

PFGR/02



PERRY'S FARM, ISLE OF GRAIN, KENT

Aerial Photography

commissioned by TNEI
on behalf of Estuary Energy

May 2015

PERRY'S FARM, ISLE OF GRAIN, KENT

Aerial Photography

commissioned by TNEI
on behalf of Estuary Energy

May 2015

project info

HA JOB NO. PFGR/02
NGR TQ 86844 76513
PARISH Grain
LOCAL AUTHORITY Medway Council

project team

PROJECT MANAGER Joe Abrams
AUTHOR Jake Streatfeild-James
GRAPHICS Jake Streatfeild-James
APPROVED BY Joe Abrams – Project Manager



.....

© 2015 by Headland Archaeology (UK) Ltd

SOUTH & EAST

Headland Archaeology
Building 68C, Wrest Park, Silsoe
Bedfordshire MK45 4HS

01525 850 878
southandeast@headlandarchaeology.com

www.headlandarchaeology.com





CONTENTS

1	INTRODUCTION	1
1.1	PLANNING BACKGROUND	1
1.2	SITE LOCATION	1
1.3	ARCHAEOLOGICAL BACKGROUND	1
2	METHOD STATEMENT	2
2.1	OBJECTIVES	2
2.2	METHODOLOGY	2
3	RESULTS	2
4	DISCUSSION	2
5	REFERENCES	2
5.1	BIBLIOGRAPHY	2
5.2	MAPS	2
FIGURES 1–3		3

PERRY'S FARM, ISLE OF GRAIN, KENT

Aerial Photography

Headland Archaeology (UK) Ltd conducted a study of 1946 Aerial Photography in the vicinity of Perry's Farm, Isle of Grain, Kent, using plates taken on the 1st of May 1946 (RAF Sortie no. 41 plates 4013–4017). Plates were provided by Kent County Council's Historic Environment Record. A concentration of cropmark anomalies, thought to relate to a system of post-medieval salterns had been recorded by the 1946 sortie. These crop marks were transcribed from the aerial photography and have been plotted in a figure attached to this report. In addition cropmark evidence of probable land drains were observed on these aerial photographs across much of the proposed development area.

1 INTRODUCTION

1.1 PLANNING BACKGROUND

Headland Archaeology was commissioned by TNEI on behalf of their client, Estuary Energy, to undertake a baseline assessment of a proposed windfarm site (WF) at Perry's Farm on the Isle of Grain, Kent.

The baseline cultural heritage assessment was completed in early 2014 (Headland Archaeology 2014). This report recognised the high potential for palaeoenvironmental remains and Post Medieval industrial activity relating to the production of salt within the proposed WF. The salt works are recorded on a survey of the hundreds of Chatham, Gillingham and Hoo, published in 1798 (www.britishhistory.ac.uk).

In order to gauge the impact of the proposed WF on the 18th century Salt Works, Headland Archaeology (UK) Ltd was asked to consult Kent County Council's collection of historic aerial photographs. This would ensure that opportunities were taken to learn about the sub-surface potential of the WF to inform the design of the proposed development. Sorties undertaken by the RAF during the immediate post-war period were identified as the most likely to provide useful data concerning the location and plan of the salterns. Photographic plates post-dating 1953 were examined, but eliminated from the study, as sediments relating to the floods of that year had masked crop-marks which had previously been visible.

1.2 SITE LOCATION

The site is located in a group of fields to the North West of Grain Power Station on the Isle of Grain. The Proposed WF consists of two turbines located in the western half of the proposed development area (PDA) centred TQ 8636 7644. A haul road and access is proposed running from an existing access TQ 8780 7604, west into the PDA, utilising an existing access track.

1.3 ARCHAEOLOGICAL BACKGROUND

The WF takes in an extensive area of low lying arable land on the Isle of Grain, which was, in the 18th century, separated from the mainland UK by the Yantlet Creek. The archaeology and palaeoenvironmental significance of the site beyond the Post Medieval period has been outlined in the baseline assessment (Headland 2014) and will not be explained further in this document.

The parish of Grain was the site of small scale industry in the Post Medieval periods, with the manufacture of Salt being the major focus. An estate map from the late 17th century (Kent County Council Archive ref: S/NK P3) shows salt works operating on reclaimed land at the mouth of the Cole Creek [sic]. The surveyor, Edward Halstead, recorded a large salt works in 1798 consisting of a rectangular assortment of small rectangular plots, thought to be salterns or shallow man-made ponds for evaporating brine. Adjacent to these plots he depicted a windmill, most likely employed to drive pumping equipment, in order to lift brine from the Yantlet Creek. The works appear to be located adjacent to the Yantlet Creek, at the halfway point between the Medway and Thames Estuaries, which is consistent with the position of the current PDA.



By the late 19th century, the Ordnance Survey shows that buildings relating to the salt works were abandoned, but upstanding.

2 METHOD STATEMENT

2.1 OBJECTIVES

The objectives of the air photo interpretation were:

- to identify and record the location of crop-marks likely to represent archaeological features within the PDA;
- to geo-reference and plot the extents of any crop-marks within the PDA in order to inform the location of turbines with the minimum effect on buried archaeology within the WF development.

2.2 METHODOLOGY

Three plates from run number 41, dated 1st May 1946 were selected, covering the entirety of the PDA (4013, 4015 and 4017). A large extent of the surrounding landscape was included in the study in order to provide adequate context for interpreting crop-mark anomalies (taking into account changes in background geology and geomorphology).

Plates were imported into a CAD package and stitched together using common reference points, over a properly geo-referenced 1:25,000 map tile downloaded from the Ordnance Survey. All cropmarks within the PDA were then traced over using the polyline function in CAD. Crop-marks with differing morphologies were separated into layers according to their date, i.e. field drains were kept together in a layer.

3 RESULTS

This aerial photograph study showed that in the late 1940s the PDA was cultivated as arable land. A system of large fields is clearly visible, and several phases of improvement are visible in the form of intercutting crop-marks showing the positions of field drains. The fields under crop clearly show the presence of a complicated system of braided palaeo-channels, which suggests that much of the land on the West side of the Isle of Grain is reclaimed. The system of sea-walls surrounding the settlements and fields is also clearly visible. A system of rutted tracks crosses the PDA and leads to a possible Second World War searchlight battery north of the PDA.

Analysis showed that, within the PDA, a system of linear crop-marks aligned at 90 degrees, and off-set to form a grid, was present, centred on OSGR TQ 8659 7650. This was located in an area of pasture, immediately to the south of the location of the 'old salt works' on the 19th century Ordnance Survey. The sub-circular features within the linear arrangement could represent ancillary processes within the works. The position and layout of grids equates well to Halstead's late 18th century description of the works, the balance of probability therefore suggests that the remains of the salterns are preserved under the sea-bourne deposits laid down in 1953.

4 DISCUSSION

A series of crop-marks has been recorded and transcribed from the original 1946 aerial photographic plates held by Kent County Council. The marks infer a system of land management laid out on a grid system, with ancillary features contained within the individual parcels. The arrangement of marks shows a resemblance to the grid of saltworks described by Edward Halstead in his 1798 survey of the Hoo Hundred, while the position of the marks is adjacent to a range of abandoned buildings described on the 19th century Ordnance Survey sheet as the 'old salt works'.

The balance of probability suggests that the linear and sub-circular crop-marks within the field centred at TQ 8659 7650 represent the buried remains of an 18th century salt works.

5 REFERENCES

5.1 BIBLIOGRAPHY

English Heritage 1991 *Exploring Our Past*, English Heritage.

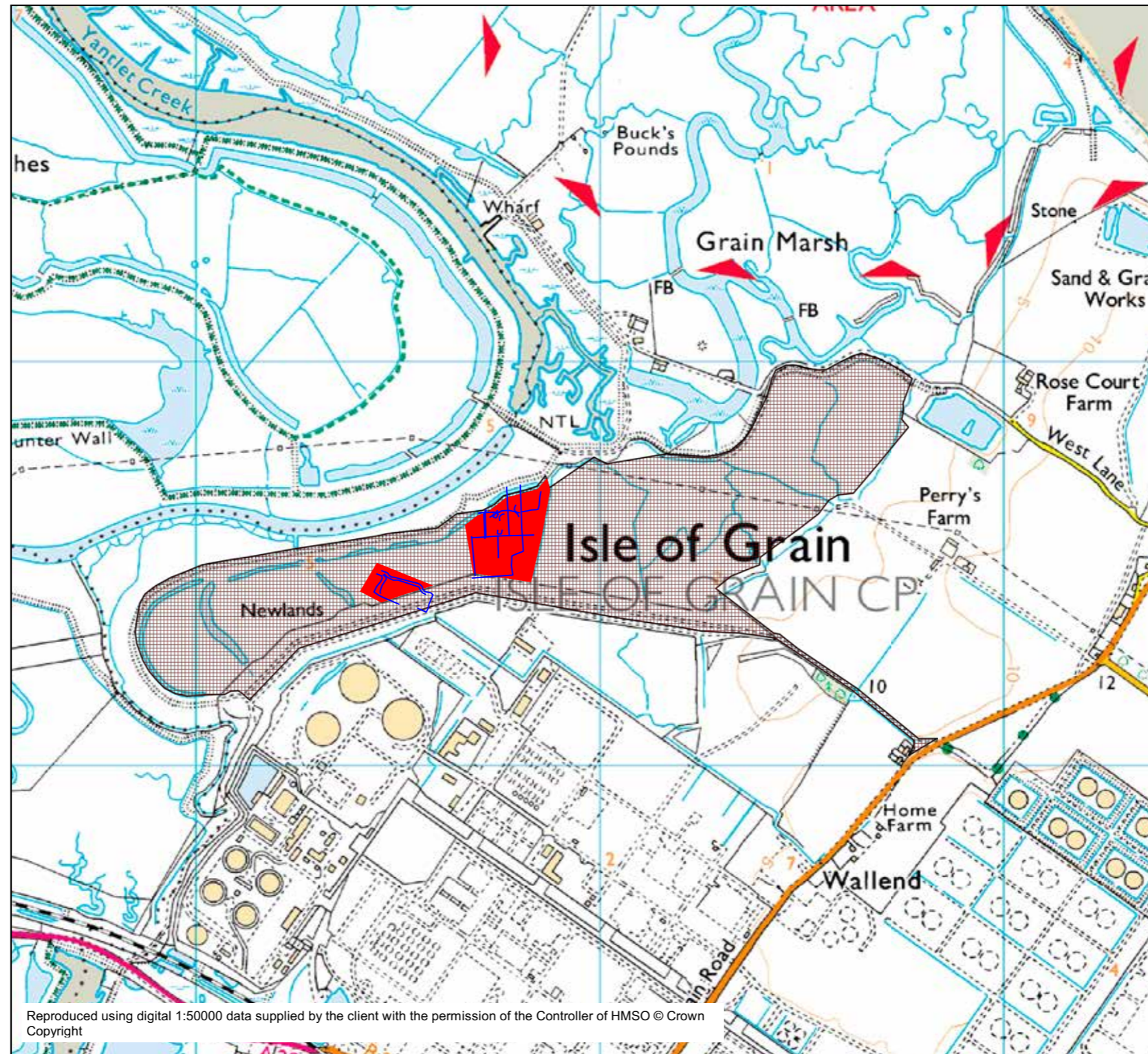
English Heritage 1997 *English Heritage Archaeology Division Research Agenda*, English Heritage.

Headland Archaeology 2014 *Perry's Farm Wind Farm Isle of Grain, Kent: Cultural Heritage Baseline* (Unpublished Client Report).

5.2 MAPS

Halstead, E 1798 *Survey of the Hundreds of Chatham, Gillingham and Hoo*, <http://www.british-history.ac.uk/report.aspx?compid=53803> (Accessed 31/03/2014).

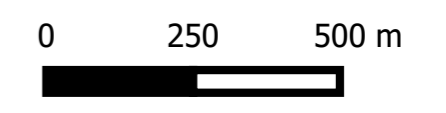
Ordnance Survey 1897 *Map Sheet 27NE* Second Edition.



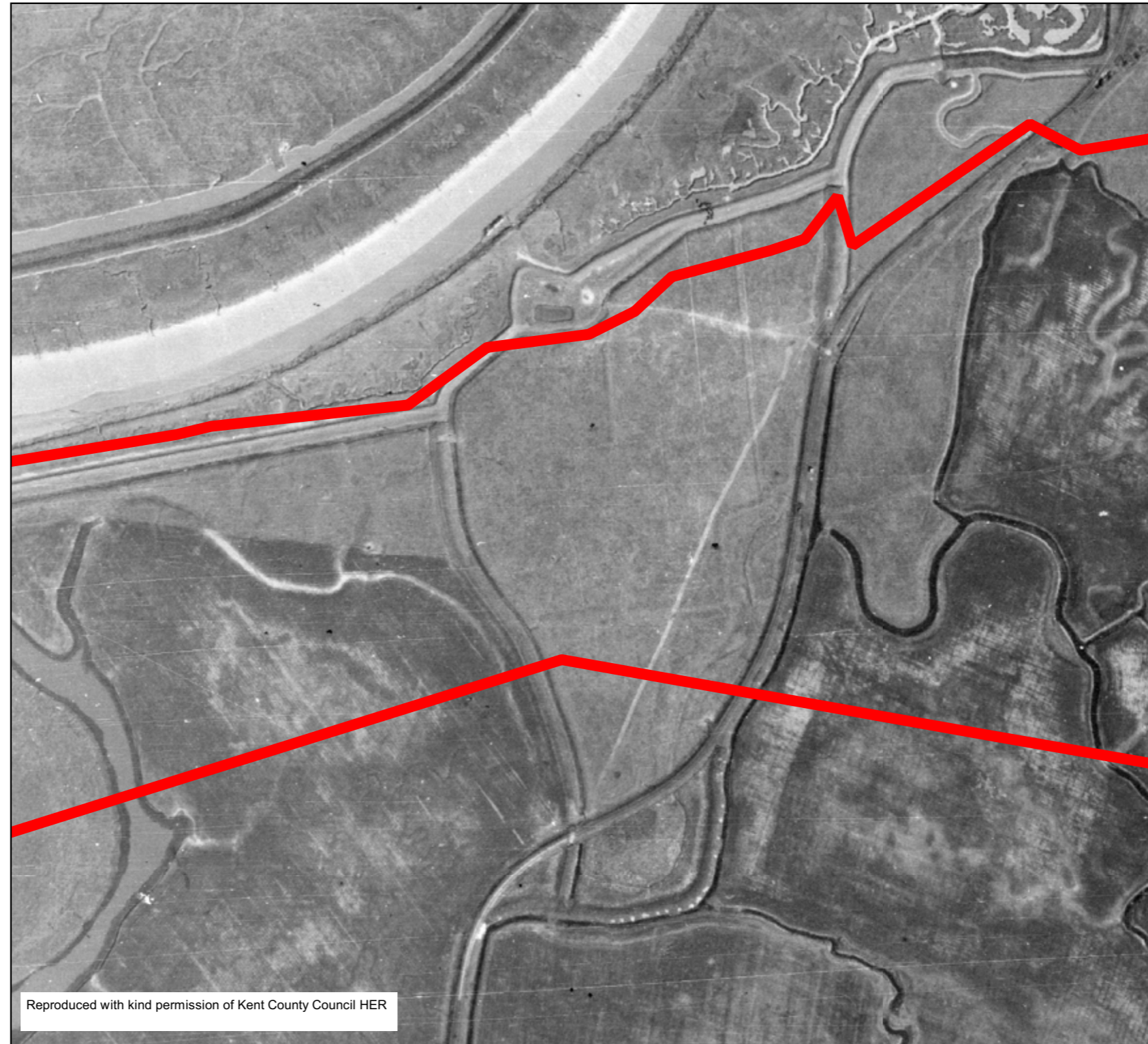
Legend

- Crop-Marks
- Crop-Mark Concentrations
- Proposed Development Area

Figure 1
Perry's Farm
PFGR14-001



Reproduced using digital 1:50000 data supplied by the client with the permission of the Controller of HMSO © Crown Copyright



Reproduced with kind permission of Kent County Council HER



Legend

RAF (1/05/1946) Run 41 Plate 4015

 Proposed Development Area

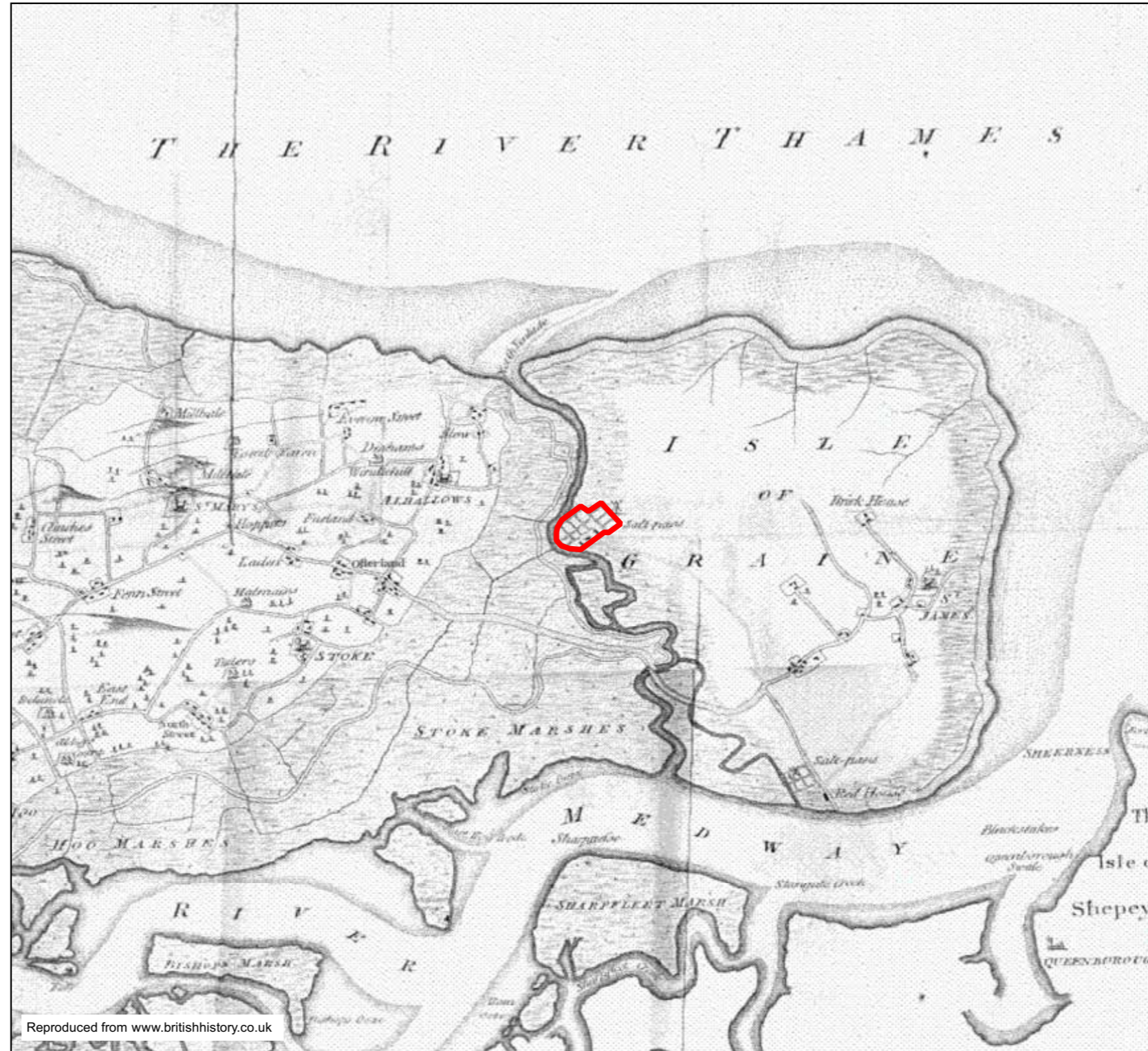
Figure 2

Perry's Farm

PFGR14-001

0 50 100 m





Legend

Halstead's Survey of the Hundred of Hoo 1798

 Saltworks

Figure 3

Pery's Farm

PFGR14-001



© 2015 by Headland Archaeology (UK) Ltd

SOUTH & EAST

Headland Archaeology
Building 68C, Wrest Park, Silsoe
Bedfordshire MK45 4HS

T 01525 861 578

E southandeast@headlandarchaeology.com

MIDLANDS & WEST

Headland Archaeology
Unit 1, Premier Business Park, Faraday Road
Hereford HR4 9NZ

T 01432 364 901

E midlandsandwest@headlandarchaeology.com

NORTH

Headland Archaeology
Unit 16, Hillside, Beeston Road
Leeds LS11 8ND

T 0113 387 6430

E north@headlandarchaeology.com

SCOTLAND

Headland Archaeology
13 Jane Street
Edinburgh EH6 5HE

T 0131 467 7705

E scotland@headlandarchaeology.com

www.headlandarchaeology.com