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Interpretation, Design & Display

**Land off Salkeld Road
Langwathby
Cumbria**

**Archaeological Desk-Based Assessment
and Geophysical Survey**

Report No. Y118/13

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SUMMARY

A desk-based assessment and geophysical survey were undertaken by CFA Archaeology Ltd on behalf of Story Homes on land off Salkeld Road, Langwathby, Cumbria. The desk-based research did not identify any archaeological sites within the development area. Cultural heritage sites within the immediate area were identified, placing the proposed development area within its cultural-historical context (Fig. 2).

There were no responses from the geophysical survey which could readily be interpreted as being of definite archaeological interest. A few anomalous responses were classified as being uncertain, while further anomalies were either of a natural or agricultural origin.

1. INTRODUCTION

1.1 Project Background

This report presents the results of an archaeological desk-based assessment and geophysical survey undertaken by CFA Archaeology Ltd (CFA) during October 2013. The work was commissioned by Story Homes to evaluate the potential of archaeological remains within the proposed development area.

A brief (dated September 2013) was prepared for this work by the Cumbria County Council Historic Environment Service (CCCHES). The desk-based assessment was undertaken by Phil Mann and the geophysics reporting was undertaken by James Lawton (Lawton 2013). The site walkover was undertaken on 16 October and the geophysical survey was undertaken on the 2 November 2013.

1.2 Site Description

The proposed development area is 6.5km to the north-east of Penrith and lies adjacent to Salkeld Road, Langwathby in the district of Eden in the parish of Langwathby, in Cumbria (NGR NY 56842 34054, Fig. 1). The area is 2ha in extent; at heights of between 100 and 115m above the ordnance datum (AOD), with a sharp slope from the north-eastern field boundary (Plate 2). The soils of the area are classed as 'light-medium clayey loam to sandy loam'. The drift geology consists of Eden Shales Formation-Mudstone, with glaciofluvial superficial deposits of Devensian-Sand and Gravel (BGS 2013). The land use at the time of the survey was pasture.

1.3 Previous Archaeological work

To date no intrusive archaeological fieldwork is known to have taken place within the proposed development area or in the immediate surrounding area, although a watching brief and evaluation were carried out on the installation of the Briggie Beck Pipeline located to the north and north-east of the site (Fig. 2).

2. METHODS AND OBJECTIVES

In general the objective of the work was to locate and characterise any features of possible archaeological interest within the application area and produce a report to enable judgements to be made on the condition and significance of the remains and allow proposals for mitigation if necessary to be developed.

In accordance with the brief Specific objectives were to:

- To provide a detailed assessment of areas of archaeological potential and survival... and assess the potential for the use of particular investigative techniques in order to aid the formulation of any necessary mitigation strategy, including further evaluation, excavation, building recording and/or preservation of archaeological remains, and;
- Provide information on the presence/absence, nature and extent of features of potential archaeological interest surviving below ground within the site.

2.1 Methods and Standards

CFA Archaeology is a registered organisation (RO) with the Institute for Archaeologists (IfA). All work was conducted in accordance with relevant IfA Standards and Guidance documents (IfA 1994 and 2006), the brief prepared by CCCHES, English Heritage guidance (EH 2008), relevant research strategies (Cumbria CC 2006 and Brennand *et al.* 2007), the written scheme of investigation and CFA's standard methodology.

2.2 Desk-based Research

The following sources were consulted:

- Cumbria County Council Historic Environment Record (HER) for sites, find spots or monuments within the proposed development area or within a 500m buffer zone around the proposed development area, as well as aerial photographs and relevant secondary documentary sources;
- Penrith Library for Historic Maps, and;
- Internet sources were consulted for information relating to general background, listed buildings and other heritage resources within the study area.

The bibliography contains a list of all sources consulted, including online resources and unpublished reports.

2.3 Geophysical Survey

All survey grid positioning was carried out using Trimble R8 Real Time Kinematic (RTK) VRS Now GNSS equipment. The geophysical survey area was geo-referenced relative to the Ordnance Survey National Grid by tying in to local detail and corrected to the OS digital mapping and the site survey plan, both provided by the client. The

survey was undertaken using a Bartington Grad 601-2 Magnetometer, with traverses of 1m and sample intervals of 0.25m over the 2ha proposed development area. Data processing was performed as appropriate using both in-house and commercial software packages (Geosub) as outlined below.

Magnetic Data

Zero Mean Traverse, Step Correction (De-stagger) and Interpolation (on the Y axis).

When interpreting the results several factors were taken into consideration, including the nature of archaeological features being investigated and the local conditions at the site (geology, pedology, topography etc.). Anomalies were categorised by their potential origin. Where responses could be related to very specific known features documented in other sources, this was done. For the generic categories levels of confidence were indicated, for example: *Archaeology* – *?Archaeology*. The former was used for a confident interpretation, based on anomaly definition and/or other corroborative data such as cropmarks. Poor anomaly definition, a lack of clear patterns to the responses and an absence of other supporting data reduces confidence, hence the classification *?Archaeology*.

Conditions for the survey were acceptable. Although the short pasture presented no difficulties, the steep slope led to some minor stepping errors which were corrected during processing.

2.4 Site Walkover

A walkover of the site was undertaken on 16 October; conditions were poor with strong winds and heavy rain prevalent. However, the site and its perimeter were systematically traversed and photographs were taken from representative vantage points (Plates 1 and 2).

2.5 Archiving

The project archive, comprising all CFA record sheets, finds, plans, reports, and photographs will be ordered to nationally recognised standards (Ferguson and Murray 1997).

The archive currently consists of:

Digital Records, technical information and figures	1 x CD
Notes and Research materials	1 x A4 folder
Geophysical Survey Plans	
All non-confidential correspondence	
This Report	-

Should further work be undertaken on the site then the archive resulting from such work would be incorporated into the current archive and they would be deposited together.

3. ARCHAEOLOGICAL BASELINE

3.1 Aerial Photographs

The Cumbria HER was consulted for existing aerial photographs of the proposed development area, but none were found to be on record.

3.2 Cartographic Sources

A selection of pre and post-World War II Ordnance Survey maps were examined. No significant development has appeared to have taken place within the proposed development area during the modern period, with development located adjacent to the proposed site limited to the construction of the Settle-Carlisle railway line to the north during the 1870's, and the erection of eight small houses parallel to Salkeld Road to the south during the 1950's.

3.3 HER sites

Figure 2 shows the location of all cultural heritage sites and events within the 500m buffer around the proposed development area, these are listed in the gazetteer (Appendix 1).

The village of Langwathby has medieval origins (6486), though there were no sites recorded in the HER within the proposed development area. Cultural heritage sites within the study area include: the mill complexes at High Mill Feed Processing Plant (11169) and Low Mill (11257), the 13th-century St Peter's Church (3844), ridge and furrow earthworks (43502) 450m to the north-west of the site, Powely Farm Gravel Pit (11153) and the Settle to Carlisle Railway which passes along the eastern boundary of the site (42042).

Previous archaeological work within the study area consists of a desk-based assessment, evaluation and watching brief on the installation of the Briggles Beck Pipeline to the north and north-east of the proposed development area (3/08/1960 and 3/11/2458, Fig. 2).

3.4 Geophysical Survey

The raw greyscale data from the geophysical survey is shown in Figure 3, while the interpretation of this data is shown in Figure 4. There are no responses in the data that clearly fall into the categories of *Archaeology*/? *Archaeology*.

A former field boundary has been identified in Area 1. This boundary does not appear on the available historic Ordnance Survey Maps. Linear ploughing trends have also been identified in Area 1.

Several anomalies have been classified as *?Natural*; these are likely to be resultant of topographical changes and colluvial deposits. Other responses within Areas 2 and 3 are likely to be simply due to amorphous natural deposits.

Many isolated positive magnetic responses have been detected in a band across Area 1 and throughout areas 2 and 3, with the lack of any definitive pattern suggesting a natural origin for these responses.

There are numerous responses which fall into the category of magnetic disturbance/ferrous. These largely coincide with buildings and fences which border survey areas and spreads of material dumped to consolidate the ground at field entrances (especially in Area 4). A telegraph pole in Area 1 and metal water trough in Area 4 have also created magnetic 'halos'.

3.5 Site Walkover

The site was visited on 16 October 2013. Ground conditions were wet, with heavy rain creating boggy ground surfaces. The existing boundary and the steep slope from east to west (Plate 2) were noted. No other archaeological remains were observed.

4. DISCUSSION

A former field boundary was identified during the geophysical survey. This boundary does not appear on early Ordnance Survey maps of the area and may represent a pre-modern field system.

Linear geophysical anomalies representing agricultural trends running north-west to south-east do not conform to the modern field layout and orientation and as such may also represent pre-modern activity.

5. CONCLUSION

Although the desk-based research did not record earthworks or standing remains within the proposed development area, medieval remains are present in the wider landscape, with a deserted medieval village 2km to the south and the Langwathby itself having medieval origins. Therefore the geophysical anomalies present on the site may reflect elements of a fossilised medieval agricultural landscape.

6. BIBLIOGRAPHY

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Cartography

1863 Ordnance Survey 1:10,560 Westmoreland Map

1867 Ordnance Survey 1:10,560 Cumberland Map

1900 Ordnance Survey 1:10,560 Cumberland Map

1925 Ordnance Survey 1:2,500 Cumberland Map

1957 Ordnance Survey 1:10,560 Cumberland Map

1969-1970 Ordnance Survey 1:2,500 Cumberland Map

1972-1978 Ordnance Survey 1:10,000 Cumberland Map

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Brennand M., Chitty, G. and Newman R., 2007, Research Strategy for Archaeology in the Northwest, Vol. 9, Issue 19, <http://www.liverpoolmuseums.org.uk/mol> (Accessed 21/10/13)

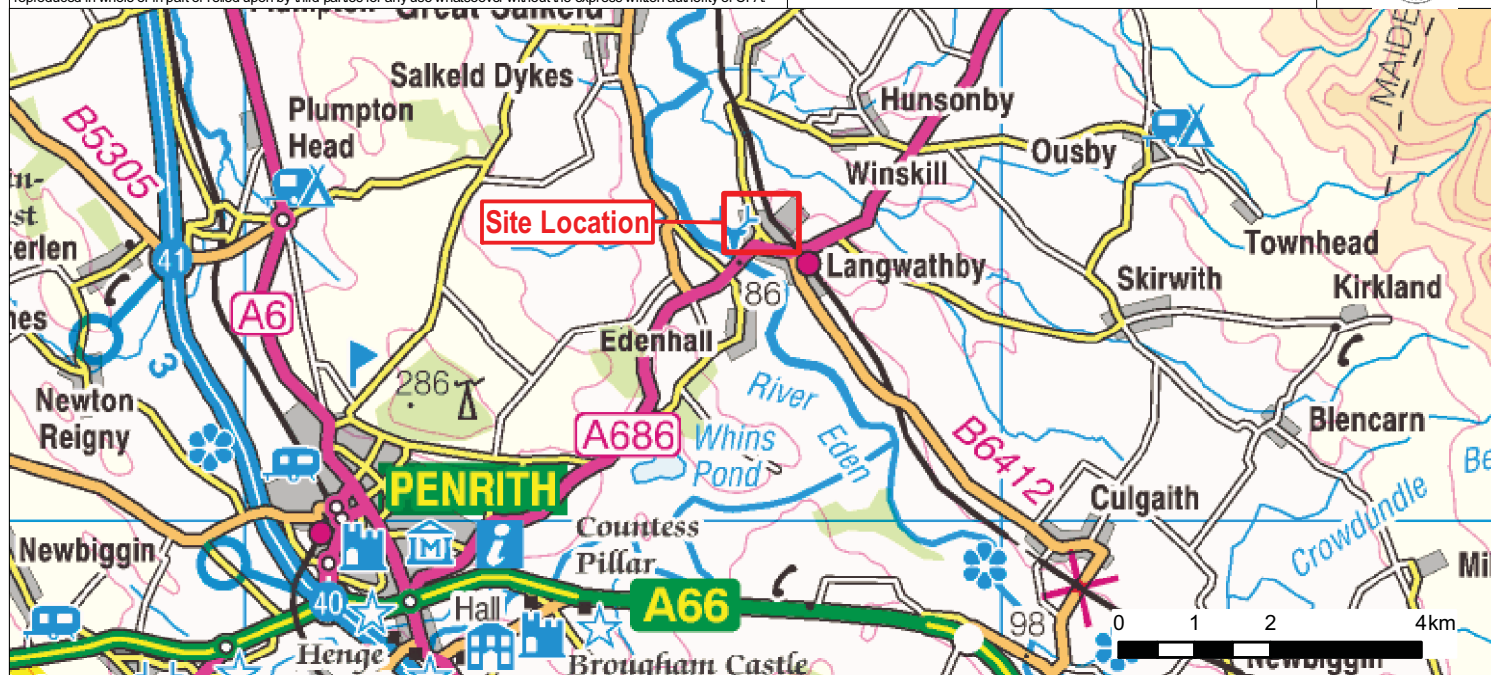
Heritage Gateway; <http://www.heritagegateway.org.uk> (Accessed 21/10/13)

Old Maps; <http://www.old-maps.co.uk> (Accessed 21/10/13)

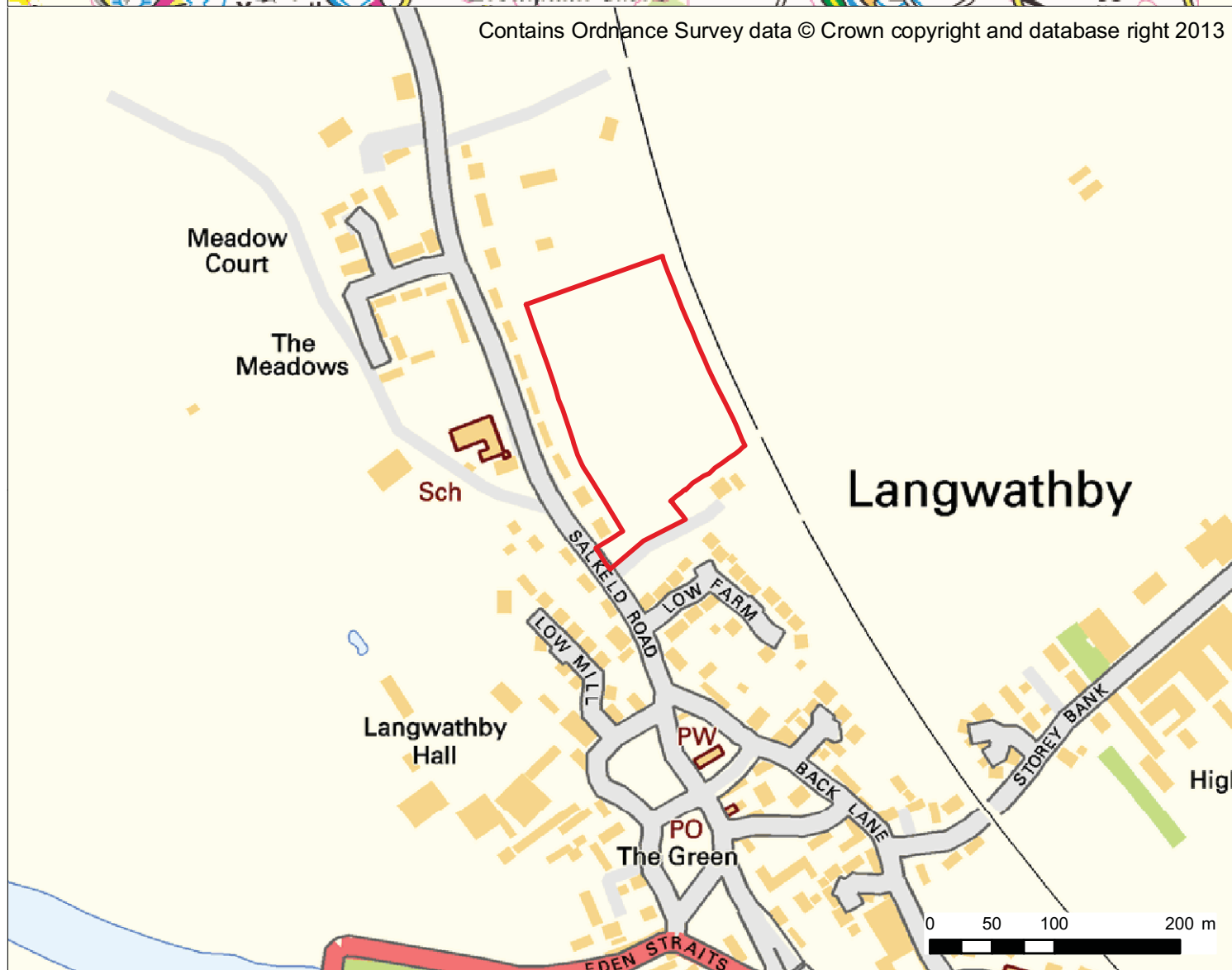
APPENDIX 1: Gazetteer of Archaeological Sites and Events

SMR No.	Name	Source	Period	NGR
3844	Church of St Peter	Listed building	Medieval/ post-medieval	356907 533731
6786	Langwathby Medieval Village	Earthwork	Medieval	356826 533856
11153	Powley Farm Gravel Pit	Documentary evidence	Post-medieval	356689 534519
11169	High Mill Feed Processing Plant	Building Complex	20th Century	357260 533769
11257	Low Mill	Documentary Evidence	Unknown	356810 533797
42042	Midland Railway / Settle-Carlisle Railway, Carlisle	Documentary Evidence	Post-Medieval Victorian	362156 527660
43502	Langwathby Ridge and Furrow	Earthwork	Post Medieval	357182 534496

Figures 1-4



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Key:

 Site Boundary



Fig. No:

1

Revision:

Client:

Story Homes

Title:

Site Location and Site Boundary

Project:

Land off Salkeld Road, Langwathby, Cumbria -
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Scale at A4:

1:5,000



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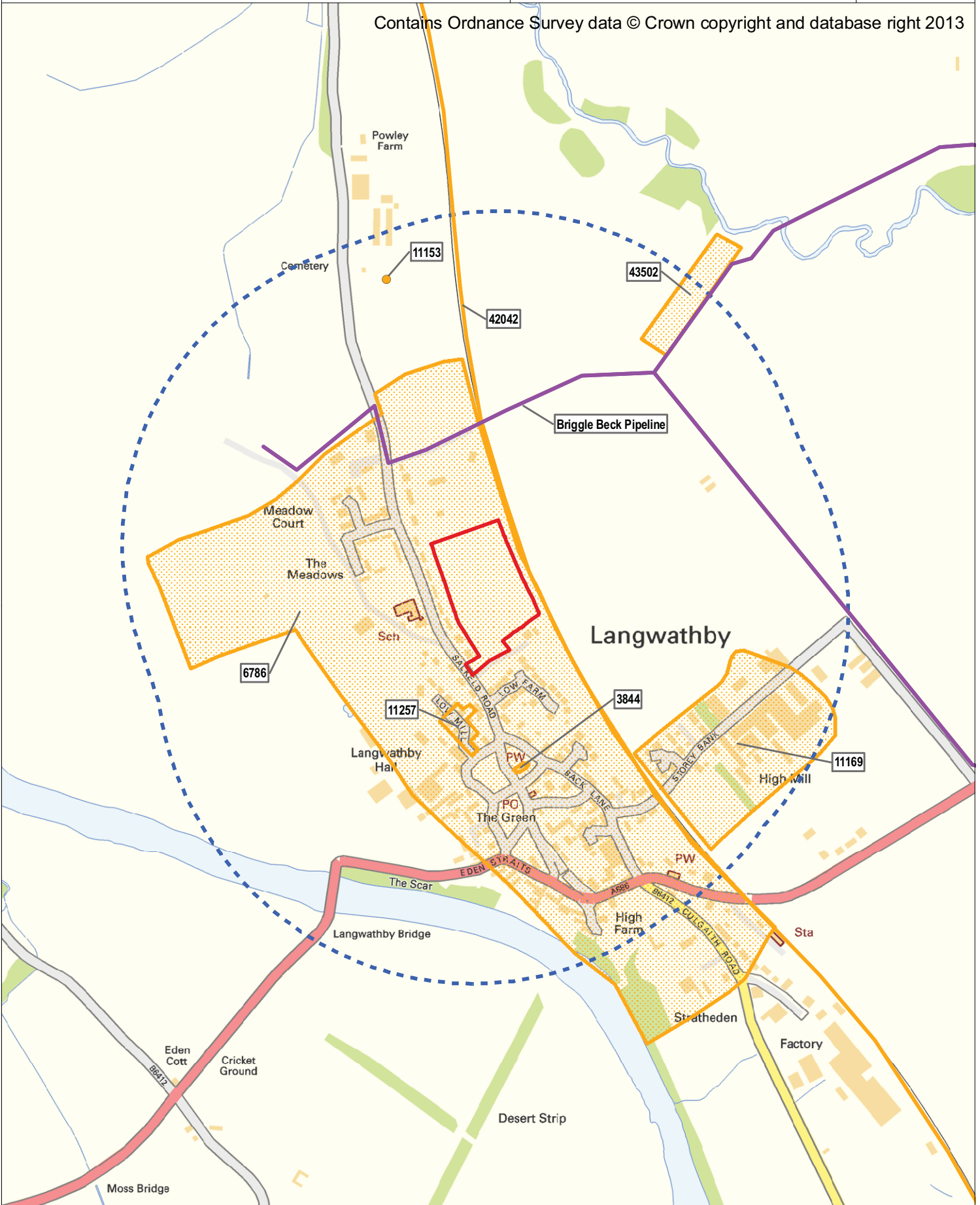
Drawn by:
SW

Checked:
ML

Report No:

Y118/13

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Key:

- Site Boundary
- 500m Buffer
- SMR Site
- SMR Event

Fig. No: 2 Revision: Client: Story Homes

Title: HER sites within 500m Buffer

Scale at A4: 1:8,000

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Fig No: 3 Revision: 0 Client: Story Homes

Title:
Geophysics Greyscale

Project:
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Archaeological DBA and Geophysical Survey

Scale at A4:
1:1,500



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<p>Scale at A4: 1:1,500</p>	<p>Fig No: 4 Revision: 0 Client: Story Homes</p> <p>Title: Geophysics Interpretation</p> <p>Project: Land off Salkeld Road, Langwathby, Cumbria - Archaeological DBA and Geophysical Survey</p>	<p>CFA ARCHAEOLOGY LTD Unit 22 Moorland's Business Centre Balme Road, Cleckheaton West Yorkshire, BD19 4EZ T: 01274 864245 F: 01274 878494 yorkshire@cfa-archaeology.co.uk</p> <p>Drawn by: SW Checked: PM Report No: Y118/13</p>
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Plates 1-2



Plate No: 1-2		Revision: A	Project: Land off Salkeld Road, Langwathby, Cumbria			CFA ARCHAEOLOGY LTD Unit 22 Moorland's Business Centre Balme Road, Cleckheaton West Yorkshire, BD19 4EZ T: 01274 864245 F: 01274 878494 yorkshire@cfa-archaeology.co.uk
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