error is inevitable when using a fluxgate gradiometer with such an acute sensitivity to the direction of travel in bi directional manner i.e. zigzag traverses. The error displays as a series of alternating lighter and darker stripes in the traverse direction and the function assesses and corrects the mean for each line of data to bring them in to the same mean range and remove any visible artefacts.

Display of data

Greyscale-This is display takes a range of reading and divides into a set number of classes. Each class is represented by a specific shade of grey and the higher the positive reading the darker the grey.

Colour- Colour can be applied to Greyscale plots to show high and low data collection points in a more direct way.

XY Trace Plot- Data is represented by a line, which is incremented along the Y axis. This produces a stepped effect, thus the data can be viewed to show a possible shaping of a feature. Typically features are clipped to limit odd readings.

Assigned ranges can be adjusted to give the best display of the data.

Some degree of heading error is inevitable when using a fluxgate gradiometer with such an acute sensitivity to the direction of travel in bi directional manner i.e. zigzag traverses. The error displays as a series of alternating lighter and darker stripes in the traverse direction and the function assesses and corrects the mean for each line of data to bring them in to the same mean range and remove any visible artefacts.

GPS METHODOLOGY

An RTK GPS (Real-time Kinematic Global Positioning System) can locate a point on the ground to sub-cm accuracy, a far greater accuracy than a standard GPS unit. An RTK system uses a base station receiver and a number of mobile units (rovers). The base station takes measurements from satellites in view and then broadcasts them along with its known position to the rover receivers. The rover receiver also collects measurements from the satellites in view and processes them with the base station data. The rover then computes its location relative to the base.

During such a survey a Trimble GeoXR Differential Global Positioning System (dGPS), capable of Real Time Kinematic (RTK) is used to set out a nominal grid prior to the survey. This increases the accuracy and efficiency of the survey. The data is then downloaded from the unit on the day, using a USB stick.

CONFIDENCE RATING OF INTERPRETATION

Categories for interpretations when there is corroborative evidence from mapping/desk based or excavation data can be assigned to magnetic anomalies (for example, Utility, Road, Wall, etc.) and where appropriate, such interpretations will be applied.

Table 2: Table of Confidence with interpretation

Interpretation Confidence	Evidence
High	Backed by mapping/desk based work/ excavation. A clear feature with a clear form.
Medium	A feature which has an unclear structure though has grouped potential or associated potential.
Low	Unknown provenance entirely based on form.

APPENDIX 2 CONTEXT DESCRIPTIONS

Trench No.	Context No.	Type	Fill of	Context interpretation	Description	L (m)	W (m)	D (m)	Spot-date
1	100	Layer		Topsoil	Light brown grey silt.	N/A	N/A	0.43	
1	101	Layer		Redeposited Natural	Mid brown red clay.	N/A	N/A	0.38	
1	102	Layer		Buried Soil	Mid grey brown clayey silt. Contained modern finds.	N/A	N/A	0.29	Modern
1	103	Layer		Natural	Mid pink red clay.	N/A	N/A		

Trench No.	Context No.	Type	Fill of	Context interpretation	Description	L (m)	W (m)	D (m)	Spot-date
2	200	Layer		Topsoil	Light brown grey silty clay.	N/A	N/A	0.25	
2	201	Layer		Redeposited Natural	Light brown red silt.	N/A	N/A	1.10	
2	202	Layer		Buried Soil	Mid brown grey clayey silt.	N/A	N/A	0.50	
2	203	Layer		Natural	Mid grey red firm clay.	N/A	N/A		
2	204	Cut		Ditch	North-east/south-west orientated ditch, with moderately sloping sides and a flat base.		3.3	0.3	
2	205	Fill	204	Single fill	Fragments of CBM in a grey clay matrix.		3.3	0.3	

Trench No.	Context No.	Type	Fill of	Context interpretation	Description	L (m)	W (m)	D (m)	Spot-date
3	300	Layer		Topsoil	Mid brown grey silty clay.	N/A	N/A	0.26	
3	301	Layer		Natural	Mid pink red firm clay.	N/A	N/A		

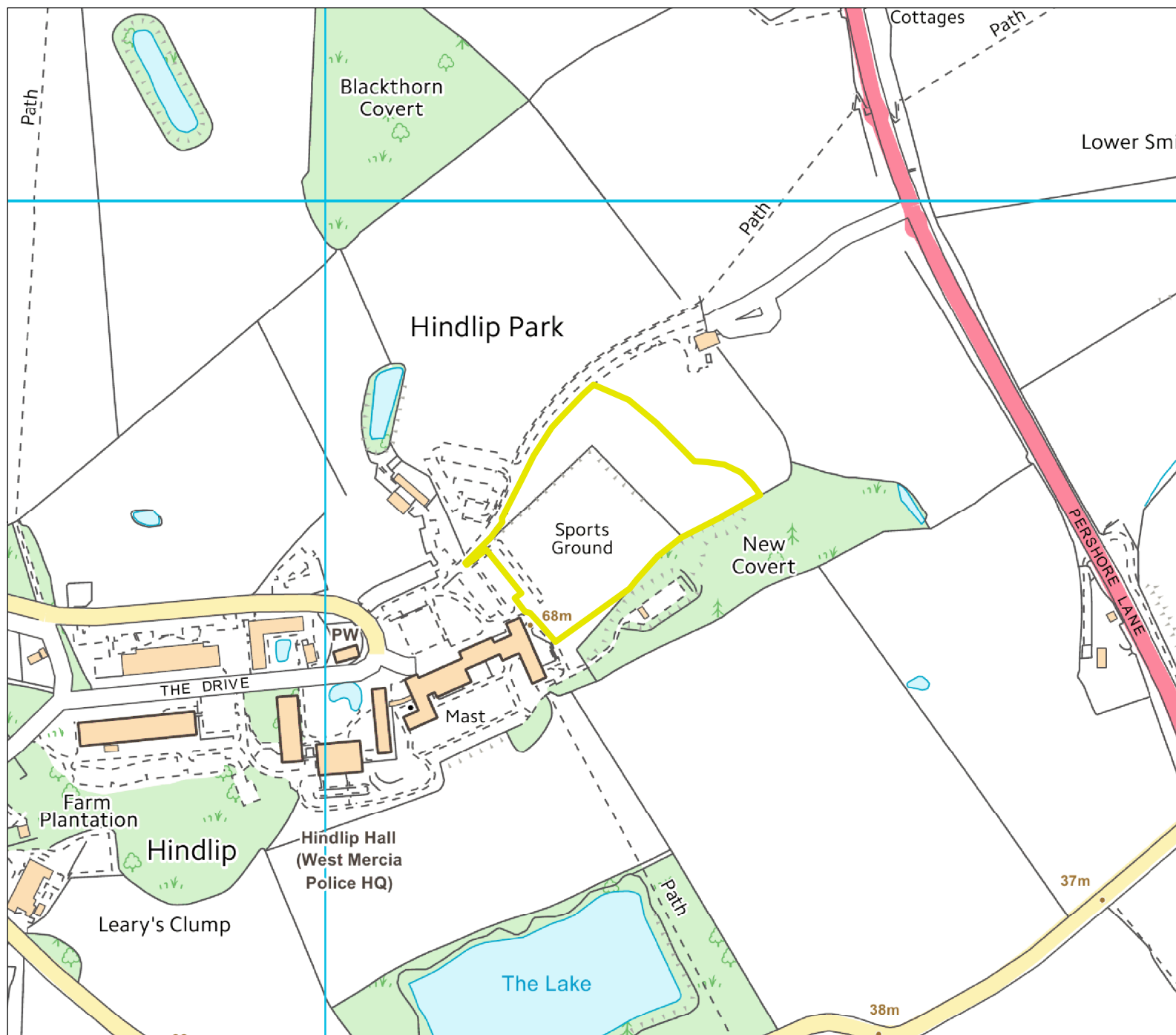
Trench No.	Context No.	Type	Fill of	Context interpretation	Description	L (m)	W (m)	D (m)	Spot-date
4	400	Layer		Topsoil	Light brown grey silty clay.	N/A	N/A	0.26	
4	401	Layer		Natural	Light pink red silty clay.	N/A	N/A		

Trench No.	Context No.	Type	Fill of	Context interpretation	Description	L (m)	W (m)	D (m)	Spot-date
5	500	Layer		Topsoil	Light brown grey silty clay.	N/A		0.27	

5	501	Layer		Natural	Light pink red firm clay.	N/A			
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Trench No.	Context No.	Type	Fill of	Context interpretation	Description	L (m)	W (m)	D (m)	Spot-date
6	600	Layer		Topsoil	Light brown silty.	N/A	N/A	0.20	
6	601	Layer		Made ground	Banded and mixed: Friable red brown and grey brown silty sands, sandy silts and clays.	N/A	N/A	0.59	
6	602	Layer		Natural	Red brown sandy silts with grey silts and clays.	N/A			

Trench No.	Context No.	Type	Fill of	Context interpretation	Description	L (m)	W (m)	D (m)	Spot-date
7	700	Layer		Topsoil	Light brown grey silty clay.			0.18	
7	701	Layer		Natural	Light pink red silty clay, with pinkish red sand banding.				



Legend

 Site Boundary



Figure 1: Site Location

Project: Hindlip Hall

Date: 21/03/16

Job Number: 10800

Drawn by: PB

Approved by: GR





Legend

 Site Boundary

+1
Plotting
Parameters
-1

Figure 2: Raw Geophysical Data

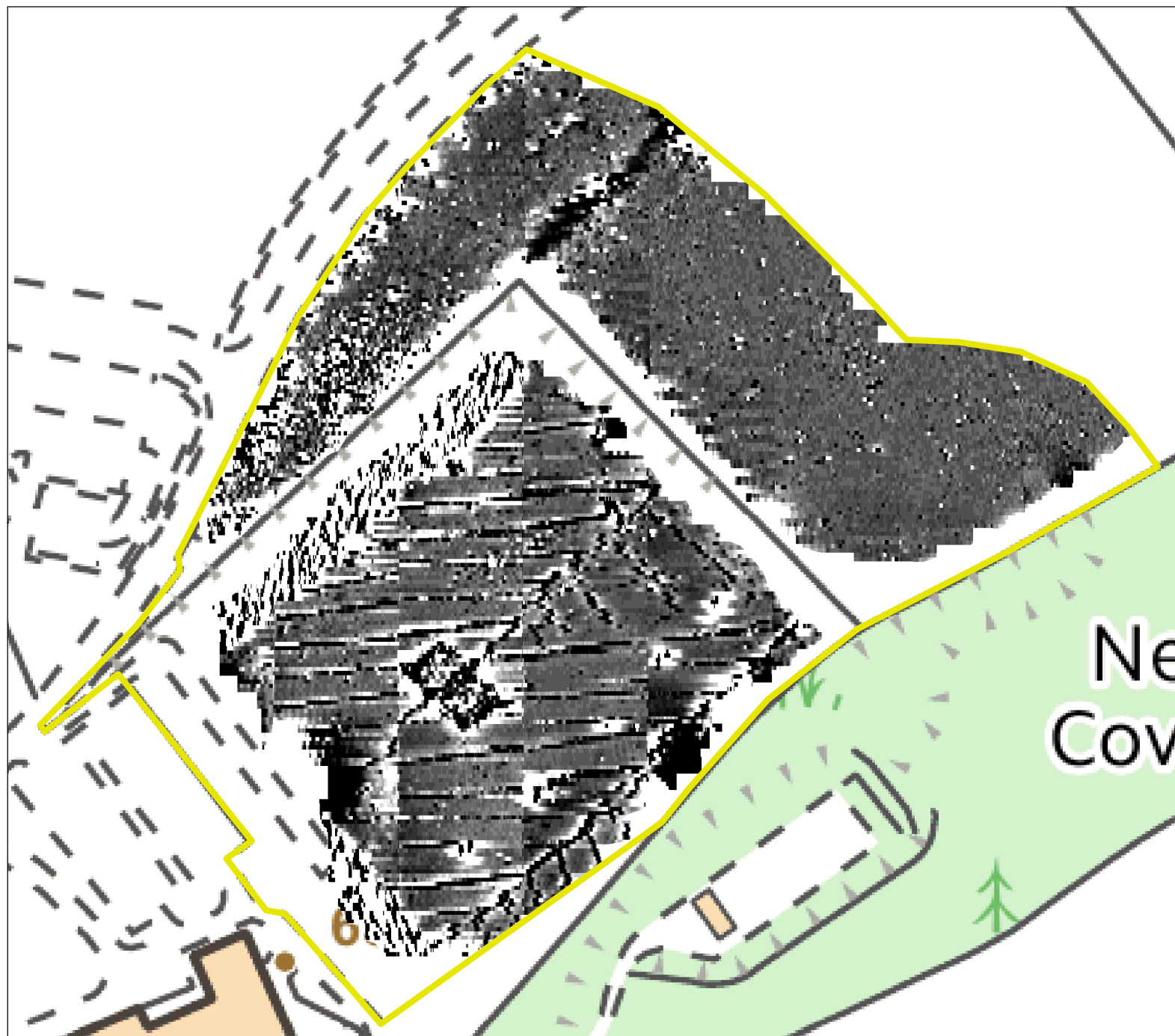
Project: Hindlip Hall

Date: 30/03/16

Job Number: 10800

Drawn by: ZE

Approved by: GR



Legend

 Site Boundary

+5
Plotting
Parameters
-5

Figure 3: Processed Geophysical Data

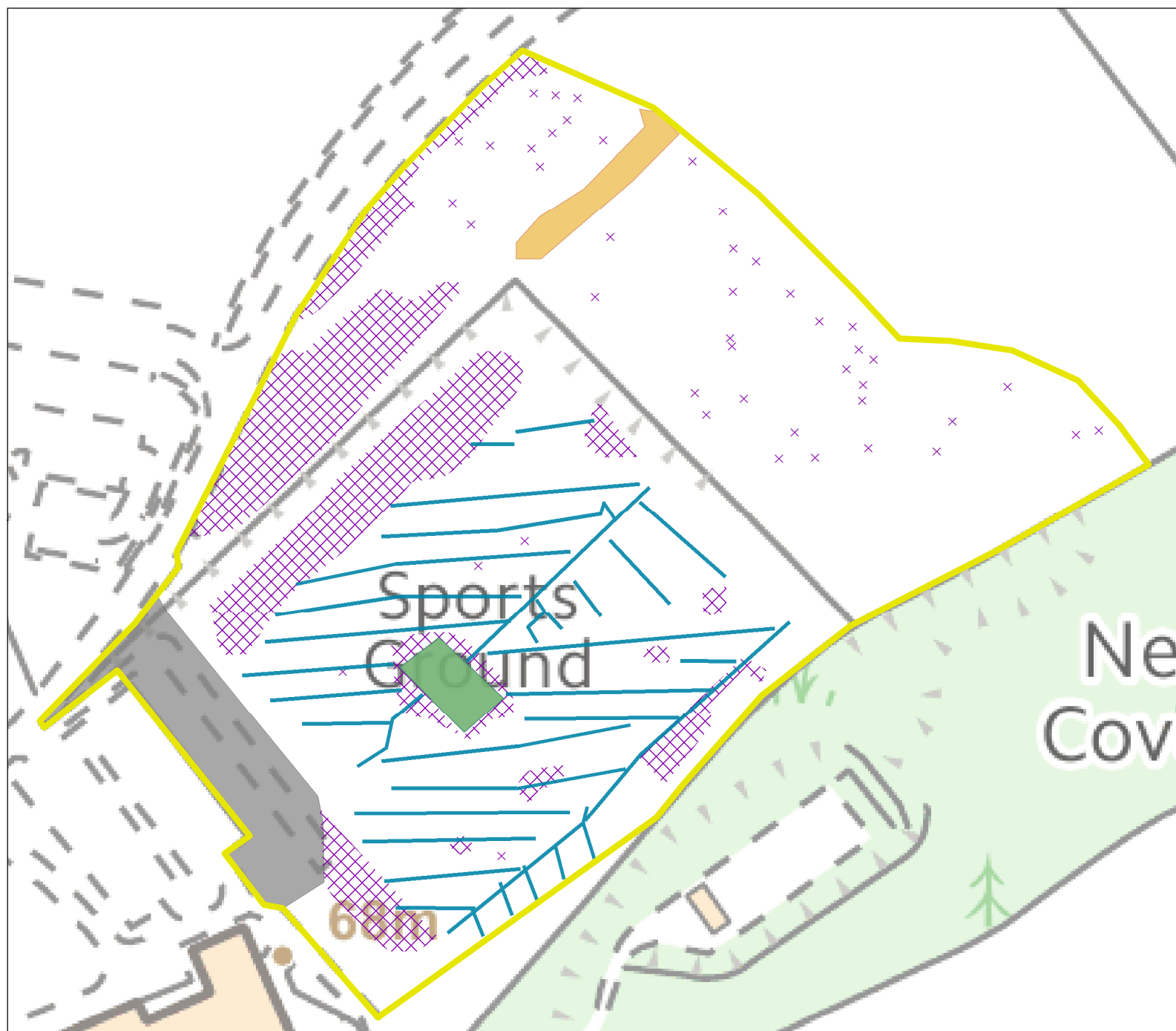
Project: Hindlip Hall

Date: 30/03/16

Job Number: 10800

Drawn by: ZE

Approved by: GR



Legend

- Possible Drainage Tank [GP1]
- Possible Ditch [GP2]
- Field Drains [GP3]
- x Di-Polar Anomalies [GP4]
- Magnetic Disturbance [GP5]
- Area of Hard Standing
- Site Boundary

Figure 4: Interpretation of Geophysical Data

Project: Hindlip Hall

Date: 30/03/16

Job Number: 10800

Drawn by: ZE

Approved by: GR



Legend

Site Boundary

Figure 5: Trench Location Plan,
Showing Modern
Feature & Geophysical Survey
Results

Project: Hindlip Hall

Date: 29/04/16	Job Number: 10800
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Drawn by: CA	Approved by: DD
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Figure 6: Trench 1, looking north-east (1m scale)



Figure 7: Trench 2, looking north-west (1m scale)

Figures 6 & 7: Trench Photographs

Project: Hindlip Hall

Date: 29/04/16

Job Number: 10800

Drawn by: CA

Approved by: DD



Figure 8: Trench 2 section, looking west (1m scale)

Figure 8: Section Photograph

Project: Hindlip Hall

Date: 29/04/16 Job Number: 10800

Drawn by: CA Approved by: DD



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