

PROPOSED ABLE MARINE ENERGY PARK

IPC REFERENCE: TR030001

STATEMENT OF COMMON GROUND

between

ABLE HUMBER PORTS LTD

and


THE HISTORIC BUILDINGS AND MONUMENTS COMMISSION FOR ENGLAND (ENGLISH HERITAGE)

Final Version, dated 18<sup>th</sup> July 2012

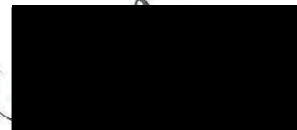
SIGNED on behalf of Able Humber Ports Ltd

SIGNED on behalf of English Heritage

Signature



Signature



Position

DESIGN MANAGER  
ABLE UK LTD.

Position

Planner (Yorkshire & the Humber)

Date

24/7/12.

Date

20 July 2012

## CONTENTS

<b>SECTION 1: INTRODUCTION AND SCOPE .....</b>	<b>3</b>
General .....	3
Pre-Application Consultation .....	4
Brief Description of the Site.....	5
Brief Description of the Project.....	5
Planning History of the Site .....	6
Summary with reference to Environmental Statement.....	7
 <b>SECTION 2: STATEMENT OF COMMON GROUND BETWEEN AHPL AND ENGLISH HERTIAGE .....</b>	 <b>10</b>
Introduction.....	10
Chapter 18: Historic Environment.....	10
Chapter 40: Historic Environment.....	12

## **SECTION 1: INTRODUCTION AND SCOPE**

### **General**

1. On 12 January 2012 the Infrastructure Planning Commission ('IPC') accepted an application ('the application') that was submitted by Able Humber Ports Limited ('AHPL') for a development Consent Order ('DCO') to construct and operate a harbour capable of handling over 5 million tonnes of material per year together with associated works.
2. The application incorporates three geographically distinct areas.
  - a. A harbour and associated industrial development on the south bank of the Humber within the administrative area of North Lincolnshire ('AMEP').
  - b. An intertidal compensatory habitat site on the north bank of the Humber within the administrative area of East Riding of Yorkshire ('the compensation site').
  - c. A wet grassland, Old Little Humber Farm, site also within the administrative area of the East Riding of Yorkshire ('OLHF').
3. English Heritage's role in the context of this project is as the Government's advisor on the management of listed buildings and scheduled monuments, and on all heritage assets below Mean High Water Springs. English Heritage therefore shares responsibility for the foreshore with the relevant Local Authority and also provides support to Local Authorities through the roles of its Scientific Advisors.
4. This document is the statement of common ground ('SoCG') between AHPL and English Heritage.
5. The Infrastructure Planning (Examination Procedure) Rules 2010, defines a statement of common ground (SoCG) as, 'a written statement prepared jointly by the applicant and any interested party, which contains agreed factual information about the application'.
6. Section 87 of the Planning Act 2008 provides that when making any decision about how an application is to be examined, the Examining Authority must have regard to any guidance issued by the Secretary of State on how applications for development consent for nationally significant infrastructure projects ('NSIPs') are to be examined. In 2010, the Department for Communities and Local Government issued, 'Planning Act 2008: Guidance for the examination of applications for development consent for nationally significant infrastructure projects'. That guidance provides the following advice on the contents of an SoCG:

*'63. The statement of common ground is a written statement prepared jointly by the applicant and the main objectors, setting out the agreed factual information about the application. A statement of common ground is useful to ensure that the evidence at the examination focuses on the material differences between the main parties. Effective use of such statements is expected to lead to a more efficient examination process.'*

*64. The statement should contain basic information on which the parties have agreed, such as the precise nature of the proposed infrastructure, a description of the site and its planning history. In addition to basic information about the application, agreement can often be reached on technical matters and topics that*

rely on basic statistical data. For example, traffic evidence can be simplified and the issues refined by agreeing matters such as traffic flows, design standards, and the basis for forecasting the level of traffic the application would generate. The topics on which agreement might be reached in any particular instance will depend on the matters at issue and the circumstances of the case.

65. As well as identifying matters which are not in real dispute, it may also be useful for the statement to identify areas where agreement is not possible. The statement should include references to show where those matters are dealt with in the written representations or other documentary evidence. Agreement should also be sought before the examination commences about the requirements that any order granted should contain.

66. How such agreement is reached will vary depending on the nature and complexity of the application and the matters at issue. Where there are only two or three major parties involved and the issues are fairly straightforward, the Examining authority might simply encourage the parties at the preliminary meeting to get together with a view to producing a statement of common ground containing agreed facts. For major applications a more formal arrangement may be necessary, particularly where several parties are expected to bring evidence of a technical nature to the examination.

67. However, the duty of Examining authority is not simply to accept the statement of common ground or to react to the evidence presented. The role of the Examining authority is to ensure that all aspects of any given matter are explored thoroughly, especially with regard to the matters fundamental to the decision, rather than seemingly accepting the statement of common ground without question.

68. Consequently, the Examining authority should probe the evidence thoroughly if their judgment or professional expertise indicates that either.

- all of the evidence necessary for a soundly reasoned decision has not been put before them or,
- that a material part of the evidence they do have has not been adequately tested'

## Pre-Application Consultation

7. Before submitting the application to the IPC, Able UK Ltd (acting on behalf of AHPL) held a number of consultation meetings with English Heritage; these are detailed in Table 1A and 1B below.

**Table 1A: Meetings Held with English Heritage Before the s42 consultation**

Date	Present	Matters discussed
28/01/2011	English Heritage	General AMEP Consultation

**Table 1B: Meetings Held with English Heritage following the s42 consultation**

Date	Present	Matters discussed	Changes made
06/04/2011	North Lincolnshire Council English Heritage	Archaeology Consultation Meeting	Mitigation strategy substantially developed.
23/04/2012	English Heritage	Archaeology Consultation	Mitigation strategy and

		Meeting	programme adopted.
--	--	---------	--------------------

## **Brief Description of the Site**

### *The AMEP Site*

8. The AMEP site, excluding the area of ecological mitigation, covers approximately 265 ha, of which approximately 120 ha is covered by existing consent for port related storage, 100 ha is existing arable land that will be developed for industrial use and 45 ha is reclaimed land from the estuary to provide a new quay. A further 48 ha of existing arable land will be converted to managed grassland to mitigate for the effects of the development on ecological receptors including birds that use the adjacent Humber Estuary SPA.

### *The Compensation Site*

9. The Compensation Site is located on the north bank of the Humber Estuary, within the East Riding of Yorkshire, opposite the AMEP site and some 4 km to the south-west of Keyingham. A new flood defence wall will be constructed landward of the existing flood defence to create a new intertidal area encompassing 100 ha.

### *Old Little Humber Farm*

10. The site is existing agricultural land and will be developed as wet roosting and feeding habitat for SPA bird species.

## **Brief Description of the Project**

11. AMEP comprises a harbour development with associated land development, to serve the renewable energy sector. The harbour will comprise a quay of 1 279 m frontage, of which 1 200 m will be solid quay and 79 m will be a specialist berth. The harbour will be formed by the reclamation of intertidal and subtidal land within the Humber Estuary.
12. Associated development will include:
  - dredging and land reclamation;
  - the provision of onshore facilities for the manufacture, assembly and storage of wind turbines and related items;
  - junction works to local roads and trunk roads;
  - surface water disposal arrangements.
13. Ancillary matters will include:
  - the diversion of two footpaths that run along the shore of the Humber, one on the south bank and one on the north bank;
  - the conversion of a railway into a private siding;
  - the interference with rights of navigation;
  - the creation of a harbour authority;
  - a deemed licence under section 66 of the Marine and Coastal Access Act 2009;
  - the modification of public and local legislation; and

- the compulsory acquisition of land and rights in land and powers of temporary occupation of land to allow Able to carry out and operate the above development.

## Planning History of the Site

### *The AMEP Site*

14. The terrestrial areas of the application site includes land that has the benefit of extant planning consents for port related storage and land that has temporary consent as a lay-down area during the construction of a biomass fuelled power station, refer to Table 2.

**Table 2 Extant Planning Consents within the AMEP Site**

<b>Planning Ref.</b>	<b>Location</b>	<b>Details</b>	<b>Status</b>
PA/2010/1263	Land Off, Rosper Road, North Killingholme, DN40 3JP	Planning permission to construct a test foundation (12 x 12 m) and a tower (5 m diameter) with a total height of 67 m (approximately).	Granted 06/12/2010
PA/2008/1375	Area E, AHPF*, Rosper Road, North Killingholme, DN40 3JP	Planning permission to vary Condition 3 on application PA/2006/0039 dated 01/08/2007 (relating to low level shrubbery and hedging) to replace the words 'Within ten months of the permission...' to 'Prior to the commencement of operation...'	Granted 22/12/2008
PA/2008/0571	Area D1 & D2, AHPF*, Rosper Road, North Killingholme, DN40 3JP	Remove Condition 1 of planning permission 2004/1528 to make permanent the existing temporary consented use of vehicle storage and distribution, erect a single storey cabin, workshop and office building, raise ground levels to 3.1-4.0 m OD and surface with tarmac, install 3 m high electrified fencing with bird deflectors and erect 4 No. 30 m high lighting masts on land off Rosper Road.	Granted 22/12/2008
PA/2008/1428	Area G, AHPF*, Rosper Road, North Killingholme, DN40 3JP	Remove Condition 1 (no access to and egress from Haven Road) and Condition 2 (the use shall be discontinued before 31/12/2008) on planning permission PA/2004/1601.	Granted 19/12/2008
PA/2008/1401	Area B Able Humber Port Facilities, Rosper Road, North Killingholme, DN40 3JP	Planning permission to remove condition 1 on PA/2004/1528 (use to be discontinued on or before 31 December 2008) and condition 9 on PA/2002/1828 (site to have a permeable surface at all times) in connection with use of land for vehicle distribution and storage.	Granted 18/12/2008
PA/2007/0101	Area C, AHPF*, Rosper Road, North Killingholme, DN40 3JP	Planning permission to tarmac the 22.11 ha site for port-related external storage, to include the construction of 2 workshop buildings, a modular office building, a modular security building, construction of a wash pad wash bay and associated staff and visitor car parking and install a 3 m high security fencing, lighting towers and a sewage treatment plant.	Granted 16/01/2008
PA/2005/0562	Area D, AHPF*, Rosper Road, North Killingholme, DN40 3JP	Planning permission to construct a port related storage facility including erection of various buildings, construction of car parking, erection of lighting towers and 2.4 m high electrified security fencing.	Granted 14/11/2006

Planning Ref.	Location	Details	Status
DECC 01.08.10.04/43 9C	West of the MOD Tank Farm	Construction and operation of a biomass fuelled generating station at South Killingholme, near Immingham	Granted 10/08/2011

*The Compensation Site and Old Little Humber Farm*

15. There is one extant planning consent within the Old Little Humber Farm but none in the Compensation Site. Details of this and other nearby planning applications approved in the last 15 years are described in Table 3.

**Table 3: Extant Planning Consents within and near the Compensation Site (Source: ERYC Public Access for planning applications website)**

Planning Ref.	Location	Details	Status
08/01993/STP LFE	Humber Gateway onshore installation	Cross country cable from Easington to Saltend	Granted
96/61327/PLF	8 Cherry Cobb Sands Burstwick East Riding of Yorkshire HU12 9JU	Erection of an attached domestic garage.	Granted
98/00205/PLF	New House Farm Cherry Cobb Sands Road Burstwick East Riding of Yorkshire HU12 9JX	Erection of a general purpose agricultural storage building.	Granted
04/02377/PLF	Little Humber Farm Thorngumbald Road Paull East Riding of Yorkshire HU12 8AY	Erection of a replacement dwelling (renewal of planning permission 98/02287/PLF)	Granted
05/02858/PLF	Thorn Marsh Cottage Bellcroft Lane Thorngumbald East Riding Of Yorkshire HU12 9JR	Erection of a single and two storey extension	Granted
11/02438/OHL	OHL Replacement North West Of Little Humber Farm Newlands Lane Paull East Riding Of Yorkshire	Erection of 2no. additional poles for overhead line	No objections

**Summary with reference to Environmental Statement**

16. The project comprises Schedule 1 development in accordance with Regulation 2(1) of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (as amended) (the EIA Regulations). Accordingly, the application to the IPC in respect of AMEP included

an Environmental Statement (ES) and the ES referred to in this SoCG is the document accepted by the IPC on 12 January 2012.

17. In accordance with Schedule 4 of the EIA Regulations, the ES provides:

*'(a) description of the likely significant effects of the development on the environment, which should cover the direct effects and any indirect, secondary, cumulative, short, medium and long- term, permanent and temporary, positive and negative effects of the development, resulting from:*

*(a) the existence of the development;*

*(b) the use of natural resources;*

*(c) the emission of pollutants, the creation of nuisances and the elimination of waste,*

*and the description by the applicant of the forecasting methods used to assess the effects on the environment.'*

18. The likely significant effects of the project were initially identified by AHPL in a Scoping Report accepted by the IPC on 13 September 2010. The IPC subsequently issued their Scoping Opinion on 27 October 2010 following consultation prescribed consultees. It is agreed, nevertheless, that the Scoping Opinion does not limit the effects of the project that are to be considered and that all likely significant effects need to be assessed.
19. Chapters 1-3 of the ES provide a brief introduction to the project, the EIA process and the overall planning framework relating to the application. Since the completion of the ES, national planning policy has changed significantly with the publication of the National Planning Policy Framework. This publication, inter alia, revoked all Planning Policy Statements and Planning Policy Guidance documents.
20. Chapters 4-6 of the ES provide, respectively: a detailed description of the project; an explanation of why the project is needed and a review of the alternative sites considered by the applicant.
21. Chapters 7-24 of the ES report on the significant environmental effects of the proposed development on the south bank of the River Humber, while chapters 31-43 report on the significant effects of the proposed development on the north bank of the river. Each chapter of the ES addresses a specific environmental issue and provides:
- a. A review of the specific planning policy context relating that the topic;
  - b. A record of the existing baseline conditions;
  - c. Identification of the receptors that are likely to be affected by the proposed development;
  - d. An assessment of the impact of the development alone on the receptors taking into account baseline conditions;
  - e. An assessment of the impact of the development cumulatively with the impacts of other projects that are not yet implemented but for which planning permission has been granted, or other projects for which an application for consent has been submitted.



- f. Proposed mitigation measures where the impact of the development when added to the baseline is sufficient to have an effect on a receptor that is significant.
- 22. 'Baseline' means the assessment of the current situation at each location. 'Impact' means the impact of the construction and operation of AMEP and the compensation site. 'Receptor' is any component of the environment (population, flora, fauna, water, air, soil, geology, geomorphology, heritage and landscape), whether specifically protected by statute or not. 'Mitigation' means the measures that are proposed in the ES to reduce the impacts to a lower level than would otherwise occur.
- 23. The structure of the SoCG that follows, then considers each relevant chapter of the ES in turn.

### **Document Structure**

- 24. This SoCG comprises two sections:

Section 1: Introduction and Scope

Section 2: Statement of Common Ground between AHPL and English Heritage.

## **SECTION 2: STATEMENT OF COMMON GROUND BETWEEN AHPL AND ENGLISH HERITAGE**

### **Introduction**

25. This Section of the SoCG reviews those chapters that are relevant to English Heritage. These chapters are Chapter 18 from Volume 1 of the ES, concerning historic environment and heritage impacts of the AMEP site, and Chapter 40 from Volume 2 of the ES, concerning archaeological and heritage impacts of the Compensation Site and Old Little Humber Farm.
26. These chapters and their annexes comprise the relevant parts of the application package, supported by the Heritage Designation Plans and their associated Gazetteer, submitted as part of the application in accordance with Regulation 5 of the Infrastructure Planning (Applications: Prescribed Forms and Procedures) regulations 2009.

### **Chapter 18: Historic Environment**

#### *General*

27. Chapter 18 provides a summary of information relating to the historic environment of that part of the Humber Estuary and its hinterland that will be affected by the development of the Marine Energy Park.

#### *Baseline*

28. English Heritage agrees that, subject to the completion and reporting of the programme of additional investigation works included in Annex A of this document, and subsequent re-assessments of the significance of heritage assets as new data becomes available, the baseline data presented in Section 18.5 is an accurate and appropriate representation of the heritage asset baseline of the study area, suitable for the purposes of impact assessment and mitigation design.

#### *Assessment Methodology*

29. English Heritage agrees that the assessment methodology and significance criteria detailed in Section 18.3 of the Environmental Statement for both terrestrial and marine historic environments are appropriate for the purposes of impact assessment and mitigation design.

#### *Receptors*

30. English Heritage agrees that the receptors identified in Figure 18.2 & Table 18.4 of the Environmental Statement are appropriately identified for the proposed development, subject to the re-assessment of the significance of heritage assets as new data becomes available.

#### *Impacts*

31. English Heritage agrees that the assessment, in Section 18.6 and Table 18.6, of likely construction phase impacts on terrestrial archaeology and heritage assets arising from AMEP insofar as they come within English Heritage's remit, correctly identifies the potential impacts of the development on the cultural heritage assets specified above for the purposes of developing a mitigation strategy. Impacts will be re-assessed as additional data becomes

available and the mitigation strategy reviewed with the Local Authority Archaeological Officer and the English Heritage Science Advisor.

32. English Heritage also agrees that the assessment, in Section 18.6 and Tables 18.7 and 18.8, of likely construction phase impacts on the marine archaeology arising from AMEP, correctly identifies the potential impacts of the development on the cultural heritage assets specified above for the purposes of developing a mitigation strategy.
33. English Heritage also agrees that the assessment, in Section 18.6, Table 18.9 and Annex 18.4, of the potential impacts of the proposed development on the setting of significant heritage assets, is suitable and appropriate for the purposes of developing a mitigation strategy.

#### *Mitigation*

34. Section 18.7 details proposed mitigation measures and further investigation works required to produce detailed area specific mitigation measures. Subject to the completion of the further works as specified and set out in Annex A of this document, timings of which must at this stage remain intentional and indicative, English Heritage agrees that the mitigation measures proposed are proportionate and appropriate to the impacts identified, with the exception of impacts on the group of three lighthouses, addressed in paragraphs 35 and 36 below. Furthermore the proposed preservation in situ of an area consented for car parking in an existing planning consent (as noted in Section 18.7.2) has been re-evaluated and excavation is now proposed (Annex A paragraph 5.19).
35. Annex 18.4 has identified both a negative impact on the setting of North Low Lighthouse as a stand-alone structure, and also on the group of three lighthouses at Killingholme as a collective heritage asset. English Heritage has requested that this impact be addressed through the preparation of a management plan for the three lighthouses, the preparation and implementation of which should be secured through a Requirement of the DCO. This plan should secure a sustainable future for these heritage assets.
36. Able agrees to provide such a management plan as far as is possible, with the proviso that English Heritage accepts that the owner/operator of the Killingholme High lighthouse and South Low lighthouse may decline to take part in such a plan, and in this case Able's ability to implement management measures would be constrained. Able thus agrees to draft an additional requirement to the DCO to secure the preparation and implementation of a management plan for the North Low lighthouse in consultation with English Heritage, and agrees to use its best endeavours to include the owner/operator of the other two lighthouses in the management strategy set out in this plan.
37. English Heritage further agrees with the statement in Section 18.8 that, subject to the implementation of the mitigation measures proposed and completion of the programme of further work (timings of which must at this stage remain intentional and indicative) set out in Annex A of this document, no residual impacts are identified arising from AMEP.

#### *Cumulative impacts*

38. English Heritage agrees with the statement in Section 18.9 that no cumulative impact on marine and intertidal archaeology is anticipated as a result of AMEP over and above the impacts assessed previously in the ES.

*Statement of issues not yet agreed*

39. None

## **Chapter 40: Historic Environment**

### *General*

40. Chapter 40 of the Environmental Statement provides a summary of information relating to the historic environment of that part of the Humber Estuary and its hinterland that will be affected by the Compensation Site and Old Little Humber Farm.

### *Baseline*

41. The baseline assessment of the historic environment for the proposed Compensation Site was undertaken in Section 40.5. Section 40.5 delineates the heritage assets identified within and adjacent (c.5km) to the Compensation Site; these are presented in Table 40.4 and Figures 40.1 and 40.4.
42. English Heritage agrees that the baseline data presented in Section 40.5 and Table 40.4 is an accurate and appropriate representation of the heritage asset baseline of the study area, suitable for the purposes of impact assessment and mitigation design.

### *Assessment Methodology*

43. English Heritage agrees that the assessment methodology and significance criteria detailed in Section 40.3 of the Environmental Statement for both terrestrial and marine historic environments are appropriate for the purposes of impact assessment and mitigation design

### *Receptors*

44. English Heritage agrees that the receptors identified in Figure 40.1 & Table 40.4 of the Environmental Statement are appropriately identified for the proposed development.

### *Impacts*

45. English Heritage agrees that the assessment, in Section 40.6 and Table 40.6, of likely construction phase impacts on marine and terrestrial archaeology and heritage assets arising from the Compensation Site insofar as they come within English Heritage's remit, correctly identifies the potential impacts of the development on the cultural heritage assets specified above for the purposes of developing a mitigation strategy.
46. English Heritage also agrees that the assessment, in Section 40.6 and Table 40.7, of likely operation phase impacts on marine and terrestrial archaeology and heritage assets arising from the Compensation Site insofar as they come within English Heritage's remit, correctly identifies the potential impacts of the development on the cultural heritage assets specified above for the purposes of developing a mitigation strategy.
47. English Heritage also agrees that the assessment, in Section 40.6, Tables 40.6 and 40.7, and Annex 18.4, of the potential impacts of the proposed development on the setting of

significant heritage assets potentially impacted by the Compensation Site, is suitable and appropriate for the purposes of developing a mitigation strategy.

#### *Mitigation*

48. Section 40.7 details proposed mitigation measures and further investigation works required to produce detailed area specific mitigation measures. Subject to the completion of the further works as specified and set out in Annex A of this document, timings of which at this stage must remain intentional and indicative, English Heritage agrees that the mitigation measures proposed are proportionate and appropriate to the impacts identified.
49. English Heritage further agrees with the statement in Section 40.8 that, subject to the implementation of the mitigation measures proposed and completion of the programme of further work (timings of which at this stage must remain intentional and indicative) set out in Annex A of this document, no residual impacts are identified arising from AMEP.

#### *Cumulative impacts*

50. English Heritage agrees with the statement in Section 40.9 that no cumulative impact on marine and intertidal archaeology is anticipated as a result of the Compensation Site.

#### *Statement of issues not yet agreed*

51. None

**ANNEX A – WRITTEN SCHEME OF INVESTIGATION FOR AMEP**



# Able Marine Energy Park: Framework for archaeological investigation and mitigation strategies

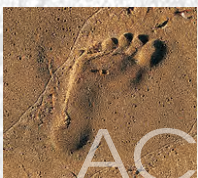
---

Prepared by:  
Peter Cox

On behalf of:  
Able Humber Ports Ltd

Document No: ACW283/3/1

Date: June 2012



archaeology

---



# ABLE MARINE ENERGY PARK: FRAMEWORK FOR ARCHAEOLOGICAL INVESTIGATION AND MITIGATION STRATEGIES

---

	CONTENTS	PAGE NO.
1.	INTRODUCTION	1
2.	PREVIOUS SURVEYS	2
3.	ARCHAEOLOGICAL BACKGROUND	3
4.	GENERAL STANDARDS Monitoring and review Appointment of archaeological contractors Purpose of investigation Programme	3
5.	OUTLINE OF ARCHAEOLOGICAL SURVEY PROPOSALS Introduction Geophysical survey Earthwork survey Fieldwalking survey Geoarchaeology/palaeo-environmental assessment Trial trenching Archaeological excavation Archaeological observation and recording Listed Building Management Plan Archive Assessment, reporting and publication Publicity and outreach	4
6.	REFERENCES & STANDARDS	10

FIG. 1: Non-intrusive survey proposals

FIG. 2: Intrusive survey proposals

APPENDIX 1: AMEP PRELIMINARY SITE LAYOUT

APPENDIX 2: AMEP EXISTING SITE DATA

APPENDIX 3: OUTLINE PROGRAMME FOR ARCHAEOLOGICAL SURVEYS

APPENDIX 4: OVERALL INTERPRETATION GEOPHYSICAL SURVEY RESULTS



# ABLE MARINE ENERGY PARK: FRAMEWORK FOR ARCHAEOLOGICAL INVESTIGATION AND MITIGATION STRATEGIES

---

## 1. INTRODUCTION

1.1 This document has been prepared by Able Humber Ports Ltd (AHPL) in support of an application to the National Infrastructure Directorate (NID), formerly the Infrastructure Planning Commission (IPC), to develop land in North and South Killingholme for a new facility to manufacture marine energy components for shipping from a new quay to offshore locations. The application area includes c. 220 hectares of existing terrestrial land for industrial development, 48 hectares of ecological mitigation and the development of 31.5 hectares of intertidal and 13.5 hectares of sub tidal areas.

1.2 The development, known as the Able Marine Energy Park (AMEP) will entail the construction of a new quay, a heavy component manufacturing site with large factory buildings, a supply chain manufacturing area, external storage area, new drainage arrangements, importation of aggregates for ground levelling and the creation of hard surfaces and soft landscaping areas. The full description of the site and the development is contained in Chapter 4 of the project Environmental Statement (AHPL 2011; application document TR030001/APP/17). The preliminary site layout is shown in Appendix 1 of this Framework document.

1.3 The proposed development area includes 122 ha of terrestrial land that has extant planning consents for port-related storage; details of these consents are included in Section 3.4 of the Environmental Statement. Development has commenced in the area for which planning permission has been granted, but will be overwritten in the new application. The balance of the terrestrial areas comprises largely Grade 3 agricultural land that is allocated for industrial development in North Lincolnshire Council's Local Plan. This land allocation is contained within the Council's Core Strategy which was adopted in 2011.

1.4 This framework document is being prepared as a *draft written scheme of archaeological investigation* (WSI) in accordance with an anticipated condition that will be attached to the grant of consent by the NID. It relates to the management of heritage assets that may be affected by the proposed development project, above Mean High Water. This 'terrestrial' framework document will be updated with the results of the evaluation and assessment studies, as they become available; the results will inform detailed mitigation strategies that will be incorporated in the finalised framework document, to be secured by condition of the NID Consent Order. The finalised document and the detailed project designs for the mitigation works will constitute the WSI. A second document has been prepared, in parallel, which sets out arrangements for the management of heritage assets below Mean High Water (Steyne & Firth 2012).

1.5 The application for consent to the NID seeks some degree of flexibility in the location and design of individual components of the site. Specific impacts on heritage resources cannot, therefore, be fully defined until the final design is undertaken. Given that a considerable corpus of archaeological data already exists for the site (Appendix 2), and that the principal effects over much of the site are known, the proposals contained here are based on the maximum impact on

the heritage assets and mitigation proposals are proportionately robust to accommodate possible variations in design.

**1.6** The framework document sets out a strategy for further site investigations, where necessary, including mitigation of adverse effects, techniques to be employed and an outline timetable of activities (Appendix 3). The document is intended as a *live* document that will be appended, at intervals, with detailed project designs by appointed archaeological contractors.

**1.7** The document has been developed in consultation with the North Lincolnshire Archaeological Officer (NLAO), and the English Heritage Science Advisor (EHSA). It incorporates comments and advice received from these bodies, as outlined in Annex 2.2 of the AMEP Environmental Statement (AHPL 2011), and at subsequent meetings.

**1.8** The management of the historic environment is acknowledged as an important factor in the development of the project. The application area includes one heritage asset of national importance which is protected as a Listed Building, along with other assets of local and county/regional importance. There is no evidence that the proposed development will have adverse effects on additional, as yet unidentified, heritage assets sites, structures or deposits of sufficient (national) significance so as to necessitate preservation in-situ on any part of the site or warrant refusal of permission on archaeological grounds.

**1.9** It is acknowledged that the extent of infilling of the site to create a raised landform may create sufficient pressures to compress and potentially damage buried archaeological deposits to an extent beyond which they might reasonably survive. The option to preserve such deposits *in situ* is therefore not considered a viable economic option across the majority of the site. In the case of buried archaeological deposits the proposed mitigation will be by professional archaeological excavation, analysis and reporting. In the case of deposits of palaeo-environmental significance, which may be affected either by compression or lowering of water table then detailed sampling and analysis is proposed. Measures to ensure the protection of a Listed Building are included.

## **2. PREVIOUS SURVEYS**

**2.1** There has been a substantial amount of previous archaeological survey in the proposed development area prior to the current project. The results of these surveys are outlined in the desk-based assessment (Cottam & Cox 2010) and summarised here in Appendix 2. The previously developed area has been the subject of extensive investigation including evaluation by geophysical survey, fieldwalking, trial trench excavation and area excavations; all have been undertaken in accordance with conditions of previous planning permissions.

**2.2** Within the undeveloped part of the AMEP site there has been extensive geophysical survey undertaken as part of the AMEP EIA (GSB 2011). A second phase of geophysical survey has been undertaken in 2012 (Headland Archaeology 2012).

**2.3** It has been agreed with the NLAO and EHSA that the accumulated data provides a reasonable indication of the location and extent of buried heritage assets within the site that may be affected by the development. While a programme of site evaluation and impact assessment was required, by the consultees, to be completed and summarised in the ES, changes in the scheme design, and the hence the extent of mitigation, were underway up until the submission date. This delayed the completion of the surveys. AHPL now undertakes to complete the investigation process during the consultation period, as per the outline programme set out here in Appendix 3.

### **3. ARCHAEOLOGICAL BACKGROUND**

**3.1** The principal archaeological resources currently identified within the development area have been summarised in the Archaeological desk-based assessment report (Cottam & Cox 2011) and the AMEP Environmental Statement (AHPL 2011) which incorporates subsequent geophysical survey results (data summarised here as Appendix 2), which should be read in conjunction with this framework document.

**3.2** The development area contains a wide range of dated and undated archaeological resources. This includes later prehistoric and Romano-British settlements identified from geophysical survey and excavation, remains of Medieval cultivation and multi-period palaeo-environmental potential associated with buried land surfaces and water channels. Other probable archaeological occupation areas have been identified, but not yet dated, by geophysical survey.

**3.3** The settlement history of the area is distinctive as a result of it incorporating a large area of the former North Lincolnshire 'outmarsh'; an intertidal area on the southern shore of the Humber Estuary that has since the prehistoric period been exploited and later reclaimed, but which locally lacks any direct evidence for early settlement.

### **4. GENERAL STANDARDS**

#### **Monitoring and review**

**4.1** AHPL will retain the services of an archaeological consultant to manage the preparation and review of project designs, monitor compliance on site and liaise with the NLAO/English Heritage (EH)/North Lincolnshire Museum Service (NLMS) as required on behalf of the Company. Similar arrangements will be made for the Compensation Site on the north shore of the Humber Estuary.

**4.2** A programme of office- or site-based monitoring meetings with the NLAO will be established by the Company's archaeological consultant on a quarterly basis. The purpose of the quarterly meetings will be to review progress and update the framework document if necessary. In addition, site-based monitoring meetings, during site investigations, will be held as required in order to ensure compliance with the approved project design and to review results.

**4.3** A minimum period of 10 working days' notice will be given to the NLAO before any work commences. No phase of site works will be considered complete until signed off in writing by the NLAO.

#### **Appointment of archaeological contractors**

**4.4** The Company will appoint professional and suitably experienced archaeological contractors to undertake site and off-site works, where necessary by the appointment of suitable subcontractors to provide specialist services. Where possible, IfA Registered Organisations will be used.

**4.5** All archaeological works proposed by the Company will be undertaken in accordance with the standards and guidance of the Institute for Archaeologists (see section 6), irrespective of whether organisations or personnel are members of the IfA. All works will take place in accordance with relevant EH guidelines relating to site and office-based activities, and best practice set out in MoRPHE (English Heritage 2006).

**4.6** Detailed project designs will be submitted by the archaeological contractors, for approval by the NLAO, for each area/phase of working at least 10 working days in advance of commencement of work. Work will not commence until the NLAO has approved the project designs in writing.

#### **Purpose of investigation**

**4.7** The principal aims of the proposed site investigations are:

- 1) to confirm the presence, character, vulnerability and importance of the archaeological resource within the area that is to be affected by the development and;
- 2) to confirm the extent of mitigation works in order that appropriate resources can be assigned to undertaking further investigations.

#### **Programme**

**4.8** As the preparation of the site for the importation of new fill material will be one of the first stages of construction work, the further archaeological investigations will be need to programmed to provide sufficient time for their completion without delay to the construction schedule. A detailed programme will be developed in accordance with the outline programme set out in Appendix 3. This programme will include assessment of the area of proposed 'Enabling Works'. A detailed programme for each phase of archaeological survey work will be submitted with each project design.

## **5. OUTLINE OF ARCHAEOLOGICAL SURVEY PROPOSALS**

### **Introduction**

**5.1** Using existing data from the desk-based assessment and subsequent geophysical survey, the following provides a summary of archaeological potential and an outline of proposed

investigation survey techniques. Two stages of evaluation survey are proposed: *Preliminary (non intrusive) surveys* comprising geophysical survey, fieldwalking, earthwork survey and augering; and *Secondary (intrusive) surveys* comprising trial trenching and excavation. The current and proposed extents of preliminary surveys are shown on Figs. 1a & 1b respectively.

### **Geophysical survey**

5.2 Geophysical surveys, by gradiometer, have proven to be a very effective means of locating buried archaeological sites in the East Halton and North Killingholme area. Although not able to detect all archaeological features, previous surveys, where tested by subsequent trial trenching, have been shown to provide an accurate depiction of at least the principal archaeological features.

5.3 The full extent of proposed geophysical surveys has now been completed; the extent of surveys is shown on Fig. 1a. Summary plans of magnetic anomalies in Fields 1, 3, 4, 5-21, 23-25 are shown in Appendix 4.

5.4 Surveys have been undertaken in accordance with current standards and guidance (EH 2008; Gaffney, Gater and Ovenden 2002). The surveys have comprised a detailed (recorded) survey with traverse separation at 1m with 0.25m reading intervals. Over much of the area the survey comprised alternate 10m-wide recorded transects.

### **Earthwork survey**

5.5 A topographic earthwork surveys is proposed at one location shown on Fig. 1b. This comprises a linear feature thought to represent the former sea bank (Appendix 2; site 60). Elsewhere former ridge and furrow is recorded by LiDAR and aerial photographs in arable fields and is not sufficiently well-preserved to require survey.

5.6 All surveys will be undertaken in accordance with the standard set out in English Heritage 2007. A detailed project design will be prepared and submitted by the archaeological contractor for approval by the NLAO at least 10 working days prior to commencement in accordance with IfA 2001, including a proposed report structure in accordance with IfA 2001 Annex 2.

### **Fieldwalking survey**

5.7 Surface artefact collection (Fieldwalking) will be undertaken in all arable areas of the development area (Shown on Fig, 1b). All surveys will comprise systematic gridded collection using the national grid. The collection sample (i.e. percentage of land surveyed) will comprise at least 20% (i.e. one 2m wide collection traverse per 10m grid square). A contingency for closer-interval collection will be included to allow for areas of particularly dense surface finds. A detailed project design will be prepared and submitted by the archaeological contractor for approval by the NLAO at least 10 working days prior to commencement in accordance with IfA 2001, including a proposed report structure in accordance with IfA 2001 Annex 2.

## **Geoarchaeology/palaeo-environmental assessment**

**5.8** A two-stage survey will be undertaken across a potential palaeo-channel and island indicated by the extent of alluvium (Fig. 2).

### ***Stage 1 survey- deposit model***

**5.9** Three proposed transects are shown on Fig. 2 as A-A1; B-B1 and C-C1. Transect A crosses a possible island or spur of land where unusual magnetic responses have been recorded in the gradiometer survey. Transects B and C will attempt to define a possible former channel associated with probable settlement features recorded by gradiometer.

**5.10** The pilot survey will use hand augers and field observations, undertaken by a suitably experienced geoarchaeologist/palaeo-environmental specialist in an attempt to provide a characterisation of the deposits present, particularly in respect of the depth and extent of alluvium, potential former channels, buried land surfaces, human activity or peat deposits. No samples will be collected for analysis at this stage. Augering will take place at 50m intervals along each transect (i.e. Transect A=21 auger holes; B=22 auger holes; C=16 auger holes). All surveys will be undertaken in accordance with the standard set out in English Heritage 2002 and 2007a. A detailed project design will be prepared and submitted by the archaeological contractor for approval by the NLAO and the EHSA at least 10 working days prior to commencement of survey, in accordance with IfA 2001, including a proposed report structure in accordance with IfA 2001 Annex 2.

**5.11** The data acquired will be developed, along with information provided by geophysical survey (or other available data) into a deposit model. The results will be reviewed with the EHSA and where necessary, proposals for Stage 2 developed and submitted for approval. Data may be augmented by monitoring and recording any geotechnical site investigations undertaken as part of the development.

### ***Stage 2 survey- sampling and assessment***

**5.12** Following a review of the results from the preliminary investigations, with the NLAO and EHSA, locations for the recovery of samples for assessment and analysis will be proposed in a subsequent project design. This will arise where deposits of potential significance have been identified and which require further consideration with respect to their significance and the likely effects of development on their continued survival, such as the lowering of water table by new drainage. A programme of sampling and assessment will be undertaken using either open trenching or mechanical augers and sleeved cores, depending on depth and safety considerations. All surveys will be undertaken in accordance with the standard set out in English Heritage 2007a and 2011, following consultation with the EHSA and NLAO. A detailed project design will be prepared and submitted by the archaeological contractor for the approval of the EHSA and NLAO at least 10 working days prior to commencement of survey in accordance with IfA 2001, including a proposed report structure in accordance with IfA 2001 Annex 2. The survey results will be reviewed in parallel with investigation proposed below High Water.

**5.13** Assessment may include a range of geoarchaeological and palaeo-environmental studies (including C14 dating, understanding changes in sea level and associated depositional effects, pollen, diatom and foraminifera analysis). Recommendations for, and implementation of, further analysis of the samples will be made in consultation with the EHSA and NLAO.

### **Trial trenching**

**5.14** Trial trenching will be undertaken in all areas where potentially significant archaeological deposits have been identified by geophysical surveys, or other preliminary surveys, but where further information is required to confirm mitigation proposals. Particular attention will be paid to the interface between former dry land and salt marsh. Four areas have been identified (Fig. 2; Areas 2 – 4) where subsoil features of potential archaeological interest have been located or are expected to exist (following further geophysical survey).

**5.15** Following completion of the geophysical surveys and other preliminary surveys (5.1 – 5.11 above), a proposed trial trenching plan will be provided to the NLAO for written approval. The purpose of the trenching will be to assist in the definition of areas requiring topsoil stripping for full archaeological excavation, and to provide an assessment of the character of the archaeological deposits and their degree of survival. The information gained will enable the archaeological contractor to provide suitable and adequate resources for the subsequent excavations. Once approved, the trench plan will then form the basis of a project design to be submitted by the archaeological contractor to the NLAO and EHSA at least 10 working days prior to the commencement of work. Monitoring arrangements by the NLAO and EHSA will be set out in the project design.

**5.16** Once the trial trenching is completed, an impact assessment report will be prepared that will be used as the basis of a mitigation strategy, to be agreed with the NLAO and EHSA. An updated framework document will be prepared that incorporates the agreed mitigation proposals.

### **Archaeological excavation**

**5.17** The results of the proposed surveys will be reviewed with the NLAO and EHSA in order to identify areas where archaeological excavation will be undertaken.

**5.18** Excavations will normally take the form of Strip, Map and Sample. This technique is a form of archaeological investigation that combines an open area *evaluation* and *excavation* strategy where there are limited options for preservation in situ or difficulty in obtaining early land entry. It requires close co-operation with the site developer and groundworkers to achieve archaeological control over stripping. It is widely adopted for road schemes (variously called *strip, map and record* or *rapid open area excavation*) and is considered a cost-effective means of targeting excavation resources on the most significant aspects of an archaeological site (Hey & Lacey 2001).

**5.19** A project design will be prepared and submitted by the archaeological contractor for each excavation area, for approval by the NLAO prior to commencement. This will include the

principal areas of interest shown on Fig. 2. Area 1 is an area of previously recorded archaeological deposits where preservation in situ was proposed, but will now be archaeologically excavated; Areas 2 – 5 are areas where significant archaeological deposits are either known or anticipated to exist.

**5.20** A sampling strategy will be set out in the project design. The following minimum sampling level of features shall be implemented:

- All structures and all zones of specialised activity (e.g. industrial, agricultural processing, ceremonial, funerary) to be fully or extensively excavated, and all relationships recorded.
- Ditches, gullies and linear features – all significant relationships to be defined and investigated. All terminals and intersections to be excavated. Sufficient of the linear features (a minimum of 10% for field divisions and 25% of settlement features of prehistoric or Romano-British periods) to be excavated to determine the character of each individual linear feature over its entire course with consideration given to possible recutting of ditches which may not have taken place over the entire length. Should specialised deposits (e.g. localised refuse dumping, industrial wastes) be present, then more extensive excavation is required. Sufficient artefact assemblages to be recovered to assist in dating stratigraphic sequences and for obtaining sufficient ceramic assemblages for comparison with other sites.
- Pits – all considered to be of prehistoric or Romano-British date will be half-sectioned. Some pits may be full excavated in the light of information gained in half-sectioning. Pits containing significant structural traces or important artefactual or environmental material to be fully excavated.
- Post holes and stake holes – where not clearly forming a structure to be half sectioned ensuring that relationships are investigated. Those features with a significant artefactual or environmental content to be fully excavated.
- Other features such as working hollows, quarry pits to be investigated to define their extent, date and function. All relationships to be defined.

**5.21** A strategy for the recovery and sampling of environmental remains from the site will be included in the project design.

**5.22** A strategy for the recording of historic hedgerows and associated features will be included in the project design.

**5.23** A strategy for the recording of any surviving structures from the former barrage balloon site in Field 11 (Appendix 2: site 40) will be included in the project design.

### **Archaeological observation and recording**

**5.24** In specific areas of more limited archaeological potential or where localised impacts on the archaeological resource are predicted then groundworks will be monitored and any deposits recorded. A project design will be prepared and submitted by the archaeological contractor for each phase of development, for approval by the NLAO, at least 10 working days prior to commencement. The works will be undertaken in compliance with the IfA standard (IfA, 2001a).



5.25 In these cases attendance by the site archaeologist will normally be *comprehensive* within the meaning of the term set out in the IfA standard for archaeological watching briefs Section 3.2.10:- *an archaeologist will be present during all groundworks*. By agreement with the NLAO, in areas of lower potential the attendance may be reduced to *intermittent - viewing at intervals during and after machining*.

### **Listed Building Management Plan**

5.26 The development area contains one grade II Listed Building (Appendix 2: site no 15), a former lighthouse, now used as a domestic dwelling. This building will be vulnerable to construction and operational activities. A detailed management plan will be prepared and agreed with the NLAO Conservation Officer to ensure the physical survival of the nationally significant asset.

### **Archive**

5.27 An archive prepared to the specification set out in Appendix 3 of MAP2 (EH 1991) will be produced. This will include the material from all stages of site investigations. The site archive will contain all the data collected during the fieldwork including records, finds and environmental residues. It will be quantified, ordered, indexed and internally consistent.

5.28 Once confirmation is received of the landowner's intention to donate finds, and subject to any requirements of the Treasure Act 1996, an agreement with North Lincolnshire Museum Service (NLMS) will be made to accept any artefacts/archive. The NLMS curator will be invited to attend quarterly review meetings (see section 4.2 above).

5.29 In accordance with the Society of Museums Archaeologists document *Selection, Retention and Dispersal of Archaeological Collections* (SMA 1993), it is proposed that following suitable analysis, undiagnostic, poorly provenanced or bulk material will be discarded (either by outright disposal, or dispersal to reference or teaching collections). Discard proposals will be set out in the Assessment Reports. The final decision on retention and discard set out in these proposals will rest with NLMS curator.

5.30 The deposition of digital data will be discussed with the NLMS curator and provision made for the appropriate deposition of digital archive data.

### **Assessment, reporting and publication**

5.31 Following the completion of the site investigations, an assessment of the results obtained will be undertaken in accordance with Appendix 4 of MAP2 and an updated Project Design for further analysis and publication in accordance with Appendix 5 MAP2 (EH 1991). The updated project design will be submitted to the NLAO and EHSA at least 10 working days prior to discussion at the quarterly review meetings. Final decisions on the recommendations will rest with the NLAO, where appropriate advised by the EHSA and the NLMS curator. A programme is set out in Appendix 3.

5.32 The assessment and publication will include any outstanding reporting arising from planning consents relating to archaeology in the 'developed' part of the AMEP site.

### Publicity and outreach

5.33 The Company will explore opportunities to provide the local community with information on the involvement of archaeology in the development, and with archaeological results as they become available. Local schools and community groups will be encouraged to participate in any publicity or open days, where safety considerations allow.

## 6. REFERENCES & STANDARDS

AHPL 2011 *Able Marine Energy Park Environmental Statement*

Bartlett, A., 2012 *Proposed Able UK Ltd Marine Energy Park, North Killingholme, North Lincolnshire Archaeological: Geophysical Survey for Able UK Ltd*. Unpublished report by Headland Archaeology HAS No. 936

Cottam, S., & Cox, P. 2011 *Able UK Ltd Marine Energy Park, North & South Killingholme, North Lincolnshire: Historic Environment Desk Based Assessment*. Unpublished report no. ACW283/1/1 January 2011

EH, 1991, *The Management of Archaeological Projects*. Second Edition (MAP2) English Heritage (London)

EH 2006, *Management of Research Projects in the Historic Environment: The MoRPHE Project Managers' Guide*

EH, 2007, *Understanding the archaeology of landscapes* (London)

EH, 2007a, *Geoarchaeology. Using earth sciences to understand the archaeological record*. (London)

EH, 2008, *Geophysical Survey in Archaeological Field Evaluation*. English Heritage London

EH, 2011, *Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-Excavation*. English Heritage Centre for Archaeology Guidelines

Ellis S, Fenwick H, Lillie M & Van De Noort R Eds (2001) *Wetland Heritage of the Lincolnshire Marsh – An Archaeological survey*. Humber Wetlands Project, University of Hull

Gaffney, C. and Gater, J., with Ovenden, S., 2002, *The Use of Geophysical Techniques In Archaeological Evaluations*. Institute for Archaeologists Technical Paper 9

GSB 2011, *Able UK Ltd Marine Energy Park; Geophysical Survey Report no 2010/73*. Unpublished GSB Prospection Report, Bradford April 2011

Hey G., & Lacey M., *et al* 2001, 'Evaluation of Archaeological Decision-making Processes and Sampling Strategies', *PLANARCH*, Oxford Archaeological Unit & Kent County Council

IfA, 1992, *Guidelines for Finds Work*. Institute for Archaeologists

IfA, 2001, *Standard and Guidance for Archaeological Field Evaluation*. (and subsequent revisions). Institute for Archaeologists

IfA, 2001a, *Standard and Guidance for Archaeological Watching Brief*. (and subsequent revisions). Institute for Archaeologists

IfA, 2001b, *Standard and Guidance for Archaeological Excavation*. (and subsequent revisions). Institute for Archaeologists

IfA, 2001c, *Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials*. (and subsequent revisions). Institute for Archaeologists

SMA, 1993, *Guidelines on the Selection, Retention and Dispersal of Archaeological Collections*. Society of Museum Archaeologists

SMA, 1995, *Towards an Accessible Archaeological Archive – the Transference of Archaeological Archives to Museums: Guidelines for use in England, Northern Ireland, Scotland and Wales*. Society of Museum Archaeologists

Steyne, H., & Firth, A. 2012, *Able Marine Energy Park and Compensation Site: Written Scheme of Investigation Coastal and Marine - Draft*. Unpublished Wessex Archaeology document for Able UK Ltd. Ref 76490.02

UKIC, 1983, *Packaging and Storage of Freshly Excavated Artefacts from Archaeological Sites*. (United Kingdom Institute for Conservation, Conservation Guidelines No 2)

UKIC, 1984, *Environmental Standards for Permanent Storage of Excavated material from Archaeological Sites*. (United Kingdom Institute for Conservation, Conservation Guidelines No 3)

UKIC, 1988, *Excavated Artefacts and Conservation: UK Sites*. (United Kingdom Institute for Conservation, Conservation Guidelines No. 1; Revised Edition)

UKIC, 1990, *Guidance for Conservation Practice*. United Kingdom Institute for Conservation

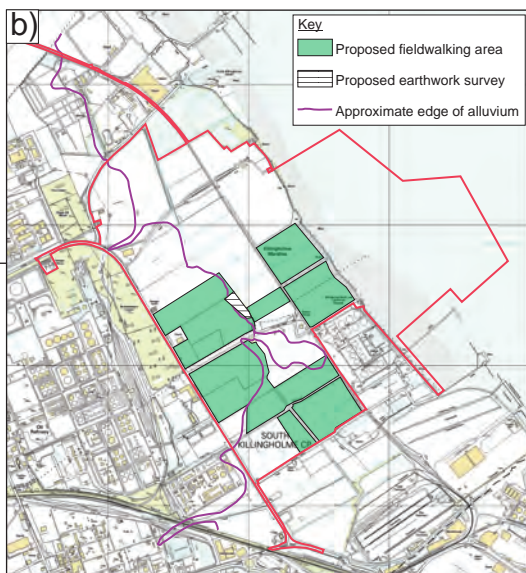
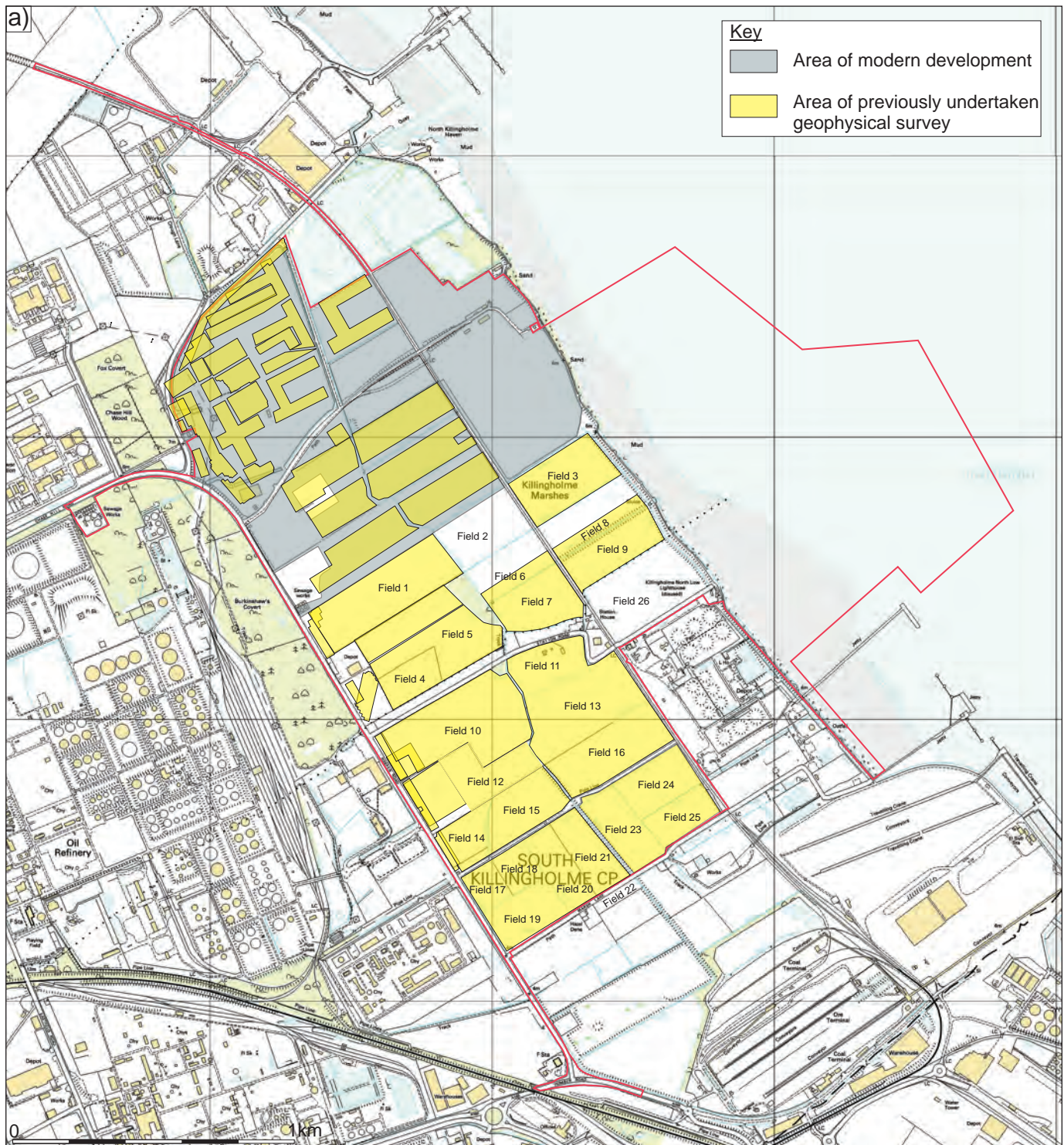
UKIC, 1990, *Guidelines for the Preparation of Excavation Archives for long-term Storage*. (United Kingdom Institute for Conservation Archaeology Section)

UKIC, 2001, *Excavated Artefacts and Conservation*. (United Kingdom Institute for Conservation, Conservation Guidelines No 1)

Watkinson, D.E., and Neal, V., 1998, *First Aid for Finds*. (3rd edition) RESCUE/United Kingdom Institute for Conservation, Archaeology Section and Museum of London

---





PROJECT

Able Marine Energy Park

TITLE

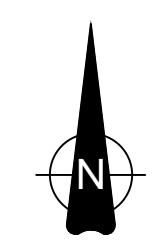
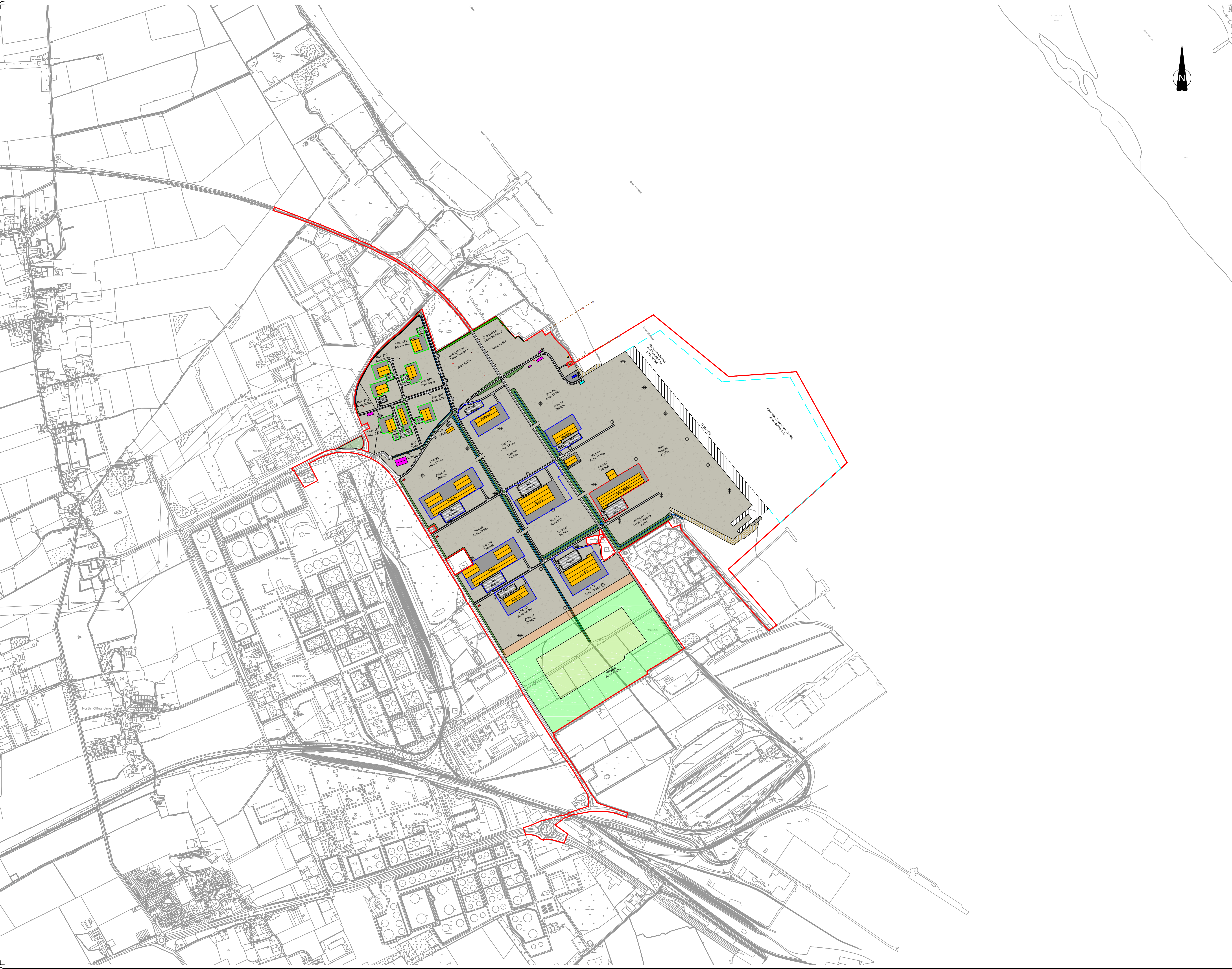
Fig. 1: Non-intrusive survey proposals





## **APPENDIX 1: AMEP PRELIMINARY SITE LAYOUT**





- KEY
- Limit of deviation for siting of building up to 50m high.
  - Limit of deviation for siting of building up to 25m high.
  - Limit of deviation for siting of building up to 15m high.
  - 48 Space Car Park
  - Stone Surfacing
  - Concrete Surfacing
  - Rock Revetment
  - Existing Lighting Column (21-30m High)
  - Proposed Lighting Column (55m High)
  - Existing Cooling Water Intake
  - Existing Cooling Water Outfall
  - Existing Mooring Dolphin
  - Existing Building
  - Proposed Building
  - Electric Substation
  - HMRC Office
  - Berthing Pocket
  - Waste Recycling & Transfer Facility
  - Able Approach Channel

B	31/10/11	Mitigation area amended	RK	PMS	PMS
A	07/09/11	Issued with DCO Application	JH	RC	RC
Rev	Date	Comments	Drw	Chk	App



ABLE UK Ltd  
www.ableuk.com

ABLE House  
Bilberrym,  
Teesside,  
TS53 1PX

Tel: +44(0)1642 806080  
Fax: +44(0)1642 806055  
email: info@ableuk.com  
www.ableuk.com

Project:	ABLE Marine Energy Park
Client:	ABLE UK Ltd
Title:	Indicative Masterplan

PRELIMINARY			
Scale:	Drawn:	Checked:	Approved:
1:10,000@A1	J Harris	R Cram	R Cram
Date:	07/09/2011	07/09/2011	07/09/2011
Drawing No:	AME - 1010	Revision:	B



## **APPENDIX 2: AMEP EXISTING SITE DATA**

HERITAGE ASSETS WITHIN MEP APPLICATION AREA								
Site No	HER/NMR Reference	Easting	Northing	Form/Type	Description	Period	Designation	Significance
1	MLS19726	516840	417910	Findspot	A core and three flakes found near Killingholme Marshes during HWP fieldwalking. Two pieces are of till A flint and two of till B flint. One is recorticated and two are complete. The core is a late Mesolithic blade core with two plain striking platforms; one large platform has at least 18 blade-like removals and the second has at least seven flakes removed. The core retains a small patch of cortex at the distal end. One flake is blade-like and may be of a similar date to the core. One flake has a plain striking platform and one has a shattered platform. One has a pronounced bulb of percussion and one has a flat bulb. One flake is utilised. All three are secondary flakes. Two of the flakes are likely to be of a later date than the core and the blade-like flake, possibly dating to the Bronze Age.	Late Mesolithic – Bronze Age	None	C
2	MLS19797	515990	419280	Findspot	Part of a core of till A flint with at least eight blade-like flakes removed from a single plain striking platform. The worked edge also appears to have been used as a scraper.	Late Mesolithic to Late Neolithic	None	C
3	MLS19800	516360	418950	Findspot	Four flakes and a chunk of till A flint. Two are recorticated and patinated, one is complete and two have some post-depositional damage. One flake has a plain striking platform and a diffuse bulb of percussion. Three are secondary flakes and one is a tertiary removal.	Late Mesolithic to Late Neolithic	None	C
4	MLS19801	516490	418780	Findspot	Three secondary flakes of till A flint, two having some post-depositional damage.	Late Mesolithic to Late Neolithic	None	C
5	MLS19802	516350	418700	Findspot	Five secondary flakes of recorticated till A flint. Three are patinated and three have some post-depositional damage. Most have been utilised and are worn along the edges.	Late Mesolithic to Late Neolithic	None	C
6	MLS19803	516380	418470	Findspot	A complete secondary flake of till B flint, with a plain striking platform, a pronounced bulb of percussion and some post-depositional damage. This site was listed in a desk-based assessment produced by AC Archaeology in 2006. No additional information.	Late Mesolithic to Late Neolithic	None	C
7	MLS 19805	516590	418970	Findspot	A tertiary flake of till A flint with a hinge termination.	Late Mesolithic to Late Neolithic	None	C
8	MLS 19808	517500	418590	Findspot	A tertiary flake of recorticated till A flint, with a large fault within the centre of the flint. It has been utilised along one edge.	Late Mesolithic to Late Neolithic	None	C

**Table 18.4: Summary of heritage assets**

HERITAGE ASSETS WITHIN MEP APPLICATION AREA								
Site No	HER/NMR Reference	Easting	Northing	Form/Type	Description	Period	Designation	Significance
9	MLS 20198	515870	419130	Findspot	<p>A rod microlith was found in Trench 6 context 106 (the fill of a Roman ditch) during an evaluation in advance of the Clough Road Realignment, 2004. Measuring 27.2 x 7 x 1.8mm, it is blunted down the left margin with fine sub-parallel retouch. Made on a blade blank, the base is hollow and the distal end forms a crescent. Residual chalk cortex suggests an east coast origin for the flint.</p> <p>Two other undiagnostic pieces of worked flint were found in the same context. One is a proximal primary flake made on speckled grey flint and is partially patinated. The other is also a proximal primary flake, made on olive grey flint, the distal end has evidence of platform preparation from an earlier removal. This site was listed in a desk-based assessment produced by AC Archaeology in 2006. No additional information.</p>	Late Mesolithic	None	C
10	MLS 20440	516370	418810	Findspot	<p>A small assemblage of 27 pieces of worked flint, found in 8 trial trenches during an evaluation carried out by Lindsey Archaeological Services for Able UK. The majority of the flint was found in Trenches 3 and 7, located on the slightly higher ground in the north-western corner of the application area. The assemblage comprised 2 scrapers, 1 scraper/knife, 11 flakes, 1 notched piece, 1 retouched piece, 2 retouched flakes, 1 blade, 2 blade-like flakes, 1 core and 5 pieces of debitage.</p> <p>The limited quantity of artefacts, and the absence of burnt flint, suggests that there was no sustained occupation in this area prior to the Iron Age, rather a series of transient visits for specific activities. It is possible that the gathering of flint from the boulder clay was one of these activities, as there are several reworked natural flakes from that source within this assemblage. The higher densities of lithic artefacts in the trenches on the higher ground imply that this was a favoured location, overlooking the landscape to the north, east and south-east.</p>	Early Mesolithic to Early Bronze Age	None	C
11	MLS19727	516900	418200	Artefact Scatter	<p>A scraper, two cores, nine flakes and a chunk were found to the west of Killingholme Marshes. Eight pieces are of till A flint and five of till B flint. Two are recorticated. Three pieces are complete and two have some post-depositional damage. The scraper is on an incomplete secondary flake that retains about 30% cortex. It has abrupt retouch along the distal section of the left edge. Both cores are incomplete, but still show evidence for rejuvenation. They both have one striking platform from which flakes have been removed. One has at least</p>	Neolithic/ Bronze Age	None	C

**Table 18.4: Summary of heritage assets**

HERITAGE ASSETS WITHIN MEP APPLICATION AREA								
Site No	HER/NMR Reference	Easting	Northing	Form/Type	Description	Period	Designation	Significance
					13 flakes removed and the other at least 16. One of the flakes is a core rejuvenation piece, which has removed a large plain striking platform from a core. It has a cortical striking platform and a pronounced bulb of percussion. Two flakes have plain striking platforms and diffuse bulbs of percussion, and two have hinge terminations. Seven flakes are secondary removals and one is a tertiary flake. The only piece within this assemblage that is likely to be datable is a blade-like flake that could date from the Neolithic period. However, this piece is out of character amongst the rest of the assemblage, which is more likely to be of a later date.			
12	-	517571	419443	Magnetometer anomaly	Apparently multiple objects, relative target size 11.41.	Unknown	None	C
13	MLS20140	516240	419160	Monument	<p>A geophysical survey carried out in 2003 identified a cluster of ditch type anomalies, revealed one side of a rectangular enclosure, with a width of 27 metres. Fragmentary anomalies were also detected inside the enclosure, which may have been sited on a low rise above wetter ground. An archaeological evaluation was carried in June 2004. Trenches targeted the enclosure and revealed archaeological deposits sealed beneath a thick layer of estuarine alluvium.</p> <p>The northern enclosure ditch was 2.42m wide, aligned east-west. 10.2 metres to the south was a larger, parallel ditch, measuring 3.55m wide. Six fill deposits were identified; the secondary fill contained frequent animal bone with occasional pottery and stone fragments. The upper fill contained heat affected stones, animal bone and frequent pottery, evidence for nearby domestic activity. A further parallel ditch was observed 26.5m to the south of the second, and was about the same width (4m). It was 1m deep. The primary fill of silty clay with stone fragments seemed to have been tipped into the ditch from the north, i.e. from within the enclosure. The secondary fill contained pottery; the upper fill contained stone fragments, animal bone and pottery. Within the area bounded by the enclosure ditches, a curvilinear feature was exposed which was interpreted as the drip gully of a roundhouse. It was between 0.65m and 2.25m wide, and may have been re-cut. The fill contained occasional bone and frequent pottery. Two post holes were located at the east of the circumference of the gully, suggesting an entrance. Other post or</p>	Iron Age	None	B

**Table 18.4: Summary of heritage assets**

HERITAGE ASSETS WITHIN MEP APPLICATION AREA								
Site No	HER/NMR Reference	Easting	Northing	Form/Type	Description	Period	Designation	Significance
					<p>stake holes in the vicinity appeared to define two sides of a possible porch. The eastern edge of the gully was truncated by a north-south ditch, 1.25m wide and up to 0.75m deep. It may represent an internal division within the enclosure, created after the roundhouse had fallen out of use.</p> <p>In the western arm of the main enclosure ditch was located and further east inside the enclosure, were pits and postholes. The eastern enclosure ditch had not been detected by geophysical survey due to the thick deposit of alluvium overlying it.</p> <p>Of the 277 sherds of hand-made Iron Age pottery, the majority were stone-tempered pottery, hard fired and reduced, with some exterior oxidation, the dominant form being the jar. Some examples paralleling those from Phase 2 at Weelsby Avenue, which have been dated to the Middle Iron Age.</p> <p>Bone fragments collected during the investigation included cattle, sheep/goat and horse. Butchery marks were recorded on only two bones, but it is thought that the assemblage represented butchery waste and/or domestic refuse. Some plant seeds were identified including a large number of cereal grains, the majority being bread/spelt wheat. Weed seeds indicative of arable fields were within the same samples, suggesting that the material was probably crop processing waste.</p>			
14	MLS20441	516355	418823	Monument	<p>A geophysical survey carried out in 2005 identified a probable Iron Age/Romano-British enclosure complex. It was ovoid in shape measuring 65m by 45m with an internal ditch dividing the enclosure into two discrete areas. Other short linear ditches were detected both inside and outside the enclosure, and pits and/or areas of burnt material were also detected within the enclosure. Subsequently 46 evaluation trenches were excavated by LAS. In the north-western quarter of the enclosure, the main ditch was found to be 5m wide and in excess of 1.5m deep, having been re-cut on at least five occasions, moving progressively west. To the east of the main ditch was a sub-rectangular aligned ditch, cut by a wider and shallower ditch on a different alignment. A curvilinear ditch was also recorded, which may have been the drip gully of a circular building (roundhouse).</p> <p>The main ditch in the south-eastern part of the enclosure had been re-cut four times. The earliest ditch cut contained middle Iron Age pottery, while the first and third re-cuts both contained late</p>	Iron Age/ Romano-British	None	B

**Table 18.4: Summary of heritage assets**

HERITAGE ASSETS WITHIN MEP APPLICATION AREA								
Site No	HER/NMR Reference	Easting	Northing	Form/Type	Description	Period	Designation	Significance
					<p>Iron Age and Roman pottery. The single fill of the final re-cut contained middle Iron Age pottery. East of the main ditch, within the enclosure, was a length of curvilinear gully with part of a rectangular enclosure within the main enclosure.</p> <p>A trench located within the south eastern quarter of the enclosure recorded a series of intercutting ditches, whilst another positioned to investigate the terminal of a ditch on the east side of the enclosure also recorded curving ditch containing Romano-British pottery of 2<sup>nd</sup> Century AD. Further 2<sup>nd</sup> Century AD pottery was recovered from a ditch lying outside the enclosure and to the east of it.</p> <p>Subsequent open area excavation established that the archaeological remains consisted of two enclosures and three roundhouses but the full extent of the settlement was not established within the excavation area with activity extending both to the east and west beyond the limit of the excavation. All activity here has been dated to some time within the late Iron Age (3<sup>rd</sup> to 1<sup>st</sup> century BC) representing settlement development of unknown duration within this period. Three sub-phases were identified of small scale changes within an essentially static farmstead.</p> <p>The Iron Age pottery ranges from the middle to late Iron Age, with erratic-tempered ware and slag-tempered ware the predominant types. Shell gritted wares, normally more abundant on Lincolnshire sites, take second place, and are mostly later in date. At least one type is known to occur in the 1<sup>st</sup> and 2<sup>nd</sup> centuries AD. The Roman pottery included a rusticated jar fragment of the late 1<sup>st</sup> to early/mid 2<sup>nd</sup> century, a curved rim jar of the early-mid 2<sup>nd</sup> century and a lid-seated jar of the same date. A single sherd of Samian ware was found from a mid 2<sup>nd</sup> century cup. There were no Roman sherds later than this date.</p>			
15	MLS8618	517778	418443	Extant Structure	Killingholme North Low lighthouse. Lighthouse and adjacent lighthouse keepers house, now house. Built 1851 by William Foale for Trinity House, with later alterations and additions to rear. The lighthouse was used as a signal station for trawlers until 1920. Grade II listed.	Post-Medieval	Grade II Listed Building	A

**Table 18.4: Summary of heritage assets**

HERITAGE ASSETS WITHIN MEP APPLICATION AREA								
Site No	HER/NMR Reference	Easting	Northing	Form/Type	Description	Period	Designation	Significance
16	-	517959	418268	Cartographic Evidence	1855 Ordnance Survey map shows a jetty north of 'Killingholme L' Ho N° 2'. The 1887 OS map shows the jetty to be immediately east of the Killingholme High lighthouse. The jetty continues to be marked on the OS maps until 1956 where no jetty is marked, but a number of piles are marked on the map in the foreshore where the jetty used to be.	Post-Medieval to Modern	None	B
17	-	517959	418238	Monument	One post was seen on the foreshore east of the Killingholme High lighthouse, thought to be possible remains of site 16.	Unknown	None	C
18	MLS20136	517000	419690	Cartographic evidence	Brick and tile yard to the south of North Killingholme Haven first appears on the OS maps in 1887. The brick and tile yard is served by a jetty on the foreshore and a footbridge. The brick and tile yard, and associated jetty, are recorded on OS maps through to 1910 but do not appear on the 1932 map.	Post-Medieval to Modern	None	C
19	-	517024	419701	Monument	Jetty remains located next to the reed bed extending towards the river at on a bearing of 60° for an estimated length of 7m. The spacing between the two closest timbers is 1.75m and the jetty seems to narrow slightly along its length. A total of 6 posts were visible above the mud upstanding to a height of around 0.25m. Possibly the remains of site 18.	Unknown	None	C
20	-	518357	417802	Cartographic evidence	Brick yard and jetty marked on the 1887 OS map to the north of South Killingholme Haven. A second jetty is added at the brick works by 1908 and by 1932 the site has been converted to a fish meal and fish oil works. The fish processing site has three jetties in 1932 but only one by 1951. The OS map for 1956 records no jetties at the site.	Post-medieval to Modern	None	C
21	-	518253	417911	Monument	Jetty remains extend approximately 40m from the sea wall on a bearing of 54°. A total of 12 pairs of piles remain upstanding, two pairs have their cross beams still intact, and a further six individual piles have lost their pair. The jetty timbers measure approximately 30cm by 30cm and stand around 1.2m high. The jetty is approximately 3.6m wide, with pile spacings of around 2.6m. Possibly remains of Site 20.	Unknown	None	C
22	MLS 20123 NMR 943015	517860	418560	Wreck	IVY, English Ketch, built 1874, recorded wrecked 1897 whilst on a fishing trip. Owner: J Munby, Master: E J Barth, Crew: 5. Vessel foundered and was lost following a collision with the Goole registered SS Corea. Location unknown.	Post-Medieval	None	C
23	NMR 943096	517860	418560	Wreck	WILLIAM, English Sloop Built 1883 recorded wrecked 1899. Owner: W Marshall & Sons, Grimsby, Master: J Ball, Crew: 2. Vessel foundered and was lost following collision with the Hull registered steam trawler ORINOCO. Location unknown.	Post-Medieval	None	C

**Table 18.4: Summary of heritage assets**

HERITAGE ASSETS WITHIN MEP APPLICATION AREA								
Site No	HER/NMR Reference	Easting	Northing	Form/Type	Description	Period	Designation	Significance
24	NMR 907861 UKHO 8510	517858	418559	Wreck	SERGEI, Hull built screw steamer built 1899 wrecked after a collision, whilst en route from Malmo to Hull with pit props in 1923. The ship was raised and broken up 1923, however dispersal operations still on-going through to October 1924. UKHO provides alternative position 518697, 418548, which lies 40m outside of the MEP.	Modern	None	C
25	NMR 907862 UKHO 8511	518674	418595	Wreck	COOK S26, barge wrecked 11 <sup>th</sup> February 1955. Salvage work undertaken in 1959, but still charted as a wreck on current charts. Remains of the barge have been confirmed as present on the seabed through geophysical survey.	Modern	None	C
26	MLS21228	516488	419002	Documentary Evidence	Site of WWII barrage balloon anchorage, south of Haven Road. Operated by 942 Squadron Balloon Command. Access was by specially constructed track 900 yards long. This was required to carry a winch lorry over a dyke to a turning circle. A shelter was also constructed at the end of the track, which was later used to store farm equipment. Exact site unknown.	Modern	None	C
27	-	518429	418869	Magnetometer anomaly	Apparent large single object, relative target size 8.83	Unknown	None	C
28	-	518238	418550	Magnetometer anomaly	Apparently multiple objects, relative target size 9.47	Unknown	None	C
29	-	517594	419145	Magnetometer anomaly	Strong singular signature, relative target size 12.58. Possible wreck site.		None	C
30	-	517638	419593	Magnetometer anomaly	Strong singular signature, relative target size 11.55. Possible wreck site.	Unknown	None	C
31	MLS20144	515990	419420	Enclosure	A small Romano-British enclosure south of Haven road excavated in 2005	Romano-British	-	B
32	MLS19796	516020	419300	Findspot	A single greyware sherd found east of Haven Road during Humber Wetlands fieldwalking in 1999	Romano-British	-	C
33	MLS20138	516110	419300	Documentary evidence	Unnamed farm buildings east of Chase Hill Wood are recorded on early OS maps and were demolished by 1945. A geophysical survey undertaken in advance of development recorded anomalies possibly associated with their demolition	Post-medieval to modern	-	C
34	MLS20199	515870	419120	Site	Roman occupation, east of Clough Road. Ditches, pottery and animal bone were recovered in 2004 and further 1 <sup>st</sup> -4 <sup>th</sup> century features were recorded in subsequent investigations. A series of field systems was identified and some evidence of small scale salt production.	Romano-British	-	B
35	MLS19804	516600	418880	Findspot	A single greyware sherd was found during the Humber Wetlands Fieldwalking project.	Romano-British	-	C

**Table 18.4: Summary of heritage assets**



HERITAGE ASSETS WITHIN MEP APPLICATION AREA								
Site No	HER/NMR Reference	Easting	Northing	Form/Type	Description	Period	Designation	Significance
36	MLS21227	516240	418648	Documentary evidence	A barrage balloon site operated by 942 Squadron Balloon Command was located a short distance to the east of Rosper Road. The area is now developed and the exact location is uncertain	Modern	-	C
37	MLS20098	515410	418210	Documentary evidence Cropmark	Medieval ridge and furrow was identified by geophysical, walkover and topographic survey. Surviving earthworks damaged in places by development	Medieval	-	C
38	MLS19806	516660	418230	Findspot	A single greyware sherd found during the Humber Wetlands Fieldwalking project	Romano-British	-	C
39	MLS8827 1365564	513680	415180	Extant structure	The Barton and Immingham Light Railway was authorised in 1907 to give access from Hull to Immingham. It ran from a junction at Goxhill to join the Humber Commercial railway at Immingham. It comprised a single line, opened in 1910/11 and was closed in 1963.	Modern	-	C
40	MLS21225	517240	418210	Structure	A 942 Squadron barrage balloon site on Station Road still has two shelters, both now modified for use as cattle byres. The main balloon anchorage and a secondary anchorage are still in place. There are concrete blocks on the site, some with anchor rings, that may have originated from balloon sites on the marshes	Modern	-	C
41	MLS20789	517376	417769	Cropmark	A possible enclosure with a double ditched trackway to the east, visible as a cropmark on an aerial photograph	Undated	-	?B
42	MLS19807	516720	417960	Findspot	A single greyware sherd was found during the Humber Wetlands Fieldwalking project	Romano-British	-	C
43	498356	517390	418335	Site	Killinghome Station. Opened in 1910 and closed in 1965	Modern	-	C
44	-	516573	417969	Cartographic evidence	Two small buildings first shown on the 1932 OS map on the east side of Rosper Road. No longer extant.	Modern	-	C
45	-	517071	418253	Cartographic evidence	A terrace of ?five houses first shown on the 1932 OS map on the north side of Station Road, No longer extant.	Modern	-	C
46	-	516744	417685	Cartographic evidence	A building first shown on the 1910 OS map on east side of Rosper Road. The building, and the plot within which it stood, are no longer visible	Modern	-	C
47	-	516882	417451	Cartographic evidence	A complex of up to ?three buildings within a small plot are first shown on the 1910 OS map and appear unchanged until 1951. One of the structures (a small red brick, possibly agricultural building) is extant but derelict.	Modern	-	C
48	MLS20121	516505	418210	Cartographic evidence	A hedgerow which forms the parish boundary between North and South Killingholme. It is shown on enclosure maps and may be Medieval in origin	?Medieval Post-medieval	-	B

**Table 18.4: Summary of heritage assets**

HERITAGE ASSETS WITHIN MEP APPLICATION AREA								
Site No	HER/NMR Reference	Easting	Northing	Form/Type	Description	Period	Designation	Significance
49	MLS20569	516563	419494	Cartographic evidence	Historically important hedgerows which appear on the 1779 North Killingholme enclosure map.	Post-medieval	-	C
50	MLS20570	517672	417877	Cartographic evidence	Historically important hedgerows which appear on the 1779 South Killingholme enclosure map.	Post-medieval	-	C
51	MLS20141	516217	419354	Aerial Photographs	Examination of aerial photographs plotted a sinuous double ditched feature which appears to mark the edge of ridge and furrow cultivation in that area. This may represent both a headland and a former seabank of medieval date. A system of creeks were also detected by geophysical survey marking the former high water position. Deposits interpreted as the buried shoreline were recorded during subsequent archaeological evaluations there.	Medieval	-	C
52	-	516058	419392	Aerial Photographs	Examination of aerial photographs plotted cultivation cropmarks. They display a 'reverse S' plan typical of Medieval ridge and furrow	Medieval	-	C
53	-	516414	418642	Aerial Photographs	Examination of aerial photographs plotted an extensive block of plough levelled ridge and furrow cultivation covering an area of approximately 450ha. One area is bounded on the east by a narrow ditch, possibly a vestige of a headland.	Medieval	-	C
54	-	516939	417562	Earthworks	Ridge and furrow cultivation identified by a 2006 Lidar survey of the area. Not visible during walkover survey.	Medieval	-	C
55	20093	515900	419140	Geophysical anomaly	A group of curvilinear anomalies and a faint linear trend were detected by a geophysical survey undertaken in advance of the Southern Energy Corridor pipeline in 1999	Undated	-	D
56	20094	516060	418830	Geophysical anomaly	A group of linear and pit-type anomalies, rectilinear in nature, was detected by a geophysical survey undertaken in advance of the Southern Energy Corridor pipeline in 1999	Undated	-	D
57	20139	516060	419400	Geophysical anomaly	Three linear ditches were detected by geophysical survey undertaken in advance of a proposed storage and distribution facility. A second survey detected the same features but no features were found in that location during a subsequent evaluation	Undated	-	D
58	20147	516470	419340	Geophysical anomaly	Several linear anomalies were detected by geophysical survey undertaken in advance of a proposed storage and distribution facility.	Undated	-	D
59	20148	516080	419050	Geophysical anomaly	Curvilinear and area anomalies were detected by geophysical survey undertaken in advance of a proposed storage and distribution.	Undated	-	D

**Table 18.4: Summary of heritage assets**

HERITAGE ASSETS WITHIN MEP APPLICATION AREA								
Site No	HER/NMR Reference	Easting	Northing	Form/Type	Description	Period	Designation	Significance
60	-	516934	418422	Earthwork	Bank and ditch observed during walkover survey, may relate to the former Medieval sea wall. Maximum 0.5m high, follows sinuous course through woodland	Undated	-	C
61	-	516602	418421	Geophysical anomaly	Large group of strong anomalies identified by magnetometer survey undertaken during 2010 and 2011. The anomalies include a complex of ditches and possible pits suggestive of a settlement site covered an area c. 325m x 200m across two fields.	Undated	-	D
62	-	516985	418298	Geophysical anomaly	An isolated group of anomalies, possibly an enclosure identified by a magnetometer survey undertaken during 2010 and 2011.	Undated	-	D
63	-	516983	417884	Geophysical anomaly	A small group of anomalies, interpreted as possibly of archaeological origin, identified by a magnetometer survey undertaken during 2010 and 2011.	Undated	-	D
64	-	517404	418119	Geophysical anomaly	A small group of anomalies, of uncertain origin, identified by a magnetometer survey undertaken during 2010 and 2011.	Undated	-	D
101	MLS1623	515750	419650	Monument	Romano-British site discovered on construction site of Gas Plant. Four hearths, two with burnt bone, were noted, together with "evidence of closely set vertical stakes." Finds include greywares, shell-gritted, mortaria, Samian wares dating from the 1st century AD. The site lies on the edge of the Middle Marsh boulder clays, alongside the former Killingholme Haven.	Romano-British	None	B
102	MLS19771	516700	417100	Monument	Iron Age settlement including structural remains including roundhouses and salt making briquetage, adjacent to the stream channel on the shore of the Humber River. Iron Age pottery assemblage has more in common with north bank assemblages than those in Lincolnshire. Romano-British activity included cutting and re-cutting enclosure and drainage ditches. A droveway connected the area of enclosures to the creek. Until the 2 <sup>nd</sup> century AD there were few imports, after which imported types such as amphora, mortaria and Samian ware are found, including pottery from Dorset and the Nene Valley. Activity in the north of the site included an area of new enclosures and ditches, whilst the bone assemblage suggests cattle, pig and sheep being raised. Presence of both immature and adult remains suggests supply of meat, skins and/or wool. A marine element to the diet is suggested by presence of shellfish.	Iron Age/ Romano-British	None	B
103	MLS8774	514000	422800	Monument	Probable Medieval Saltern	Medieval	None	C
104	MLS8784	514600	423100	Monument	Medieval Fish Traps	Medieval	None	B
105	MLS20565	513000	422000	Documentary Evidence	'East Halton Skitter provides a natural, sheltered, inlet into the lands south of the Humber Estuary . The beck which flows into		None	B

**Table 18.4: Summary of heritage assets**

HERITAGE ASSETS WITHIN MEP APPLICATION AREA								
Site No	HER/NMR Reference	Easting	Northing	Form/Type	Description	Period	Designation	Significance
					the sea at East Halton Skitter is known as Skitter Beck, and is derived from Old English 'scitere', 'an open sewer'. Numerous medieval and later references exist to settlement names (variously spelled) Skitter, Skitter Ferry and Skitter Mill. Skitter Mill is recorded from the 12th century and Skitter Ferry from the 16th. These names are considered to equate to the modern place name East Halton Skitter. Medieval references to 'Skottermuth' are also thought to equate with East Halton Skitter. Assuming that all these references do in fact refer to one or more settlements in the vicinity of East Halton Skitter, it is likely that a maritime community existed in this area in the middle ages and later. Skottermuth is thought to have flourished during the 14th century but thereafter decayed, perhaps as a result of silting. By 1565 the only vessels to be found there were small, and used either for fishing or as ferry boats for men and horses to Hull. During the 1330s one boat of 40 tons from this community is recorded, and the principal maritime activity was seasonal herring fishing. By 1563 East Halton was primarily an agricultural parish with no significant maritime trade.'			
106	MLS8617	517834	418214	Extant structure	Killingholme High lighthouse. Established in 1831, rebuilt 1876-7 for Trinity House. Lighthouse no longer manned, is used in conjunction with the Killingholme South Low lighthouse to guide shipping in the Humber, and in the 19 <sup>th</sup> century was a link in the Hull Telegraph. Grade II listed.	Post-Medieval	Grade II Listed Building	A
107	MLS8619	518011	418148	Extant structure	Killingholme South Low lighthouse. Built 1836 for Trinity House. Lighthouse, no longer manned, is used in conjunction with the Killingholme High Light to guide shipping in the Humber. Grade II listed.	Post-Medieval	Grade II Listed Building	A
108	-	518700	417240	Cartographic evidence	A brick yard just north of South Killingholme Haven first mapped by OS in 1887 and has an associated wharf. The brick works was also making tiles in 1932, but both the wharf and works had gone by 1956.	Post-medieval to Modern	None	C
109	NMR 1357695	518370	420060	Wreck	The NEWLAND, from Riga, arrived in the Humber on 3 <sup>rd</sup> September 1828, but on the 5 <sup>th</sup> September is reported as on the Holm Sand with 5 feet water in her hold. Cargo discharging into craft. About 40 tons of hemp were saved from ship dry, the remaining part of the cargo is discharging in a damaged state. The ship fills with water every tide, and will be a wreck. Location unknown.	Post-Medieval	None	C

**Table 18.4: Summary of heritage assets**

HERITAGE ASSETS WITHIN MEP APPLICATION AREA								
Site No	HER/NMR Reference	Easting	Northing	Form/Type	Description	Period	Designation	Significance
110	NMR 1304735	518370	420060	Wreck	CATHARINE, sank after a collision with the CATHARINA MAGDALENA, having sailed from Lynn en route to Leeds, in Whitebooth Roads 3 <sup>rd</sup> April 1827. CATHARINE sank in deep water, but the crew was saved. Location unknown.	Post-Medieval	None	C
111	NMR 1358152	518370	420060	Wreck	The ATALANTA, from Boston, was reported as totally wrecked on the sands above Hull on 19 <sup>th</sup> March 1831. Crew drowned. NB: The 'sands' are not identified, there being several possible candidates, and the named location of "Offshore Killingholme", covering Foul Holme Spit, has been chosen by NMR for convenience. Location unknown.	Post-Medieval	None	C
112	NMR 1431654	518370	420060	Wreck	2 <sup>nd</sup> September 1833 wreck of the British registered wooden sailing vessel FAIRY was reported stranded on Holme Spit during a gale, while en route from Newcastle-upon-Tyne to Gainsborough. Location unknown.	Post-Medieval	None	C
113	NMR 943144 UKHO 66989	520110	416760	Wreck	SINGAPORE, screw steamer built in Hull 1900, wrecked off Immingham following a collision with HM Scout class cruiser ADVENTURE, which was at anchor in the Humber in 1920. SINGAPORE was owned by the Hull Sea Fishing and Ice Co., and was a registered trawler (No.H505). UKHO provide additional positions which they highlight as unreliable, lying 3.8km NW of the NMR position at 517936, 419921.	Modern	None	C
114	UKHO 8514	517200	420676	Wreck	ALEXANDRA, tug wrecked off Killingholme Oil Jetty 15 <sup>th</sup> March 1920. Site no longer charted on 3 <sup>rd</sup> May 1920 and amended to a lift site, suggesting recovery of the vessel.	Modern	None	C
115	UKHO 66984	518601	418329	Wreck	Pile driving frame sunk at the end of a jetty during construction works in June 1955. The site was salvaged by the owners in July 1955	Modern	None	D
116	MLS8195 NMR 1321225 (NMR 1473796)	516480	420050	Monument	Killingholme Battery was built to defend the port of Killingholme on the Humber estuary. It opened between 1915-1916 and by February 1916 was armed with two quick-firing 12 pounder guns emplaced on two octagonal concrete towers. The guns were removed in 1919 and the site was disused in 1926. Two 6-pounder Hotchkiss guns, one 1-pounder gun on a Naval carriage, and one 1-pounder gun on a travelling carriage are recorded as in place in 1916, with a 12-pounder 12-hundredweight gun listed in 1917. The battery was demolished in 1998 and surveyed before and during demolition.	Modern	None	C

**Table 18.4: Summary of heritage assets**

HERITAGE ASSETS WITHIN MEP APPLICATION AREA								
Site No	HER/NMR Reference	Easting	Northing	Form/Type	Description	Period	Designation	Significance
117	MLS15395	516200	420200	Monument	The North Killingholme Royal Naval oil depot may have been established just before the outbreak of the First World War. It consisted of 35 steel tanks, each about 24m diameter and clad in a protective outer skin of brick, with steel mesh and concrete within the cavity. All tanks now demolished.	Modern	None	C
118	MLS21205	516063	420776	Monument	NAS Killingholme opened in 1914 and was operated initially by the Royal Naval Air Service and later the US Navy, closing in 1919. Large numbers of aircraft were based at the station, intercepting Zeppelins, carrying out marine patrols and training. At the height of the war 46 seaplanes operated from NAS Killingholme. A converted paddle steamer seaplane carrier, pressed into service as HMS Killingholme, was also based here.	Modern	None	B
119	-	516099	420727	Monument	Composite (wood and metal) slipway possibly associated with NAS Killingholme (site 118).		None	B
120	MLS21233	515262	421309	Monument	WWII barrage balloon anchorage site, Winters Lane.	Modern	None	C
121	MLS21226	518496	416977	Monument	WWII barrage balloon anchorage site, north of Humber Road.	Modern	None	C
122	NMR 1341163	520110	416760	Documentary evidence	Handley Page Halifax Mk. III heavy bomber; one of a batch of 360 delivered between March and August 1944, Squadron 10. Two engines feathered; ditched off Immingham 28 <sup>th</sup> October 1944. Location unknown	Modern	None	A
123	-	517260	419740	Monument	Possible Jetty located at the low water line extending into the river. The site was not accessible during the walkover survey due to extremely soft muds, and the position has been estimated. Photographic recording shows at least 14 piles remaining, upstanding to around 0.3m. The piles are aligned roughly 45° to the river at low water and at least six pairs of piles remain, with additional individual timbers. No further interpretation/significance assessment is possible without closer examination.	Unknown	None	B/C
124	-	516978	419746	Monument	Linear alignment of 5 unworked wooden posts roughly 0.04m diameter, surviving to an average height of 0.30m. Orientated east-west eroding out of the reed bank towards the river. Total length approximately 0.7m.	Unknown	None	B/C
125	-	516970	419782	Monument	Linear alignment of 24 unworked wooden posts roughly 0.04m diameter, surviving to an average height of 0.30m. Total length approximately >8m. Orientated east-west eroding out of the reed bank towards the river.	Unknown	None	B/C

**Table 18.4: Summary of heritage assets**

HERITAGE ASSETS WITHIN MEP APPLICATION AREA								
Site No	HER/NMR Reference	Easting	Northing	Form/Type	Description	Period	Designation	Significance
126	-	516950	419808	Monument	Linear alignment of unworked wooden posts roughly 0.04m diameter, surviving to an average height of 0.30m. T shaped with 2.1m orientated 80° and 2m orientated 320 °. Eroding out of the reed bank parallel to the river.	Unknown	None	B/C
127	-	516942	419820	Monument	Linear alignment of unworked wooden posts roughly 0.04m diameter, surviving to an average height of 0.30m. Orientated 320 ° and exposed for 7.1m, eroding out of the reed bank at either end, lying parallel to the river.	Unknown	None	B/C
128	NMR 908347 MLS21166 UKHO 8517	515494	422086	Monument	Unidentified 'foul ground' or obstruction, could be unidentified wreckage.	Unknown	None	C
129	NMR 908346 MLS21167 UKHO 8516	515516	421914	Monument	Unidentified 'foul ground' or obstruction, could be unidentified wreckage.	Unknown	None	C
130	NMR 908345 MLS21168 UKHO 8515	516144	420989	Monument	Unidentified 'foul ground' or obstruction, could be unidentified wreckage.	Unknown	None	C
131	-	519306	418164	Magnetometer anomaly	Appears to be two objects close together or joined, could be unidentified wreckage.	Unknown	None	C
132	-	519165	418101	Magnetometer anomaly	Weak singular signature, could be unidentified wreckage.	Unknown	None	C
133	-	519556	417856	Magnetometer anomaly	Strong singular signature, could be unidentified wreckage.	Unknown	None	C
134	MLS18476	516000	420700	Cartographic evidence	Site of Killingholme gun battery, dismantled 1824.	Post-Medieval	None	C

**Table 18.4: Summary of heritage assets**

HERITAGE ASSETS WITHIN MEP APPLICATION AREA								
Site No	HER/NMR Reference	Easting	Northing	Form/Type	Description	Period	Designation	Significance
135	MLS20085	514090	422529	Artefact Scatter	During excavations at East Halton Skitter by Northern Archaeology Associates in 2000, a total of 84 stuck pieces of flint were recovered from 11 trenches. Nearly all were manufactured from local till flint. The assemblage comprised 5 cores, 8 chunks and chippings, 45 flakes, 5 blades and bladelets, 4 edge utilised flakes, 1 edge utilised blade, 5 miscellaneous retouched flakes, 2 miscellaneous retouched chunks, 4 edge retouched flakes, 1 edge retouched blade, 1 notched flake, and 3 scrapers. One scraper is an extended end scraper of the 'Beaker' period, one core is a seven platformed blade core of early/middle Neolithic character, and some of the flakes are similar to those used in the manufacture of late Neolithic arrowheads. A middle Neolithic to early Bronze Age date is likely for the bulk of the material, with a slightly greater emphasis on the Bronze Age. The assemblage is clearly residual, originating mainly from the primary fills of the Romano-British ditches. Any potential flint scatters are likely to be the products of isolated occupation, or small knapping events. This site was listed in a desk-based assessment carried out by AC Archaeology in 2006. No additional information.	Early Neolithic to Early Bronze Age	None	B/C
136	MLS19798	515880	419700	Findspot	Four flint flakes were recovered during the Humber Wetlands Fieldwalking project.	Prehistoric	-	C
137	MLS21416	515500	419000	Documentary evidence	The site of a WWII heavy anti-aircraft battery designated 'Humber M'	Modern	-	C
138	MLS20125	515945	418667	Findspot	An early Bronze Age scraper found during a watching brief on the construction of electricity pylons	Prehistoric	-	C
139	MLS4635	516426	417662	Cropmark	Linear and enclosure-like features plotted from aerial photographs. Did not appear to correlate with results of a geophysical survey undertaken on same area.	Undated	-	D
140	MLS1630 MLS20423	516500	417800	Occupation site	Unstratified Roman pottery found during an evaluation	Romano-British	-	C
141	MLS20422	516635	417431	Boundary ditch	An Iron Age ditch, running parallel to Rosper Road was recorded in 9 trial trenches.	Iron Age	-	C
142	MLS20124	516552	417404	Cropmarks	Cropmark ditches and sub circular features identified during aerial photographic transcriptions in 2002	Undated	-	C
143	MLS20104	517065	416789	Cropmark Earthwork	North-south oriented ridge and furrow mapped from aerial photos and identified on geophysical surveys. Most has now been destroyed by development.	Medieval	-	C

**Table 18.4: Summary of heritage assets**



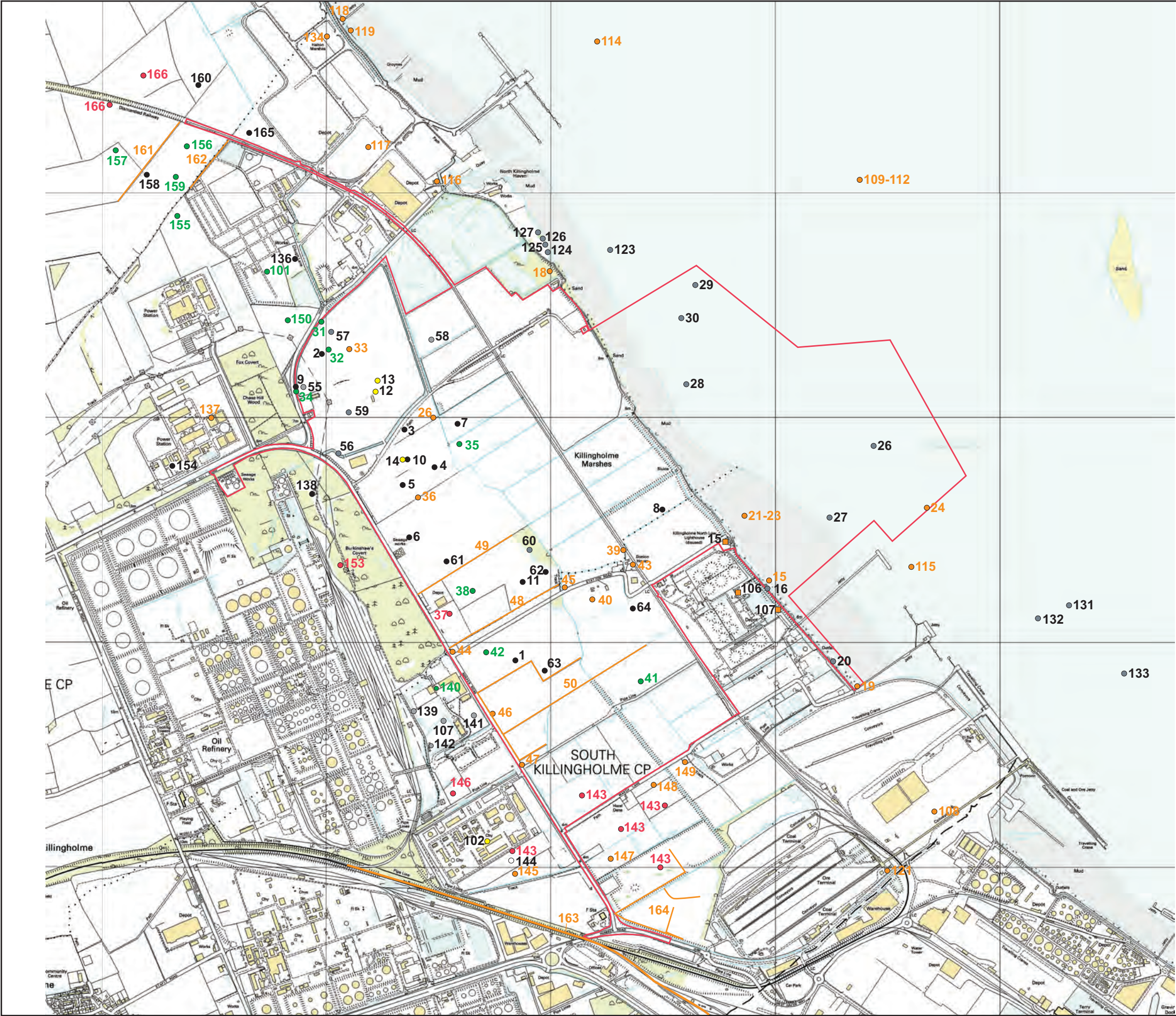
HERITAGE ASSETS WITHIN MEP APPLICATION AREA								
Site No	HER/NMR Reference	Easting	Northing	Form/Type	Description	Period	Designation	Significance
144	MLS21321	516835	417030	Cropmark	A small square enclosure was visible as a cropmark on an air photograph taken in 2001. It is now masked by the Conoco CHP plant.	Undated	-	C
145	MLS21101	516849	416980	Cropmark	A cropmark visible on n aerial photograph , probably a post-medieval boundary	Undated	-	C
146	MLS20424	516572	417336	Ditch	A shallow ditch containing a medieval sherd was found during an evaluation in 2006	Medieval	-	C
147	MLS21322	517300	417000	Cropmark	A T-shaped arrangement of ditches is visible on wartime aerial photographs. They were dug as aircraft landing obstructions and were mostly levelled sometime after the war.	Modern	-	C
148	MLS21323	517440	417370	Documentary evidence Earthwork	Aerial photographs taken in 1941 showed a row of about 16 terraced houses to the south of Marsh Lane. OS maps suggest they were built between 1902 and 1932 and had been demolished by 1975. Low earthworks were still visible on the site in 2008	Modern	-	C
149	MLS21324	517630	417500	Documentary evidence	Marsh Farm is shown on the first edition OS map of 1887. It was demolished at some time after 1945	Post-medieval	-	C
150	MLS21335	515900	419450	Ditch	An archaeological evaluation carried out in 2009 identified ditches dating from the late 2 <sup>nd</sup> and early 3 <sup>rd</sup> centuries AD	Romano-British	-	C
151				Earthwork	Ridge and furrow cultivation earthworks recorded within Chase Hill Wood and Fox Covert during a Lidar survey undertaken in 2006	Medieval	-	C
152	ELS2729			Earthwork	Ridge and furrow cultivation earthworks identified within Burkinshaw's covert and in woodland to the south during Lidar survey undertaken in 2006. This extensive area was partially recorded subsequently by a topographic survey and watching brief within the covert (E23)	Medieval	-	C
153	MLS20098	515410	418210	Documentary evidence Cropmark	Medieval ridge and furrow was identified by geophysical, walkover and topographic survey. Surviving earthworks damaged in places by development	Medieval	-	C
154	MLS11775	515460	418810	Cropmark	Faint rectangular feature noted on air photographs. NOt confirmed by geophysical survey	Undated	-	D
155	MLS1496	515300	419900	Settlement	Romano-British settlement site, north of the former site of Chase Hill Farm, excavated in 1990 and 2008	Romano-British	-	B
156	MLS17461	515350	420150	Enclosure	Rectangular enclosure recognised as a cropmark on aerial photographs, subsequently excavated and dated as Late Iron Age to 2 <sup>nd</sup> - 3 <sup>rd</sup> century	Iron Age- Romano-British	-	C

**Table 18.4: Summary of heritage assets**

HERITAGE ASSETS WITHIN MEP APPLICATION AREA								
Site No	HER/NMR Reference	Easting	Northing	Form/Type	Description	Period	Designation	Significance
157	MLS21458	515080	420180	Monument	A linear and a curvilinear feature were excavated and found to be of Middle Iron Age to Romano-British date	Iron Age-Romano-British	-	C
158	MLS20090	515270	420080	Geophysical anomaly	Geophysical anomalies, including a possible ring ditch, recorded in 1999. Subsequent excavations found no archaeological features.	Undated	-	D
159	MLS21459	515370	420030	Ditch	A ditch and curvilinear gully were recorded during a trial trench evaluation	Iron Age-Romano-British	-	C
160	MLS17472	514900	420700	Cropmark	Cropmarks of a ploughed out linear earthwork. Appears to be a ridge and furrow headland that may also have had a sea defence function.	Undated	-	C
161	MLS20567	514000	421000	Hedge	Group of historically important hedgerows	Post-medieval	-	C
162	MLS20135	514990	419510	Hedge	The boundary between East Halton and North Killingholme parishes, formerly known as Meergate hedge, dates from before 1850	Post-medieval	-	B
163	MLS21326	514800	416900	Railway	The Humber Commercial Railway was constructed in 1912 to link the eastern jetty at Immingham Dock with the main Grimsby - New Holland line at Ulceby	Modern	-	C
164	MLS20570	517000	417000	Hedge	Group of historically important hedgerows	Post-medieval	-	C
165	ELS2650	515678	420334	Field evaluation	Two undated linear features were identified during trial trenching in advance of development of land.	Undated	-	C
166	MLS10746	514500	420900	Earthwork	Areas of ridge and furrow cultivation, appearing as both earthworks and cropmarks in East Halton parish	Medieval	-	C

**Table 18.4: Summary of heritage assets**





0 1km



- Key
- Non-designated heritage asset
  - Designated heritage asset
  - Mesolithic-Bronze Age
  - Iron Age
  - Romano-British
  - Medieval
  - Post-medieval/modern
  - Undated
  - Historic hedgerow

Contains Ordnance Survey data © Crown Copyright and database right 2010.  
This material is for client report only © AC archaeology.  
No unauthorised reproduction.

Revision Number:	1
Illustrator:	SC/KJB
Scale:	1:25,000 @ A3
Date:	27/05/11

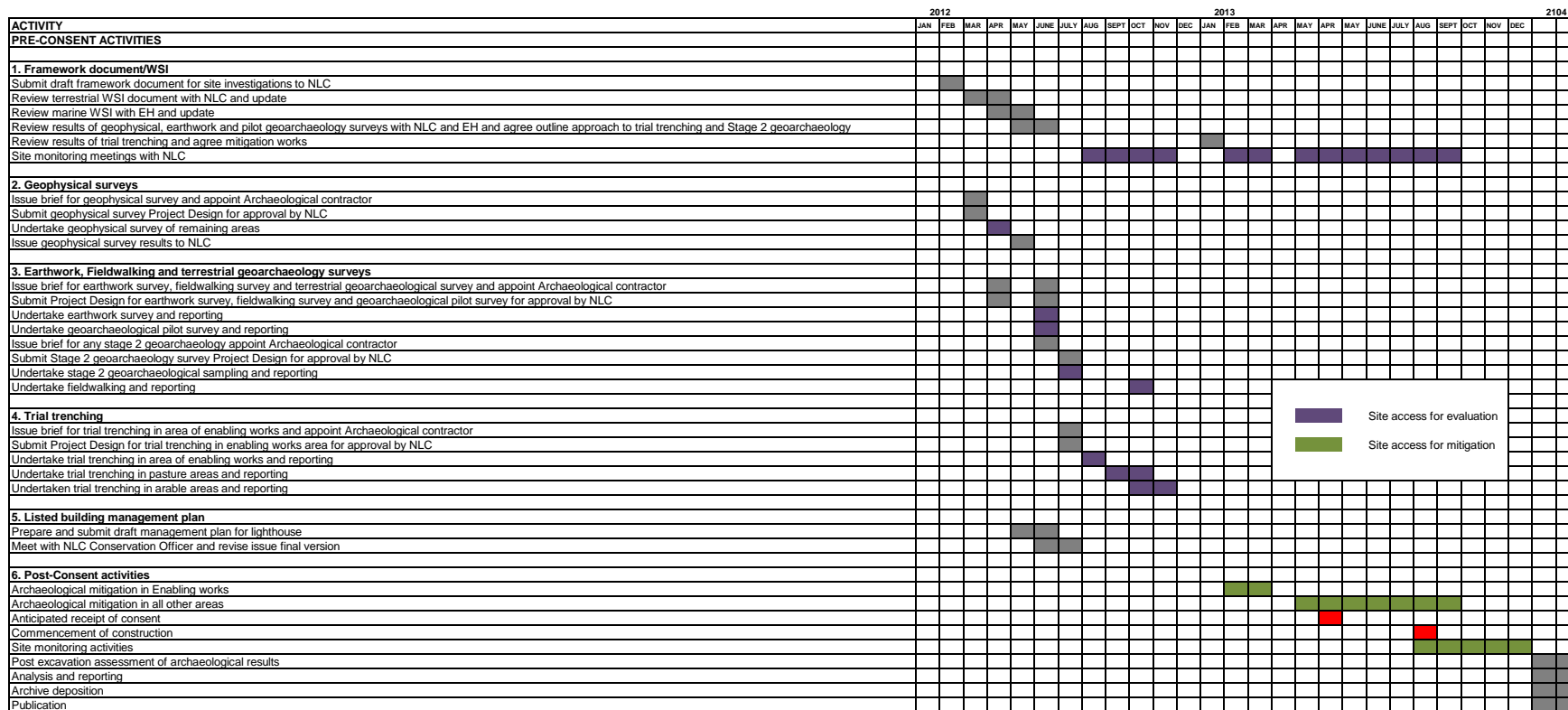
Figure 18.1:  
Location of recorded heritage assets and  
relevant maritime sites within the study area



**APPENDIX 3: OUTLINE PROGRAMME FOR ARCHAEOLOGICAL SURVEYS**

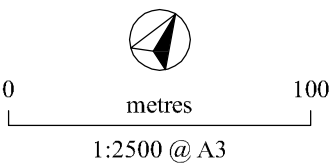
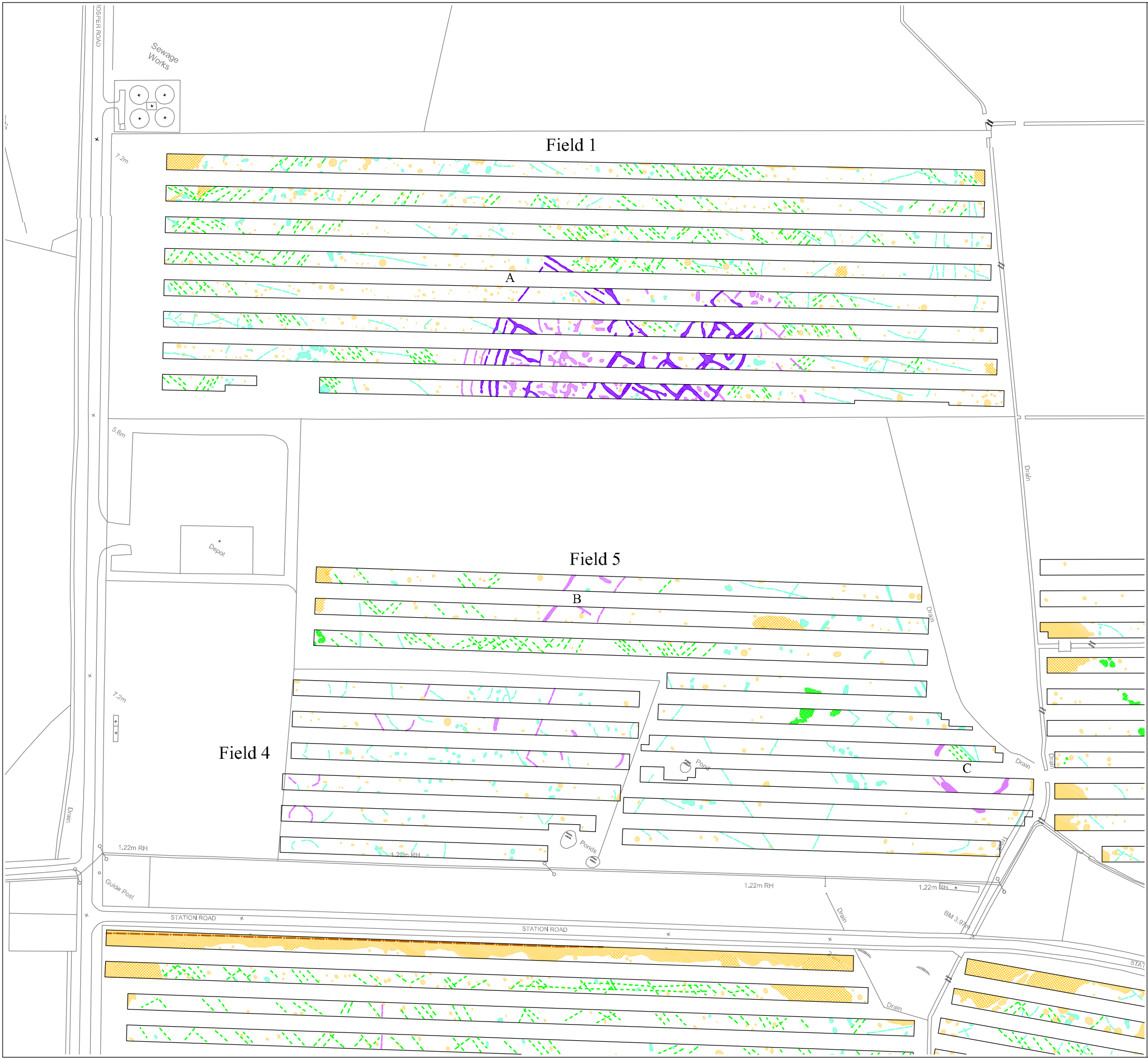
ABLE MARINE ENERGY PARK: NORTH LINCOLNSHIRE








OUTLINE PROGRAMME OF ARCHAEOLOGICAL WORKS FOLLOWING SUBMISSION OF IPC APPLICATION



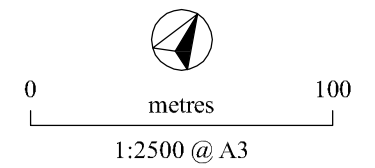
Revised 23 March 2012  
Revised 25 May 2012




## **APPENDIX 4: OVERALL INTERPRETATION GEOPHYSICAL SURVEY RESULTS**



-  Archaeology (Discrete/Trend)
-  ?Archaeology (Discrete/Trend)
-  Ploughing
-  ?Natural
-  Uncertain Origin (Discrete/Trend)
-  Pipe
-  Magnetic Disturbance / Ferrous

<b>GSB PROSPECTION Ltd.</b>
2010/73 Able UK Marine Energy Park
Summary Interpretation - Fields 1, 4 & 5
Reproduced from Ordnance Survey Mapping provided by Able UK Ltd. with the permission of the Controller of HMSO © Crown Copyright (AL100018665)
<b>Figure 4</b>



-  ?Natural
-  Uncertain Origin  
(Discrete/Trend)
-  Magnetic Disturbance /  
Ferrous

**GSB PROSPECTION Ltd.**

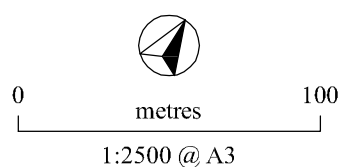
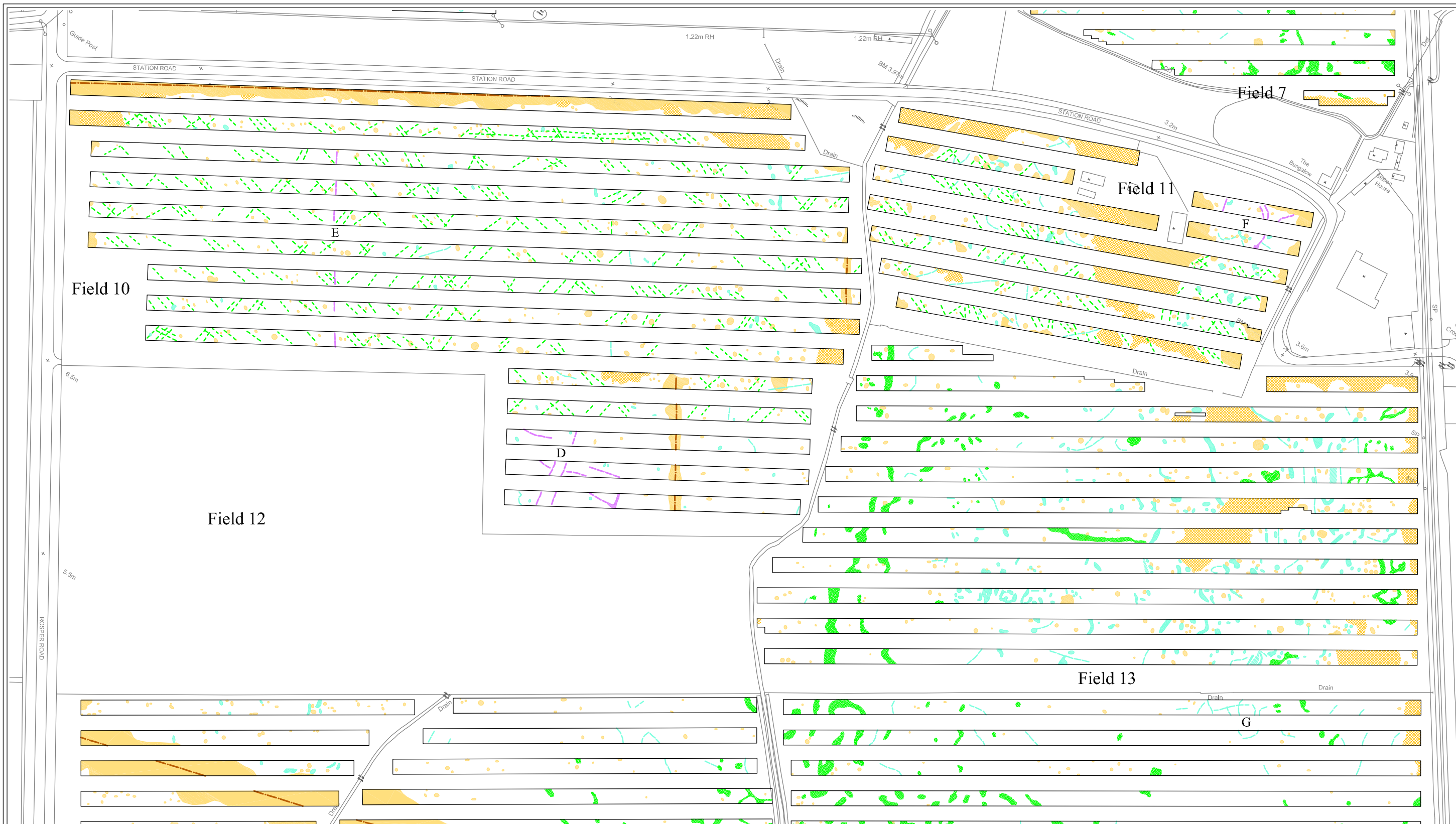
2010/73 Able UK Marine Energy Park



Summary Interpretation - Fields 3 & 6 to 9



Reproduced from Ordnance Survey Mapping provided by Able UK Ltd. with the permission of the Controller of HMSO © Crown Copyright (AL100018665)



**Figure 6**





 ?Archaeology  
(Discrete/Trend)  
 Ploughing

 ?Natural  
 Uncertain Origin  
(Discrete/Trend)

 Pipe  
 Magnetic Disturbance /  
Ferrous

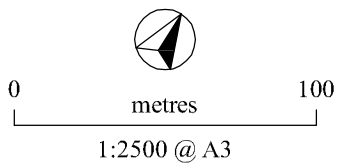
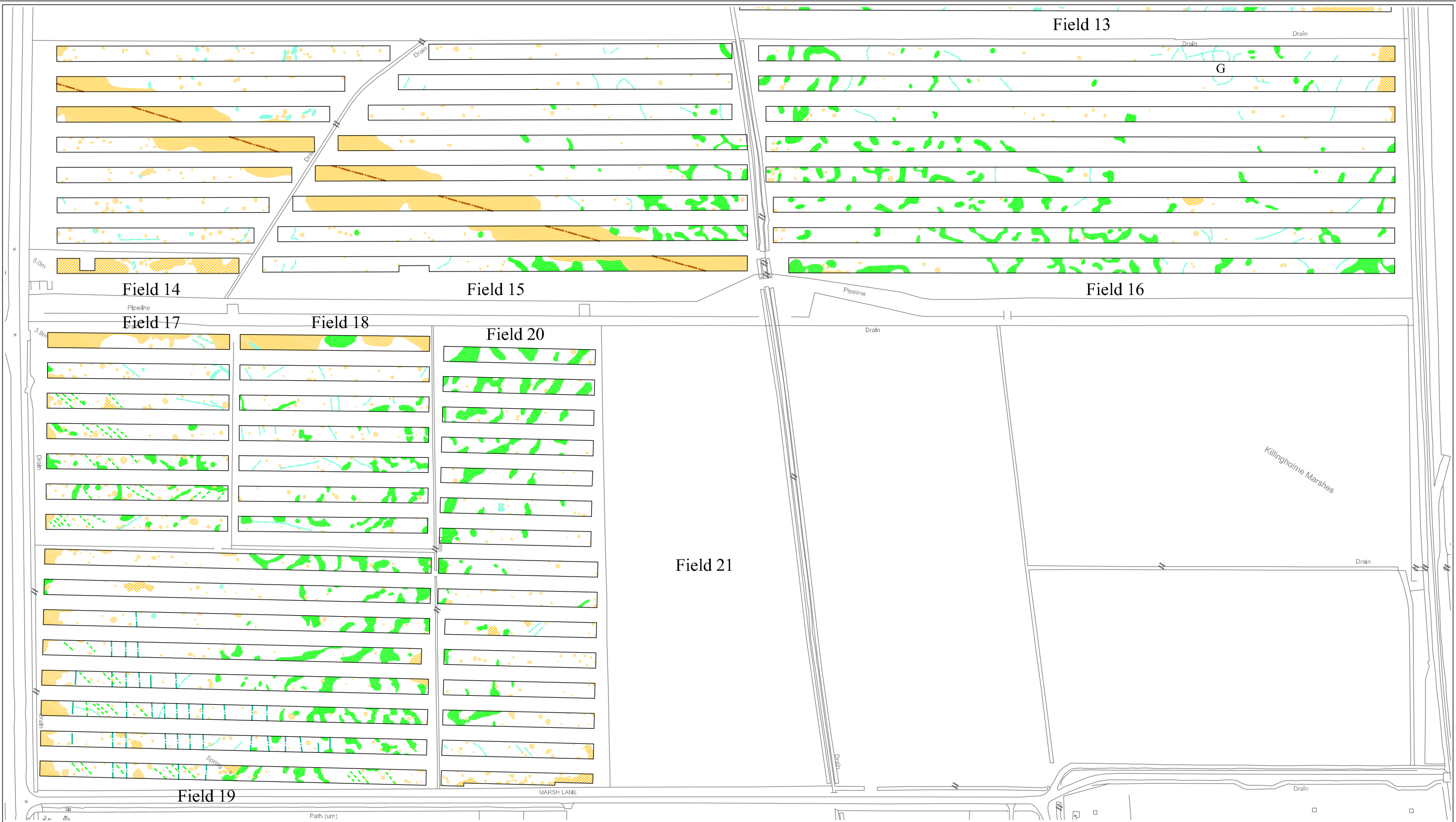
**GSB PROSPECTION Ltd.**

2010/73 Able UK Marine Energy Park

Summary Interpretation - Fields 10, 11 & 13

Reproduced from Ordnance Survey Mapping provided by Able UK Ltd. with the permission of the Controller of HMSO © Crown Copyright (AL100018665)

**Figure 8**



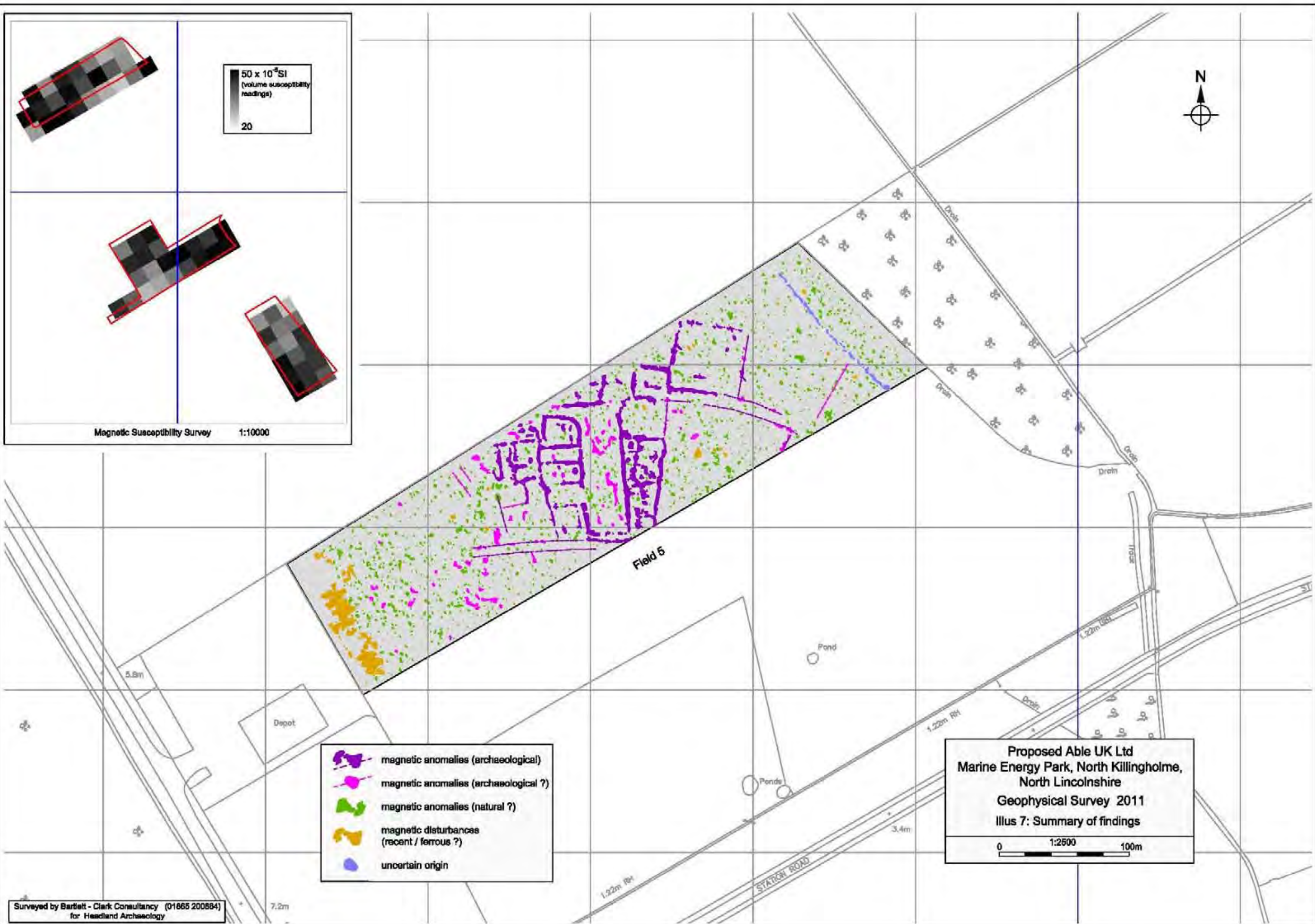
Ridge & Furrow  
Ploughing

?Natural  
Uncertain Origin  
(Discrete/Trend)

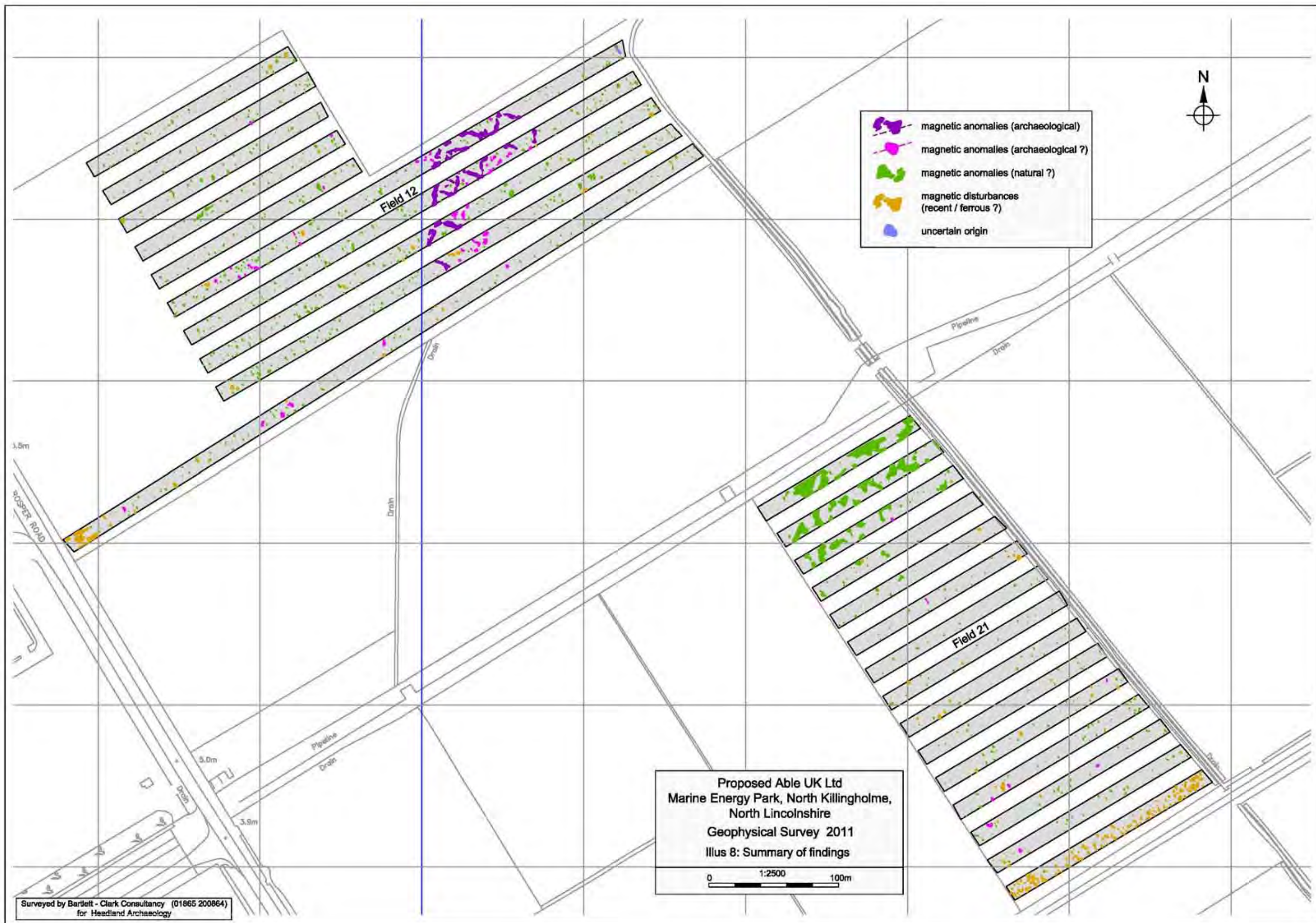
Pipe  
Magnetic Disturbance /  
Ferrous

<b>GSB PROSPECTION Ltd.</b>
2010/73 Able UK Marine Energy Park
Summary Interpretation - Fields 14 to 20
Reproduced from Ordnance Survey Mapping provided by Able UK Ltd. with the permission of the Controller of HMSO © Crown Copyright (AL100018665)
<b>Figure 10</b>









### Wiltshire Office

AC archaeology Ltd  
Manor Farm Stables  
Chicklade  
Hindon  
Nr Salisbury  
Wiltshire  
SP3 5SU

Telephone: 01747 820581  
Fax: 01747 820440

### Devon Office

AC archaeology Ltd  
Unit 4, Halthaies Workshops  
Bradninch  
Nr Exeter  
Devon  
EX5 4LQ

Telephone/Fax: 01392 882410

[www.acarchaeology.co.uk](http://www.acarchaeology.co.uk)