



**Pre- and Post- Rock Placement Surveys associated with the Kinsale Area
Decommissioning Project, Decommissioning Plan Kinsale Head
Petroleum Lease (OPL1) Consent Application No. 3 and Decommissioning
Plan Seven Heads Petroleum Lease Consent Application No. 2**

Submitted By:

PSE Kinsale Energy Limited (Kinsale Energy)

GSRO Technical Assessment

**Katie Hernon
Principal Geologist
15/07/2022**



Pre- and Post-Rock Placement Surveys

1. Introduction

PSE Kinsale Energy Limited (Kinsale Energy) propose to undertake survey activities at sites associated with the Kinsale Head, Ballycotton and Southwest Kinsale fields (Petroleum Lease area no.1), and the Seven Heads field (Seven Heads Petroleum Lease) in the North Celtic Sea Basin. The survey area is located off the coast of Co. Cork, extending from the landfall of the export pipeline at Powerhead to a distance of up to 47km from the nearest coast (Figure 1).

Kinsale Energy is progressing with the decommissioning of the Kinsale Area gas fields and facilities (incorporating the Kinsale Head gas fields and facilities and the Seven Heads gas field and facilities), which have come to the end of their productive life; gas production from the wells ceased on 5th July 2020.

Pre- and post-rock placement surveys are proposed as part of the Decommissioning Plans in order to accurately record the status of the pipelines and confirm the completion of the pipeline decommissioning activities. The surveys will include the use of equipment (e.g. multi-beam echosounder, sidescan sonar) to characterise the pipeline/umbilicals and the immediately adjacent seabed.

2. Background

An inspection survey was undertaken in 2017 to accurately record the position of the pipelines and umbilicals and their status, such as their depth of burial and the presence of freespans. This survey helped to inform the likely nature and scale of rock placement necessary for pipeline decommissioning. In the EIAR for the 2017 survey, Kinsale Energy committed to undertaking a post-decommissioning survey of the pipelines, umbilicals, wellsites and platform locations, covering a 100m corridor along the pipeline and umbilical routes (50m either side), for debris clearance and to confirm the final position and status of the pipelines and umbilicals so that they can be accurately depicted on navigation charts.

3. Survey Logistics

Kinsale Energy proposes to undertake a pre- and post-rock placement survey. The proposed surveys have the following principal objectives:

- To inform the rock placement activities with the most recent set of pipeline inspection data (e.g. freespan location and seabed at pipeline/umbilical ends)
- To confirm the success of the rock placement activity which includes freespan areas and pipeline/umbilical ends
- To provide information on the status of the pipelines for charting purposes post-decommissioning



The specific equipment to be used as part of the surveys is yet to be selected, but the range of equipment which could be deployed is listed below:

- *Side-scan sonar (towed)* e.g. Edgetech 4200
- *Multi-beam echosounder* e.g. R2Sonic 2024, Norbit iWBMS / Winghead, Kongsberg EM 2040, Reson 8125
- *Vessel echo sounder* e.g. Furuno FE-800
- *Acoustic Doppler* e.g. Teledyne Workhorse (Monitor / Navigator)
- *USBL* e.g. Sonardyne Wideband Sub-Mini 6 Plus (WSM6+), Sonardyne Type 8300 Compatt 6, Kongsberg HiPAP
- *Bathymetric sensor* e.g. Trittech SeaKing Bathy 704 with altimeter
- *Obstacle avoidance sonar* e.g. Kongsberg 1071, Trittech Super SeaKing DST
- *Sound velocity sensor* e.g. Valeport MiniSVS

Kinsale Energy has stated that the equipment will not differ substantially from those listed above. All of the survey equipment is non-intrusive and there will be no seabed interaction associated with the survey works.

Pre-rock placement Survey

The survey will cover 100m along the pipelines and umbilicals and may be undertaken in a single pass of the survey vessel, or two passes may be required depending on final equipment selection (e.g. whether or not a ROV is used to perform the survey). The working area of the vessel will not extend beyond the 100m corridor other than during transit. The survey will be undertaken by two vessels, one of which will conduct the surveys of all offshore infield pipelines and umbilicals, and the export pipeline up to approximately 3km from the shore. A separate inshore vessel will be used to conduct the final portion of the survey due to water depth restrictions.

These survey operations are planned to take place between Q2 and Q4 in 2022 or between Q2 and Q3 2023. This part of the survey campaign is expected to be complete in approximately 14 days.

Post-rock placement Survey

This survey will take place after rock is placed in a controlled manner using a dedicated dynamically positioned fall pipe vessel, with the position of the rock placed over freespan to be surveyed using a fallpipe ROV (FPROV) at the time rock is deposited. The FPROV will collect MBES data over the area of rock placement only, which will be incorporated into the pre-rock placement data to provide a data source for the final position and status of the decommissioned pipelines/umbilicals.

The extent of the required rock placement, and therefore the Post-rock placement survey coverage, will only be known following completion of the pre-rock placement survey. On the basis of the 2017 survey, it was estimated that a total length of rock cover for all pipeline ends and freespan would be approximately 5,200m.



These survey operations are planned to take place between Q2 and Q4 in 2022 or between Q2 and Q3 2023. This part of the survey campaign is expected to be complete in approximately 14 days.

Vessels

The vessels to complete the survey programme have not yet been selected.

4. Conclusion

The scope of the pre- and post- rock placement survey activities at sites associated with the Kinsale Head, Ballycotton and Southwest Kinsale fields (Petroleum Lease area no.1), and the Seven Heads field (Seven Heads Petroleum Lease), appears reasonable. The specific equipment to be used in the surveys has yet to be selected, although Kinsale Energy has stated that the equipment will not differ substantially from the industry standard equipment listed within the Environmental Impact Assessment Report. I can confirm that the proposed scope and equipment for the pre- and post- rock placement surveys are suitable to meet the objectives set, mainly; to inform the rock placement activities; to confirm the success of the rock placement activity which includes freespan areas and pipeline/umbilical ends; and to provide information on the status of the pipelines for charting purposes post-decommissioning.

Further to this, GSRO notes the following to be observed:

1. Daily progress reports should be sent to DECC by posting to a designated secure website or by emailing to GSRO@decc.gov.ie before noon of each day. Kinsale Energy is also required to make weekly progress reports available to DECC each Thursday afternoon for the duration of the survey.

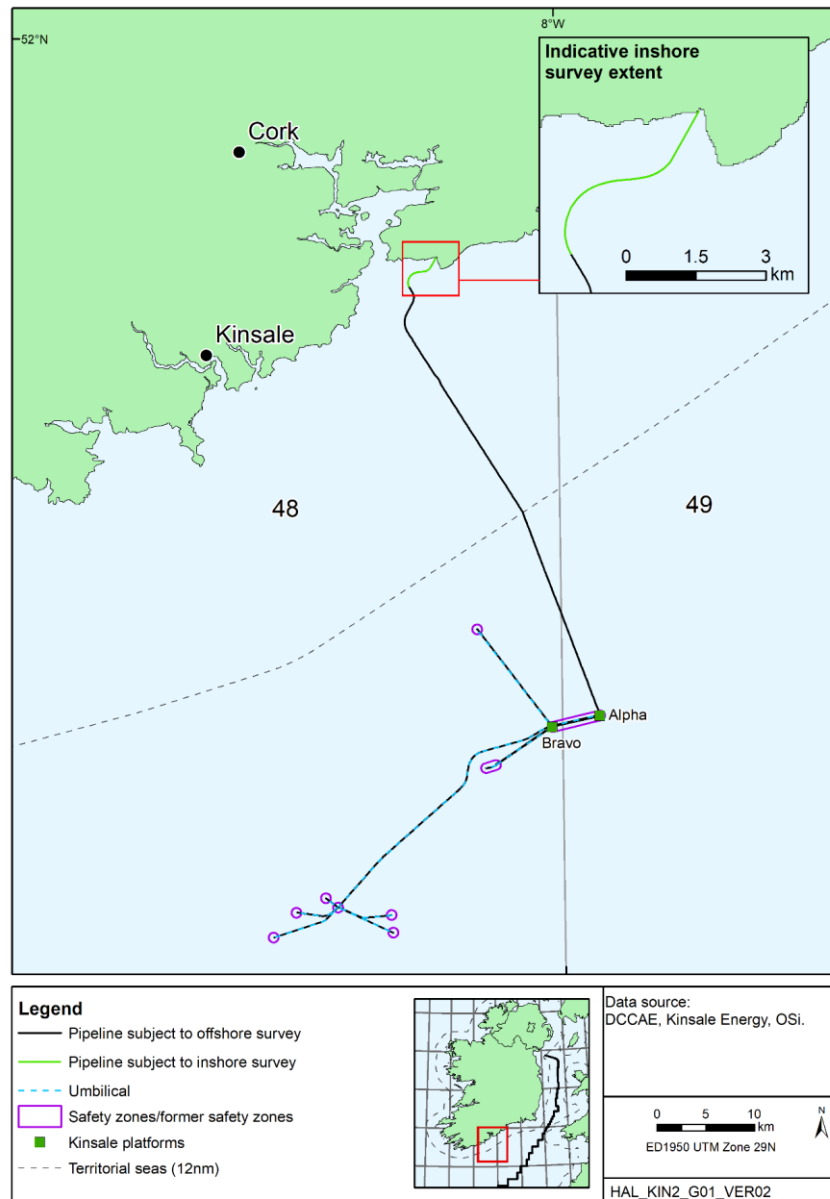


Figure 1: Location of the Kinsale Area infrastructure areas to be subject to survey