Appendix A-Specification for

UKRI-2369 Hawaii Offshore Drilling Project

IODP Exp 389 Drilling and Coring Requirements

1. Introduction

1.1 The British Geological Survey (BGS), acting on behalf of the European Consortium for Ocean Research Drilling (ECORD), requires a marine drilling capability and suitable vessel to operate offshore Hawaii for a scientific drilling and coring campaign for a period of up to two months between August and October 2023.

1.2 This scientific drilling project seeks to progress global research on sea-level change and climate variability, specifically during several poorly understood periods over the last 500,000 years. Hawaii is an ideal location to undertake this research due to the island's rapid (geologically speaking) but nearly constant subsidence, which has led to the formation of a thick and unique succession of drowned coral reefs now at 129m to 1234 m below sea level. These reefs span important periods in Earth climate history, and are generally not represented anywhere else in the world.

1.3 The Contractor must be able to supply the full operational spread including a remote seafloor drill rig, the vessel, and all personnel required to operate the spread. The seafloor drill rig must be capable of recovering core to at least 110m below seafloor in water depths of 100m to 1300m.

1.4 This project is being proposed as a seafloor drill project only. This is in response to advice provided to the customer, through face-to-face meetings held in Hawaii, by the State of Hawaii's Department of Land and Natural Resources (state permitting authority), the US Department of the Army/US Army Corps of Engineers (federal permitting authority), and local researchers from the University of Hawaii. These agencies have advised that using a highly visible, vessel-mounted surface rig will add significant risk to the project in terms of public acceptance and successfully obtaining a permit. The customer was also advised that the local populace is environmentally conscious, not shy of activism, and has the added complexity of having indigenous cultural sensitivities/beliefs regarding the marine environment within sight of the shore. With that advice, the customer wishes to rule out a vessel-mounted rig solution.

1.5 Diligence, the correct and fully serviced equipment and experienced and capable personnel are the key ingredients for the success of these scientific projects to continuously core below the seabed. These projects only have one opportunity to achieve the scientific goals. With a limited budget and the remote location there is no opportunity to either extend or re-run the expedition at a later date. It is therefore paramount that diligence in all aspects of the project is undertaken, from planning to implementation in order to maximise this once off opportunity. The above criteria will be looked for throughout the tender and contracting stages.

2. Background to the Requirement

2.1 Scientific Background

2.1.1 The current understanding of the links and mechanisms that control eustatic sea-level and global climate changes has been significantly hampered by a lack of appropriate fossil coral records over the last 500 kyr, particularly into and out of the glacial periods (Lambeck et al., 2002).

2.1.2 To address this problem this expedition will collect a continuous core record, by drilling a unique succession of drowned coral reefs around Hawaii that now lies at a water depth between 129m to 1234m. (Figure 1 and Table 1). Abundant observational and numerical modelling data indicate that the internal stratigraphy and tops of these reefs are highly sensitive to sea-level and climate changes, thereby providing a firm template with which to conduct these operations (Webster et al., 2007). As a direct result of Hawaii's rapid (2.5-2.6 m/kyr) (Ludwig et al., 1991) but nearly constant subsidence, a thick (100-200 m) expanded sequence of shallow coral reef dominated facies is preserved within the reefs. These reefs span important periods in Earth climate history, either not available or highly condensed on stable (Great Barrier Reef, Tahiti) and uplifted margins (Papua New Guinea, Barbados) due to a lack of accommodation space and/or unfavourable shelf morphology. Specifically, the data (summarized in Webster et al., 2009) show that the reefs grew (for ~90-100 kyrs, albeit episodically) into, during and out of the majority of the last five to six glacial cycles. Therefore, scientific drilling through these reefs will generate a new record of sea-level and associated climate variability during several controversial and poorly understood periods over the last 500 kyr.

2.1.3 The scientific proposal to core the drowned reefs around Hawaii for records of sea level change was developed by an international proponent group for a number of years before it was submitted to the International Ocean Discovery Program (IODP) in April 2007. Since 2007 the proposal has undergone review by the IODP Science Advisory Structure, and further developed by the proponent group and the BGS. In September 2021, the funding agency (ECORD, see below) committed funds and scheduled the project for implementation in 2023.

2.2 Organisation Background

2.2.1 BGS is a world-leading geological survey and global geoscience organisation, focused on public-good science for government and research to understand earth and environmental processes. BGS is part of UK Research and Innovation (UKRI), a non-departmental public body sponsored by the Department for Business, Energy and Industrial Strategy. UKRI will be the Contracting Authority for this Contract, and the project will be managed by BGS.

2.2.2 ECORD is a management structure of 15 members (14 European countries and Canada) for scientific ocean drilling as part of the International Ocean Discovery Program (IODP) “Exploring the Earth under the sea” and previously the Integrated Ocean Drilling Program – IODP from 2003 to 2013. ECORD is responsible for funding and implementing mission-specific platform (MSP) expeditions; these expeditions are conducted using platforms especially chosen to fulfil particular scientific objectives that can’t be met using the IODP’s two dedicated drill ships. BGS is the coordinating partner of the ECORD Science Operator, responsible for implementing ECORD MSP expeditions and it is in this capacity that BGS is looking to award a Contract for drilling services under this tender.

2.2.3 ECORD MSP expeditions are run with an offshore science party that is made up of scientists from many ECORD member institutions. This party will conduct core description, sampling and analysis tasks offshore and it is important that the Contractor undertaking the drilling services are willing to work closely with the offshore science party to maximise the success of the expedition in achieving the stated science objectives.

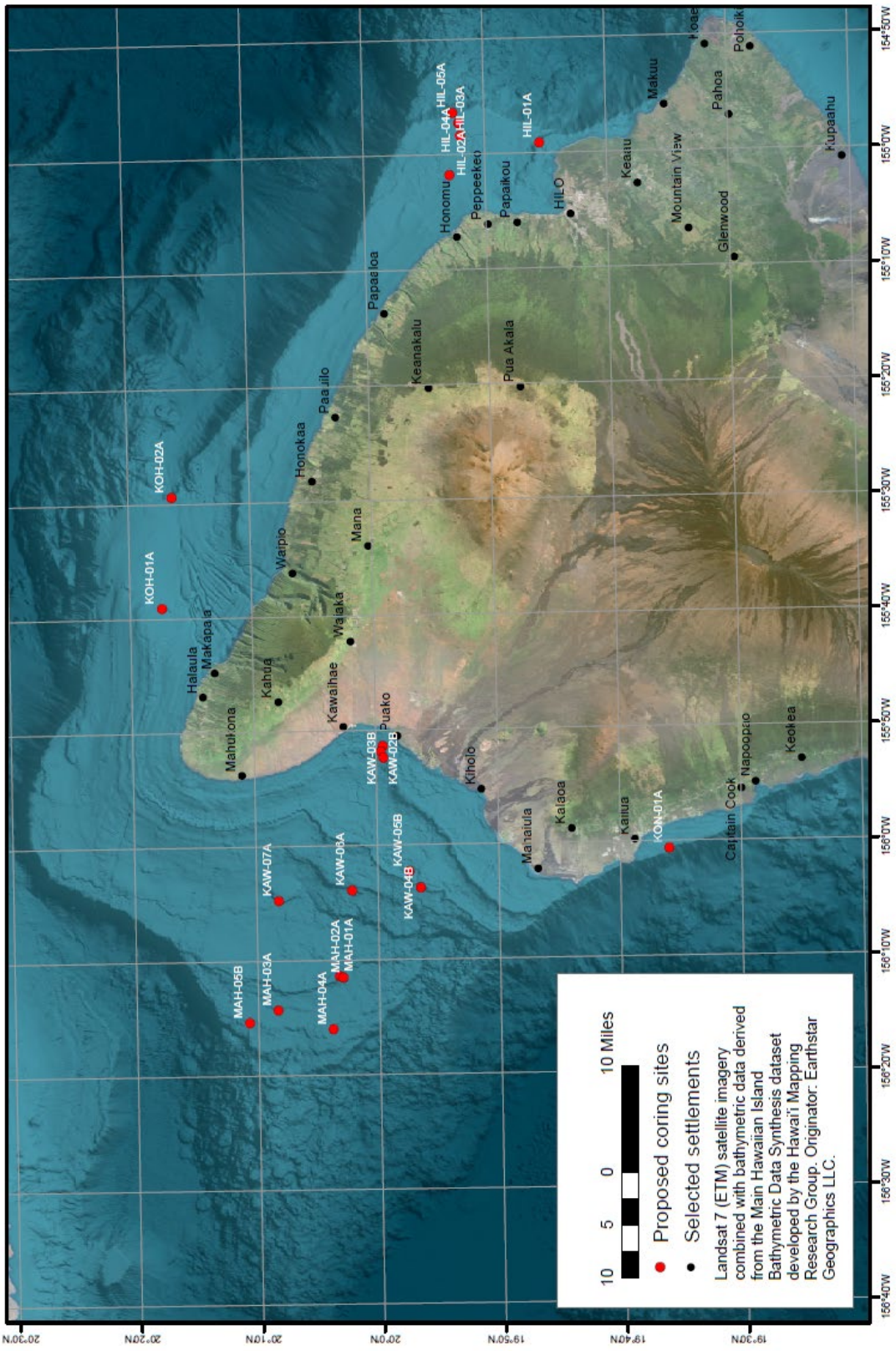

Figure 1. Expedition 389: Hawaiian Drowned Reefs Overview Map (Landsat and Bathymetry).

Site	Priority	Water Depth (m)	Estimated Reef penetration[1] (mbsf)	Latitude[2]	Longitude[2]
KON-01A	Primary	145	80	19.600341	-156.010975
KAW-01B	Alternate	129	80	19.99093302	-155.8563025
KAW-02B	Alternate	132	90	19.99383926	-155.8644029
KAW-03B	Primary	154	80	19.990308	-155.873431
KAW-04B	Primary	414	110	19.942109	-156.062876
KAW-05B	Alternate	463	100	19.957553	-156.039013
KAW-06A	Primary	737	65	20.036417	-156.065696
KAW-07A	Primary	988	70	20.137266	-156.079341
MAH-01A	Primary	1102	110	20.055411	-156.189697
MAH-02A	Primary	1154	110	20.050262	-156.192035
MAH-03A	Alternate	1213	50	20.140405	-156.238194
MAH-04A	Alternate	1234	50	20.065165	-156.266945
MAH-05B	Alternate	1203	70	20.1797	-156.256232
KOH-01A	Primary	410	80	20.290268	-155.651218
KOH-02A	Primary	931	45	20.273958	-155.490294
HIL-01A	Primary	134	110	19.758805	-154.985708
HIL-02A	Alternate	271	90	19.883005	-155.029932
HIL-03A	Alternate	338	90	19.867141	-154.973387
HIL-04A	Alternate	354	90	19.869407	-154.954576
HIL-05A	Primary	402	110	19.876999	-154.939618

Table 1. Table of project sites. [1]Sites with <110 m penetration will penetrate a few metres into the underlaying basalt basement. [2]WGS84.

3. Scope

3.1 High-level scope

3.1.1 The following items are in-scope:

i. Provision of seafloor drill rig and all necessary ancillary equipment.

ii. Provision of suitable vessel from which to conduct drilling operations with the seafloor drill rig.

iii. Provision of all experienced personnel required to conduct operations, including vessel crew and drill crew.

iv. Provision of space, accommodation (including messing) and services for offshore science party personnel, scientific containers and equipment.

v. Removal of cores from the drill rig and supply to the offshore science party on the vessel.

vi. Standard vessel clearances.

3.1.2 The following items are out of scope:

i. Provision of scientific personnel.

ii. Provision of equipment and consumables for core curation, description and analysis.

iii. Permitting for scientific research and the export of the recovered material.

3.1.3 Exclusions

i. Any conventional drill ship or form of drill rig that is not a remote seafloor drill rig will not be considered for this tender.

3.2 Operational Timing

3.2.1 Due to the prevailing trade winds and the whale breeding seasons, the optimal and required work period onsite is between the start of September and the end of October. The following link provides some background information on weather and sea state, http://www.soest.hawaii.edu/coasts/nps/nps_report.pdf. The Hawaiian surfing community also provide a plethora of sea state information.

3.3 Health, Safety and the Environment (HSE)

3.3.1 Health, Safety and the Environment are the highest priorities for this Expedition. The Client is expecting the highest standards of HSE from the Contractor. This must be demonstrated throughout the whole process of tender, contracting and operation.

3.4 Mobilisation and Demobilisation Ports

3.4.1 The sites are situated on the NW, N and E sides of the island of Hawaii. Honolulu on the island of O'ahu, approximately 160 miles from Hawaii is the nearest major port to the work area, although there are commercial ports on Hawaii. Due to the specialist nature of the drilling capability, the Islands of Hawaii may not be the most suitable place for equipment mobilisation and demobilisation and as a consequence, no specific mobilisation and demobilisation port is preferred but the bidder is asked to specify their preferred port in their bid.

3.4.2 Because the drill sites may be a long transit from the mobilisation port, it is essential that the Contractor carries out thorough checks prior to leaving port to ensure correct operation of the spread when it arrives on site. A list of checks to be carried out prior to sailing must be provided by the Bidder as part of the tender submission.

4. Requirement

4.1 Overview of Requirements

4.1.1 The Client requires marine drilling/coring capability that can, on a routine basis, continuously rotary core (cut and recover) from seafloor to 110m below seafloor in water depths ranging from 100m to 1300m. As part of this capability a dynamically positioned vessel suitable for the drilling system and space for a suite of Client containerised laboratories and Client personnel and is permitted to work in Hawaiian waters, is also required.

4.2 Drilling system

4.2.1 Essential requirements for the drilling system:

i. A remotely operated seafloor drill (not a surface drill ship or platform)
ii. Operate in water depths between 100m and 1300m
iii. Operate in the water and air temperatures and ocean swells around Hawaii
iv. Continuously core from seafloor to at least 110m below seafloor.
v. Minimum 60mm core diameter
vi. Cores to be high quality and high percentage recovery
vii. Core in a variety of lithologies, friable coral, basalt basement
viii. Ability to open hole (drill without coring)
ix. Ability to collect cores in clear polycarbonate liner and with low friction splits
x. Proven speed of operation for deployment, coring, POOH, recovery to deck
xi. High efficiency of coring/drilling (to maximise available coring time)
xii. High reliability
xiii. Variety of coring tools and open hole capability
xiv. Wide weather window and sea state operation

xv. Ability to operate (vertical boreholes) on up to 15 deg slope (likely to be <10 Deg)

xvi. Ability to operate or manoeuvre around a rough seabed terrain. Blocks or step changes of 1m high maybe encountered.

xvii. Visual inspection of the seabed is required prior to landing to avoid live corals and local terrain variation.

xviii. Ability to maintain and repair at sea

xix. Carry comprehensive set of spares for all eventualities

xx. All fluids and greases have to be environmentally safe and meet the demands of zero pollution.

xxi. Environmentally safe drilling mud injection (to aid hole stability)

4.2.2 Desirable requirements for the drilling system:

i. Ability to case the hole

ii. Ability to undertake downhole logging

4.2.3 Seabed Inspection and Moving Position

i. The ability to view the seabed with respect to the seabed drill or drill string prior to landing is required, primarily to ensure live coral is not damaged and aid avoiding any local variation in the seabed terrain. Suitably positioned video cameras and lighting or other visual aid are required and the ability to move the vessel and or drill rig to land on the optimum site.

4.2.4 Drill String

i. A competent drill string makeup is required for the proposed drilling system and type of operation. A full description of the drill string make up and materials used is required. All pipe dope and greases have to be environmentally friendly and biodegradable.

4.2.5 Drilling Mud

i. Boreholes to be cored using seawater and drilling mud where required. All drilling mud has to be environmentally friendly and biodegradable.

4.2.6 Data Recording

i. Recording of various drilling parameters against time/depth is required. These parameters include drill string revolution counter, torque recorder, weight on bit recorder, water flush volume and pressure indicators and water depth indicator on driller's console, time and start depth of each core run. All these sensors should be linked to an automatic recorder, with data being provided in an easy to read format. Manual log sheets of drilling parameters used must also be kept.

4.2.7 Hole Completion

i. On completion of each hole, a driller's log showing final length and make-up of drill string, bit weights, penetration rates, mud pressure, etc. to be provided to assist in the final interpretation of the formations in the hole. The Contractor is responsible for maintaining this log, which will be a continuous record (geolog) and properly kept log sheets.

4.2.8 Spares and Consumables

i. It is a requirement that the Expedition has the ability to maintain and repair the equipment without resort to external supply. Spares and consumables to cover the entire project should be on-board the drilling platform and with the essential capability to maintain and repair all systems.

4.2.9 Drilling and Coring System Performance

i. It is an essential requirement that the drilling and coring system is tested and in excellent working condition. The Client is looking for minimal shake down and continuous operation for the entire project. Records of operational performance, as well as equipment maintenance records and planned maintenance and testing prior to this expedition are to be made available.

4.2.10 Coring Requirements

i. Scientific coring is usually different from most commercial coring operations in the requirement for continuous, high quality (undisturbed and very high percentage) core recovery. The quality of the science depends on the quality of the core. The coring rationale for this project is to continuously core up to 11 boreholes at 11 different sites to full penetration and obtain a continuous record of the stratigraphy from each site.

4.2.11 Continuous Coring and Open Hole Drilling

i. Continuous high quality and high percentage core recovery is a primary deliverable of this contract.

ii. The core must be a minimum diameter of 60mm and collected in clear high quality polycarbonate liner (with a permanent black line running down the length of the liner, with blue, white and yellow end caps). Stainless steel or other low friction core tube splits must be available as an alternative option to polycarbonate liner. Sufficient polycarbonate liner and caps must be carried for the entire Expedition.

iii. Whilst it is envisaged that the coring will comprise of entirely diamond rotary coring, a suite of coring tools must be carried that can core in a variety of formations from loose unconsolidated, friable, to cemented and hard rock. A variety of coring bit types and the ability to open hole are essential.

4.3 Drilling Platform Requirements

4.3.1 Overall requirements

i. The Client requires a seaworthy, dynamically positioned vessel capable of holding excellent station compatible with the requirements of the offered drilling system in water depths between 100 metres and 1300 metres, while drilling/coring up to 110 metres below seabed.

ii. The drilling platform is required to be capable of working in the sea conditions around the island of Hawaii and meets all environmental standards (including hull cleanliness) required to work in Hawaii waters.

iii. The Contractor must remain the owner, manager or charterer of the platform or vessel for the duration of the contract.

iv. The Contractor must be technically competent to interface all equipment and personnel from any third parties with the downhole operations.

4.3.2 Positioning and Station Keeping System

i. Competent provision to position the vessel onto site using a reliable positioning system, and to maintain station thereafter using Dynamic Positioning coupled to a suitable reference system and redundancy. Positional information should be readily avaible to the Client.

4.3.3 General Space and Facilities

i. The vessel should have suitable space for Client mobile facilities housed in a series of 7 to 8 x 20ft containers. These consist of admin office, scientist's office, database/computing/engineering, core curation laboratory, geochemistry laboratory, microbiology laboratory, petrophysics laboratoryand a refrigerated container. Power required to operate these facilities are 2 x 125A, 3 phase, 380-440VAC, 50Hz/60Hz. Provision and installation of fresh water supply, (that is free from added chemicals) and waste water disposal to 3 x laboratories. If the vessel has suitable internal laboratory space some of these facilities maybe housed within the vessel and would therefore reduce the required deck space for 7/8 off container spaces.

4.3.4 Operation

i. The vessel will be manned and operated on a continuous 24 hours a day, 7 days a week basis, the Contractor undertaking all drilling and coring operations. In addition to the Contractor's crewing arrangements, accommodation, recreation space and provision for 20-22 Client personnel must also be provided (Client sub-contract personnel included in the Client's personnel allocation).

ii. The vessel must provide suitable communications equipment for the provision of voice and data (broadband internet) service to ensure contact with shore-based stations from all areas of operation. This equipment must be available for the use of the Client. The preferred minimum upload and download speed is is 1 Mbps. (This is in addition to any Client equipment or communications systems, which may be installed independently for sole use.)

iii. The Contractor must operate with any Client specialists or sub-contractors relevant to the project.

iv. The Contractor will be responsible for obtaining the relevant authorisation for the vessel and crew to enter and conduct operations in the Hawaiian waters (including TWIC Regulations). The Client will assist with any submission of any documentation where required.

v. The Client will obtain the necessary scientific permits and clearances.

vi. The Contractor is to ensure that they have due regard to the presence of any seabed obstructions as detailed on the appropriate scale nautical chart or provided with the clearances information. The Contractor should also conduct the operations required of the vessel so as to avoid damage to any sea bed obstructions.

4.3.5 Operational Endurance

i. The drilling platform must have sufficient operational endurance to complete the drilling programme without any requirement for port calls once drilling activities have started.

4.4 Other Requirements

4.4.1 Downhole Logging

i. A suite of downhole logging tools are normally run in all boreholes. For this expedition, this is a desirable not an essential requirement and will depend on various factors, availability of tools, and type of drilling system.

ii. Provide details of any downhole logging capability available to use with the proposed drilling system, and / or any capability to use 3rd party downhole logging tools.

4.4.2 Skills & Experience of Key Personnel

i. The Contractor is to ensure that all personnel proposed for the project have the relevant skills and proven competence to be able to undertake a drilling project of this nature. This is to include but not limited to, all personnel who will be involved in:

- Back office activities
- Onshore Activities
- Drilling operations
- Supporting activities on board the vessel.
- Supporting mobilisation and demobilisation activities

ii. In addition, the Contractor's staff are expected to closely engage with Client staff and a Client-appointed scientific team on the vessel, in a 2-way exchange of knowledge on the coring activity and how it impacts the cored material, and how the lithologies being cored may guide the coring approach.

4.4.3 Efficiency & Environmental Sustainability

iii. The Contractor is required to work in partnership with the Client to continuously improve efficiency, environmental impacts and the wellbeing of those impacted by the project (including the local community). This may include options for (but not limited to):

- Operational improvements (cost, time, processes)
- Addressing negative environmental impacts
- More environmentally sustainable fuels
- Reducing emissions
- Reducing water use
- Sustainable methods for disposal of waste
- Improving the health and wellbeing of those involved in the project and the local community
- supporting local community integration

4.5 Contract Management, Performance Monitoring and Reporting

4.5.1 Contract Management

i. The Client will provide an Operations Manager on the vessel to oversee the contract, monitor performance and provide advice or assistance if required.

ii. The Client's on-shore Project team and UKRI Commercial will oversee any contractual issues, acting as a point of escalation.

iii. Figure 2 below demonstrates the governance of the contract:

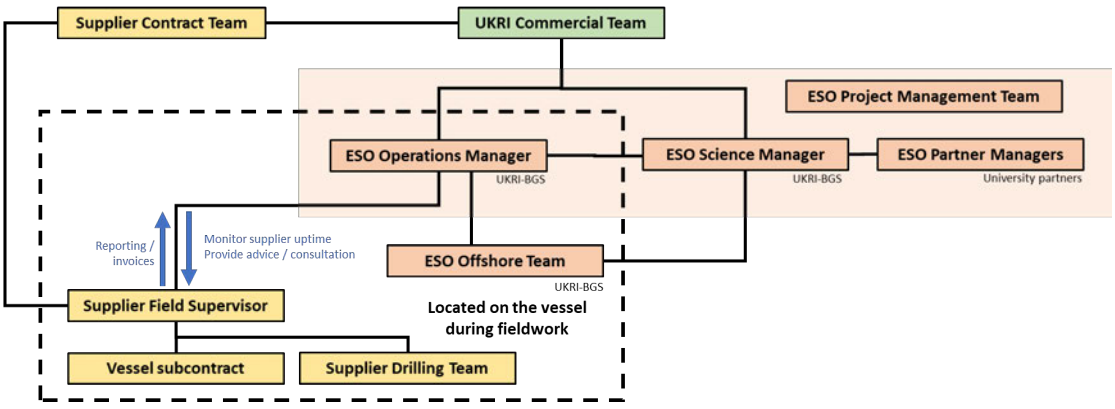

Figure 2. Contract Governance Structure

iv. The Contractor will be expected to resource the Contract appropriately, providing a corresponding governance structure.

v. A dedicated contract management plan will be agreed with the successful bidder, to specify the deliverables, KPIs, roles and responsibilities, key personnel and escalation process.

vi. The Contractor must participate in daily meetings with the Client Operations Manager or deputy to discuss performance over the previous 24 hours and the outlook for the next 24-48 hours.

vii. The Contract Management Plan and Communication Plan is included in Annex 1.

4.5.2 Performance Monitoring

i. The Key Performance Indicators (KPIs) are included in Annex 2.

4.5.3 Reporting

i. Drilling parameter logs must be provided for each borehole. These logs should be made available to the Client as soon as possible after completion of each borehole (no more than 24 hours).

ii. Daily operational logs must be provided by 12:00 (local time) on the following day, and must summarise all activity including vessel movements, drilling and coring operations, downtime, weather conditions, and any other significant activity for the day. The report must include a condition report for all drill bits recovered that day and a list of all drilling consumables and spare equipment used. The report must also summarise planned activity for the next 24 hours, and provide any updates to overall operational plans.

iii. Final operational report. This must include full details of the spread as installed, all drilling operations, cores retrieved (including recovery), an activity log (including details of any downtime) and summary of drilling and coring performance. The final report will be provided no more than 2 weeks after end of demobilisation.

5. Timetable

5.1 Planning

5.1.1 The Contractor must, in consultation with the Client, confirm expected mobilisation and sail dates for the project at least 6 months in advance. After this date The Contractor must notify the Client of any proposed changes to the dates.

5.1.2 The Contractor must submit all required project documentation at least 3 months prior to the start date.

5.2 Mobilisation of Client equipment & personnel

5.2.1 Minimum 4 days in port to load, set up and test Client containers and equipment before sailing.

5.3 Drilling activities

5.3.1 Drilling activity is expected to start in late August / early September 2023 (in order to minimise risk of weather downtime due to the trade winds earlier in the year)

5.3.2 Drilling activity must be completed by 31st October 2023 (this ensures no overlap with the whale breeding season)

5.4 Demobilisation of Client equipment & personnel

5.4.1 Client equipment and samples should be demobilised as soon as possible after drilling activity is completed, to expedite the export of the cores to the Bremen Core Repository in Germany for full core analysis (onward shipping of cores from demobilisation port is the responsibility of Client).

5.4.2 If the demobilisation port is not in Hawaii, allowance should be made for disembarking Client personnel in Hawaii prior to demobilisation.

6. Service Conditions and Environmental Factors

6.1 Health, Safety, Environment & Quality

6.1.1 The Contractor must have current accreditation to ISO 45001, ISO 14001 and ISO 9001, or equivalent internationally recognised standards for Health and Safety, Environmental, and Quality management systems.

6.1.2 The Contractor is expected to comply with any regulations governing the area of operations, including international and national regulations.

6.2 Limitations to research permit

6.2.1 The expedition is dependent on grant of a research permit by the Hawaiian authorities. This permit is the responsibility of Client, however the Contractor will be required to contribute information as required in the application process.

6.2.2 The marine research permit will not have been granted at the point of tender award and Contract signing. The Contractor must be aware of this and understand that the project may not go ahead should a marine research permit not be granted.

6.2.3 Any research permit granted will be strictly time-limited in order to stay out of the whale breeding season. Therefore the end date for the drilling activity given above is non-negotiable.

6.3 Possible optional extension to drilling scope

6.3.1 UKRI are interested in establishing the performance of seafloor drills whilst coring oceanic crust in deep-water, where targets are often characterised by hard rock; these sorts of targets have not been drilled frequently by seafloor drills. As part of this effort, UKRI may wish to extend the project by a few days to enable the contractor to perform some additional drilling and coring in a different area with suitable targets, most likely in international waters.

6.3.2 This optional scope would only be undertaken if mutually agreed by both UKRI and the Contractor. The cost would be in addition to the total project cost for the fixed scope, and the work would be conducted at the day rates quoted in the price schedule.

7. Glossary

BGS	British Geological Survey
ECORD	European Consortium for Ocean Research Drilling
ESO	ECORD Science Operator
HSE	Health, Safety and the Environment
IODP	International Ocean Discovery Programme
mbsf	metres below seafloor
MSP	Mission Specific Platform
POOH	Pull out of hole
TWIC	Transportation Worker Identification Credential
UKRI	UK Research and Innovation
WGS84	World Geodetic System 1984 datum

ANNEX 1 – Contract Management and Communication Plans

Table 1: Contract Management Plan

Governance	The contract management team will include: UKRI • UKRI Head of Commercial • UKRI Commercial Business Partner • ESO Science Manager • UKRI-BGS Business Development Manager • ESO Operations Manager Supplier • Head of Service • Contract Manager • Operations Manager Escalation Process: Stage 1 – Commercial Business Partner Stage 2 – Head of Commercial
Communication	Daily, weekly and monthly as detailed in Table 2 below.
Performance	Deliverables, reporting: • Drilling parameter logs must be provided for each borehole. • Daily operational logs must be provided by 12:00 (local time) on the following day • Final operational report. Key Performance Indicators: • Confirmation of Vessel charter & Port and date of mobilisation • Delivery of project planning documentation • Completion of Mobilisation • Operational Uptime • Environmental and Health & Safety • Project Reporting

Table 2: Communication Plan

Performance Management	Agenda	Attendees
Daily update	Daily updates on-ship • Drilling uptime/ performance • Other operational updates	UKRI • ESO Operations Manager Supplier • Operations Manager
Weekly Mobilisation Update Meeting	Weekly virtual meetings to include: • Mobilisation plan • Operational issues and delays	UKRI • ESO Science Manager • UKRI-BGS Business Development Manager • ESO Operations Manager Supplier • Contract Manager • Operations Manager
Monthly Contract Performance Meeting	Monthly meeting to include: • Performance review / performance issues • Scientific objectives • Environmental / health and Safety • Financial review	UKRI • Commercial Business Partner • ESO Science Manager • UKRI-BGS Business Development Manager • ESO Operations Manager Supplier • Contract Manager • Operations Manager • Head of Service

ANNEX 2 – Key Performance Indicators

KPI	Description	Method and Frequency of Measurement	Action
Confirmation of Vessel charter & Port and date of mobilisation	Vessel charter confirmed to timescale outlined in Submission	To be monitored by the supplier & Project manager on a weekly basis	Improvement plan up to termination
Delivery of project planning documentation	Final submission of Contractual documentation outlined in the project plan.	To be monitored by the supplier and ESO project team together with UKRI Commercial Team on a weekly basis.	Improvement Plan
Completion of Mobilisation	Mobilisation completed according to above schedule	Weekly monitoring against hard forecast deadline by ESO Offshore Operations Manager	Mobilisation payment only paid when completed
Operational Uptime	The project team to report on the operational uptime and quality of work completed. Target 90% + uptime	To be monitored by the project team (including the ESO Offshore Operations Manager & Project Management Team & UKRI Commercial Team) on a daily basis.	Downtime will not be paid as per contract
Environmental and Health & Safety	Zero incidents' Accidents or Spills	No lost time or otherwise reportable incidents monitored by the ESO Offshore Operations Manager.	Improvement Plan
Project Reporting	Reports to be inclusive of agreed data and provided as defined in Specification.	To be monitored by the ESO Offshore Operations Manager & Team on a daily basis and passed to ESO Project Management Team & UKRI Commercial Team	Improvement Plan