



AQUIND Limited

AQUIND INTERCONNECTOR

Environmental Statement – Volume 3 – Appendix 14.3 Marine Archaeology Outline Written Scheme of Investigation

The Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 – Regulation 5(2)(a)

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

Document Ref: 6.3.14.3

PINS Ref.: EN020022

AQUIND Limited

AQUIND INTERCONNECTOR

Environmental Statement – Volume 3 –
Appendix 14.3 Marine Archaeology Outline
Written Scheme of Investigation

PINS REF.: EN020022

DOCUMENT: 6.3.14.3

DATE: 14 NOVEMBER 2019

Units 5 & 10
Stephenson House,
Horsley Business Centre
Horsley,
Northumberland,
NE15 0NY
England, UK



AQUIND INTERCONNECTOR

Appendix 14.3: Marine Archaeology
Outline Written Scheme of Investigation

Document Reference. 6.3.14.3

Report Ref.: 116960.1
October 2019



© Wessex Archaeology Ltd 2019, all rights reserved

21-23 Slaters Steps
Edinburgh
EH8 8PB

www.wessexarch.co.uk

Wessex Archaeology Ltd is a company limited by guarantee registered in England, company number 1712772. It is also a Charity registered in England and Wales number 287786, and in Scotland, Scottish Charity number SC042630. Our registered office is at Portway House, Old Sarum Park, Salisbury, Wiltshire, SP4 6EB

Disclaimer

The material contained in this report was designed as an integral part of a report to an individual client and was prepared solely for the benefit of that client. The material contained in this report does not necessarily stand on its own and is not intended to nor should it be relied upon by any third party. To the fullest extent permitted by law Wessex Archaeology will not be liable by reason of breach of contract negligence or otherwise for any loss or damage (whether direct indirect or consequential) occasioned to any person acting or omitting to act or refraining from acting in reliance upon the material contained in this report arising from or connected with any error or omission in the material contained in the report. Loss or damage as referred to above shall be deemed to include, but is not limited to, any loss of profits or anticipated profits damage to reputation or goodwill loss of business or anticipated business damages costs expenses incurred or payable to any third party (in all cases whether direct indirect or consequential) or any other direct indirect or consequential loss or damage

Document Information

Document title	AQUIND Interconnector
Document subtitle	Marine Archaeology Outline Written Scheme of Investigation
Document reference	116960.1
Client name	Natural Power
Address	The Greenhouse, Forrest Estate Dalry, Castle Douglas, DG7 3XS, Scotland, UK
On behalf of Address	AQUIND Ltd. 78 Pall Mall LONDON, SW1Y 5ES
Site location	UK Marine Area
County	UK
National grid reference	n/a
Statutory designations	Protected Wreck Sites, Scheduled Monuments, Listed Buildings
Planning authority	Marine Management Organisation
Marine Licence	n/a
Archive repository or museum	n/a
Museum accession/ HER event code	n/a
WA project name	AQUIND Interconnector
WA project code(s)	116960, 116961
Date of fieldwork	n/a
Project management by	Dr Andrew Bicket
Document compiled by	Stephanie Said
Contributions from	
Graphics by	Kitty Foster

Quality Assurance

Issue & issue date	Status	Author	Approved by
1	Draft submitted to client	SS	AB

DATA LICENCES

This product has been derived in part from material obtained from the UK Hydrographic Office with the permission of the UK Hydrographic Office and Her Majesty's Stationery Office.

© Crown copyright, 2019. Wessex Archaeology Ref. HA294/007/316-01.

The following notice applies:

NOT TO BE USED FOR NAVIGATION

WARNING: The UK Hydrographic Office has not verified the information within this product and does not accept liability for the accuracy of reproduction or any modifications made thereafter.

This product has been derived in part from material obtained from the UK Hydrographic Office with the permission of the Controller of Her Majesty's Stationery Office and UK Hydrographic Office (www.ukho.gov.uk).

NOT TO BE USED FOR NAVIGATION

Contains Ordnance Survey data © Crown copyright and database rights 2019



Contents

1	INTRODUCTION	1
1.1	Project and planning background.....	1
1.2	Development description	1
1.3	Construction programme	3
1.4	Scope of document.....	3
2	THE ARCHAEOLOGICAL ASSESSMENT AREAS	3
2.1	Co-ordinate system.....	3
2.2	Archaeological Assessment Areas.....	3
3	AIMS AND OBJECTIVES.....	3
3.2	Objectives.....	3
4	ROLES, RESPONSIBILITIES AND COMMUNICATION	4
4.1	Schedule.....	4
4.2	Archaeological Curator(s)	6
4.3	Archaeological Contractor(s).....	6
4.4	Stakeholder Liaison	6
5	ARCHAEOLOGICAL BASELINE SUMMARY.....	6
5.1	Introduction.....	6
5.2	Previous archaeological work	7
5.3	Summary of known and potential archaeological assets	7
6	POTENTIAL IMPACTS	9
6.2	Direct.....	9
6.3	Indirect.....	9
7	MITIGATION.....	9
7.1	Introduction.....	9
7.2	A1s	9
7.3	A2 geophysical anomalies	10
7.4	Unexpected discoveries.....	11
7.5	Palaeogeographic assessment.....	11
8	METHOD STATEMENTS	12
9	SCHEME OF INVESTIGATIONS.....	13
9.1	Introduction.....	13
9.2	Standards and guidance	13
9.3	Archaeological exclusion zones	14
9.4	Micrositing	15
9.5	Marine geophysical investigations.....	15
9.6	Marine geoarchaeological investigations.....	16
9.7	Archaeological assessment of UXO ROV survey data	17
9.8	Archaeological investigations using divers and/or ROVs.....	18
9.9	Archaeological watching briefs.....	18
9.10	Protocol for archaeological discoveries (The Protocol).....	18



9.11 Post Construction Monitoring	19
10 FINDS AND ENVIRONMENTAL	20
10.1 Finds.....	20
10.2 Ordnance.....	21
10.3 Human remains	21
10.4 Treasure	21
10.5 Aircraft.....	21
10.6 Wreck	22
10.7 Environmental.....	22
10.8 Conservation and storage.....	22
11 POST-EXCAVATION AND REPORTING	22
11.1 Finds.....	22
11.2 Environmental.....	23
11.3 Reporting.....	23
12 ARCHIVE STORAGE AND CURATION.....	24
12.1 Museum.....	24
12.2 Transfer of title.....	24
12.3 Preparation of archive.....	24
12.4 Selection policy.....	25
12.5 Security copy	25
13 COPYRIGHT	25
13.1 Archive and report copyright	25
13.2 Third party data copyright	25
REFERENCES	26
APPENDICES	29
Appendix I: Protocol for Archaeological Discoveries: Actions for Discoveries On-board or on the Seabed	29

29

List of Figures

- Figure 1** Location of AQUIND Interconnector Marine Cable Corridor
Figure 2a-i Palaeogeographic features of archaeological potential
Figure 3 Seabed features of archaeological potential (70184)
Figure 4 Seabed features of archaeological potential (70193)
Figure 5 Seabed features of archaeological potential (70204)
Figure 6 Seabed features of archaeological potential (70018)

List of Tables

- Table 1** Roles and Responsibilities
Table 2 Sites recommended for AEZs in the Marine Cable Corridor



AQUIND INTERCONNECTOR

Outline Marine Archaeology Written Scheme of Investigation (WSI)

1 INTRODUCTION

1.1 Project and planning background

1.1.1 Wessex Archaeology has been commissioned by Natural Power Consultants Ltd to produce an Outline Written Scheme of Investigation (WSI) for the proposed AQUIND Interconnector (**Figure 1**). The Project site comprises of a Marine Cable Corridor that runs from Eastney, Portsmouth in the UK to Normandy in France. The proposed Marine Cable Corridor is approximately 109 km long within the UK Marine Area (this comprises the Proposed Development).

1.1.2 This Outline WSI follows on from a marine archaeological desk-based assessment technical report (Wessex Archaeology, 2018), which included an archaeological review of geophysical and geotechnical survey data. This report was included as Appendix 14.1 in the Preliminary Environmental Information Report (PEIR) (WSP/Natural Power, February 2019) and Chapter 14: Marine Archaeology as part of the s. 42 consultation process. Following further consultation with Historic England on the draft deemed Marine Licence (dML) and the Outline WSI, an Environmental Statement (ES) has been developed in support of the AQUIND Interconnector, and this Outline WSI forms part of the proposed mitigation. Chapters 5 and 14 of the ES in Volume 1 (document references 6.1.5 and 6.1.14) and the Consultation Report (document reference 5.1) presents further information regarding consultation.

1.1.3 This Outline WSI was prepared with reference to the draft deemed Marine Licence (dML) and is based on The Crown Estate & Wessex Archaeology (2010) guidelines, COWRIE & Wessex Archaeology (2007) and The Crown Estate (2014). It has been prepared to satisfy the relevant condition of the dML in the Draft Development Consent Order (DCO: document reference. 3.1) submitted with the Application.

1.1.4 This Outline WSI establishes the mitigation procedures that must be followed in order to avoid damage to known assets and targets of archaeological potential whilst undertaking marine activities, related to the construction and installation, operations, repair and maintenance of the Proposed Development.

1.1.5 This Outline WSI comprises the mitigation strategy below Mean High Water Spring (MHWS). Separate WSIs will be prepared for onshore works. However, as there is an overlap between the onshore and marine WSI study areas (with the onshore area extending down to MLW and the marine area extended up to MHW), there needs to be coordination between the WSIs to ensure a seamless approach to the intertidal area.

1.2 Development description

1.2.1 The proposed Marine Cable Corridor comprises four 320 kV High Voltage Direct Current (HVDC) cables extending from MHWS through the UK Marine Area to the UK/France EEZ Boundary Line (**Figure 1**).



- 1.2.2 The Proposed Development will comprise the following components, as described in Chapter 3 (Description of the Proposed Development) of the ES in Volume 1 (document reference 6.1.3):
- HVDC Marine Cables;
 - HVDC underground cables;
 - Converter Station;
 - HVAC cables; and,
 - Fibre optic data transmission cables and associated infrastructure.
- 1.2.3 The four 320 kV HVDC Marine Cables will be installed as two bundled pairs, with the potential for the Marine Cables to be installed as four individual cables for up to approximately 200 m between the point where the Marine Cables exit from the Landfall Horizontal Directional Drilling (HDD) ducts on the seabed and the location where the trenching starts for the two pairs of bundled Marine Cables.
- 1.2.4 Spacing between two bundled pairs is driven by the operational spacing requirements of the installation equipment and will typically be approximately 50 m between each bundled pair. The HVDC Marine Cable is designed, manufactured and installed for a minimum service life of 40 years.
- 1.2.5 The route preparation along the Marine Cable Corridor will consist of:
- Clearance of obstacles and/or seabed features:
 - Seabed debris (out of service (OOS) cables, wires, abandoned fishing gear);
 - Boulders;
 - Sandwaves and large ripples; and,
 - Uneven seabed (gulleys, slopes, pits and free spans).
 - Disposal of dredged material; and
 - Construction of crossing structures over in-service cables that are crossed by the Marine Cables.
- 1.2.6 Construction activities within the Marine Cable Corridor relating to the installation of the cables include:
- Trial of cable installation tools and laying and installation of Marine Cables, comprising two bundled pairs of cables typically 50 m apart (Chapter 3 Description of the Proposed Development), using the following options dependent on type of seabed – plough, jet trenching, and/or mechanical trenching;
 - Backfilling of cable trenches and stabilisation of unburied Marine Cables;
 - HDD works including exit / entry pit excavation;
 - Placement of non-burial protection on the seabed, including tubular protection, mattresses, rock placement and grout/rock bags; and
 - Use of anchors or jack-up legs on vessels associated with the installation, maintenance and decommissioning phases of the project, including grounding of installation vessels on the seabed at low tide.



1.3 Construction programme

1.3.1 It is anticipated that the Marine Cable installation programme will be undertaken during 2021-2023, as outlined in Chapter 3 (Description of the Proposed Development) .

1.4 Scope of document

1.4.1 This Outline WSI sets out the aims of the marine investigations, and the methodologies and standards that will be employed by the Developer and/or their representative and Retained Archaeologist to implement the mitigation strategy set out in the ES. In format and content, it conforms to current best practice and to the guidance outlined in Management of Research Projects in the Historic Environment (MoRPHE, Historic England 2015a), the Joint Nautical Archaeology Policy Committee Code of Practice for Development (JNAPC 2006) and the relevant guidance from the Chartered Institute for Archaeologists (CIfA 2014a-g), as applicable.

1.4.2 Consultation on this document will occur with Historic England before seeking approval by the Marine Management Organisation (MMO) and prior to the commencement of any investigative work.

2 THE ARCHAEOLOGICAL ASSESSMENT AREAS

2.1 Co-ordinate system

2.1.1 Positions are reported in Universal Transverse Mercator (UTM) Zone 30 North projected from a World Geodetic System (WGS) 1984 datum.

2.2 Archaeological Assessment Areas

2.2.1 This Outline WSI addresses the marine elements of the AQUIND Interconnector seaward of MHWS within the UK Marine Area (as this comprises the Proposed Development), while onshore elements of the scheme will be addressed in a separate WSI. Drafting of the DCO and dML will be considered in order to streamline approvals in the intertidal area due to overlapping jurisdictions. The recorded marine historic environment resource within 2 km of the limits of the marine portion of the Proposed Development has been considered. This is referred to hereafter as the Archaeological Study Area (ASA). The 2 km buffer (forming the ASA) used for this assessment allows for the capture of relevant archaeological records that may have poor positional data, including for example historic wrecks and aircraft losses, both of which are prevalent in this area.

3 AIMS AND OBJECTIVES

3.1 Aims

3.1.1 The aim of the WSI is to put in place the archaeological mitigation set out in the ES (Chapter 14 Marine Archaeology, document reference 6.1.14).

3.2 Objectives

3.2.1 The objectives of this WSI are as follows:

- to fulfil the requirements of Historic England and Portsmouth and Hampshire County Council in respect of archaeological monitoring and mitigation works associated with the Proposed Development;



- to provide the position and extent of Archaeological Exclusion Zones (AEZs) that may be required, and to establish methods for their monitoring, modification and/ or removal in the future;
- to ensure that prior to any further geophysical and geotechnical investigations associated with the Proposed Development are undertaken, time and resource is available for archaeological input, review, recording and sampling;
- to ensure that prior to any required ROV and/ or diver surveys associated with the Proposed Development are undertaken, time and resource is available for archaeological input, review and reporting;
- to propose measures for the mitigation of unexpected archaeological remains encountered during further survey work or construction work associated with the project;
- to, if appropriate, set out methodologies for post-construction monitoring; and
- to establish the reporting and archiving requirements for the archaeological works undertaken during construction and, where required, post-construction monitoring.

4 ROLES, RESPONSIBILITIES AND COMMUNICATION

4.1 Schedule

- 4.1.1 Mitigation measures required to inform the final engineering design for this project must be undertaken, completed and reported on in time to inform the design.
- 4.1.2 Where Method Statements, reports or other deliverables are submitted for approval by the MMO and HE, their agreement/acceptance will be assumed if no contrary response is received within 30 working days of submission.
- 4.1.3 The following **Table 1** sets out the principle roles and responsibilities.

Table 1 Roles and Responsibilities

Role	Company	Responsibilities
Developer	AQUIND Ltd.	The responsibility for implementing the WSI rests with the Developer and their appointed representatives (including their Contractors). <ul style="list-style-type: none">• The Developer will familiarise themselves with the contents of this WSI and will ensure that Contractors and any project personnel are aware of this WSI, any AEZs that may be implemented, and the Protocol.• The Developer and/or their representative will seek curatorial advice from the Archaeological Curators as appropriate.• The Developer and/or their representative will commission and consult a Retained Archaeologist during the planning stages for any further work.• The Developer and/ or their representative will ensure that the Retained Archaeologist is provided with all relevant project datasets, to ensure that they are in an informed position to advise the project team.• The Developer and/or their representative will identify Nominated Contacts for the Protocol.
Contractors and Sub-Contractor	TBC	All relevant Contractors engaged in the construction of the project shall:



Role	Company	Responsibilities
		<ul style="list-style-type: none">• familiarise themselves with the requirements of the WSI and make them available to all of their staff working on the project (e.g. for Protocol);• communicate with the Retained Archaeologist in the planning stages of survey work, to ensure archaeological objectives are included, as appropriate;• obey legal obligations in respect of 'wreck' and 'treasure' under the <i>Merchant Shipping Act 1995</i> and the <i>Treasure Act 1996</i>, respectively;• respect constraint maps and AEZs;• assist and afford access to archaeologists employed by the Developer;• inform the Retained Archaeologist of any environmental constraint or matter relating to health, safety and welfare of which they are aware that is relevant to the archaeologists' activities; and,• implement the Protocol.
Archaeological Curators	Historic England and Hampshire County Council	<p>Historic England is the Archaeological Curator providing advice for the historic environment within the English inshore and offshore marine planning areas.</p> <p>Advice will be sought from Hampshire County Council for the historic environment falling above Mean Low Water Mark ('MLWM').</p> <p>See below for contact details.</p>
Retained Archaeologist	TBC	<p>The Retained Archaeologist will oversee archaeological mitigation to provide consistency throughout the project, as required. The Retained Archaeologist is responsible for:</p> <ul style="list-style-type: none">• advising the Developer and/ or their representative on necessary interaction with third parties with archaeological interest, and the Archaeological Curator(s);• advising the Developer and/ or their representative and appropriate Contractor(s) on which elements warrant archaeological investigation and provide archaeological advice at the planning stages for any further surveys, such as geophysical, geotechnical, Unexploded Ordnance (UXO), ROV or diver. The Retained Archaeologist will produce archaeological method statements for further archaeological investigations and will ensure approval from Archaeological Curator(s);• will act as the first contact for any unexpected archaeological discoveries. The Retained Archaeologist will cover the administration of the reporting of discoveries and provide immediate actions, including recording, handling and storage, and introduction of measures to prevent or reduce damage if the presence of a significant archaeological site is suspected; and,• will produce reports for approval by the Developer and/ or their representative and the Archaeological Curator(s) and will also prepare project archives in consultation with the appropriate repository/ museum.



4.2 Archaeological Curator(s)

4.2.1 The Archaeological Curator(s) for the offshore heritage environment are as follows.

4.2.2 From Mean High Water Springs (MHWS) to the 12 nm limit and across the South Inshore and Offshore Marine Plan areas, the relevant Archaeological Curator is Historic England Marine Planning Unit, with specialist advice provided by the Historic England South East Science Advisor. The relevant contacts are:

- Pip Naylor, Marine Planning Archaeological Officer, Historic England, Cannon Bridge House, 25 Dowgate Hill, London, EC4R 2YA; and,
- Jane Corcoran, Regional Science Advisor for London and South East, Historic England, Cannon Bridge House, 25 Dowgate Hill, London, EC4R 2YA.

4.2.3 Above the Mean Low Water Mark (MLWM), the relevant Archaeological Curator is Hampshire County Council (HCC). The Senior Archaeological Officer at Hampshire County Council Archaeological Service will be contacted.

4.2.4 During the Project, communication with the Archaeological Curator(s) will be undertaken via email and/or telephone contact. Method Statements for archaeological works will be submitted to the relevant Regulator(s) and Archaeological Curator(s) four months prior to the planned commencement of surveys/works, in order to allow for sufficient time for the review and any amendments to be completed and agreed. After construction has been completed, the final archaeological report(s) or publication(s) for this project will be submitted to the Archaeological Curator(s).

4.3 Archaeological Contractor(s)

4.3.1 Archaeological Contractor(s) may be appointed to carry out specific packages of work, for example works beyond the in-house capabilities of the Retained Archaeologist, or additional works, as required. The Archaeological Contractor(s) may be appointed by the Developer or their appointed representatives (the Client, the Retained Archaeologist or other contractors/ sub-contractors). In these instances, the Retained Archaeologist will have a coordinating role, ensuring works are specified, planned, undertaken and reported in accordance with this WSI.

4.4 Stakeholder Liaison

4.4.1 The onshore and marine archaeological resource should be approached seamlessly, particularly in areas of overlap. Therefore, to cover such areas, there should be liaison with stakeholders, including communication between the onshore and marine Retained Archaeologists, the onshore and marine Archaeological Curators, academics, and other interested parties. This could be particularly important with regards to issues concerning the intertidal/ foreshore area, to ensure a joined-up approach is consistently applied.

5 ARCHAEOLOGICAL BASELINE SUMMARY

5.1 Introduction

5.1.1 The results within this baseline are summarised from the ES and associated AQUIND Interconnector: Marine Works UK, Marine Archaeological Technical Report (Wessex Archaeology, 2018) in Appendix 14.1 of the ES Volume 3 (document reference 6.3.14.1).

5.2 Previous archaeological work

5.2.1 The following archaeological work has been undertaken in relation to AQUIND Interconnector:

- a Desk-Based Assessment (Wessex Archaeology, 2018) of available information, including data from the National Record for the Historic Environment (NRHE), the National Heritage List for England, the Portsmouth and Hampshire County Council Historic Environment Records (HERs), and the United Kingdom Hydrographic Office (UKHO). The Desk-Based Assessment also included details of an intertidal walk-over survey; and,
- an archaeological assessment of marine geophysical survey and geotechnical data acquired for the Project (by MMT UK Limited) between November 2017 and March 2018. Datasets included sidescan sonar (SSS), magnetometer, sub-bottom profiler (SBP) and multibeam echosounder (MBES). Geotechnical data included vibrocores and Cone Penetration Tests (CPTs).

5.3 Summary of known and potential archaeological assets

Intertidal Assessment

5.3.1 There is a total of two records (WA1000 & WA1001) relating to archaeological sites, artefacts, material and standing remains within the intertidal zone (to MHWs) of the proposed Marine Cable Corridor at the Landfall search zone of Eastney Beach. These records have been derived from the NRHE and HER archives,

5.3.2 The two records refer to prehistoric findspots that no longer exist at the locations provided. WA1000 consists of a prehistoric handaxe, whilst WA1001 consist of a Roman coin of Victorinus, dating to AD268-271. Palaeogeographic Assessment

5.3.3 A number of palaeogeographic features of archaeological potential have been identified within the Marine Cable Corridor within the UK Marine Area (**Figures 2a-2i**). The assessment of the SBP data shows that the shallow geology within this area can largely be described as predominantly clay bedrock with localised channel systems and palaeovalleys cut into its surface. These latter features have the potential to contain in situ and derived archaeological material and palaeoenvironmental material.

5.3.4 The identified geology has been divided into three phases, which are characterised by three Units as described below:

- Unit 1: Tertiary sediments (Eocene) – blanket deposit across much of the area, pre-date earliest human occupation of the UK.
- Unit 2: Pleistocene/early Holocene Sediments (pre-transgression) – small shallow infilled channels with the potential to contain in situ and derived archaeological material, and palaeoenvironmental material.
- Unit 3: Holocene Seabed Sediments (post-transgression) – generally observed as an occasionally well-layered unit with distinct basal reflector, considered of low potential in itself, but possibly contains re-worked artefacts and can cover wreck sites and other cultural heritage.

Seabed Features

5.3.5 There are currently no sites within the ASA that are subject to statutory protection from the Protection of Wrecks Act 1973, the Protection of Military Remains Act 1986 or the Ancient Monuments and Archaeological Areas Act 1979.



- 5.3.6 There are two known wreck sites within the Marine Cable Corridor within the UK Marine Area which have been classified as A1 anomalies (features of anthropogenic origin of archaeological interest), illustrated in **Figures 3 and 4** and identified as anomalies 70184 and 70193.
- 5.3.7 Two other receptors which may be of anthropogenic origin were also identified as A1 anomalies and are illustrated in **Figures 5 and 6** and identified as the debris scatter 70204 and the large magnetic anomaly 70018.
- 5.3.8 A further 383 anomalies have been assigned an A2 discrimination, defined as features of uncertain origin, but of possible archaeological interest.

Maritime and aviation archaeological potential

Maritime potential

- 5.3.9 The potential for further discoveries has been explored through a review of archaeological discoveries in the wider area, the history of the area, and through assessments of recorded losses, and navigational hazards.
- 5.3.10 There is potential for the presence of archaeological material of a maritime nature, spanning from the Mesolithic period to the present day. Discoveries of early material, such as the sewn plank Bronze Age boat discovered in Dover, highlight the potential for further discoveries related to early maritime activity. Portsmouth was founded during the Middle Ages, c. 1180, growing into a major maritime hub, with the construction of a dockyard in 1495.
- 5.3.11 In the post-medieval period, there is potential for wrecks associated with the establishment of the Royal Navy, the Spanish Armada, the Franco-Spanish and the Anglo-Dutch wars, as well as for wrecks associated with continuing local trade and marine exploitation.
- 5.3.12 In the modern period, there is potential for shipwrecks associated with the First and Second World Wars, including both naval and merchant ships.
- 5.3.13 There are 104 recorded losses in the ASA, dating from the early 15th century to the modern period. These are ships that were reported missing but for which no remains have yet been discovered on the seabed, and their recorded location is somewhat arbitrary.
- 5.3.14 The coastal section of the ASA is situated in an area of high navigational hazard, as assessed by Bournemouth University (Merrit *et al.*, 2007), due to the numerous banks found within the shallow waters, such as East and West Winner and Horse and Dean Sands.
- 5.3.15 The ASA falls within an area of significant shipping and navigation activity. These include the passage of merchant vessels, recreational craft, military vessels, and vessels engaged on specialist operations such as aggregate dredgers.

Aviation potential

- 5.3.16 There is potential for 20th century aircraft remains in the Marine Cable Corridor, particularly in relation to the Second World War. There are 21 recorded losses of aircraft within the ASA. All of these relate to generalised locations within the cable corridor, as their remains have not been confirmed on the seabed, their location is not presently known, and they could be discovered in the wider area. All 21 were in military service when they were lost, and therefore all would be protected under the Protection of Military Remains Act 1986 should their remains be discovered.



6 POTENTIAL IMPACTS

6.1.1 The ES has identified the potential effects on marine archaeology, which might occur from the construction, operation and maintenance, and decommissioning of the Proposed Development.

6.2 Direct

6.2.1 The direct impacts resulting in potential adverse effects upon archaeological receptors as part of construction, operation and maintenance, and decommissioning works are those involving contact with the seabed or the removal of seabed sediments. Marine archaeological receptors with height, such as shipwrecks, may also be impacted by activities that occur within the water column.

6.2.2 There could be permanent physical loss or disturbance of potential seabed receptors in shallow sediments from seabed preparation, other construction activities, operation and decommissioning works. These receptors could include shallowly buried shipwrecks or aircraft crash sites. Areas of particular concern include areas of concentration of A2 anomalies (particularly buried magnetic anomalies with no surface expression).

6.2.3 There could also be permanent physical loss or disturbance of known and potential palaeogeographic features from construction, operation and decommissioning works where activities penetrate the surface.

6.2.4 Permanent physical loss or disturbance of known and potential seabed prehistory receptors, and marine and aviation receptors can occur from the use of jack-ups or anchors by vessels during construction, operation and decommissioning activities. The use of HDD to install Marine Cables under the intertidal area will require the need to utilise cable laying barges at low tide, between KP 1.0 and KP 4.7, with the possibility of grounding the vessels. These could have direct impact on any A2 anomalies located within this nearshore area.

6.3 Indirect

6.3.1 Indirect impacts occur as a result of changes to sedimentation and erosion patterns during operation (including repair and maintenance), construction and decommissioning, associated with dredging and disposal works, and the placement of non-burial protection, or changes to local scouring and sedimentation patterns during operation works. The physical processes assessment undertaken and presented in Chapter 6 (Physical Processes) of the ES Volume 1 (document reference 6.1.6) indicates that no significant effects are anticipated.

7 MITIGATION

7.1 Introduction

7.1.1 Mitigation measures for the Proposed Development have been set out in Chapter 14 (Marine Archaeology) of the ES. This section provides a brief overview for each of the receptor types. More detailed information about the types of mitigation and the way that they will be implemented can be found in the Scheme of Investigations (Section 9).

7.2 A1s

7.2.1 Best practice favours the preservation in situ of archaeological remains as the first option, and therefore the ideal mitigation is avoidance (Wessex Archaeology, 2007; DECC, 2011b). For the Proposed Development, impact to A1 geophysical anomalies will be avoided



through the implementation of AEZs. All development and related activities that could impact the seabed are prohibited within the boundaries of an AEZ, however, AEZs do not restrict remote survey work (e.g. vessels entering the zone to acquire geophysical datasets).

- 7.2.2 The final development layout will consider the locations of all AEZs. All AEZs will be marked on the scheme masterplans. Although AEZs are fixed, provision should be made for them to be refined or removed (with agreement of the MMO and Archaeological Curators), if required, subject to additional archaeological assessment of subsequent surveys that may be required. Surveys could include further geophysical, ROV, or diver surveys (see the Scheme of Investigations (Section 9) for more details). In addition, in order to maximise the archaeological benefits of the surveys, any surveys covering AEZs should include archaeological advice in the planning stages.
- 7.2.3 If impacts to A1 geophysical anomalies cannot be avoided, measures to reduce, remedy or offset disturbance will be agreed with the MMO in consultation with Archaeological Curators but could include further survey through to complete excavation.

7.3 A2 geophysical anomalies

- 7.3.1 AEZs have not been recommended at this time for features assigned A2 archaeological potential ratings, and in order to facilitate the design of the development scheme, buffers are not currently proposed for any of these anomalies. However, avoidance of these features by micro-siting is recommended. If there is potential for them to be impacted by the development, they will need to be assessed on a case-by-case basis, in order to accurately position the site and effectively confirm its character, in agreement with the MMO. This will allow an assessment of the anomaly's relative value. The methodologies for assessing the features could include further geophysical survey, ROV survey, for example in combination with a UXO survey, or diver survey, and these are discussed in more detail in the Scheme of Investigations (Section 9). Should any further surveys be planned, archaeological advice should be included at the planning stage, to maximise results for archaeological assessment.
- 7.3.2 It is possible that these anomalies could represent material from wreck sites of considerable age and be of higher archaeological value and importance than those already suggested for AEZs, and therefore further AEZs could be instituted if required. However, it is also possible that these anomalies could comprise modern debris of no archaeological significance. The provision of archaeological advice is particularly important in areas of high potential for seabed prehistory, or anomalies with a high magnetic amplitude reading.
- 7.3.3 If it is not possible to preserve in situ A2 geophysical anomalies or findspots, disturbance will be offset by appropriate and satisfactory measures, also known as 'preservation by record'. In these circumstances, the extent of the further survey required will be determined based on the assessed value or importance of the feature, and through discussions with the Archaeological Curators and following approval from the MMO. Further works could include survey, recording and/ or excavation, to any depth likely to be impacted, prior to the impact occurring (Wessex Archaeology, 2007), and will be detailed in a specific method statement. The impact of the development, if and where appropriate, may also be remedied by restabilising sites that have already been destabilised but not destroyed, or by offsetting damage to a site by detailed analysis and safeguarding of otherwise comparable sites elsewhere.
- 7.3.4 Information gathered through further survey or other archaeological works must be disseminated, for example through reporting (as discussed in Section 12.3).



7.4 Unexpected discoveries

- 7.4.1 Should any previously unknown sites or material be encountered during development works, measures will be taken to reduce the level of impact. In order to provide for these unexpected discoveries, a Protocol similar to the established Protocol for Archaeological Discoveries: Offshore Renewables Projects (The Crown Estate, 2014) and the Marine Aggregate Industry Protocol for the Reporting of Finds of Archaeological Interest (BMAPA and Historic England, 2005) will be established for the project.
- 7.4.2 The Protocol provides a system for reporting and investigating unexpected archaeological discoveries encountered during pre-construction, construction and post-construction activities of the Project. The aim of the Protocol is to reduce any adverse effects of the development upon the historic environment by enabling project staff, contractors and sub-contractors to report finds in a manner that is both convenient to their everyday work and effective with regard to curatorial requirements. Archaeological discoveries reported via the Protocol may include submerged prehistoric material, shipwreck material or aviation material. The Protocol will also make provision for the institution of temporary exclusion zones around areas of possible archaeological interest, for prompt archaeological advice and, if necessary, for archaeological inspection of important features prior to further works in the area. If any new features are identified which are of "high archaeological potential", consultations with Archaeological Consultants will be sought, and new AEZs may be required. The Protocol provides a mechanism to comply with the Merchant Shipping Act 1995, including notification of the Receiver of Wreck, and accords with the Code of Practice for Seabed Developers (JNAPC, 2016).
- 7.4.3 More details about the implementation of the Protocol can be found in the Scheme of Investigations (Section 9) and in Appendix I.

7.5 Palaeogeographic assessment

- 7.5.1 Within the Marine Cable Corridor, one palaeogeographic feature of high archaeological potential has been identified, along with a further 16 with medium archaeological potential (Appendix IV Marine Archaeology Technical Report within Appendix 14.1 of the ES).
- 7.5.2 Vibrocore 735-VC-B02-046 (high priority) underwent Stage 2 geoarchaeological assessment in August 2018. The core was described in detail and the results are presented in Appendix 14.1 of the ES (within Appendix VIII Marine Archaeology Technical Report).
- 7.5.3 It has been recommended that samples from Vibrocore 735-VC-B02-046 should be subject to Stage 3 palaeoenvironmental assessment and dating.
- 7.5.4 Should any further geotechnical sampling be planned (e.g. vibrocore or borehole) within the Marine Cable Corridor at the post-consent/ pre-construction phase, provision should be made for archaeological advice at the planning stage of the geotechnical survey, to ensure that the survey methods will maximise the results for archaeological investigation.



8 METHOD STATEMENTS

- 8.1.1 This Outline WSI provides a framework for further archaeological investigations for the Proposed Development. All works will need to be undertaken in accordance with the methodology set out within the approved WSI and in compliance with the standards outlined by the ClfA (ClfA 2014a-g), excepting where they are superseded by statements made below.
- 8.1.2 Detailed method statements will be produced, as required, for further archaeological works, such as those identified in the 'Scheme of Investigations' section, below. Each archaeological method statement will correspond to a package of works, for example, archaeological assessment of marine geophysical data, archaeological assessment of ROV data from the UXO survey.
- 8.1.3 Method statements will provide details about:
- Form of commission and contractual relationship with the Developer;
 - Relation between the method statement, the WSI and the license condition(s);
 - Context in terms of relevant construction works;
 - Specific objectives of archaeological works;
 - Extent of investigation;
 - Investigation methodology
 - Anticipated post-investigation actions, including processing, assessment and analysis of finds and samples;
 - Reporting;
 - Timetable;
 - Monitoring arrangements; and
 - Health, safety and welfare.
- 8.1.4 Method statements will be submitted four months prior to the planned commencement of works, to the MMO for consultation with the Archaeological Curators for approval. The method statements will include provision for the MMO and relevant Archaeological Curators to monitor the progress of the archaeological works.



9 SCHEME OF INVESTIGATIONS

9.1 Introduction

- 9.1.1 The Mitigation section (Section 7) above provided a brief overview of the types of further archaeological investigations recommended for archaeological receptors, as set out in Chapter 14 (Marine Archaeology) of the ES. This Scheme of Investigations section sets out how these investigations will be undertaken.
- 9.1.2 The Retained Archaeologist will provide input on Contractors' proposed survey method statements to ensure data collection is optimised so that it can be used to identify and characterise features of archaeological importance that could be impacted by development works and inform mitigation proposals such as avoidance of wrecks and debris.
- 9.1.3 Method Statements must be submitted to the Archaeological Curator(s) for comment before the planned commencement of the survey.

9.2 Standards and guidance

- 9.2.1 The method statements and specifications in this document are based on archaeological best practice and guidance for offshore development. The principal sources are:
- *Code for Practice for Seabed Development* (Joint Nautical Archaeology Policy Committee (JNAPC) 2006);
 - Protocol for Archaeological Discoveries: Offshore Renewables Projects (TCE, 2014);
 - Marine Aggregate Dredging and the Historic Environment: Guidance Note (BMAPA and English Heritage (now Historic England 2005);
 - Protocol for reporting finds of archaeological interest (BMAPA 2005);
 - Offshore Geotechnical Investigations and Historic Environment Analysis: Guidance for the Renewable Energy Sector (Gribble and Leather, 2011);
 - Model Clauses for Archaeological Written Schemes of Investigation: Offshore Renewables Projects (TCE, 2010);
 - Standard and guidance for archaeological field evaluation (ClfA, 2014a);
 - Standard and guidance for nautical archaeological recording and reconstruction (ClfAe, 2014g);
 - Identifying and Protecting Palaeolithic Remains: Archaeological Guidance for Planning Authorities and Developers (English Heritage, 1998);
 - Military Aircraft Crash Sites: Guidance on their Significance and Future Management (English Heritage, 2002);
 - Conservation Principles, Policies and Guidance for the Sustainable Management of the Historic Environment (English Heritage, 2008);
 - Ships and Boats: Prehistory to Present – Designation Selection Guide (Historic England, 2012);
 - Marine Geophysics Data Acquisition, Processing and Interpretation Guidance Notes (English Heritage, 2013);



- Environmental Archaeology: a guide to the theory and practice of methods, from sampling and recovery to post-excavation (English Heritage, 2011);
- Geoarchaeology: using earth sciences to understand the archaeological record (Historic England, 2015b);
- Preserving Archaeological Remains: Decision-taking for Sites under Development (Historic England, 2016); and,
- *Our Seas – A Shared Resource: High Level Marine Objectives* (Department for Environment, Food and Rural Affairs (DEFRA), 2009).

9.3 Archaeological exclusion zones

- 9.3.1 In situ preservation is favoured by government policy and international best practice as the first option (Wessex Archaeology, 2007), and the principle means used to preserve in situ any features or deposits of potential or known archaeological interest are AEZs. AEZs are placed around discrete sites, or more extensive areas identified by the impact assessment, and prohibit development related activities within their extents, however they do not restrict remote survey work or other activities that do not impact the seabed. The TCE document Model Clauses for Archaeological Written Schemes of Investigation (TCE, 2010) states that AEZs are formed by establishing a buffer around the known extents of sites for which the available evidence suggests that there could be archaeological material present on the seabed.
- 9.3.2 The final development layout will consider the locations of all AEZs. All AEZs will be marked on the scheme masterplans. The Developer will require its Contractor(s) to conduct all construction activity in such a way as to prevent any impacts by construction or related works within any AEZs, and keep records that this can be evidenced, if required.
- 9.3.3 Once established, AEZs may be altered (enlarged, reduced, moved or removed) as a result of further archaeological assessment of data or field evaluation, however, the alteration of AEZs will only be undertaken with the agreement of the relevant stakeholders and approved by HE and the MMO.
- 9.3.4 If it becomes apparent that activities have taken place within any AEZ without prior consent, the party responsible will obtain advice from the Retained Archaeologist in accordance with their obligations with respect to the WSI, and the AEZ may require monitoring to determine the level and extent of impact.
- 9.3.5 The AEZs recommended for sites in the Marine Cable Corridor are summarised in Table 2 (Figures 3-6).

Table 2 Sites recommended for AEZs in the Marine Cable Corridor

WA_ID	Discrimination	Easting	Northing	Description	Buffer (m)
70018	A1	638700	5627005	Large magnetic anomaly	100
70204	A1	657334	5612253	Debris field	100
70193	A1	654006	5613141	Wreck	100
70184	A1	648958	5617761	Wreck	100

- 9.3.6 Due to the potential significance of known sites, AEZs are recommended around all A1 anomalies, including the two wrecks within the Marine Cable Corridor. The AEZs consist of 100 m around the extents of the wrecks, as recorded in the sonar data and multi-beam data. Both receptors have corresponding UKHO records. Of the non-wreck A1 anomalies,



anomaly 70018 was identified on the magnetometer data having a large dipole, indicating significant amounts of ferrous material, whilst anomaly 70204 is a debris field comprising of numerous dark objects with height and some straight linear features. It also corresponds with a very large magnetic anomaly indicating a significant amount of ferrous material.

9.4 Micrositing

9.4.1 Where possible, HVDC Marine Cables, jack-up legs on vessels and/ or anchors of other vessels will be microsited to avoid the AEZs and A2 geophysical anomalies of archaeological potential.

9.5 Marine geophysical investigations

9.5.1 No surveys solely for archaeological purposes are currently planned, however, there is potential for further geophysical surveys to be undertaken as part of a UXO assessment and covering areas where there are data gaps. Therefore, the Developer will allow for archaeological involvement in the planning, acquisition and review of further geophysical surveys related to the UXO survey and/ or any further geophysical investigations, should they be undertaken where practicable. In the event that further work is recommended by the Retained Archaeologist, Historic England must be contacted to discuss the scope and evidential value of such works. This is to ensure that the extent, coverage and line spacing of geophysical survey data, and its associated capabilities and limitations, can be weighed against the high potential for archaeological remains within the upper layers of seabed stratigraphy.

9.5.2 For all aspects of marine geophysical investigations, the Developer will adhere to applicable standards and guidance. For example, geophysical surveys will be undertaken in line with Marine Geophysics Data Acquisition, Processing and Interpretation (English Heritage, 2013) and the Model Clauses (TCE, 2010).

9.5.3 The specification of any proposed marine geophysical survey whose primary aim is non-archaeological (i.e.: UXO, engineering or environmental) will be subject to advice from the Retained Archaeologist to ensure that archaeological input is provided at the planning stage and to enable archaeological considerations to be considered without compromising the primary objective of the survey. The archaeological input will comprise advice from an appropriately qualified marine archaeologist on the following points:

- available details of sites and/ or anomalies identified in the desk-based technical report and archaeological assessment of geophysical survey data (Wessex Archaeology, 2018);
- archaeological potential of areas where no existing sites and/ or anomalies are yet known;
- geophysical sources/ equipment;
- methodologies, including survey specifications, spacing and orientation of lines and cross lines;
- source/ equipment settings; and
- requirements for post-processing, interpreting and archiving resulting data.

9.5.4 Where archaeological objectives have been added to a survey whose primary objectives are non-archaeological, consideration will be given to having an archaeologist or geophysicist with appropriate archaeological experience on-board during the acquisition of data. The on-board representative responsible for archaeology will advise on the suitability



for archaeological purposes of the data being acquired and be able to propose, through communication with the Retained Archaeologist, minor changes to the survey method, settings, etc., in order to optimise archaeological results, and thereby minimise the need to repeat surveys.

- 9.5.5 Should any surveys be carried out primarily for archaeological purposes, the specification should be prepared by a suitably qualified archaeologist or marine geophysicist. In addition, the survey should be carried out by a survey company with appropriate archaeological expertise and including geophysicists with appropriate archaeological expertise on board, if required.
- 9.5.6 The results of further geophysical interpretation will be compiled as an Archaeological Report by the Retained Archaeologist, consistent with the provisions on reporting within this WSI (Section 12.3).

9.6 Marine geoarchaeological investigations

- 9.6.1 The Stage 1 geotechnical assessment reviewed logs from 94 vibrocores; seventy-seven have been assigned low priority status, sixteen medium priority status, and one was assigned high priority status. Vibrocore 735-VC-B02-046 (high priority) underwent Stage 2 geoarchaeological recording and may be subject to Stage 3 sampling and assessment, consisting of sub-sampling and palaeoenvironmental assessment. More detail about geoarchaeological assessment can be found in the Model Clauses document (TCE, 2010).
- 9.6.2 Further recommendations can be provided should any further stages of geoarchaeological assessment be deemed necessary, through to Stage 5, if required. Reporting will be undertaken following Section 12.3.

Further geotechnical sampling

- 9.6.3 Should any further geotechnical sampling be planned (e.g. vibrocore or borehole) within the Marine Cable Corridor, provision should be made for archaeological advice at the planning stage of the geotechnical survey, to ensure that the survey methods and locations will maximise the results for archaeological investigation. Archaeological advice will be compliant with recommendations set out in the Model Clauses document (TCE, 2010), and Offshore Geotechnical Investigations and Historic Environment Analysis: Guidance for the Renewable Energy Sector (Gribble and Leather, 2011). The advice will specifically include recommendations for the locations of geotechnical sampling, for example highlighting areas of Pleistocene/ Early Holocene archaeological potential, as well as providing a detailed methodology for assessment. Material needs to be retrieved in a manner so that the whole sequence can be sampled and reviewed, in the most continuous sequence possible. In addition, there should be archaeological advice at the outset to determine methods for subsequent storage of recovered material.
- 9.6.4 As part of the survey planning, and prior to survey works commencing, a method statement covering the geotechnical programme of work will be provided to the Archaeological Curator(s) for comment and approval by the MMO.
- 9.6.5 Method statements will include clear provisions for the development of a collection, retention and storage strategy for cores, to allow for analysis to take place. It will be recommended for cores to be collected using light-proof sleeves, and that cores must be stored and split under light-safe (dark) laboratory conditions, in order to promote the preservation of the integrity of deposits of a certain age.



9.7 Archaeological assessment of UXO ROV survey data

- 9.7.1 The Developer has indicated that a UXO survey may be undertaken to assess the potential for UXO material on and/ or under the seabed. The UXO survey is expected to include high resolution geophysical survey, and potentially, ROV video survey and diver survey. Ground truthing of at least 10% of all archaeological contacts, including those where impacts are less likely should be undertaken for ROV and diver survey. With regards to any geophysical survey, the Geophysical Survey (Section 9.5) should also be referred to. In addition, archaeological advice must be sought at the planning stage of a UXO survey in order to maximise the results for archaeological assessment.
- 9.7.2 Archaeological advice will include:
- details of AEZs within the development area. Should there be any potential for impact, these should be incorporated into the survey for the purposes of archaeological review;
 - details of the A2 geophysical anomalies within the development area. Should there be any potential for impact, these should be incorporated into the survey for the purposes of archaeological review;
 - the archaeological potential of areas where no existing sites and/ or anomalies are yet known;
 - the type and level of ROV/ diver positioning, video/ still recording to be utilised;
 - the use of laser siting to provide a scale for seabed features; and
 - the provision of clear guidance on the types of sites and finds that are to be reported and recorded, and the level of recording required for sites of archaeological potential.
- 9.7.3 Archaeological advice in the development of the survey methodology is particularly important in relation to the large number of A2 anomalies within the Marine Cable Corridor, with particular concentrations visible closer to shore, between KP 1.0 and KP 4.7 where cable laying barges require a 4 - 8 point mooring system to carry out HDD works and installation activities at low tide (**Figure 6**). A large number of these are magnetic anomalies without any associated material visible on the seabed, and if these anomalies will potentially be impacted, they will need to be effectively identified and accurately positioned. Therefore, it is recommended that any ROV be equipped with a small dredge and excavating arm to expose buried material.
- 9.7.4 A method statement should be prepared for a UXO survey, including archaeological objectives and requirements.
- 9.7.5 Data collected during a UXO survey should be reviewed by an appropriately qualified and experienced archaeologist. The assessment will include any investigation reports, video stills, video data, blue view sonar or other geophysical data, and the location and nature of any obstructions encountered.
- 9.7.6 The results of the archaeological assessment would need to be disseminated, as per Reporting (Section 12.3). The reporting must include the investigative and visual outcomes, which can provide insightful and significant information.



9.8 Archaeological investigations using divers and/or ROVs

- 9.8.1 The Model Clauses document (TCE 2010: 21) states that the developer should seek archaeological input at the planning stages of any proposed diver/ ROV surveys undertaken primarily for engineering, ecological, or other purposes (such as obstruction or boulder clearance), in order to maximise the potential benefits. Archaeological input could include advice from the Retained Archaeologist on whether the surveys are likely to cover any areas of archaeological interest, such as AEZs, A2s, areas where unexpected discoveries have been made, and areas of archaeological potential, or whether the surveys are not likely to be of archaeological interest.
- 9.8.2 Therefore, archaeological advice should be sought at the planning stages for any ROV and/or diver surveys, for example undertaken as part of route clearance or other activities, and, if appropriate, a separate method statement could be produced, in order to maximise the survey results for archaeological assessment.
- 9.8.3 These surveys could be used to validate, alter or remove existing AEZs, in conjunction with discussions with the Archaeological Curator(s), or to identify and characterise material on the seabed, for example A2 geophysical anomalies or unexpected discoveries.

9.9 Archaeological watching briefs

- 9.9.1 For the proposed marine works, due to their nature, no Archaeological Watching Briefs are proposed, and the Protocol will be used to deal with any finds of unexpected archaeological material that come to light during construction. Should archaeological material of high archaeological importance be reported through the Protocol, an archaeological watching brief could be instituted, following discussions with the Archaeological Curators and agreement with the MMO. The archaeological watching brief would require a works specific method statement, which would be based on the specifics in this WSI and would be undertaken in line with the Standard and Guidance for an archaeological watching brief (ClfA, 2014c), and should be approved by the Archaeological Curator(s) prior to works being undertaken.
- 9.9.2 For the proposed HDD works at Landfall, where exit pits are required, an archaeological watching brief could be instituted, following further details of the final design and likely methods to be utilised. The archaeological watching brief would require a specific method statement, and should be approved by the Archaeological Curator(s) prior to works being undertaken.

9.10 Protocol for archaeological discoveries (The Protocol)

- 9.10.1 The Protocol is a safety net for any unexpected discoveries made during the course of development works. In the instances where the Developer and/ or their representative have made provision for other archaeological investigations (for example archaeological assessment of ROV survey data), then the archaeological method statement relating to this provision will take precedence. However, where no specific archaeological provision has been made, then reporting should be made through the Protocol. Protocols have been successfully applied across a wide range of marine industries, such as marine aggregates (BMAPA and English Heritage (now Historic England) 2003, 2005), and offshore renewables (ORPAD, The Crown Estate 2010; 2014). This Protocol has been set out in accordance with The Crown Estate Protocol for Archaeological Discoveries Offshore Renewables Projects (2010).
- 9.10.2 Any discoveries by Project Staff are reported to a Site Champion on their vessel or site (usually the senior person on-board or on site). The Site Champion could be a UXO



specialist, Vessel Master, a Construction Foreman, or any other person in a position to control the immediate works. The Site Champion then reports to the Nominated Contact, who has been formally identified by the Developer and/ or their representative to co-ordinate the implementation of the Protocol. The Nominated Contact will in turn inform the Implementation Service and the Developer's Project Manager(s). A detailed flow chart can be found in **Appendix 1**.

- 9.10.3 The Implementation Service will in turn liaise with the Nominated Contact, the Developer and/ or their representative, the Archaeological Curators and others, as necessary. Provision will be made by the Developer and/ or their representative, in accordance with the Protocol, for the prompt reporting/ recording of archaeological remains encountered or suspected during the works. If the find constitutes 'wreck' within the terms of the *Merchant Shipping Act 1995*, then the Implementation Service will also make a report to the Receiver of Wreck within 28 days of recovery. Should a find comprise material suspected to be from an aircraft lost while in military service, the MoD will be notified, as the material could be protected under the Protection of Military Remains Act 1986.
- 9.10.4 For discoveries of high archaeological importance, call-out investigations could be instituted, following discussions with the Archaeological Curators.
- 9.10.5 As the Protocol is designed to operate when an archaeologist is not present, it is recognised that for the Protocol to be effective, participants (such as the Nominated Contact, Site Champions and Project Staff) should receive Protocol Awareness training. Project Staff involved with the following works in particular should undergo training: UXO survey(s), pre-lay grapnel runs, clearance works, and any other works with potential for the discovery of material on the seabed and/ or recovery of material to the surface. This will ensure that staff are familiar with the Protocol, are able to recognise finds of archaeological potential, understand how to record them, and are aware of the reporting process.
- 9.10.6 Protocol Awareness talks can be undertaken by the Implementation Service for all relevant staff, through short 'Toolbox Talks', and hard copies of the Protocol can be made available for use on board vessels. The relevant staff on all pre-construction, construction, operations and maintenance and decommissioning vessels will be informed of the Protocol, details of the find types that may be of archaeological interest, and the potential importance of any archaeological material encountered. The Developer and/ or their representative should ensure that all staff are aware of any areas to be considered to be of archaeological sensitivity and should be informed to exercise due vigilance during any works in these areas.
- 9.10.7 Full contact details for all relevant parties will be held by the Retained Archaeologist.

9.11 Post Construction Monitoring

- 9.11.1 If appropriate and in discussion with the Archaeological Curator(s), Archaeological Method Statement(s) may be developed for post-construction monitoring. They would include provision for the archaeological assessment of post-construction monitoring survey data, particularly in relation to AEZs and A2 geophysical anomalies in areas of potential impact from the development (either through direct or indirect impact), as well as areas where unexpected discoveries of archaeological interest were made during development works.



10 FINDS AND ENVIRONMENTAL

10.1 Finds

General

- 10.1.1 All artefacts identified from material recovered will be retained, processed and recorded in accordance with the ClfA's Standard and Guidance for Archaeological Field Evaluations (ClfA, 2014a) and Standard and guidance for the collection, documentation, conservation and research of archaeological material (ClfA, 2014b).
- 10.1.2 All finds and other items of archaeological interest recovered from the seabed have an owner, but the law regarding ownership varies according to the character of the material, the environment in which it was found and national legislation. For example, finds and other items of archaeological interest recovered offshore in the course of investigation are generally the property of TCE as the landowner, with the exception of all human remains, 'wreck' for the purposes of the Merchant Shipping Act 1995, and material covered by the Protection of Military Remains Act 1986.
- 10.1.3 From the point of discovery, all finds will be held by the Developer and/ or their representative or the Retained Archaeologist in appropriate conditions pending further recording, investigation, study or conservation. Apart from items with ownership identified by the Receiver of Wreck which may require further investigation, ownership will be transferred to the institution receiving the archive, unless other arrangements are agreed with the Archaeological Curator(s).
- 10.1.4 Unexpected artefacts that are exposed or recovered in the course of the scheme of works will be reported through the Protocol.
- 10.1.5 Recovered objects that require immediate conservation treatment to prevent deterioration will be treated according to guidelines laid down in First Aid for Finds (Watkinson and Neal, 1998) and First Aid for Underwater Finds (Robinson, 1998). A full record will be made of any treatment given. These recovered finds will be primarily conserved, bagged and boxed in accordance with guidelines set out in the United Kingdom's Institute for Conservation (UKIC)'s Conservation Guidelines No 2 (UKIC, 1984). Any objects that are recovered will be selected, retained or disposed of in accordance with the policy agreed with the institution receiving the archive, and in consultation with the Archaeological Curator(s).
- 10.1.6 Subject to the agreement reached with the receiving institution regarding selection, retention and disposal of material, the Retained Archaeologist will retain all recovered objects unless they are undoubtedly modern debris and/ or of no archaeological interest. Any objects discarded will, however, be noted on object records and in the project database. In these circumstances, sufficient material will be retained to characterise the date and function of the deposit from which it was recovered, if applicable.
- 10.1.7 In the event of the discovery of items that may be eligible for legal protection, the Contractor will immediately notify the Retained Archaeologist, who will notify the relevant legal authority as soon as possible.
- 10.1.8 The Retained Archaeologist will prepare and implement a finds monitoring and maintenance programme, which will cross reference finds to management/ monitoring systems maintained by the Retained Archaeologist.
- 10.1.9 Contingency will be made for specialist advice and conservation needs on-site should unexpected, unusual, or extremely fragile and delicate objects be recovered, and the advice



and input from an appropriate Conservation Specialist will be sought through the Retained Archaeologist. A range of internal and external specialists will be consulted as appropriate.

10.2 Ordnance

- 10.2.1 If items of ordnance are discovered, they will be treated with extreme care. Company Health & Safety policies and established operational procedures should always take priority over archaeological reporting of munitions and ordnance.
- 10.2.2 Depending on the item's age, ordnance may be of archaeological interest, and therefore if it is safe to do so, it should be recorded and reported.
- 10.2.3 Any firearms and ammunition are likely to be subject to the Firearms Acts (various dates). Ammunition should be regarded as ordnance, regardless of its size.

10.3 Human remains

- 10.3.1 Any human remains (articulated or disarticulated, cremated or unburnt) discovered, will be left in situ, covered and protected. A Ministry of Justice licence will be obtained by the Retained Archaeologist before any further excavation (including where remains are to be left in situ). Following discussions with the Developer and/ or their representative and the Archaeological Curator(s), and with advice from an osteoarchaeologist, the Retained Archaeologist will determine the need for and appropriateness of their excavation/ removal or sampling as part of the evaluation. Should human remains require excavation, they will be fully recorded, excavated and removed from the site in compliance with the terms of the Ministry of Justice licence.
- 10.3.2 Any excavation and post-excavation processing of human remains will be undertaken in accordance with current guidance documents (e.g., McKinley, 2013) and ClfA standards (McKinley and Roberts, 1993). Appropriate specialist guidance will be provided by an osteoarchaeologist, with site visits undertaken if required. The final deposition of human remains, following analysis, will be in accordance with the terms of the Ministry of Justice licence.

10.4 Treasure

- 10.4.1 The Retained Archaeologist will immediately notify the Developer and/or their representative and the Archaeological Curator(s) on discovery of any material covered, or potentially covered, by the Treasure Act 1996 (as amended by The Coroners and Justice Act 2009). All information required by the Treasure Act (i.e., finder, location, material, date, associated items etc.) will be reported to the Coroner within 14 days. Items falling under the Treasure Act will be removed from the site by the Retained Archaeologist and stored in a secure location, pending a decision by the Coroner.

10.5 Aircraft

- 10.5.1 The majority of aircraft wrecks are military and therefore fall under the *Protection of Military Remains Act 1986*. All military aircraft crash sites in the UK, its territorial waters, or British aircraft in international waters, are controlled sites under this Act. It is an offence under this Act to tamper with, damage, move or unearth any items at such sites, unless the Ministry of Defence (MoD) has issued a licence authorising such activity. Consequently, anyone wishing to recover a military aircraft or excavate a military aircraft crash site in the UK is required to obtain a licence from the Joint Casualty and Compassionate Centre (JCCC). A licence is required irrespective as to whether the aircraft was in the service of another nation's armed forces.



10.5.2 Any finds that are suspected of being military aircraft will be reported immediately to the Retained Archaeologist. In the case of a military aircraft being investigated under licence, any human remains will be reported immediately.

10.6 Wreck

10.6.1 Archaeological artefacts that have come from a ship are 'wreck' for the purposes of the Merchant Shipping Act 1995. The Developer, via the Retained Archaeologist, should ensure that the Receiver of Wreck is notified within 28 days of recovery, for all items of wreck that have been recovered.

10.7 Environmental

10.7.1 Deposits (i.e. sediments) of archaeological/historical/cultural interest that do not comprise artefactual remains will not be considered to be 'finds' but may be subject to sampling. Any artefactual material subsequently discovered in the course of processing such samples would be treated as finds thereafter.

10.7.2 The method statement for each programme of archaeological work will set out the environmental sampling strategies and methods – including methods for processing, assessing and/or analysing samples.

10.7.3 Approaches and methods will be consistent with Environmental Archaeology: a guide to the theory and practice of methods, from sampling and recovery to post-excavation (English Heritage, 2011) and Geoarchaeology: using earth sciences to understand the archaeological record (Historic England, 2015b).

10.8 Conservation and storage

10.8.1 All recovered materials, from land or underwater, will be subject to a Conservation Assessment to gauge whether special measures are required while the material is being held. This Conservation Assessment will be carried out by the Retained Archaeologist or an Archaeological Contractor with an appropriate level of expertise, with advice from appropriate specialists. The Retained Archaeologist or an Archaeological Contractor with appropriate expertise will implement recommendations arising from the assessment. If no special measures are recommended, finds will be conserved, bagged, boxed and stored in accordance with industry guidelines (ClfA 2014b) and the Museums and Galleries Commissions Standards in the Museum Care of Archaeological Collections (1992).

11 POST-EXCAVATION AND REPORTING

11.1 Finds

11.1.1 All artefacts identified from material recovered will be retained, processed and recorded in accordance with the ClfA's *Standard and Guidance for Archaeological Field Evaluations* (ClfA, 2014a) and *Standard and guidance for the collection, documentation, conservation and research of archaeological material* (ClfA, 2014b).

11.1.2 All retained finds will, as a minimum, be weighed, counted and identified. They will then be recorded to a level appropriate to the aims and objectives of the investigation. The report will include a table of finds by period and/or feature group.

11.1.3 Metalwork from stratified contexts will be X-rayed and, along with other fragile and delicate materials, stored in a stable environment. The X-raying of objects and other conservation



needs will be undertaken by the Retained Archaeologist's in-house conservation staff, or by another approved conservation centre.

- 11.1.4 Artefacts and other finds will be suitably bagged and boxed in accordance with the guidance given by the relevant museum and generally in accordance with the standards of the ClfA (2014b).

11.2 Environmental

- 11.2.1 Bulk environmental soil samples will be processed by standard flotation methods and scanned to assess the environmental potential of deposits. The flot will be retained on a 0.25 mm mesh, with residues fractionated into 5.6/4 mm, 2 mm, 1 mm and 0.5 mm and dried if necessary. Coarse fraction (>5.6/4 mm) will be sorted, weighed and discarded, with any finds recovered given to the appropriate specialist. Finer residues will be retained until after any analyses and discarded following final reporting (in accordance with the Selection policy, below).
- 11.2.2 In the case of samples from cremation-related deposits the flots will be retained on a 0.25 mm mesh, with residues fractionated into 4 mm, 2 mm and 1 mm. In the case of samples from inhumation deposits, the sample will be artefact sieved through 9.5 mm and 1 mm mesh sizes. The coarse fractions (9.5 mm) will be sorted with any finds recovered given to the appropriate specialist together with the finer residues.
- 11.2.3 Any waterlogged or mineralised samples will be processed by standard waterlogged flotation methods.

11.3 Reporting

General

- 11.3.1 The report(s) will be prepared in accordance with the relevant Standards and Guidance documents produced by the ClfA, and will typically include the following elements:
- a non-technical summary;
 - the aims and methods of the work;
 - the results of the work including finds and environmental remains;
 - a statement of the potential of the results;
 - proposals for further analysis and publication;
 - appendices;
 - illustrations and appendices to support the report; and
 - references
- 11.3.2 A copy of the report(s) will be deposited with the National Record of the Historic Environment (NRHE), along with surveyed spatial digital data (.dxf or shapefile format) relating to the evaluation.

Publication

- 11.3.3 If no further mitigation works are undertaken, a short report on the results of the evaluation will be prepared for publication in a suitable journal, if considered appropriate and agreed with the Developer and the Archaeological Curator(s).



OASIS

- 11.3.4 An OASIS online record (<http://oasis.ac.uk/pages/wiki/Main>) will be created, with key fields completed, and a .pdf version of relevant reports submitted, within three months of each report being approved by the Developer. Copies of the OASIS record will be integrated into the relevant local and national records and published through the Archaeology Data Service ArchSearch catalogue. However, projects subject to any contractual requirements on confidentiality, or with the discovery of vulnerable sites, will only be uploaded to OASIS following confirmation from the Developer and/or Archaeological Curator(s).

12 ARCHIVE STORAGE AND CURATION

12.1 Museum

- 12.1.1 Every effort will be made to identify a suitable repository for the archive resulting from the investigation. If no suitable repository is identified, the Retained Archaeologist will continue to store the archive, but may institute a charge to the client for ongoing storage beyond a set period.
- 12.1.2 Deposition of any finds with the museum will only be carried out with the full agreement of The Crown Estate or the owner (as confirmed by the Receiver of Wreck).

12.2 Transfer of title

- 12.2.1 On completion of the investigation (or extended fieldwork programme), every effort will be made to persuade the legal owner of any finds recovered (i.e., The Crown Estate), with the exception of human remains and any objects covered by the Treasure Act 1996 (as amended by the Coroners and Justice Act 2009), to transfer their ownership to the museum or archive in a written agreement.

12.3 Preparation of archive

- 12.3.1 The complete project archive, which may include paper records, graphics, artefacts, ecofacts and digital data, will be prepared following the standard conditions for the acceptance of excavated archaeological material by the suitable repository that will accept the archive, and in general following nationally recommended guidelines (Society of Museum Archives (SMA) 1995; ClfA 2014d; Brown 2011; ADS 2013). The archive will usually be deposited within one year of the completion of the project, with the agreement of the Developer.
- 12.3.2 The relevant Archaeological Curator(s) and the Retained Archaeologist will agree with the receiving institution a policy for the selection, retention and disposal of recovered or excavated material, and confirm requirements in respect of the format, presentation and packaging of archive records and materials. The receiving institution will be notified in advance of any fieldwork.
- 12.3.3 All digital data will be considered part of the primary archive and will accord with the procedures recommended by The Crown Estate, Marine Environment Data and Information Network (MEDIN), Archaeological Data Service (ADS) and the accepting institution.
- 12.3.4 Data will be compiled in a format suitable for submission of Monument, Event and Source records for entry into the NRHE.



12.4 Selection policy

- 12.4.1 The selection policy should be based on national guidelines on selection and retention (SMA 1993; Brown 2011, section 4). In accordance with these, and any specific guidance prepared by the museum, a process of selection and retention will be followed so that only those artefacts or ecofacts that are considered to have potential for future study will be retained. The selection policy will be agreed with the museum, and fully documented in the project archive. Material not selected for retention may be used for teaching or reference collections by the museum, or by the Retained Archaeologist.

12.5 Security copy

- 12.5.1 In line with current best practice (e.g., Brown 2011), on completion of the project a security copy of the written records will be prepared in the form of a digital PDF/A file. PDF/A is an ISO-standardised version of the Portable Document Format (PDF) designed for the digital preservation of electronic documents through omission of features ill-suited to long-term archiving.

13 COPYRIGHT

13.1 Archive and report copyright

- 13.1.1 The full copyright of the written/illustrative/digital archive relating to the project will be retained by the Retained Archaeologist under the *Copyright, Designs and Patents Act 1988* with all rights reserved. The client will be licenced to use each report for the purposes that it was produced in relation to the project as described in the specification. The museum, however, will be granted an exclusive licence for the use of the archive for educational purposes, including academic research, providing that such use conforms to the *Copyright and Related Rights Regulations 2003*. In some instances, certain regional museums may require absolute transfer of copyright, rather than a licence; this should be dealt with on a case-by-case basis.
- 13.1.2 Information relating to the project will be deposited with the Historic Environment Record (HER) where it can be freely copied without reference to the Retained Archaeologist for the purposes of archaeological research, or development control within the planning process.

13.2 Third party data copyright

- 13.2.1 This document, the evaluation report and the project archive may contain material that is non-Wessex Archaeology copyright (e.g., Ordnance Survey, British Geological Survey, Crown Copyright), or the intellectual property of third parties, which the Retained Archaeologist will be able to provide for limited reproduction under the terms of our own copyright licences, but for which copyright itself is non-transferable by Wessex Archaeology. Users remain bound by the conditions of the *Copyright, Designs and Patents Act 1988* with regard to multiple copying and electronic dissemination of such material.

REFERENCES

- ADS 2013 *Caring for Digital Data in Archaeology: a guide to good practice*. Archaeology Data
- BMAPA and Historic England 2003 *Marine Aggregate Dredging and the Historic Environment*. Available online at http://www.bmapa.org/documents/arch_guidance.pdf, accessed July 2015
- BMAPA and Historic England 2005 *Protocol for Reporting Finds of Archaeological Interest*. Available online at <http://www.bmapa.org/documents/fullreportingprotocol2005.pdf>, accessed July 2015
- Brown, D H 2011 *Archaeological archives; a guide to best practice in creation, compilation, transfer and curation*, Archaeological Archives Forum (revised edition)
- Chartered Institute for Archaeologists (ClfA) 2014a *Standard and guidance for archaeological field evaluation*. Reading, ClfA
- Chartered Institute for Archaeologists (ClfA) 2014b *Standard and guidance for the collection, documentation, conservation and research of archaeological materials*. Reading, ClfA
- Chartered Institute for Archaeologists (ClfA) 2014c *Standard and guidance for an archaeological watching brief*. Reading, ClfA
- Chartered Institute for Archaeologists (ClfA) 2014d *Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives*. Reading, ClfA
- Chartered Institute for Archaeologists (ClfA) 2014e *Code of Conduct*. Reading, ClfA
- Chartered Institute for Archaeologists (ClfA) 2014f *Regulations for Professional Conduct*. Reading, ClfA
- Chartered Institute for Archaeologists (ClfA) 2014g *Standard and Guidance for nautical archaeology recording and reconstruction*. Reading, ClfA
- Chartered Institute for Archaeologists (ClfA) 2017 *Updated Guidelines to the Standards for Recording Human Remains*. Reading, ClfA
- Crown Estate, The 2010 *Model Clauses for Archaeological Written Schemes of Investigation: Offshore Renewables Projects*. Published guidance by Wessex Archaeology Ref 73830.
- Crown Estate, The 2014 *Protocol for Archaeological Discoveries: Offshore Renewables Projects*. Published by Wessex Archaeology, Salisbury, on behalf of The Crown Estate. (2nd issue, July 2014 (revised))
- Department of Energy & Climate Change (DECC) (2011a), *Overarching National Policy Statement for Energy (EN-1)*
- Department of Energy & Climate Change (DECC) (2011b), *National Policy Statement for Renewable Energy Infrastructure (EN-3)*



- Department for Environment, Food and Rural Affairs (DEFRA) 2009 *Our Seas – A Shared Resource: High Level Marine Objectives*;
- English Heritage (now Historic England) 1998 *Identifying and Protecting Palaeolithic Remains: Archaeological Guidance for Planning Authorities and Developers*;
- English Heritage (now Historic England) 2002 *Military Aircraft Sites: Guidance on their Significance and Future Management*;
- English Heritage (now Historic England) 2008 *Conservation Principles, Policies and Guidance for the Sustainable Management of the Historic Environment*;
- English Heritage (now Historic England) 2011 *Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation*. Second Edition
- English Heritage (now Historic England) 2013 *Marine Geophysics Data Acquisition, Processing and Interpretation Guidance Notes*
- Gribble J and Leather S 2011 *Offshore Geotechnical Investigations and Historic Environment Analysis: Guidance for the Renewable Energy Sector*. Prepared for EMU Ltd. For COWRIE 2011
- Hind, J. and Hey, G. 2014 *Solent-Thames: Research Framework for the Historic Environment*
- Historic England 2012 *Ships and Boats: Prehistory to Present – Designation Selection Guide*;
- Historic England 2015a *Management of Research Projects in the Historic Environment: the MoRPHE project managers' guide*. Swindon, Historic England
- Historic England 2015b *Geoarchaeology: Using Earth Sciences to Understand the Archaeological Record*. Swindon, Historic England
- Historic England 2015c *Managing Significance in Decision-Taking in the Historic Environment: Historic Environment Good Practice Advice in Planning: 2*.
- Historic England 2016 *Preserving Archaeological Remains: Decision-taking for Sites under Development*
- Joint Nautical Archaeology Policy Committee 2006 *Code of Practice for Seabed Development, JNAPC*
- McKinley, J I 2013 'Cremation: Excavation, Analysis, and Interpretation of Material from Cremation-Related Contexts' in S Tarlow and L Nilsson Stutz (eds) *The Oxford Handbook of the Archaeology of Death and Burial*. Oxford University Press 147-171
- McKinley, J I and Roberts, C 1993 *CIfA Technical Paper No 13 Excavation and post-excavation treatment of cremated and inhumed human remains*.
- Merritt, O., Parham, D., McElvogue, D. M. 2007, *Enhancing our Understanding of the Marine Historic Environment: Navigational Hazards Project*. Final Report. For English Heritage and the Aggregates Levy Sustainability Fund.



Museums and Galleries Commissions 1992 *Standards in the Museum Care of Archaeological Collections*

Ransley J, Blue, L, Dix J, and Sturt F. 2010 *Future Studies in Maritime Archaeology: England's Maritime and Marine Historic Environment Resource Assessment and Research Agenda*

Robinson, W 1998 *First Aid for Underwater Finds*. Archetype Publications Ltd

Society of Museum Archives (SMA) 1993 *Selection, Retention and Dispersal of Archaeological Collections*

Society of Museum Archives (SMA) 1995 *Towards an Accessible Archaeological Archive*

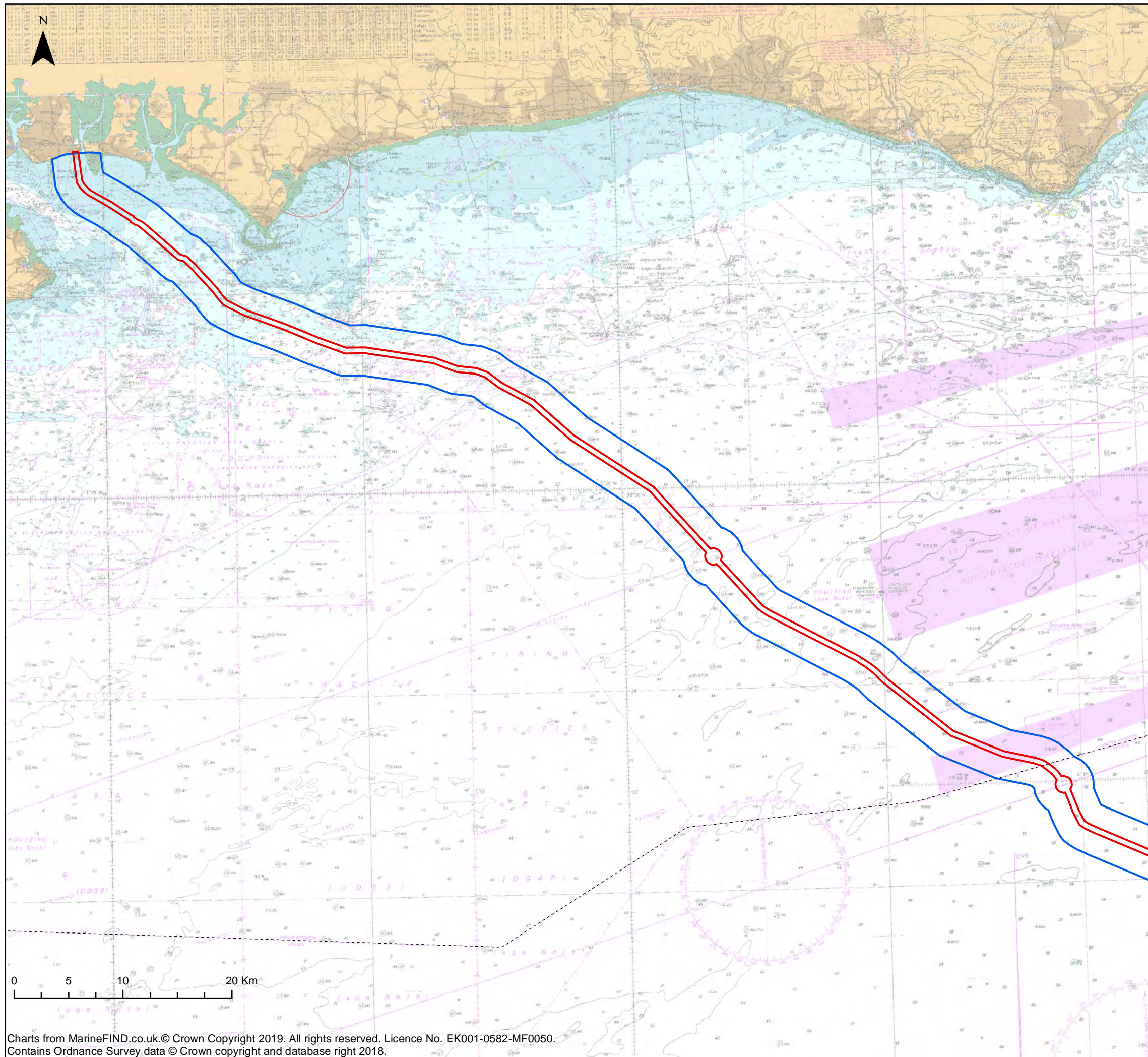
United Kingdom's Institute for Conservation (UKIC) 1984 *Conservation Guidelines No 2*

Watkinson, D and Neal, A V 1998 *First Aid for Finds*. United Kingdom Institute for Conservation and Rescue: The British Archaeological Trust

Wessex Archaeology 2007 *Historic Environment Guidance for the Offshore Renewable Energy Sector*, Published Guidance Note.

Wessex Archaeology and The Crown Estate 2010 *Model Clauses for Archaeological Written Schemes of Investigation: Offshore Renewables Projects*

Wessex Archaeology 2018 *Aquind Interconnector: Marine Works UK, Marine Archaeological Technical Report*. Unpublished Ref. 116960.01.



- AQUIND Interconnector**
- ▭ Marine Cable Corridor
- ▭ Archaeological Study Area (ASA) up to MHWS
- UK European Economic Zone (EEZ)

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

REV	DATE	BY	DESCRIPTION	CHK	APP
01	20/08/2019	KF	FINAL	SS	AB

DRAWING STATUS: **FINAL**



Head Office: Portway House, Old Sarum Park,
Salisbury, Wiltshire, UK SP4 6EB
www.wessexarch.co.uk

CLIENT:
AQUIND

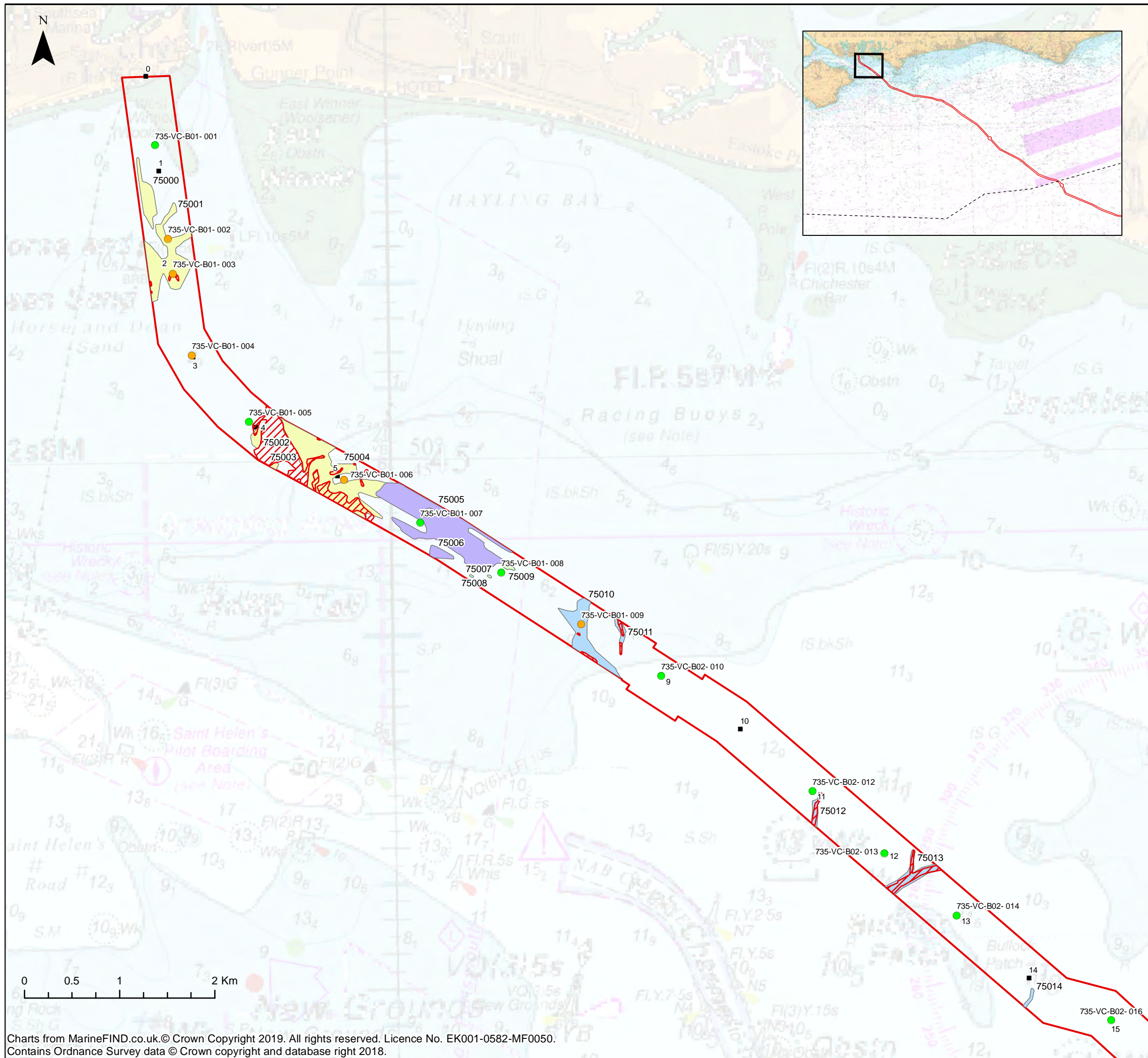
PROJECT:
AQUIND Interconnector

TITLE:
Figure 1 Location of Aquind Interconnector
Marine Cable Corridor (UK Sector)

SCALE AT A3 1:350,000	CHECKED: SS	APPROVED: AB
--------------------------	----------------	-----------------

PROJECT NO: EN020022	DESIGNED: KL/KJF	DRAWN: KL/KJF	DATE: 22/08/2019
-------------------------	---------------------	------------------	---------------------

DRAWING NO: EN 020022-WSI-1	REV.NO. 01
---------------------------------------	----------------------



- AQUIND Interconnector**
- Marine Cable Corridor
- - - UK European Economic Zone (EEZ)
- Kilometre Point (KP)
- Possible gas
- Channel
- Complex channel
- Fine-grained deposit
- Simple cut and fill
- Geoarchaeology Priority**
- Medium
- Low

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

REV	DATE	BY	DESCRIPTION	CHK	APP
01	20/08/2019	KF	FINAL	SS	AB

DRAWING STATUS: **FINAL**



Head Office: Portway House, Old Sarum Park,
Salisbury, Wiltshire, UK SP4 6EB
www.wessexarch.co.uk



PROJECT: **AQUIND Interconnector**

TITLE: **Figure 2a Seabed Features of Archaeological Potential**

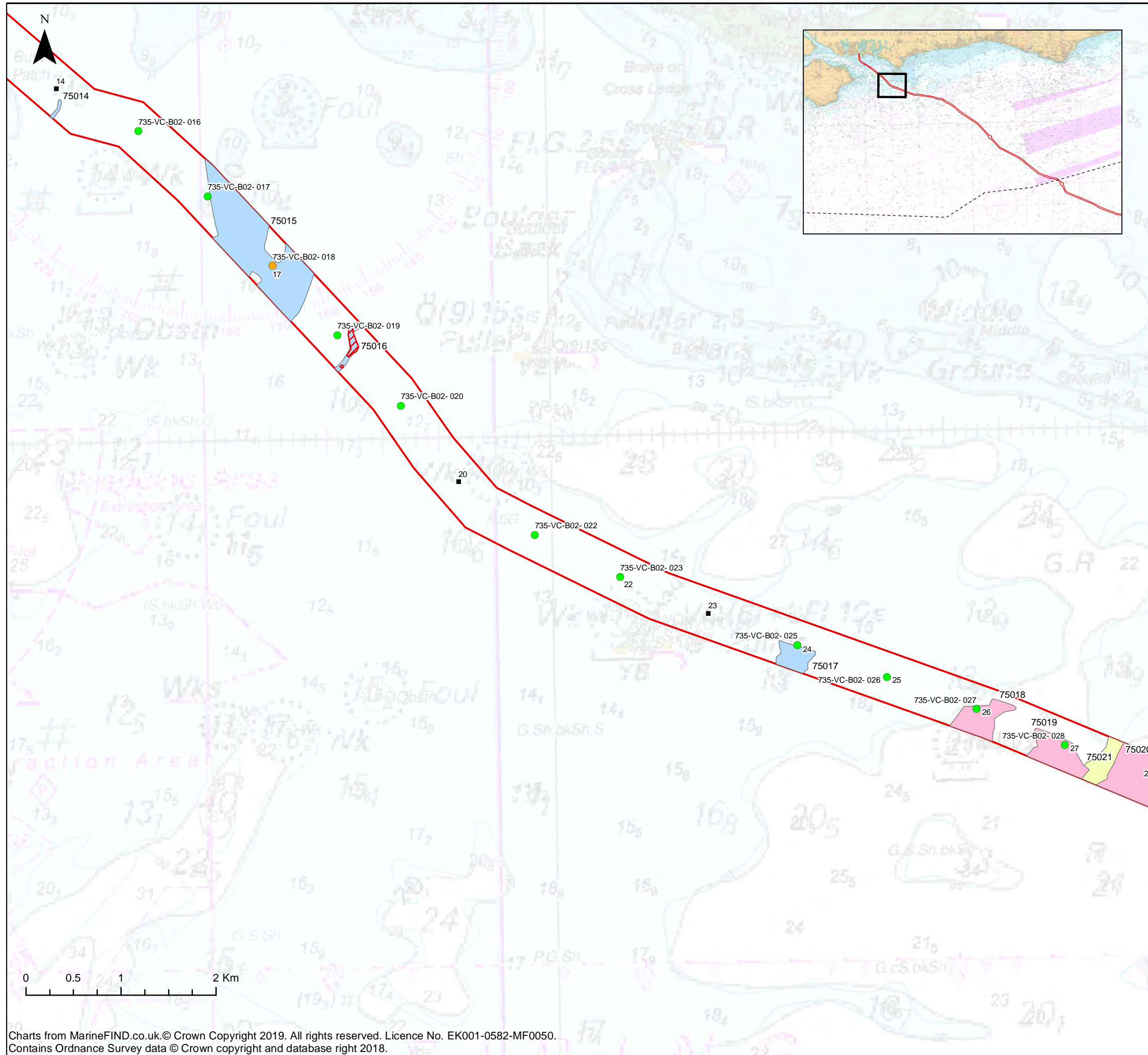
SCALE AT A3 1:40,000	CHECKED: SS	APPROVED: AB
-------------------------	----------------	-----------------

PROJECT NO: EN020022	DESIGNED: KL	DRAWN: KL/KJF	DATE: 22/08/2019
-------------------------	-----------------	------------------	---------------------

DRAWING NO: EN 020022-WSI-2	REV.NO: 01
---------------------------------------	----------------------

© WSP UK Ltd

Charts from MarineFIND.co.uk. © Crown Copyright 2019. All rights reserved. Licence No. EK001-0582-MF0050.
Contains Ordnance Survey data © Crown copyright and database right 2018.



- AQUIND Interconnector**
- ▭ Marine Cable Corridor
- UK European Economic Zone (EEZ)
- Kilometre Point (KP)
- Possible gas
- Channel
- Complex channel
- Erosion surface
- Geoarchaeology Priority**
- Medium
- Low

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

REV	DATE	BY	DESCRIPTION	CHK	APP
01	20/08/2019	KF	FINAL	SS	AB

DRAWING STATUS: **FINAL**



Head Office: Portway House, Old Sarum Park,
Salisbury, Wiltshire, UK SP4 6EB
www.wessexarch.co.uk

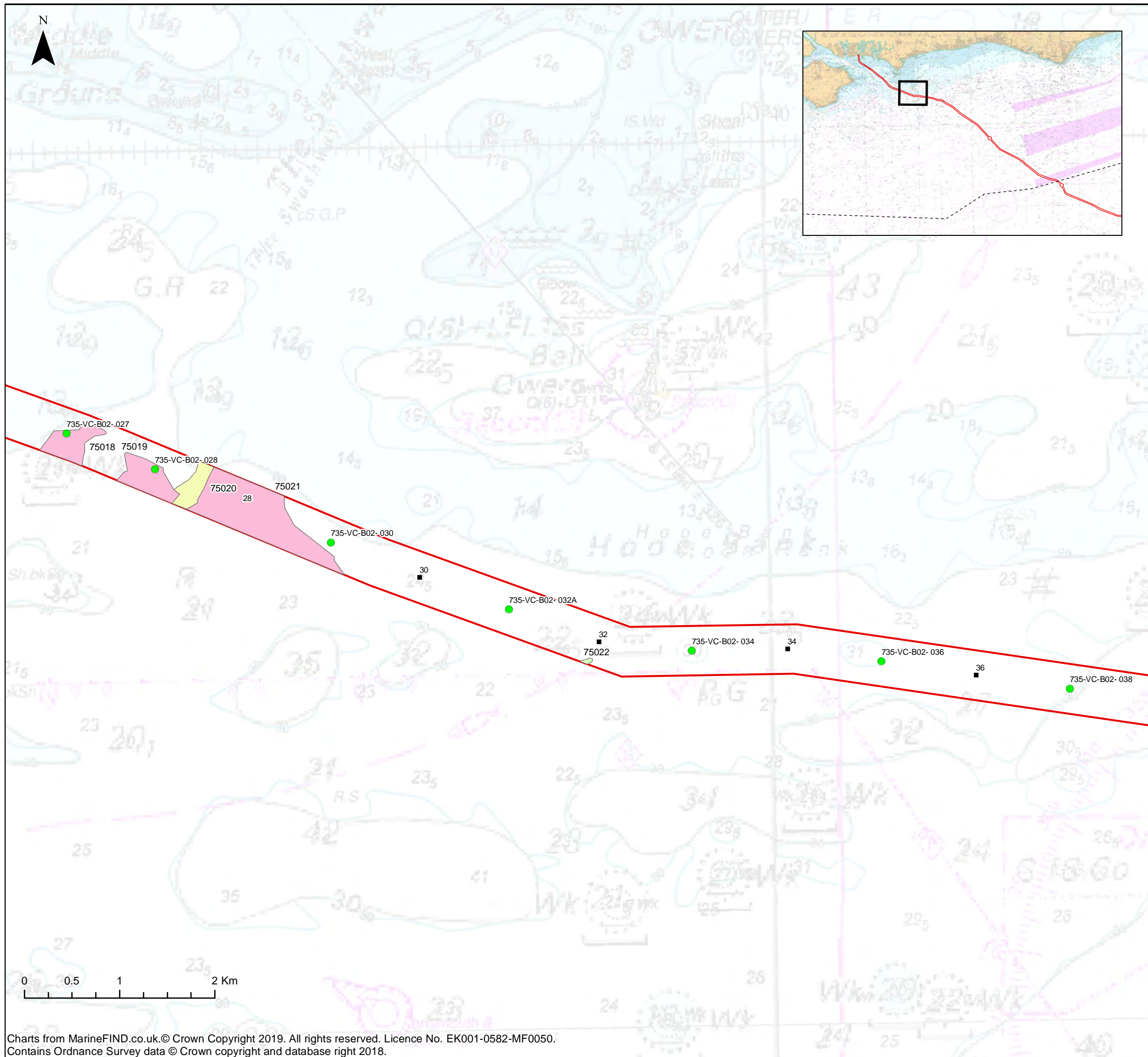


PROJECT:
AQUIND Interconnector

TITLE:
Figure 2b Seabed Features of Archaeological Potential

SCALE AT A3 1:40,000	CHECKED: SS	APPROVED: AB
PROJECT NO: EN020022	DESIGNED: KL	DRAWN: KL/KJF
DRAWING NO: EN 020022-WSI-2		REV.NO: 01

Charts from MarineFIND.co.uk. © Crown Copyright 2019. All rights reserved. Licence No. EK001-0582-MF0050. Contains Ordnance Survey data © Crown copyright and database right 2018.



- AQUIND Interconnector**
- Marine Cable Corridor
 - UK European Economic Zone (EEZ)
 - Kilometre Point (KP)
 - Complex channel
 - Erosion surface
 - Simple cut and fill
- Geoarchaeology Priority**
- Low

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

REV	DATE	BY	DESCRIPTION	CHK	APP
01	20/08/2019	KF	FINAL	SS	AB

DRAWING STATUS: **FINAL**



Head Office: Portway House, Old Sarum Park,
Salisbury, Wiltshire, UK SP4 6EB
www.wessexarch.co.uk



PROJECT:

AQUIND Interconnector

TITLE:

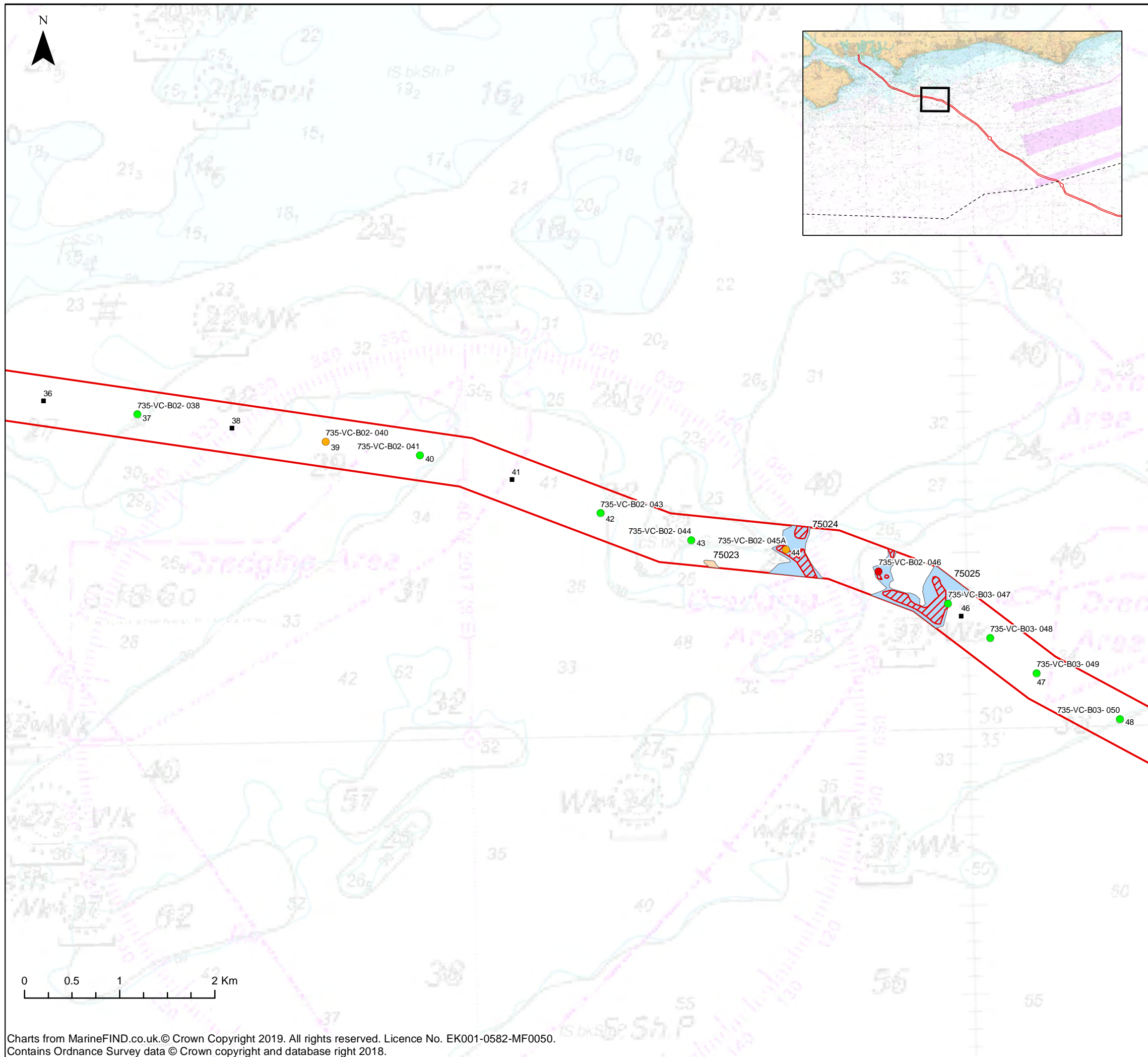
Figure 2c Seabed Features of
Archaeological Potential

SCALE AT A3 1:40,000	CHECKED: SS	APPROVED: AB
-------------------------	----------------	-----------------

PROJECT NO: EN020022	DESIGNED: KL	DRAWN: KL/KJF	DATE: 22/08/2019
-------------------------	-----------------	------------------	---------------------

DRAWING NO: EN 020022-WSI-2	REV.NO: 01
---------------------------------------	----------------------

© WSP UK Ltd



- AQUIND Interconnector**
- Marine Cable Corridor
- - - UK European Economic Zone (EEZ)
- Kilometre Point (KP)
- Possible gas
- Channel
- Complex cut and fill
- Geoarchaeology Priority**
- High
- Medium
- Low

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

01	20/08/2019	KF	FINAL	SS	AB
REV	DATE	BY	DESCRIPTION	CHK	APP

DRAWING STATUS: **FINAL**



Head Office: Portway House, Old Sarum Park,
Salisbury, Wiltshire, UK SP4 6EB
www.wessexarch.co.uk



PROJECT:

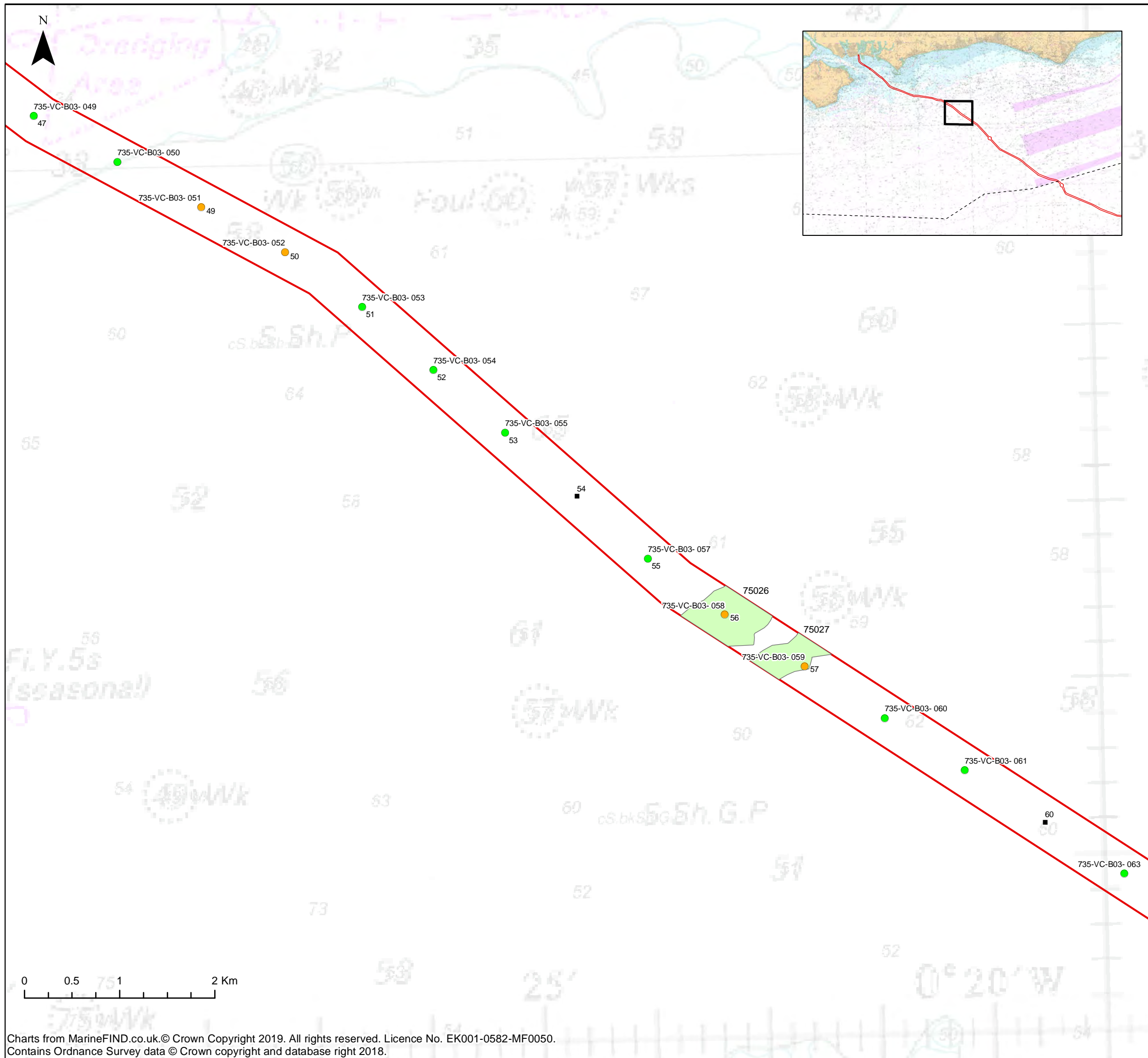
AQUIND Interconnector

TITLE:

Figure 2d Seabed Features of
Archaeological Potential

SCALE AT A3 1:40,000	CHECKED: SS	APPROVED: AB	
PROJECT NO: EN020022	DESIGNED: KL	DRAWN: KL/KJF	DATE: 22/08/2019
DRAWING NO: EN 020022-WSI-2			REV.NO. 01

Charts from MarineFIND.co.uk. © Crown Copyright 2019. All rights reserved. Licence No. EK001-0582-MF0050.
Contains Ordnance Survey data © Crown copyright and database right 2018.



- AQUIND Interconnector**
- ▬ Marine Cable Corridor
 - UK European Economic Zone (EEZ)
 - Kilometre Point (KP)
 - Simple cut and fill
- Geoarchaeology Priority**
- Medium
 - Low

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

REV	DATE	BY	DESCRIPTION	CHK	APP
01	20/08/2019	KF	FINAL	SS	AB

DRAWING STATUS: **FINAL**



Head Office: Portway House, Old Sarum Park,
Salisbury, Wiltshire, UK SP4 6EB
www.wessexarch.co.uk



PROJECT:
AQUIND Interconnector

TITLE:
Figure 2e Seabed Features of Archaeological Potential

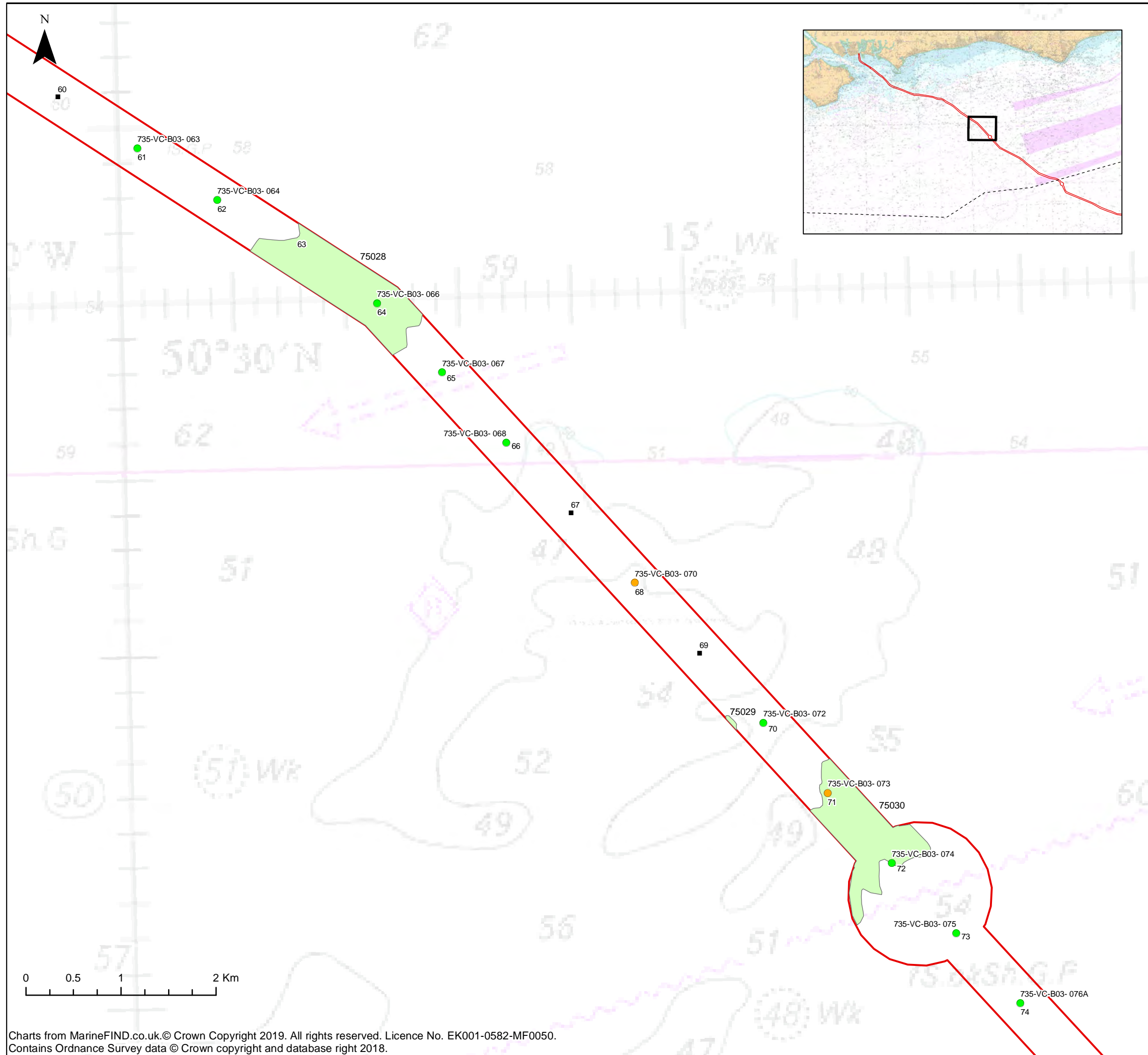
SCALE AT A3 1:40,000	CHECKED: SS	APPROVED: AB
-------------------------	----------------	-----------------

PROJECT NO: EN020022	DESIGNED: KL	DRAWN: KL/KJF	DATE: 22/08/2019
-------------------------	-----------------	------------------	---------------------

DRAWING NO: EN 020022-WSI-2	REV.NO: 01
---------------------------------------	----------------------

© WSP UK Ltd

Charts from MarineFIND.co.uk. © Crown Copyright 2019. All rights reserved. Licence No. EK001-0582-MF0050. Contains Ordnance Survey data © Crown copyright and database right 2018.



- AQUIND Interconnector**
- Marine Cable Corridor
 - UK European Economic Zone (EEZ)
 - Kilometre Point (KP)
 - Simple cut and fill
- Geoarchaeology Priority**
- Medium
 - Low

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

REV	DATE	BY	DESCRIPTION	CHK	APP
01	20/08/2019	KF	FINAL	SS	AB

DRAWING STATUS: **FINAL**



Head Office: Portway House, Old Sarum Park,
Salisbury, Wiltshire, UK SP4 6EB
www.wessexarch.co.uk



PROJECT: **AQUIND Interconnector**

TITLE: **Figure 2f Seabed Features of Archaeological Potential**

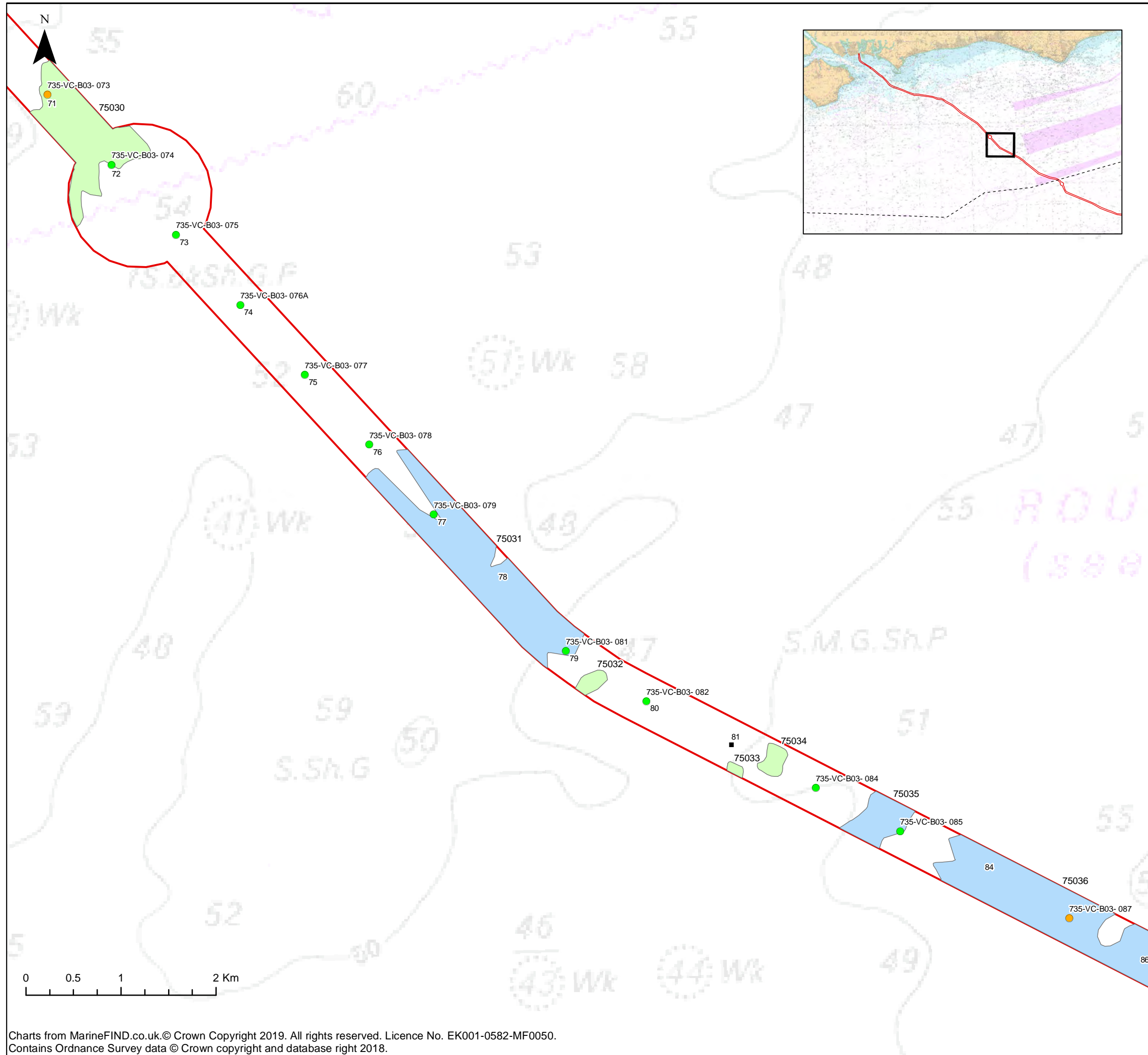
SCALE AT A3 1:40,000	CHECKED: SS	APPROVED: AB
-------------------------	----------------	-----------------

PROJECT NO: EN020022	DESIGNED: KL	DRAWN: KL/KJF	DATE: 22/08/2019
-------------------------	-----------------	------------------	---------------------

DRAWING NO: EN 020022-WSI-2	REV.NO: 01
---------------------------------------	----------------------

© WSP UK Ltd

Charts from MarineFIND.co.uk. © Crown Copyright 2019. All rights reserved. Licence No. EK001-0582-MF0050. Contains Ordnance Survey data © Crown copyright and database right 2018.



AQUIND Interconnector

- Marine Cable Corridor
- UK European Economic Zone (EEZ)
- Kilometre Point (KP)
- Channel
- Simple cut and fill

Geoarchaeology Priority

- Medium
- Low

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

01	20/08/2019	KF	FINAL	SS	AB
REV	DATE	BY	DESCRIPTION	CHK	APP

DRAWING STATUS: **FINAL**

wessex archaeology

Head Office: Portway House, Old Sarum Park,
Salisbury, Wiltshire, UK SP4 6EB
www.wessexarch.co.uk

CLIENT: **AQUIND**

PROJECT: **AQUIND Interconnector**

TITLE: **Figure 2g Seabed Features of Archaeological Potential**

SCALE AT A3 1:40,000	CHECKED: SS	APPROVED: AB
PROJECT NO: EN020022	DESIGNED: KL	DRAWN: KL/KJF
DRAWING NO: EN 020022-WSI-2		DATE: 22/08/2019
REV.NO: 01		

© WSP UK Ltd

Charts from MarineFIND.co.uk. © Crown Copyright 2019. All rights reserved. Licence No. EK001-0582-MF0050. Contains Ordnance Survey data © Crown copyright and database right 2018.



- AQUIND Interconnector**
- ▬ Marine Cable Corridor
 - UK European Economic Zone (EEZ)
 - Kilometre Point (KP)
 - ▭ Channel
- Geoarchaeology Priority**
- Medium
 - Low

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

REV	DATE	BY	DESCRIPTION	CHK	APP
01	20/08/2019	KF	FINAL	SS	AB

DRAWING STATUS: **FINAL**



Head Office: Portway House, Old Sarum Park,
Salisbury, Wiltshire, UK SP4 6EB
www.wessexarch.co.uk



PROJECT:

AQUIND Interconnector

TITLE:

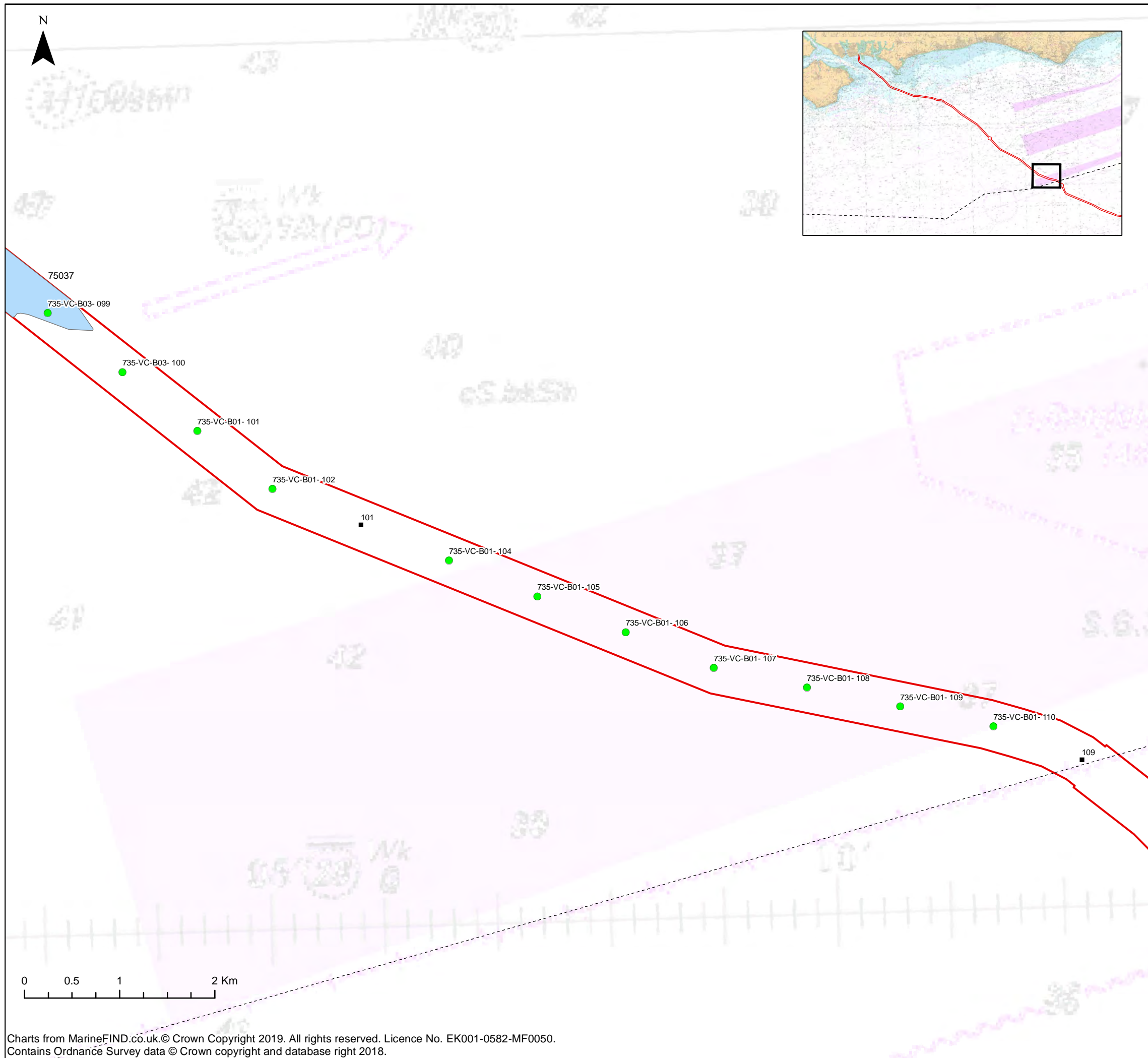
Figure 2h Seabed Features of
Archaeological Potential

SCALE AT A3 1:40,000	CHECKED: SS	APPROVED: AB
-------------------------	----------------	-----------------

PROJECT NO: EN020022	DESIGNED: KL	DRAWN: KL/KJF	DATE: 22/08/2019
-------------------------	-----------------	------------------	---------------------

DRAWING NO: EN 020022-WSI-2	REV.NO. 01
---------------------------------------	----------------------

© WSP UK Ltd



The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

01	20/08/2019	KF	FINAL	SS	AB
REV	DATE	BY	DESCRIPTION	CHK	APP

DRAWING STATUS: **FINAL**

wessex archaeology

Head Office: Portway House, Old Sarum Park, Salisbury, Wiltshire, UK SP4 6EB
www.wessexarch.co.uk

CLIENT: **AQUIND**

PROJECT: **AQUIND Interconnector**

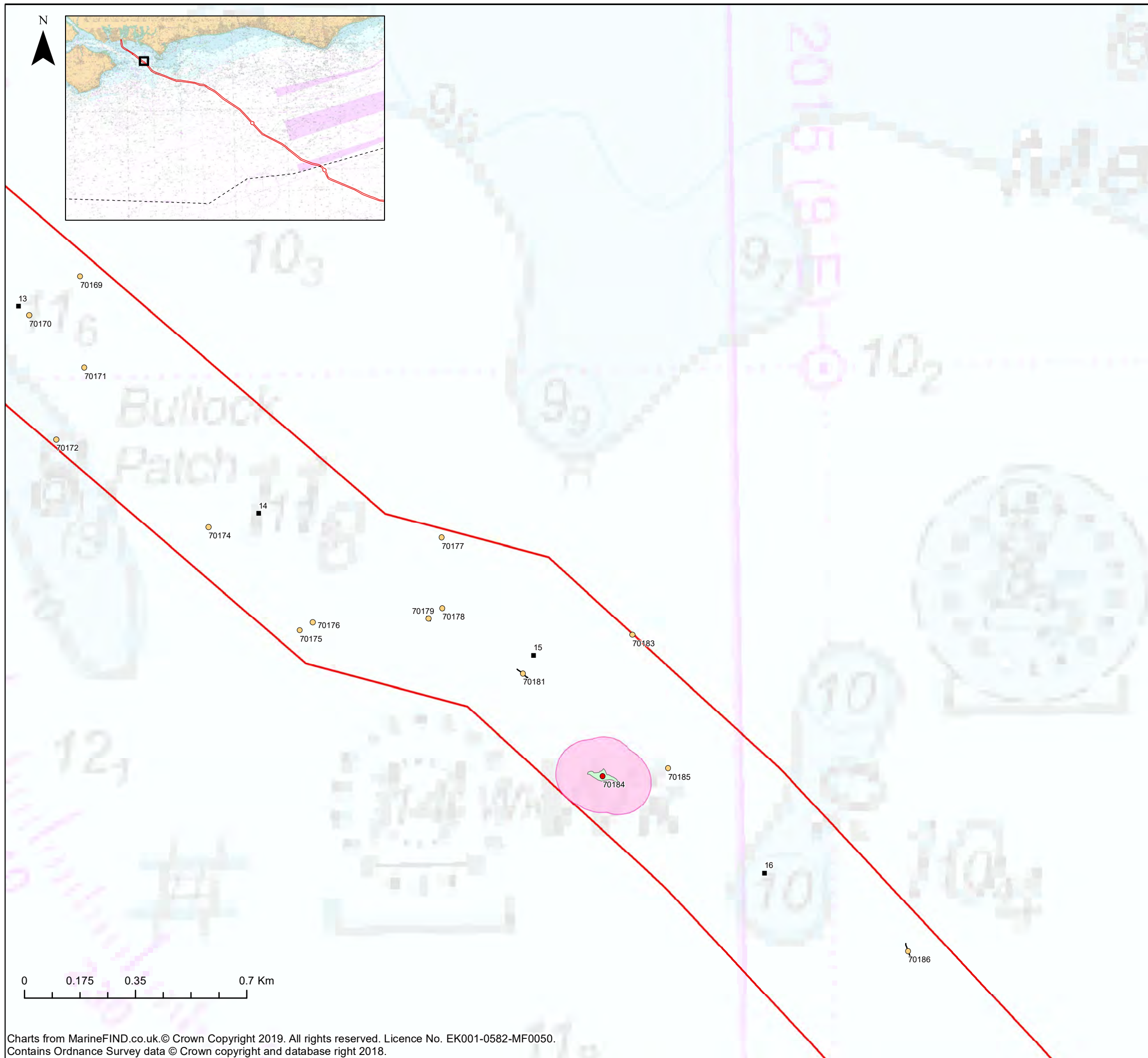
TITLE: **Figure 2i Seabed Features of Archaeological Potential**

SCALE AT A3 1:40,000	CHECKED: SS	APPROVED: AB
PROJECT NO: EN020022	DESIGNED: KL	DRAWN: KL/KJF
DATE: 22/08/2019		REV.NO. 01

DRAWING NO: **EN 020022-WSI-2**

© WSP UK Ltd

Charts from MarineFIND.co.uk. © Crown Copyright 2019. All rights reserved. Licence No. EK001-0582-MF0050. Contains Ordnance Survey data © Crown copyright and database right 2018.



- AQUIND Interconnector**
- Marine Cable Corridor
 - UK European Economic Zone (EEZ)
 - Seabed feature extents
 - Linear seabed features
 - Recommended Archaeological Exclusion Zones (AEZs)
 - A1 – Anthropogenic origin of archaeological interest
 - A2 – Uncertain origin of possible archaeological interest
 - Kilometre Point (KP)

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

REV	DATE	BY	DESCRIPTION	CHK	APP
01	20/08/2019	KF	FINAL	SS	AB

DRAWING STATUS: **FINAL**



Head Office: Portway House, Old Sarum Park,
Salisbury, Wiltshire, UK SP4 6EB
www.wessexarch.co.uk



PROJECT:
AQUIND Interconnector

TITLE:
Figure 3 Seabed Features of Archaeological Potential

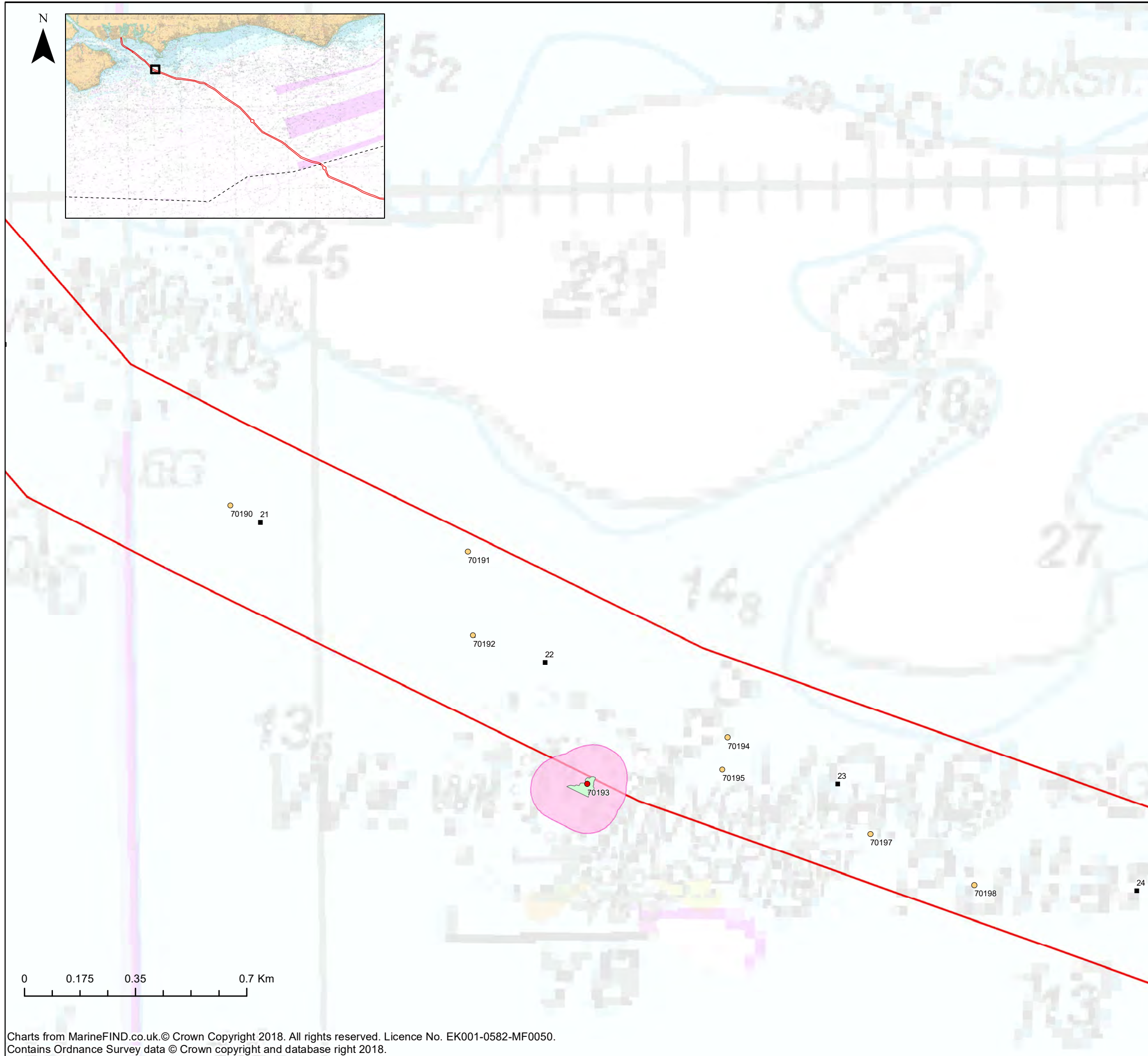
SCALE AT A3 1:12,000	CHECKED: SS	APPROVED: AB
-------------------------	----------------	-----------------

PROJECT NO: EN020022	DESIGNED: KL	DRAWN: KL/KJF	DATE: 22/08/2019
-------------------------	-----------------	------------------	---------------------

DRAWING NO: EN 020022-WSI-3	REV.NO. 01
---------------------------------------	----------------------

© WSP UK Ltd

Charts from MarineFIND.co.uk. © Crown Copyright 2019. All rights reserved. Licence No. EK001-0582-MF0050. Contains Ordnance Survey data © Crown copyright and database right 2018.



- AQUIND Interconnector**
- ▭ Marine Cable Corridor
 - UK European Economic Zone (EEZ)
 - ▭ Seabed feature extents
 - Linear seabed features
 - ▭ Recommended Archaeological Exclusion Zones (AEZs)
 - A1 – Anthropogenic origin of archaeological interest
 - A2 – Uncertain origin of possible archaeological interest
 - Kilometre Point (KP)

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

REV	DATE	BY	DESCRIPTION	CHK	APP
01	20/08/2019	KF	FINAL	SS	AB

DRAWING STATUS: **FINAL**



Head Office: Portway House, Old Sarum Park,
Salisbury, Wiltshire, UK SP4 6EB
www.wessexarch.co.uk

CLIENT:
AQUIND

PROJECT:
AQUIND Interconnector

TITLE:
Figure 4 Seabed Features of
Archaeological Potential

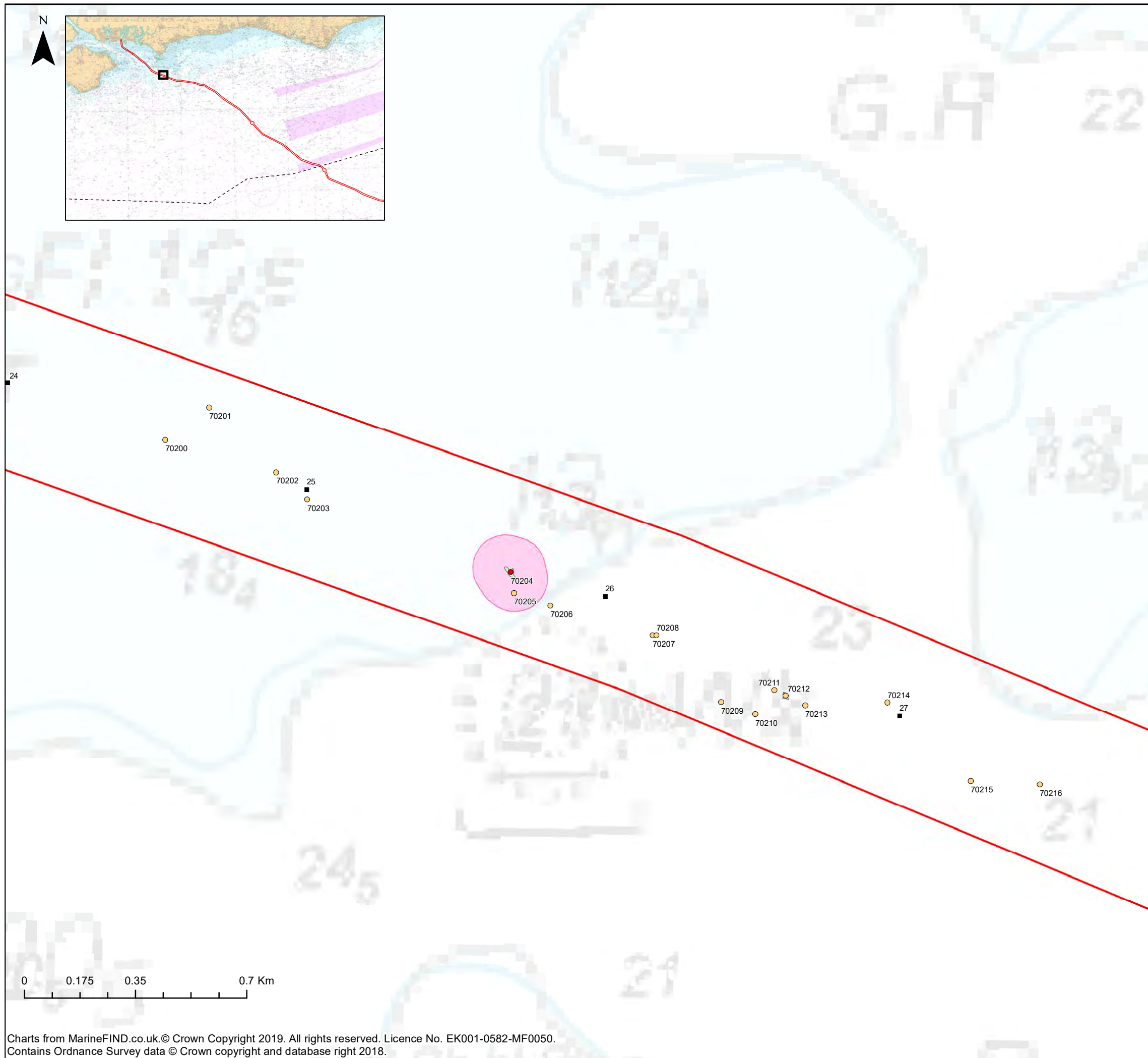
SCALE AT A3 1:12,000	CHECKED: SS	APPROVED: AB
-------------------------	----------------	-----------------

PROJECT NO: EN020022	DESIGNED: KL	DRAWN: KL/KJF	DATE: 22/08/2019
-------------------------	-----------------	------------------	---------------------

DRAWING NO: EN 020022-WSI-4	REV.NO. 01
---------------------------------------	----------------------

© WSP UK Ltd

Charts from MarineFIND.co.uk. © Crown Copyright 2018. All rights reserved. Licence No. EK001-0582-MF0050.
Contains Ordnance Survey data © Crown copyright and database right 2018.



- AQUIND Interconnector**
- Marine Cable Corridor
 - UK European Economic Zone (EEZ)
 - Seabed feature extents
 - Linear seabed features
 - Recommended Archaeological Exclusion Zones (AEZs)
 - A1 – Anthropogenic origin of archaeological interest
 - A2 – Uncertain origin of possible archaeological interest
 - Kilometre Point (KP)

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

REV	DATE	BY	DESCRIPTION	CHK	APP
01	20/08/2019	KF	FINAL	SS	AB

DRAWING STATUS: **FINAL**



Head Office: Portway House, Old Sarum Park,
Salisbury, Wiltshire, UK SP4 6EB
www.wessexarch.co.uk

CLIENT:

PROJECT:
AQUIND Interconnector

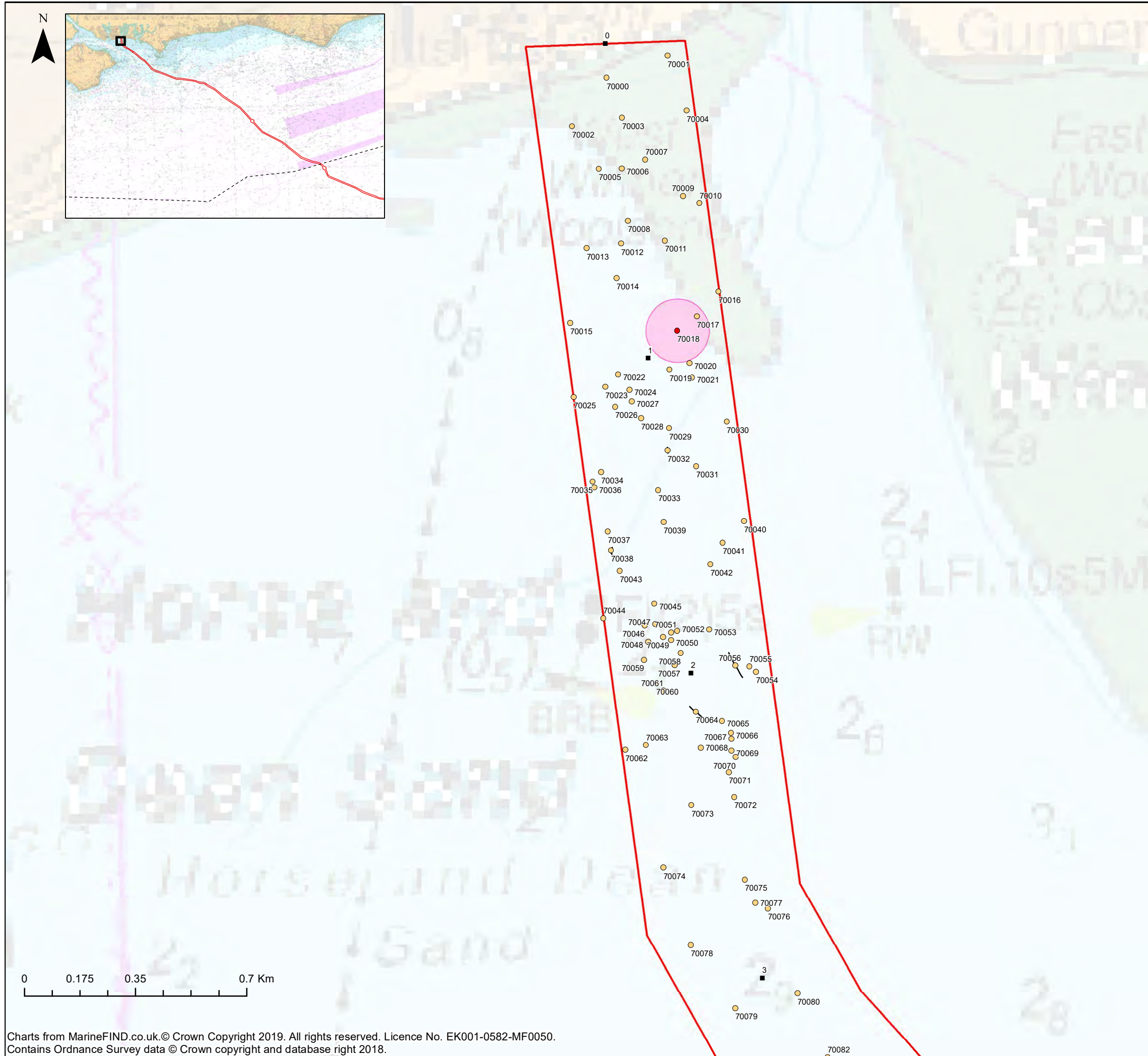
TITLE:
Figure 5 Seabed Features of Archaeological Potential

SCALE AT A3 1:12,000	CHECKED: SS	APPROVED: AB
-------------------------	----------------	-----------------

PROJECT NO: EN020022	DESIGNED: KL	DRAWN: KL/KJF	DATE: 22/08/2019
-------------------------	-----------------	------------------	---------------------

DRAWING NO: EN 020022-WSI-5	REV.NO. 01
--------------------------------	---------------

© WSP UK Ltd



- AQUIND Interconnector**
- Marine Cable Corridor
 - UK European Economic Zone (EEZ)
 - Seabed feature extents
 - Linear seabed features
 - Recommended Archaeological Exclusion Zones (AEZs)
 - A1 – Anthropogenic origin of archaeological interest
 - A2 – Uncertain origin of possible archaeological interest
 - Kilometre Point (KP)

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

REV	DATE	BY	DESCRIPTION	CHK	APP
01	20/08/2019	KF	FINAL	SS	AB

DRAWING STATUS: **FINAL**



Head Office: Portway House, Old Sarum Park,
Salisbury, Wiltshire, UK SP4 6EB
www.wessexarch.co.uk



PROJECT:

AQUIND Interconnector

TITLE:

Figure 6 Seabed Features of
Archaeological Potential

SCALE AT A3 1:12,000	CHECKED: SS	APPROVED: AB
-------------------------	----------------	-----------------

PROJECT NO: EN020022	DESIGNED: KL	DRAWN: KL/KJF	DATE: 22/08/2019
-------------------------	-----------------	------------------	---------------------

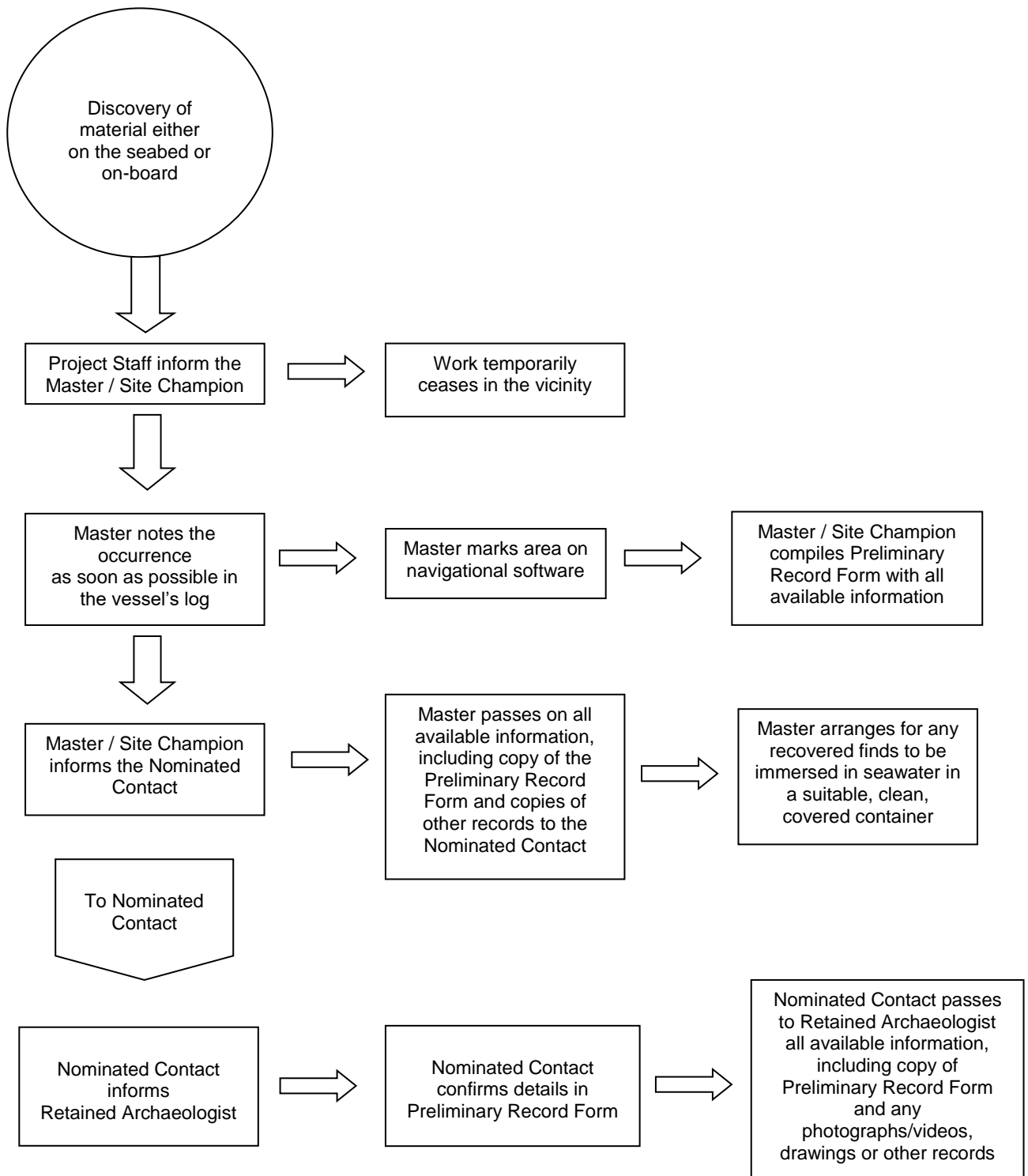
DRAWING NO: EN 020022-WSI-6	REV.NO: 03
---------------------------------------	----------------------

Charts from MarineFIND.co.uk. © Crown Copyright 2019. All rights reserved. Licence No. EK001-0582-MF0050.
Contains Ordnance Survey data © Crown copyright and database right 2018.



APPENDICES

Appendix I: Protocol for Archaeological Discoveries: Actions for Discoveries On-board or on the Seabed





Wessex Archaeology Ltd registered office Portway House, Old Sarum Park, Salisbury, Wiltshire SP4 6EB
Tel: 01722 326867 Fax: 01722 337562 info@wessexarch.co.uk www.wessexarch.co.uk



FS 606559