

UK1/UK2 Polymetallic Nodule Licence Areas Environmental Baseline Overview Central and Eastern Pacific Ocean Clarion-Clipperton Zone

Information Summary Paper Prepared by:
UK Seabed Resources Ltd
Cunard House
15 Regent Street
London SW1Y 4LR
United Kingdom

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Introduction

UK Seabed Resources Ltd (UKSR) is a UK Government-sponsored contractor which holds two 15-year polymetallic nodule exploration licences issued by the International Seabed Authority (ISA). The two licenced areas comprise a total of 133,539 km². The first exploration licence entered effect on 8 February 2013 (UK1) and covers 58,640 km²; the second on 29 March 2016 (UK2) encompasses an area of 74,919 km². UKSR has integrated together the exploration programmes of both licence areas, UK1 and UK2 in order to provide UKSR, the ISA and its stakeholders a broader insight into Pacific Ocean Clarion-Clipperton Zone (CCZ) wide ecosystem structure and function.

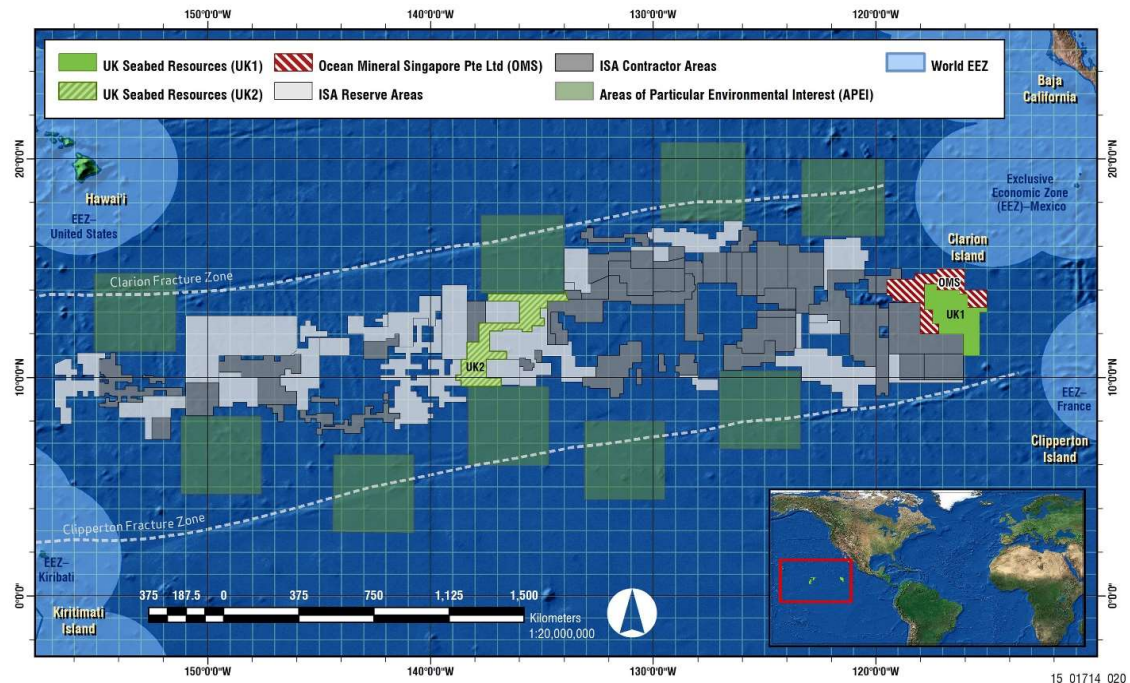


Figure 1 The UKSR ISA exploration license areas, UK1 and UK2, are located, respectively, in the eastern extreme and near the centre of the Clarion-Clipperton region of the north-eastern tropical Pacific Ocean.

As UK1 is located at the eastern edge of the CCZ and UK2 is at the centre, (Figure 1), the integrated sampling programme of both areas will enhance collective understanding of CCZ-wide spatial variation. New exploration data described below is augmented by historical data that UKSR has been given access to by its parent company, Lockheed Martin, which was a key participant in an earlier venture known as Ocean Mineral Company (OMCO) which was undertaken a total of 16 exploration cruises spanning the region from the 1978 through the 1981 and performed an in-situ self-propelled pilot miner test in March 1979 at 5000 metres (m) in the CCZ.

Information available to interested parties

To inform this Highlight Topic, UKSR has agreed to make available to all prospective research groups on an equal basis a suite of data and analysis produced over the past 4 decades. To request unpublished data summarised below, please contact Chris Williams, Managing Director of UKSR, at Christopher.j2.williams@lmco.com

Locational Data

The coordinates of the two UKSR contract areas are available on request. UKSR will provide specific location data for the proposed prototype test site in UK1 at a later date (expected in 2020), including any additional bathymetric data and habitat analysis which may have been gathered through subsequent geophysical and/or environmental survey work.

ABYSSLINE research cruises

UKSR funded two environmental baseline research cruises - the ABYSSLINE programme - in 2013 (AB01) and 2015 (AB02). AB02 was part-funded by Ocean Minerals Singapore (OMS), the Singapore-sponsored contractor for polymetallic nodules, and also visited OMS licence area as well as an Area of Particular Environmental Interest (APEI-4) to the North. The Cruise Reports for each effort, edited for commercially sensitive information relating to resource data, are available on request. These reports include sampling locations and methodologies as well as experimental data.

The list of published output from the ABYSSLINE programme is available on the UKSR website here: <https://www.lockheedmartin.com/content/dam/lockheed-martin/uk/documents/products/UKSR-Environmental-Science-Team-Publishing.pdf>

An unpublished preliminary gap analysis, reviewing knowledge of the UK1 contract area against the International Seabed Authority's environmental baseline data requirements, was commissioned in late 2017 to inform future planning. This analysis was performed by Dr. Charles Morgan of Moana Hohonu Consulting LLC, Mililani, Hawaii, USA and completed on 18 January 2018. It is available on request.

Environmental Impact Data

To date, UKSR has conducted no environmental impact experiments within its contract areas. The proposed Collector Prototype trial, notionally scheduled for 2022, will be the first of these. The timing of this trial will be contingent on UKSR investment decisions planned during FY19 (the decisions themselves contingent on the development of a commercially viable regulatory regime for deep seabed mining at the International Seabed Authority). An overview of the notional development timeline for this activity, alongside environmental baseline and impact assessment work, is available on request.

UKSR will also provide a skeleton Environmental Impact Assessment for this activity on request. Our intention will be to develop this document alongside the research team executing the Highlight Topic research programme. This process will include sharing relevant technical information about the planned Collector Prototype and details of the proposed experimental test, so that test and monitoring activities can be closely coordinated.

Historical Data

UKSR has access to legacy data from historical exploration and prototype efforts, including photographic data and details of prototype collector tests and other sampling efforts. Analysis of these data sets is ongoing internally and at Plymouth University and findings will be made available to the investigating group at the appropriate time. A scale schematic of the site of a 1979 scale prototype system test in the central CCZ, including nearby benthic sled tracks, is available now on request.