ARCHAEOLOGICAL SERVICES WYAS

Heysham South Wind Farm
Heysham
Lancashire

Trial Trench Evaluation

Report no. 2494

July 2013

Client: Banks Renewables Ltd

REGISTERED ORGANISATION IA

Heysham South Wind Farm
Heysham
Lancashire

Trial Trench Evaluation

Summary

A trial trench evaluation has been carried out at the proposed site of a three turbine wind farm to the south-east of Heysham, Lancashire. With the exception of a relic field boundary, which is recorded on the Middleton Tithe Map of 1844, no archaeological features were encountered. The results of the trial trenching confirm that the geophysical survey provided an accurate assessment of the extent of the archaeological resource on this site.

ARCHAEOLOGICAL
SERVICES
WYAS

Report Information

Client:	Banks Renewables Ltd
Address:	Inkerman House, St John's Wood, Meadowfield, Durham, DH7 8XL
Report Type:	Archaeological trial trenching
Location:	Heysham
County:	Lancashire
Grid Reference:	SD 432 599
Period(s) of activity: represented	Early modern
Report Number:	2494
Project Number:	4079
Site Code:	HWL13
OASIS ID:	archaeol11-155815
Planning Application No.:	Pre-determination (Outline)
Date of fieldwork:	July 2013
Date of report:	July 2013
Project Management:	Jane Richardson BSc MSc PhD MIfA
Fieldwork:	Charlie Morris
	Dan Waterfall
Report:	Jane Richardson
Illustrations:	Sam Harrison
Photography:	Charlie Morris

Authorisation for distribution: ----------

© Archaeological Services WYAS 2013
PO Box 30, Nepshaw Lane South, Morley, Leeds LS27 0UG
Telephone: 0113 383 7500.
Email: admin@aswyas.com

Contents

List of Figures

List of Plates

List of Tables

1 Introduction

Archaeological Services WYAS (ASWYAS) was commissioned by Steve Williams, Senior Project Manager at Banks Renewables, to carry out a trial trench evaluation for the proposed Heysham South Wind farm, Lancashire (Fig. 1). The trenches were located at the locations of the three turbines. The results of the evaluation will help assess the extent of the archaeological resource. The scheme of work was undertaken in accordance with guidance contained with the National Planning Policy Framework (2012) and to a Written Scheme of Investigation (WSI) produced by ASWYAS. The evaluation was carried out between 15th and 18th July 2013.

Site location, topography and land-use

The proposed development area (PDA) is situated approximately 1.5km south-east of Heysham, centred at SD 432 599 (Figs 1 and 2). The village of Middleton is situated to the south-west of the site, with the hamlet of Heaton to its immediate east, and the village of Overton about 2km to its south. Much of the northern side of the site is bounded by the A683. The eastern and south-eastern sides of the site are defined by Downyfield Road, with industrial buildings and an oil depot located to the immediate west of the site.

The western side of the site consists of a level area of low lying fields, crossed by a network of drainage channels, with the former farmstead at Meadup House, where Turbine 1 and Turbine 2 are located, situated on a ridge of higher ground at about 10m above Ordnance Datum (aOD). To the east, the ground level rises onto an area of low hills, reaching 23m to 25m aOD on Great Swart Hill and Windmill Hill, where Turbine 3 is to be erected.

The site is primarily in use as pasture for sheep and cattle, and divided into fields by hedgerows and wire fences, often overlying earthen banks. The site also contains numerous artificial ponds. Great Swart Barn and a smaller farm building, known as Butler's Hall, are situated on the western side of Great Swart Hill, and Hillside Farm is located just outside the north-eastern edge of the site.

Geology and soils

The underlying geology of the proposed development site comprises Millstone Grit (British Geological Survey 2013). On the western side of the site this is primarily overlain by peaty, loamy and sandy soils, while to the east the soils consist of deep, well drained, reddish fine loamy soils with slowly permeable sub-soils (Soil Survey of England and Wales 1983).

2 Archaeological Background

An archaeological desk-based assessment (DBA) of the site and surrounding area (Pollington 2010), undertaken for a previous scheme layout, concluded that there was potential for the survival of previously unrecorded prehistoric or Roman period sub-surface deposits within the PDA. The report also added that it was likely that much of the PDA had remained in agricultural use throughout its history and that therefore any evidence of medieval or later

activity is likely to be associated with agricultural use. The DBA also indicated that additional archaeological work, specifically a geophysical survey in the first instance, would likely be required by Lancashire County Council to further inform on the archaeological implications of the proposed development.

Subsequently, a geophysical (magnetometer) survey was carried out covering approximately 1 hectare, centred on each turbine base, and a 20m wide corridor along the route of the access tracks and cable runs (Webb 2013). Anomalies caused by sub-surface pipes, modern disturbance and recent agricultural activity were identified. A number of possible archaeological anomalies were identified in the area encompassing the proposed location of Turbine 3, although beyond the area that would be impacted by the proposed scheme layout.

3 Aims and Objectives

The aim of the archaeological evaluation by trial trenching is to establish the extent of any surviving archaeological deposits and features and to determine the depth of these remains.

This information will assist in the assessment of any potential impacts that may arise from the proposed development. It will also allow Lancashire County Council's Development Management Archaeologist, Doug Moir, to make an informed decision on the archaeological implications of the proposed development, and to inform on the scope and extent of any further mitigation, if required.

The aims will be met by the controlled excavation of six trenches, 20m by 2m, under archaeological supervision. No magnetic anomalies of archaeological potential were identified within the immediate vicinity of the turbine locations. Two trenches will be positioned at the proposed location of each of the three turbines (Fig. 2).

4 Methodology

All excavation was undertaken in accordance with IfA guidelines *Standard and Guidance for Archaeological Field Evaluation* (2008), and in compliance with English Heritage MoRPHE *PPN3: Archaeological Excavation* (2008).

A total of six trenches were excavated covering an area of 240m². The trenches were positioned to evaluate the footprint of the three turbines (Fig. 2).

The stripping of the trenches was monitored by a qualified and experienced archaeologist, and was carried out using a mechanical excavator equipped with a toothless ditching bucket. Stripping took place in level spits to the top of the first archaeological horizon or undisturbed natural.

All archaeological features were planned and then manually excavated by hand in a stratigraphic manner. A full written, drawn and photographic record of the archaeological

features was made. The excavation limits and the archaeology were surveyed using electronic survey equipment with larger scale hand drawn plans of features at 1:20. Sections were drawn at 1:10. All sections and plans include spot-heights related to Ordnance Datum in metres as correct to two decimal places. Tie-in information was undertaken during the course of the evaluation and was fixed in relation to the National Grid.

A soil-sampling programme and artefact recovery strategy were established at the onset of the archaeological works, but neither were required.

The site archive contains all the information gathered during the archaeological evaluation and it is indexed in Appendix 1. A concordance of contexts is given in Appendix 2. The archive is currently held at ASWYAS headquarters but archive deposition to Lancashire Record Office (in the absence of any finds) is anticipated.

5 Trial Trenching Results

Summary

A summary of the results from each trench, including trench dimensions and the archaeological features and significant finds identified, is presented in Table 1. Trenches devoid of archaeological features are briefly summarised in Table 1 but are not described further.

Stratigraphic model

Grey-brown sandy loam topsoil (201) covered the excavated areas to an average depth of 0.20-0.25m. The subsoil (202) comprised yellow-brown silty sand up to 0.15m in depth. Beneath the subsoil, natural deposits (203) were encountered which typically consisted of a yellow-brown silty sand containing frequent stones and pebbles.

Table 1. Summary of trenches

Trench	Dimensions	Orientation	Depth	Topsoil	Subsoil	Summary of features
1a	20m by 2m	North-south	0.35m	0.20m	0.15m	No archaeological features. Plate 1
1b	20m by 2m	East-west	0.35m	0.20m	0.15m	No archaeological features
2	20m by 2m	North-south	0.35m	0.25m	0.10m	Field boundary. Plates 2-3
3	20m by 2m	East-west	0.30m	0.20m	0.10m	No archaeological features. Plate 4
4	20m by 2m	North-south	0.30m	0.20m	0.10m	No archaeological features. Plate 5

Trench	Dimensions	Orientation	Depth	Topsoil	Subsoil	Summary of features
5	20m by 2m	East-west	0.30m	0.20m	0.10m	No archaeological features. Plate 6

Trench 2

The southern end of Trench 2 coincided with a former field boundary that was visible in the trench as a linear feature (Plate 3), and noted on the Middleton Tithe Map of 1844 (Pollington 2010). The ditch (205), orientated east-west, was 1.45m in width and 0.22m in depth and a shallow U-shape in profile. It contained a single fill (204) of grey-brown silty sand with frequent small, medium and large stones, but no finds.

6 Conclusions

The excavation and recording of six trial trenches was undertaken at the proposed site of a three turbine wind farm to the south-east of Heysham, Lancashire. With the exception of a relic field boundary in Trench 2, noted on the Middleton Tithe Map of 1844, no archaeological features were encountered.

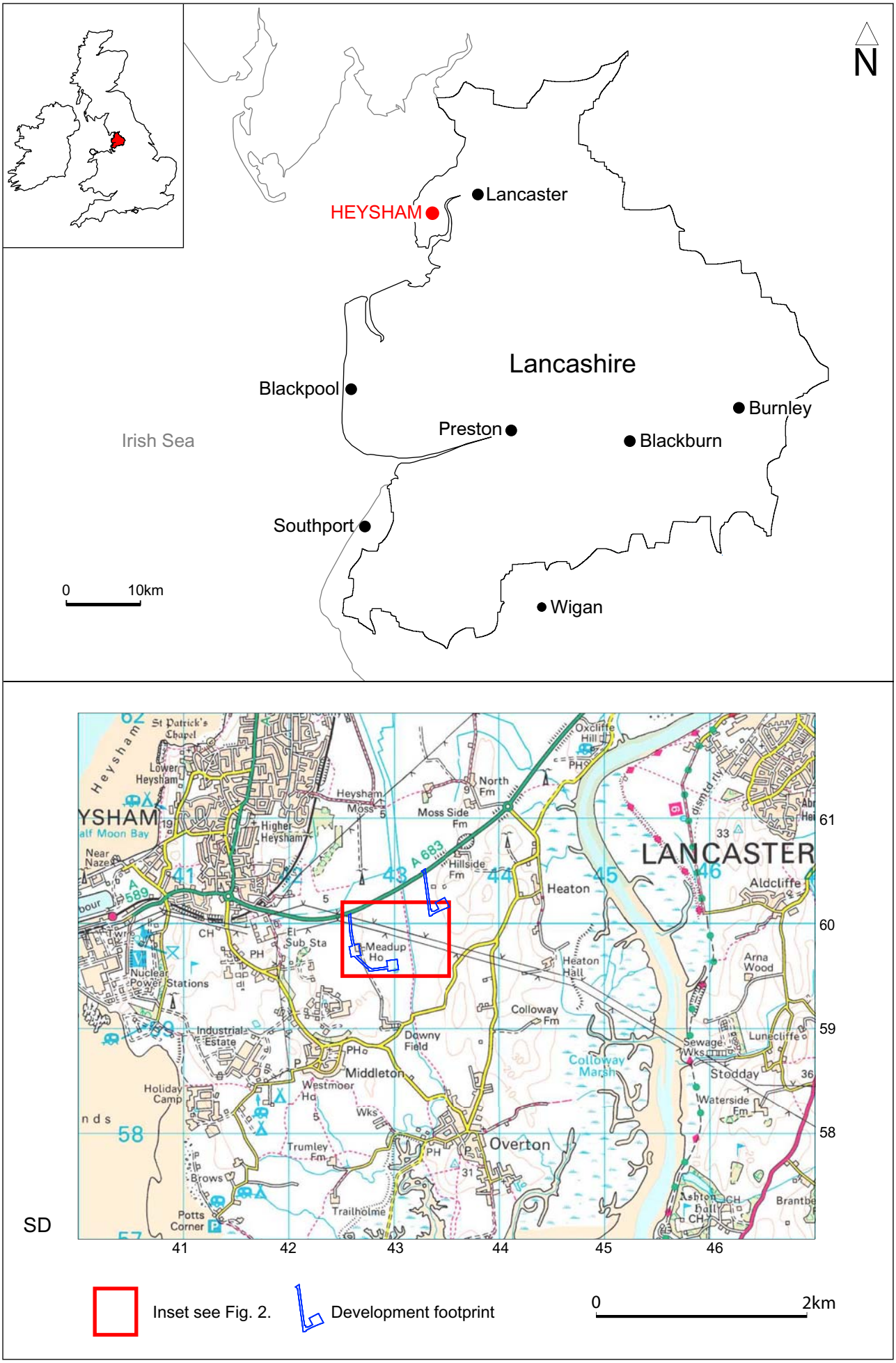

Fig. 1. Site location

© Crown Copyright. All rights reserved 100019574, 2013.

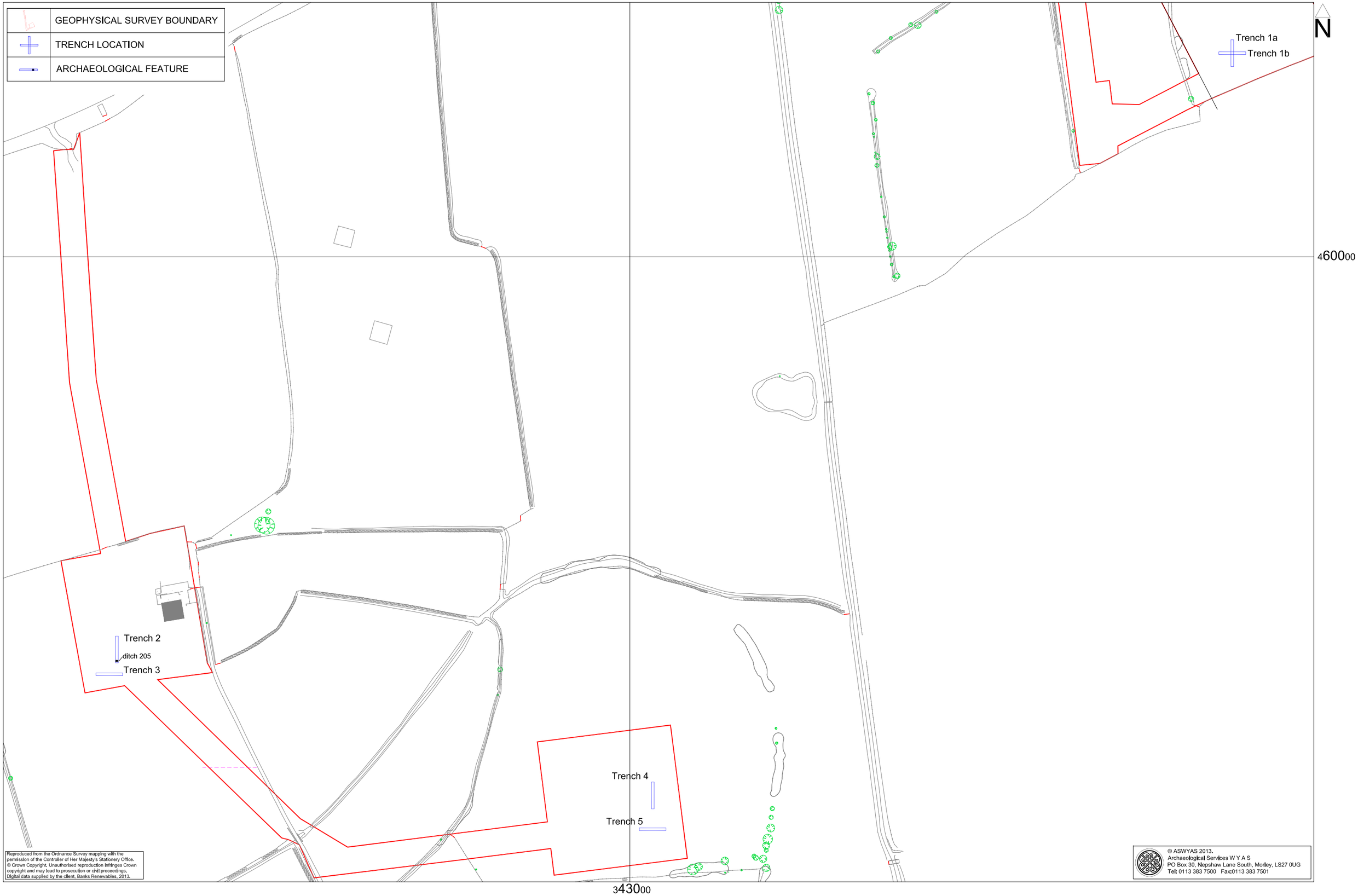

Fig. 2. Site location showing trench locations and ditch feature (1:2500 @ A3)

Plate 1. Trench 1a, looking south

Plate 3. Trench 2, section through the field boundary looking east

Plate 2. Trench 2, looking north

Plate 4. Trench 3, looking east

Plate 5. Trench 4, looking south

Plate 6. Trench 5, looking east

Appendix 1: Inventory of primary archive

Phase	File/Box No	Description	Quantity
Evaluation	File no.1	Daily site recording forms	4
		Context register sheets	1
		Context cards	5
		Drawing register sheets	1
		Permatrace sheets	2
		Sample register sheet	1
		Digital photograph record sheets	1
		Trench record sheets	5

Appendix 2: Concordance of contexts

Context	Trench	Description	Artefacts and environmental samples
201	All	Grey-brown sandy loam topsoil	
202	All	Yellow-brown silty sand subsoil	
203	All	Yellow-brown silty sand natural	
204	2	Grey-brown silty sand fill of ditch 205	
205	2	Cut of ditch	

Bibliography

British Geological Survey, 2013, http://maps.bgs.ac.uk/geologyviewer/ (Accessed: March 20th 2013)

English Heritage, 2008, *MoRPHE PPN3: Archaeological Excavation*

IfA, 2008, *Standard and Guidance for Archaeological Field Evaluation*. Institute for Archaeologists

Pollington, M., 2010, *Heysham South, Heysham, Lancashire: Archaeological Desk-based Assessment*, Archaeological Services WYAS Report no. 2131

Soil Survey of England and Wales, 1983, Soils of Northern England Sheet 1

Webb, A., 2013, *Heysham South Windfarm, Heysham, Lancashire: Geophysical Survey*, Archaeological Services WYAS Report no. 2461