Land at Black House Farm, The Delph, Pode Hole, Spalding, South Holland, Lincolnshire, PE11 3LS

ARCHAEOLOGICAL EVALUATION REPORT

Approx. central NGR:	TF 1985 2202
Planning Authority:	South Holland District Council
Planning app.:	Pre-Application
Acc. No.	LCNCC 2015.2
PCAS Site code:	SPHE 15
PCAS Job No.:	1368

Prepared for

Maher Millard Construction Ltd.

by

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February 2015

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Summary

To inform a forthcoming planning application, a trial trench archaeological evaluation was undertaken on land at Black House Farm, The Delph, Pode Hole, Spalding, South Holland, Lincolnshire, PE11 3LS. The approximate centre of the site is NGR TF 1985 2202.

The site lies close to the Iron Age and Roman coastline, where extensive evidence of salt-making has been identified. There were no known salterns within the site itself, but there are several zones of archaeological remains indicating salt-making and associated activity within 500m of the site, including one tentatively identified Roman saltern less than 100m from the northern boundary.

A preceding geophysical survey of the site revealed limited archaeological potential, and ten trial excavation trenches were positioned to investigate a potential linear feature and pit-like anomalies.

The evaluation encountered no features or artefacts of anthropogenic origin. It is concluded therefore that the site is devoid of any significant archaeological remains.

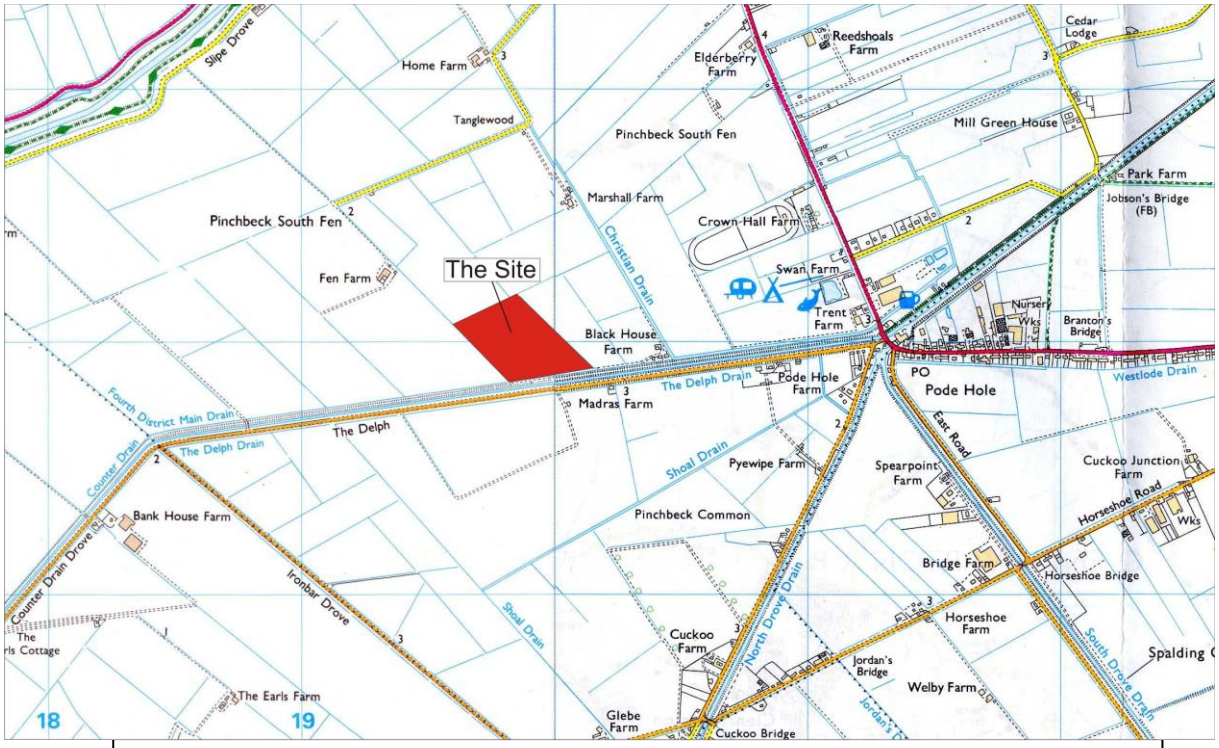


Figure 1: Site location map at scale 1:25,000. Site location shown in red. OS Explorer

1.0 Introduction

Pre-Construct Archaeological Services Ltd (PCAS) was commissioned by Maher Millard Construction Ltd. to carry out an archaeological evaluation on land at Pode Hole, Spalding. The evaluation took place in order to inform a forthcoming planning application.

2.0 Location and description (figs. 1)

Pode Hole is a small village situated c. 2km from the western periphery of Spalding. It lies at the confluence of multiple drains including the Christian Drain, the Delph Drain, North Drove Drain, South Drove Drain and Vernatt's Drain. The village extends along the A151 Dozens Bank, branching out from Spalding towards the bridge over the River Glen at Pinchbeck West.

The proposed development site lies to the west of Pode Hole, along The Delph, the road which extends from Pode Hole along the south bank of the River Glen to Baston on the A15. The drain which defines the southern boundary of the site is identified as either Delph Drain or Fourth District Drain, depending on the source, and further drains run around all sides of the two fields that form the proposed development site.

The total area of the fields under consideration is c.9 hectares. At the time of writing both fields were under arable cultivation. Access is via the yard of Black House Farm, to the east of the site.

The approximate central NGR of the site is TF 1985 2202.

3.0 Topography and Geology

The bedrock geology of the area is recorded as Oxford Clay Formation mudstone, a silicate rich mudstone which formed in a shallow sea setting. The overlying drift deposits are Tidal Flat clay and silt (http://mapapps.bgs.ac.uk/geologyofbritain/home.html).

A borehole undertaken c1km west of the site in 1944 recorded topsoil depths of around 0.30m, overlying multiple layers of clays interspersed with sandier layers to a depth of at least 60m (BGS ID 471700).

The site lies well within the Lincolnshire Fens. A ground survey height of 3mOD (to the nearest metre) is recorded on The Delph, immediately south of the site. A benchmark on the bridge where Hollands Chase crosses Christian Drain (c. 670m north of the site) is recorded as 3.152m OD (0.40m above EGL).

4.0 Planning Background

This site is currently being considered for a forthcoming planning application. The Historic Environment Officer for South Holland was consulted concerning the proposals, and recommended pre-application archaeological works to investigate archaeological potential. The first phase of works comprised a geophysical survey, undertaken in November 2014. The results of this survey were used to target archaeological trial trenches; to investigate the recorded magnetic anomalies and the general archaeological potential.

The results of the full evaluation will be submitted in support of the proposed planning application; to inform and advise the planning process.

5.0 Archaeological and historical background

There are no known archaeological sites/artefacts from within the boundaries of the proposed development site.

There is no evidence of any early prehistoric activity around the development site. As low lying ground, and with prehistoric sea levels being considerably higher than today, this area would have been permanently wet and unsuitable for even transient activity until the late Iron Age.

By the mid Iron Age, water levels had fallen sufficiently to allow for activity in areas along the Lincolnshire coast; salt production is first recorded in the early Iron Age, in peripheral areas where saline-rich sea water was readily available, but the salterns themselves were situated above the average high tide line. These salterns are occasionally associated with other industrial processes or domestic and agricultural activity, but these sites remained prone to flooding and occupation is often found further inland. The closest Iron Age saltern to the site lies c.800m to the west, where over 100 sherds of 3rd-2nd century BC pottery was ploughed out of a band of dark soil, which later excavations proved to be related to a natural channel cut by a series of gullies and pits (LHER ref: 20178). Iron Age pottery has been recovered from Roman saltern sites in the area (LHER ref: 20173; 20180), suggesting continuity; some of the salterns identified as Roman may have been in semi-continuous use from the late Iron Age.

Salt production along the east coast in the Roman period is well documented. Salt was a key commodity used for food preservation and the production of other food stuffs, and the salt produced here was traded across the continent. Salt production involved concentrating sea water to increase its salinity, then boiling the water and removing the resulting salt crystals. Many of the salt production sites along the Lincolnshire coast are identified as mounds of “red earth”, the debris resulting from the industrial process which was commonly deposited in the immediate vicinity of the open pans which the saline was heated in.

In the immediate vicinity of the site there is extensive evidence for salt production. Approximately 100m west, burnt soils were noted during deep ploughing, associated with a scatter of 1st-2nd century AD pottery (LHER ref: 22414). A second saltern is recorded less than 500m to the northwest of the site (LHER ref: 22411) in the northwest corner of the same field, with soil marks suggesting archaeological activity extending into the surrounding area, and pottery recovered from this area dates from the 2nd century AD, and a third “red hill” has been tentatively identified in correlation with a scatter of Roman pottery and cropmarks c.150m north of the site (LHER ref: 22415; 20187). Evidence of Roman salt-making has been recovered from more than 10 sites in the vicinity, with concentrations to the northeast of the site along Dozens Bank, and to the west; there is also extensive evidence of settlement remains.

Salt-making was overseen by Roman officials throughout the Roman period, and with the withdrawal of the Roman administration back to the Continent, many saltern sites fell out of use.

Evidence of Saxon occupation around the site is sparse, limited to a small collection of pottery sherds found at Roman saltern sites (LHER refs: 23615; 20162; 20163). Saxon settlement remains have been identified over 2km to the north on the other side of the River Glen, however the closest Saxon settlement is Spalding itself; recorded in the Domesday Book as a large thriving settlement.

Attempts to drain the Pinchbeck and Spalding area have been made since Roman times, however the area was frequently inundated throughout the medieval period. The South Holland Drainage Act was passed in 1794, and the widespread drainage and enclosing of the area followed. Pode Hole developed where several of the major drains met with two pumping stations in the vicinity. Gazetteers from the late 19th century include only a brief description of Pode Hole *a hamlet in Spalding parish, Lincoln; 2 miles W of Spalding* (Wilson, 1870). The reclaimed land around Spalding is used as arable farmland, the enclosure field boundaries as defined by the drains are largely maintained; Black House Farm itself dates from the late 19th century.

A geophysical survey of the site undertaken in November 2014 (Bunn, 2014) identified an extensive array of land drains, lying on a NW-SE alignment, crossing the majority of the southern field and into the northern field. The line of a modern gas pipeline along the southern boundary of the site was also clearly defined. Background readings were suggestive of a palaeoenvironment of tidal creeks and pools.

6.0 Methodology

The evaluation consisted of ten 30mx2m trenches, positioned to further investigate the results of the preceding geophysical survey. Three of the trenches were positioned in the southern most of the two fields. Along with extensive land drains and a modern gas pipeline which ran along the southern edge of this field, the geophysics in this area also identified a potential linear feature running on a c.N-S alignment, extending beyond the field boundary into the northern field of the proposed development site. A circular area where a higher response was detected was also targeted in this field.

The remaining 7 trenches were placed in the larger northern field to investigate not only the potential linear feature and pit-like anomalies identified in the geophysics, but also the areas along the north and west boundaries, closest to known archaeological sites in the vicinity and areas indicated as being archaeologically sterile in the geophysical survey results.

Trenches were positioned according to a proposed trenching plan, allowing for minor adjustment due to the presence of unforeseen obstacles such as services. They were opened under archaeological supervision, using a mechanical excavator fitted with a **toothless blade**, to the first archaeologically significant horizon, the natural substrate or the maximum safe working depth.

The evaluation trenches were drawn in plan at a scale of 1:200 and sample sections were drawn at scales of 1:20. The section drawings were located on the base plans; Ordnance Datum levels were taken using a Global Positioning System. Deposits were recorded on standard PCAS record sheets, and an excavation site diary was also kept; a digital photographic record, supplemented by colour slide photography, was made, and extracts from this are reproduced in Appendix 1.

The fieldwork was carried out by Michael Rowe and took place 21st – 27th January 2015. Weather conditions were variable with occasional snow. The majority of the trenches became waterlogged, excluding Trenches 5 & 6, which were located on higher ground.

7.0 Results

Trench 1

Located in the southwest of the site and orientated east-west with a maximum depth of 1.20m. No discreet archaeological features were present within the trench. Plough soil (101) was observed to overly three layers of marine silts. Mottled silt (102) was directly beneath the ploughsoil, and this covered red-grey-brown silt (103). This layer then covered the mottled silty deposit (104) at the limit of excavation (LoE).

Trench 2

Located in the southeast of the site and orientated northwest-southeast with a maximum depth of 1.20m. No discreet archaeological features were present within the trench. Plough soil (201) was observed to overly three layers of marine silts. Mottled silt (202) was directly beneath the ploughsoil, whilst this layer in turn covered orange-red-brown silt (203). This layer then covered the mottled silty deposit (204) at the limit of excavation (LoE).

Trench 3

Located on the east of the site and orientated north-south with a maximum depth of 1.20m. No discreet archaeological features were present within the trench. Plough soil (301) was observed to overly two layers of marine silts. Mottled silt (302) was directly beneath the ploughsoil, whilst this layer in turn covered the mottled silt layer (303) at the limit of excavation (LoE).

Trench 4

Located on the west of the site and orientated northeast-southwest with a maximum depth of 1.00m. No discreet archaeological features were present within the trench. Plough soil (401) was observed to overly two layers of marine silts. Mottled silt (402) was directly beneath the ploughsoil, whilst this layer in turn covered red-grey-brown silt layer (403) at the limit of excavation (LoE).

Trench 5

Located on the northwest of the site and orientated north-south with a maximum depth of 1.00m. No discreet archaeological features were present within the trench. Plough soil (501) was observed to overly two layers of marine silts. Mottled silt (502) was directly beneath the ploughsoil, whilst this layer in turn covered the mottled silt layer (503) at the limit of excavation (LoE).

Trench 6

Located on the northwest of the site and orientated east-west with a maximum depth of 2.00m. No discreet archaeological features were present within the trench. Plough soil (601) was observed to overly three layers of marine silts. Mottled silt (602) was directly beneath the ploughsoil, whilst this layer in turn covered the mottled silt layer (603). This layer subsequently covered the fine blue-grey silty clay (605).

Trench 7

Located on the northeast of the site and orientated east-west with a maximum depth of 1.00m. No discreet archaeological features were present within the trench. Plough soil (701)

was observed to overly two layers of marine silts. Mottled silt (702) was directly beneath the ploughsoil, whilst this layer in turn covered the mottled silt layer (703) at the limit of excavation (LoE).

Trench 8

Located on the west of the north field and orientated east-west with a maximum depth of 1.00m. No discreet archaeological features were present within the trench. Plough soil (801) was observed to overly two layers of marine silts. Mottled silt (802) was directly beneath the ploughsoil, whilst this layer in turn covered the red-grey-brown silt layer (803) at the limit of excavation (LoE).

Trench 9

Located in a central north position of the south field and orientated east-west with a maximum depth of 1.20m. No discreet archaeological features were present within the trench. Plough soil (901) was observed to overly three layers of marine silts. Mottled silt (902) was directly beneath the ploughsoil, whilst this layer in turn covered the red-grey-brown silt layer (903). This layer then covered the brown-red silty deposit (904) at the limit of excavation (LoE).

Trench 10

Located in a central north position of the north field and orientated east-west with a maximum depth of 1.00m. No discreet archaeological features were present within the trench. Plough soil (1001) was observed to overly two layers of marine silts. Mottled silt (1002) was directly beneath the ploughsoil, whilst this layer in turn covered the mottled silt layer (1003) at the limit of excavation (LoE).

8.0 Discussion and Conclusions

Archaeological trial trenching did not expose any features or artefacts of anthropogenic origin, excluding modern land drains. Beneath the modern ploughsoil, only layers of marine silts were encountered. Deposit (605) was possibly associated with a natural channel.

9.0 Effectiveness of Methodology

Archaeological evaluation was effective in demonstrating the absence of any significant archaeological remains that would be vulnerable to any negative effects resulting from the proposed development. The body of data thus produced will be sufficient to inform the planning and development process.

10.0 Project Archive

The project archive will be deposited with printed copies of this report at The Collection, Lincoln, in or before March 2015; following deposition, the archive will be available for consultation under the accession number LCNCC 2015.2. A copy of the full report will also be uploaded to the Archaeology Data Service OASIS (Online AccesS to the Index of archaeological investigationS) database, where it will be publicly accessible online.

11.0 Acknowledgements

Pre-Construct Archaeological Services would like to thank Maher Millard Construction Ltd. for this commission.

12.0 References

Bunn, 2014, *Archaeological Geophysical Survey: Land at Pode Hole, Spalding, Lincolnshire.* Client report by Pre-Construct Geophysics.

English Heritage, 2011, *Introduction to Heritage Assets: Pre Industrial Salterns*. English Heritage publication.

Wilson, J. M, 1870-72, *Imperial Gazetteer of England and Wales*, viewed online at http://www.visionofbritain.org.uk/descriptions/959300

http://domesdaymap.co.uk/

http://www.heritagegateway.org.uk/Gateway/

http://mapapps.bgs.ac.uk/geologyofbritain/home.html

OS Explorer Map, 2000, *Sheet 248: Bourne & Heckington, Billingborough & Morton.* Ordnance Survey, Southampton. (OS mapping © Crown copyright. All rights reserved. PCAS licence no. 100049278).

OS Explorer Map, 2006, *Sheet 249: Spalding & Holbeach, Long Sutton & Kirton.* Ordnance Survey, Southampton. (OS mapping © Crown copyright. All rights reserved. PCAS licence no. 100049278).

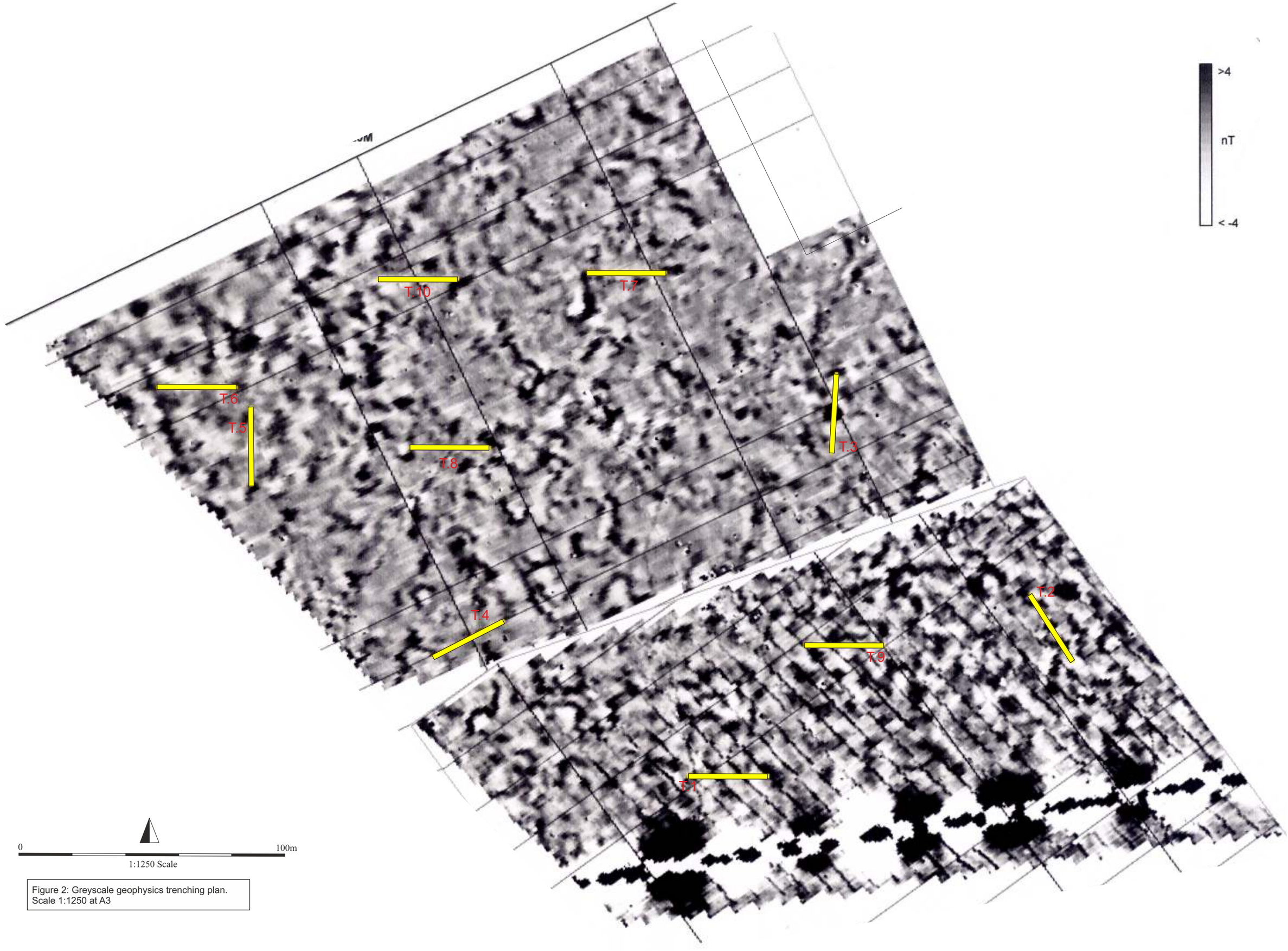


Figure 2: Greyscale geophysics trenching plan.
Scale 1:1250 at A3

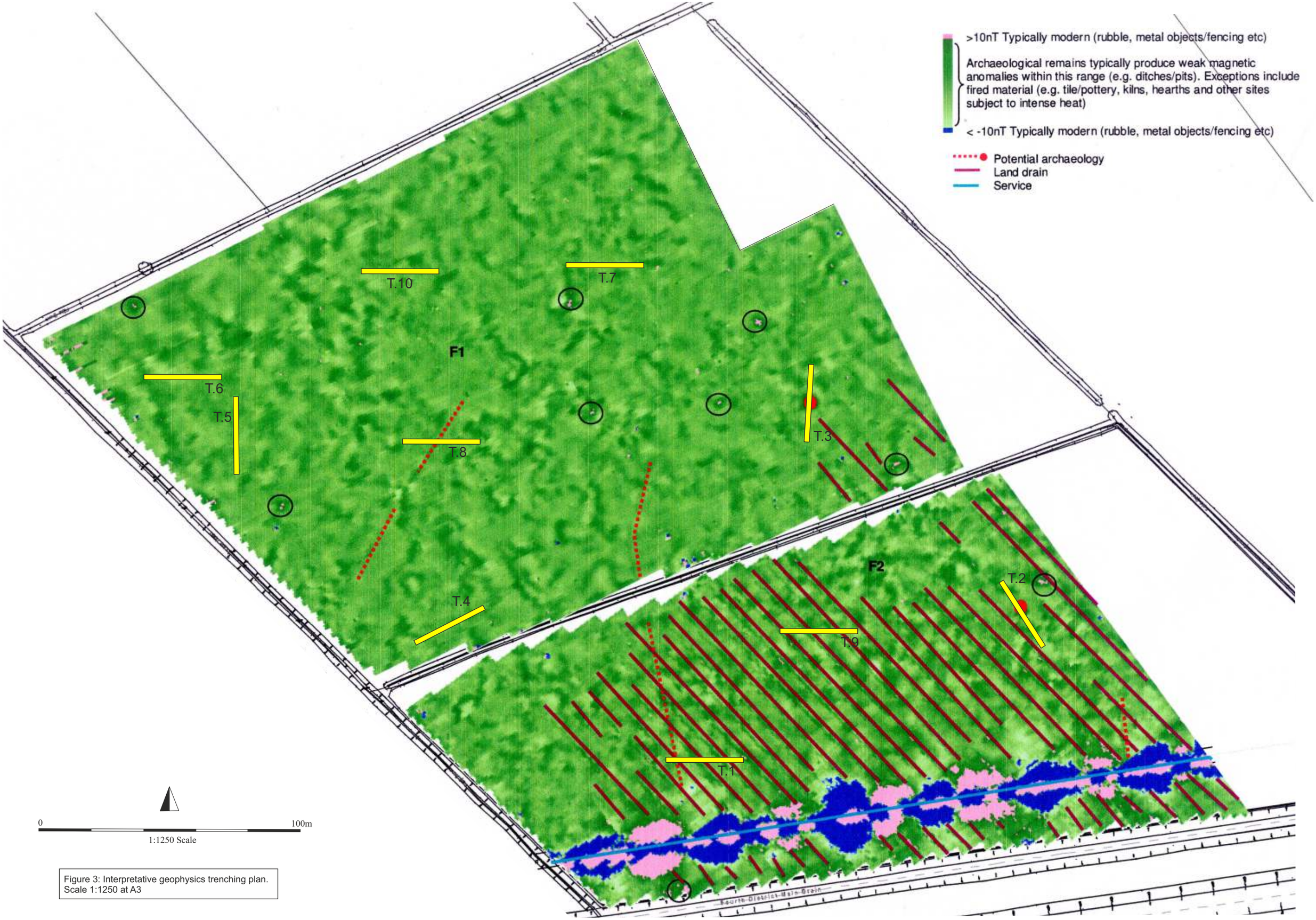


Figure 3: Interpretative geophysics trenching plan.
Scale 1:1250 at A3

Figure 4: Trench plans (1:200) and sections (1:20)

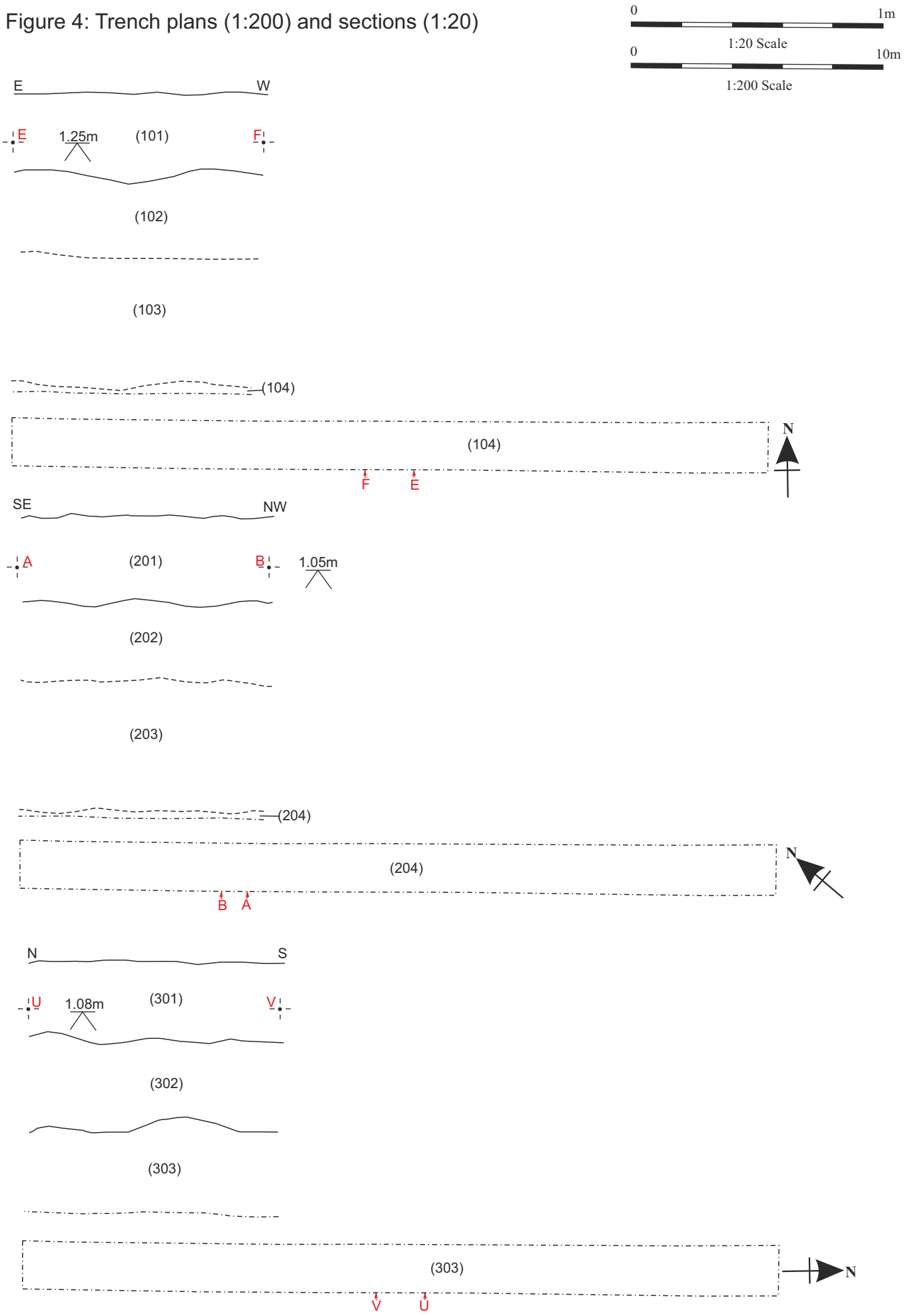


Figure 5: Trench plans (1:200) and sections (1:20)

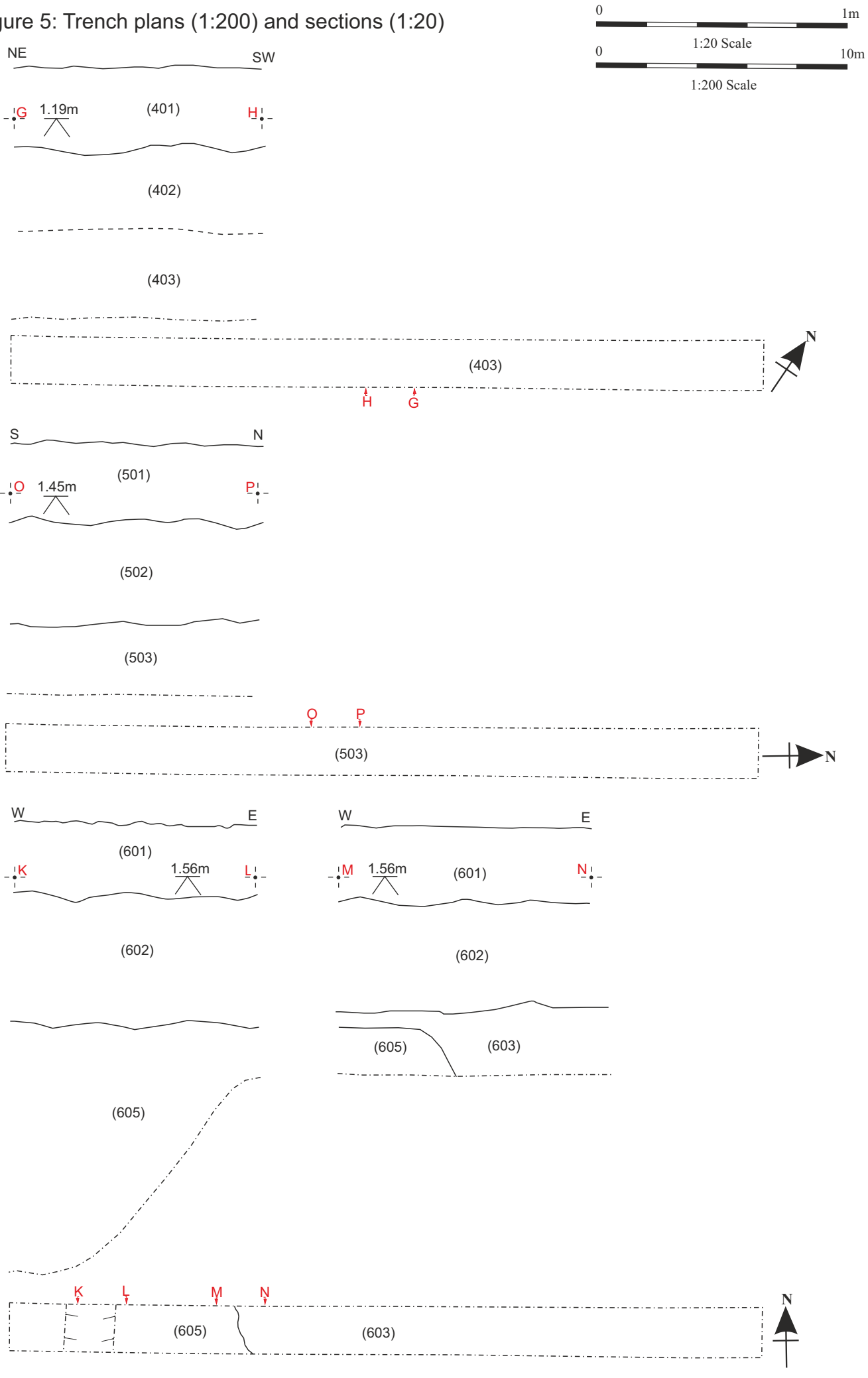


Figure 6: Trench plans (1:200) and sections (1:20)

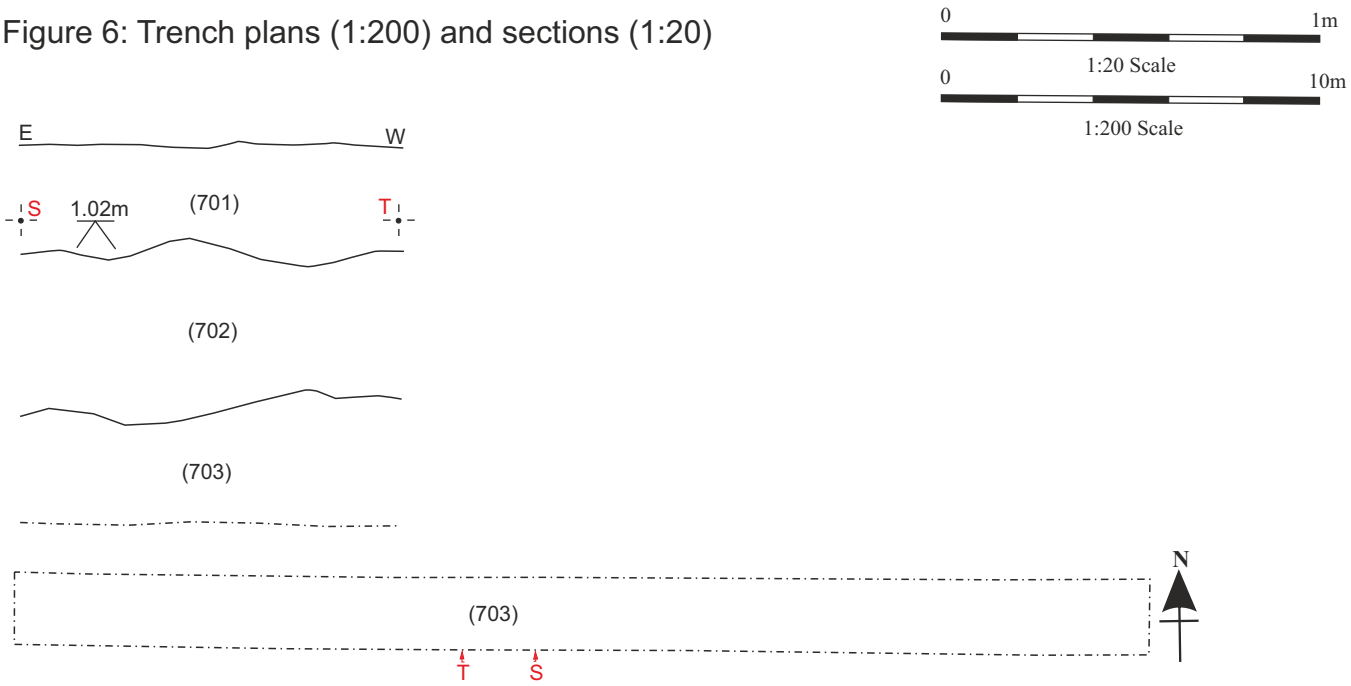
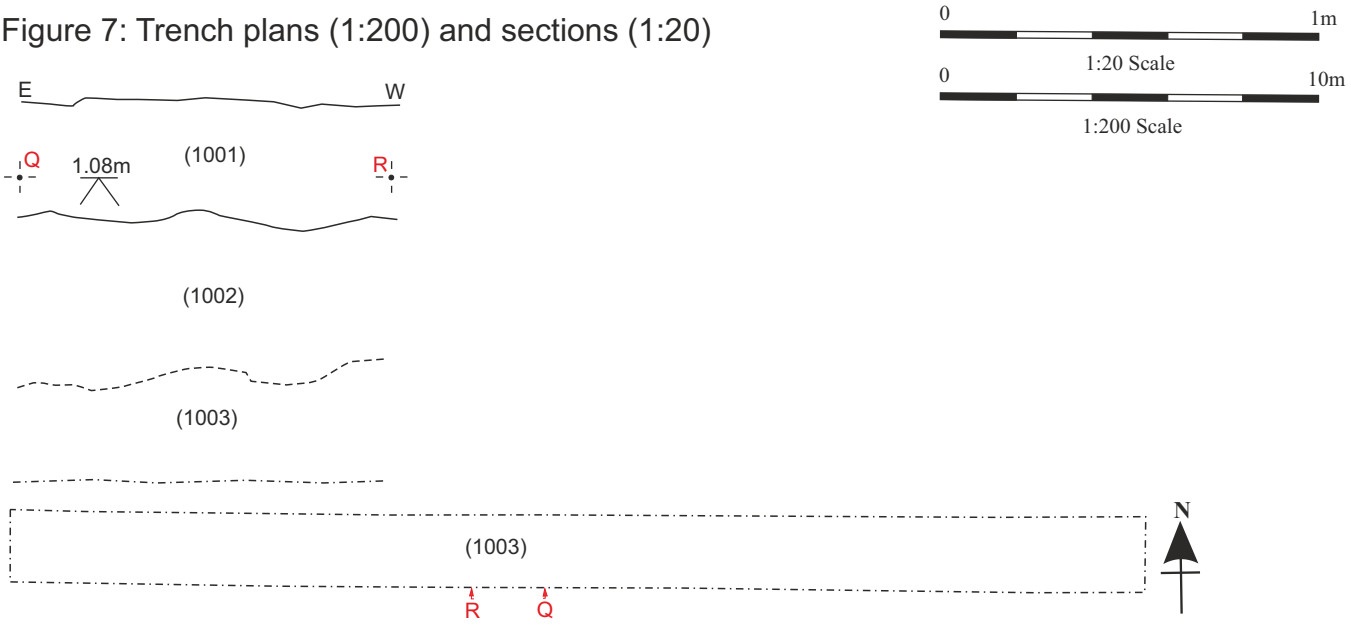


Figure 7: Trench plans (1:200) and sections (1:20)

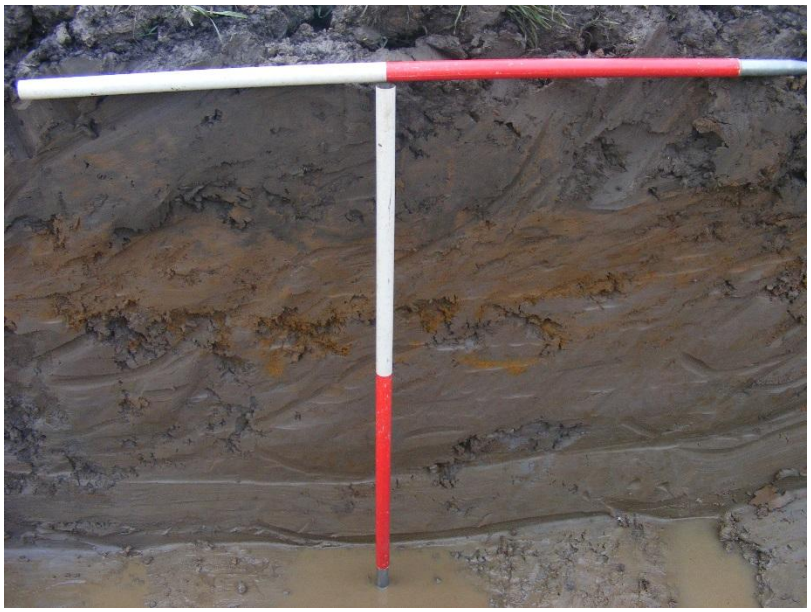


APPENDIX 1 Colour Plates

Site on arrival, looking northwest

Trench 2 Sample Section, looking southwest

Trench 2, looking northwest



Trench 9 Sample Section, looking south

Trench 9, looking west

Trench 1 Sample Section, looking south

Trench 1, looking east

Trench 4 Sample Section, looking southeast

Trench 4, looking northeast

Trench 8 Sample Section, looking south

Trench 8, looking east

Trench 5 Sample Section, looking west

Trench 5, looking south

Trench 10 Sample Section, looking south

Trench 10, looking east

Trench 7, looking east

Trench 3 Sample Section, looking east

Trench 3, looking south

Trench 5 Sample Section, looking west

Sondage into deposit (605), looking north

Edge of deposit (605), looking south

Site after trenching, looking southeast

APPENDIX 2 Context Summary

context no.	type	description	width (cm)	length (cm)	depth (cm)	finds
101	layer	Ploughsoil. Mid brown silt.			30	
102	layer	Light grey silt mottled with yellow-orange-brown fine sand lenses			40	
103	layer	Red-brown-grey silt with lenses of orange sand			60	
104	layer	similar to 102			10	
201	layer	Ploughsoil. Mid brown silt.			35	
202	layer	Light grey silt mottled with yellow-orange-brown fine sand lenses			30	
203	layer	Orange-red-brown silt with lenses of orange sand			60	
204	layer	similar to 202			20	
301	layer	Ploughsoil. Mid brown silt.			30	
302	layer	Mottled silt with light grey and yellow-orange-brown fine sand lenses			35	
303	layer	Mottled light grey and yellow-brown fine sand silt with orange sand lenses			40	
401	layer	Ploughsoil. Mid brown silt.			30	
402	layer	Light grey silt mottled with yellow-orange-brown fine sand lenses			30	
403	layer	Red-brown-grey silt with lenses of orange sand			60	
501	layer	Ploughsoil. Mid brown silt.			30	
502	layer	Mottled silt with light grey and yellow-orange-brown fine sand lenses			40	mollusc shells
503	layer	Mottled light grey and yellow-brown fine sand silt with orange sand lenses			20	mollusc shells
601	layer	Ploughsoil. Mid brown silt.			30	
602	layer	Mottled silt with light grey and yellow-orange-brown fine sand lenses			40	
603	layer	Mottled light grey and yellow-brown fine sand silt with orange sand lenses			30	
604	VOID	VOID				
605	deposit	Light-mid blue-grey fine silt clay			>100	
701	layer	Ploughsoil. Mid brown silt.			30	
702	layer	Mottled silt with light grey			30	

		and yellow-orange-brown fine sand lenses				
703	layer	Mottled light grey and yellow-brown fine sand silt with orange sand lenses			30	
801	layer	Ploughsoil. Mid brown silt.			35	
802	layer	Mottled silt with light grey and yellow-orange-brown fine sand lenses			30	
803	layer	Red-grey-brown silt with lenses of orange silt stone			50	mollusc shells
901	layer	Ploughsoil. Mid brown silt.			30	
902	layer	Light-mid yellow-orange mottled with light grey silt and occasional orange sand lenses			30	
903	layer	Light-mid red-grey-brown silt			60	
904	layer	Light-mid brown-red-grey silt			10	
1001	layer	Ploughsoil. Mid brown silt.			30	
1002	layer	Mottled silt with light grey and yellow-orange-brown fine sand lenses			30	
1003	layer	Mottled light grey and yellow-brown fine sand silt with orange sand lenses			50	

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OASIS ID: preconst3-204101

Project details

Project name	Land at Black House Farm, Pode Hole, Spalding
Short description of the project	To inform a forthcoming planning application, a trial trench archaeological evaluation was undertaken on land at Black House Farm, The Delph, Pode Hole, Spalding, South Holland, Lincolnshire, PE11 3LS. The approximate centre of the site is NGR TF 1985 2202. The site lies close to the Iron Age and Roman coastline, where extensive evidence of salt-making has been identified. There were no known salterns within the site itself, but there are several zones of archaeological remains indicating salt-making and associated activity within 500m of the site, including one tentatively identified Roman saltern less than 100m from the northern boundary. A preceding geophysical survey of the site revealed limited archaeological potential, and ten trial excavation trenches were positioned to investigate a potential linear feature and pit-like anomalies. The evaluation encountered no features or artefacts of anthropogenic origin. It is concluded therefore that the site is devoid of any significant archaeological remains.
Project dates	Start: 21-01-2015 End: 27-01-2015
Previous/future work	Yes / Not known
Any associated project reference codes	SPHE 15 - Sitecode
Type of project	Field evaluation
Current Land use	Cultivated Land 3 - Operations to a depth more than 0.25m
Monument type	NONE None
Significant Finds	NONE None
Methods & techniques	"Targeted Trenches"
Development type	Not recorded
Prompt	Advised by County Archaeologist
Position in the planning process	Pre-application

Project location

Country	England
Site location	LINCOLNSHIRE SOUTH HOLLAND SPALDING Land at Black House Farm, Pode Hole,
Study area	9.00 Hectares
Site coordinates	TF 1985 2202 52.7820903534 -0.222821167313 52 46 55 N 000 13 22 W Point

Project creators

Name of Organisation	Pre-Construct Archaeological Services Ltd
Project brief originator	Local Authority Archaeologist and/or Planning Authority/advisory body
Project design originator	Pre-Construct Archaeological Services Ltd
Project director/manager	Will Munford
Project supervisor	M. Rowe
Type of sponsor/funding body	Developer

Project archives

Physical Archive Exists?	No
Digital Archive recipient	The Collection, Lincoln
Digital Archive ID	LCNCC 2015.2
Digital Contents	"none"
Digital Media available	"Images raster / digital photography","Text"
Paper Archive recipient	The Collection, Lincoln
Paper Archive ID	LCNCC 2015.2
Paper Contents	"none"
Paper Media available	"Context sheet","Diary","Map","Miscellaneous Material","Plan","Report","Section","Survey "

Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	Land at Black House Farm, The Delph, Pode Hole, Spalding, South Holland, Lincolnshire: Archaeological Evaluation Report
Author(s)/Editor(s)	Wheeliker, B.
Other bibliographic	PCAS report no. 1368

details	
Date	2015
Issuer or publisher	Pre-Construct Archaeological Services
Place of issue or publication	Saxilby, Lincolnshire

Entered by	Alison Lane (alison@pre-construct.co.uk)
Entered on	18 February 2015

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