

# Offshore Gas Victoria Project

## Seabed assessment



### Information sheet | October 2023

Beach Energy supplies the ongoing natural gas needs of Victorian homes, business and industry, through production at the Otway Gas Plant near Port Campbell and the Lang Lang Gas Plant, 80kms south-east of Melbourne CBD.

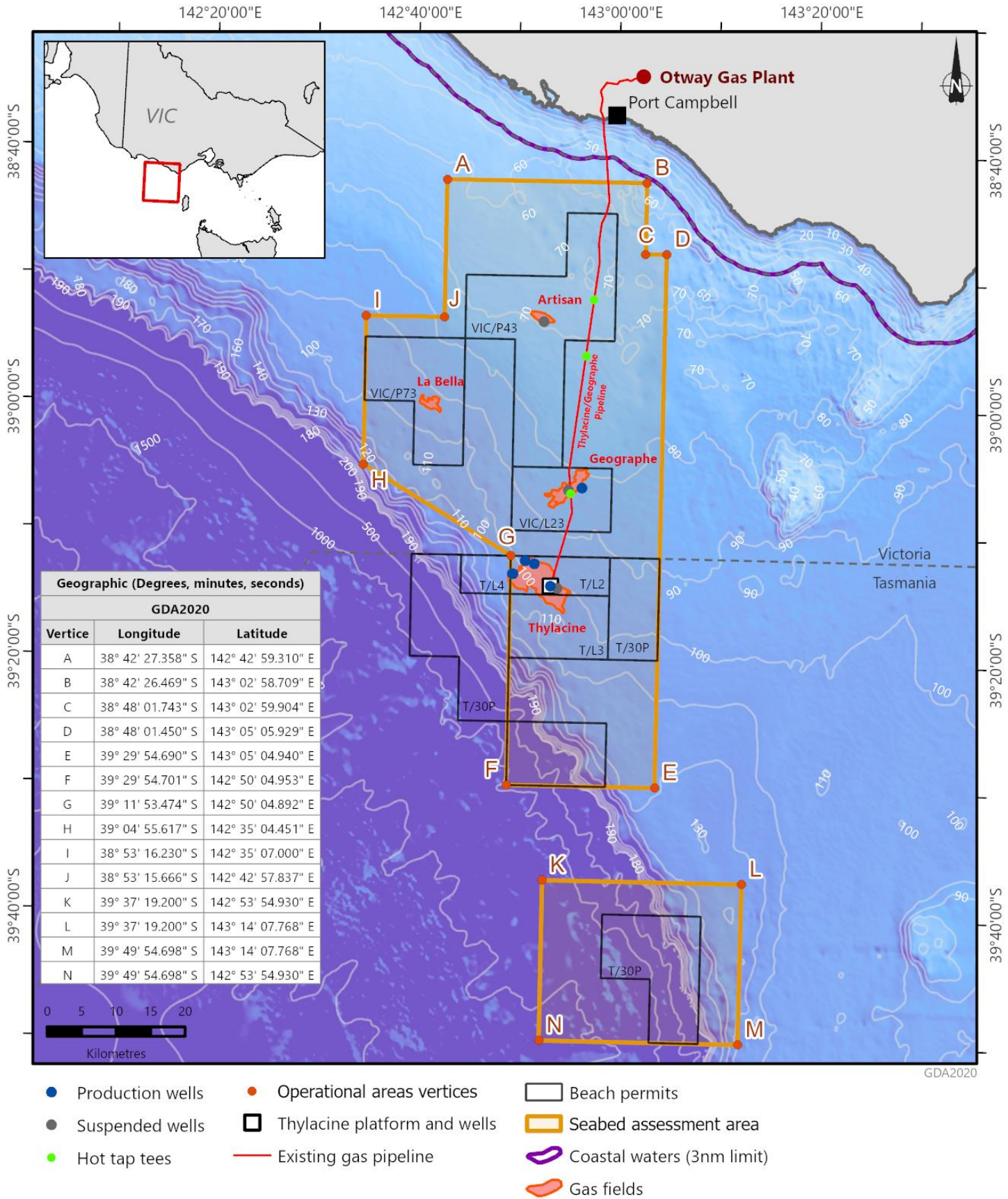
Beach successfully drilled one exploration well and six production wells in the Otway Basin offshore Commonwealth permits over the past four years. Four production wells have been connected and are now producing gas for the east coast market, with two remaining wells still to be connected.

Beach is continuing its commitment to supply natural gas to the east coast domestic market and has commenced planning for the Offshore Gas Victoria (OGV) Project to deliver the next phases of exploration and development.

The OGV Project is planning activities across several phases and remains subject to a final investment decision. As planning progresses, project timings and final scope will be confirmed and updated in our communications. This information sheet focuses on seabed assessments that are carried out to determine suitable seabed locations for drilling operations and installation of infrastructure to connect new production wells to the existing pipeline.



# Otway Basin

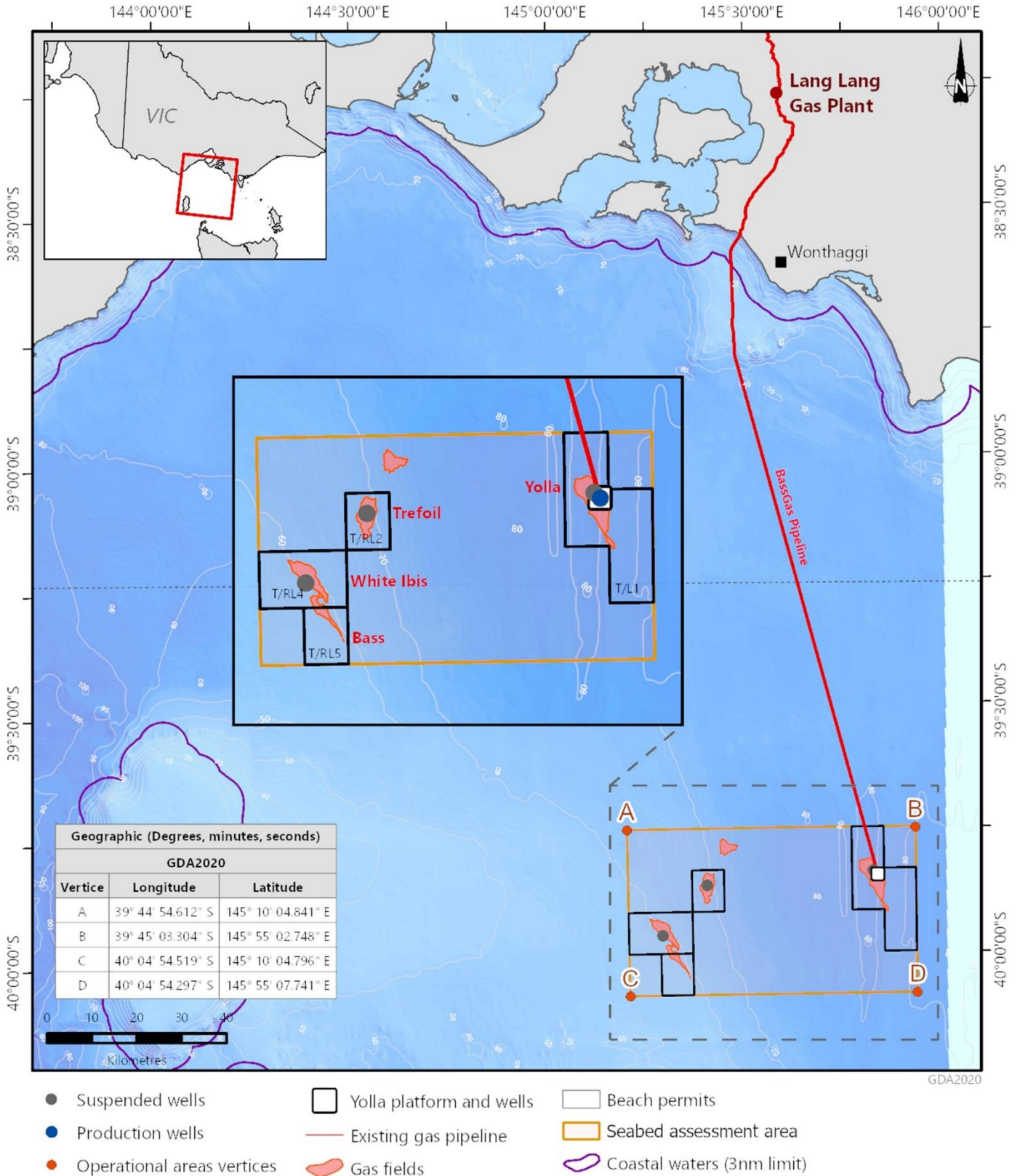


21/08/2023

The locations on this map are accurate at the time of publication and are subject to change

OT23-0015E

# Bass Basin



31/05/2023

The locations on this map are accurate at the time of publication and are subject to change

OT23-0015D

## Project overview

### Location

The seabed assessments will take place in Commonwealth waters of the Otway and Bass Basins. The Otway Basin development area is approximately 7km from the Victorian coastline, 52km from the King Island coastline, and 168km from the Tasmanian coastline. The Bass Basin development area is approximately 82km from the Victorian coastline, 89km from the King Island coastline, and 39km from the Tasmanian coastline. The assessments will cover a 3048km<sup>2</sup> activity operational area in the Otway Basin and a 2374km<sup>2</sup> activity operational area in the Bass Basin. Coordinates of the seabed assessment area are provided in the map above.

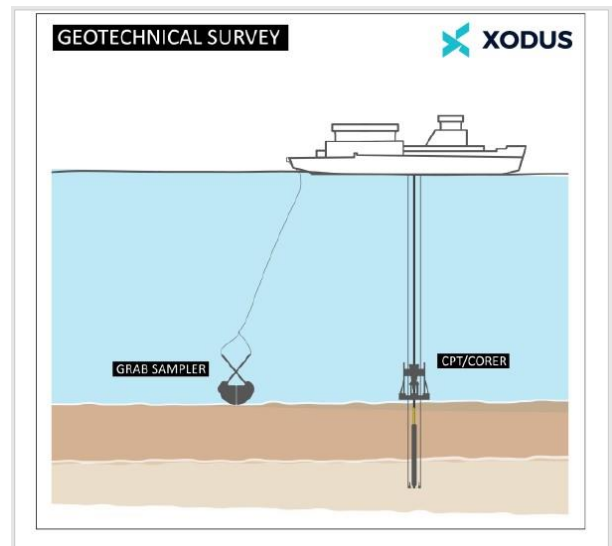
### Timing

The seabed surveys are estimated to take on average around 20 days for each required well site location within the Operational Area. The surveys are subject to weather conditions and will be carried out no earlier than January 2024 and no later than December 2029. Marine users and other interested parties are notified of any activity to be undertaken by Beach via the Australian Hydrographic Office at least four weeks in advance.

### Geotechnical activity description

The geotechnical activities will be undertaken by a vessel with specialised equipment to carry out the following activities:

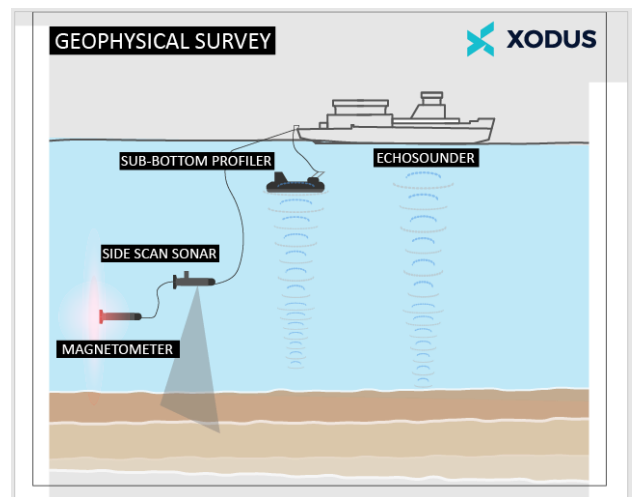
- Either a remotely operated vehicle or unmanned aerial vehicle could be used.
- Obtaining core samples for geological analysis of formations below the seabed, from boreholes up to 150m deep, drilled using seawater or bentonite.
- Determining soil strength and delineating soil stratigraphy using Piezo Cone Penetration Test (PCPT) to a maximum of 30m depth.
- Collecting core samples to a depth of 4m for geological analysis.
- Collecting small samples of surface sediments from the seafloor.
- Using drop and tow cameras to visually observe the physical and biological environment.



### Geophysical activity description

Geophysical activities and equipment include:

- Multibeam echosounder for bathymetry mapping.
- Side-scan sonar for identifying seabed features.
- Magnetometer to detect metallic objects on or below the seabed.
- Sub-bottom profiler to identify shallow formation structures below seafloor.



### Emergency planning

When conducting any offshore activity, there is an extremely unlikely risk of release of hydrocarbon from a well during drilling (which is primarily gas) or from marine vessel fuel in the event of an accident.

Beach standard operating procedures include emergency response plans which are included in EPs. Preparing emergency response plans involves modelling of all possible hydrocarbon releases in the

local area using a worst-case scenario, assuming no control measures are in place. The modelling calculates the transport, spreading, entrainment and evaporation over time, using data on the prevailing metocean conditions (wind, wave, and climate), the volume released, and the physical and chemical properties of the hydrocarbons.

The modelling determines the full extent of the "Environment that may be affected" known as the EMBA. Environment plans must describe the EMBA and include an assessment of the likelihood and consequences of any hydrocarbon release which must be reduced to ALARP through a range of control measures and include detailed response plans.

An emergency response plan describes the arrangements that must be in place for responding to and monitoring any release of hydrocarbon and include:

- 24/7 on-call team for rapid response clean-up actions including mobilisation of personnel and equipment
- 24/7 on-call team for modelling and monitoring of a hydrocarbon release to inform response activities, and monitoring of effectiveness of response activities
- Control measures necessary for ensuring rapid response and maintenance of capabilities (personnel and equipment).

These arrangements are based on the worse case event associated with the proposed activities to ensure that Beach has the appropriate level of response arrangements and capability. Beach maintains a current contract with Australian Marine Oil Spill Centre (AMOSOC) based in Geelong for access to spill response resources and personnel. In Victoria, the Department of Transport is the control agency for marine pollution emergencies.

For more information on hydrocarbon release modelling and why it is required for the preparation of environment plans, [click here to watch a video](#) on the NOPSEMA website.

### **Marine environment**

Beach recognises the environmental, heritage, social and economic value in the areas in which we operate. The environment within the project area is characterised by:

- Water depths will be on average 100m but can range up to 1500m.
- Hard sandy seabed consisting of sparsely scattered clumps of solitary sponges, polychaete worms, cone shells and featherstars.

A variety of marine fauna occur in the project area, including the potential presence of:

- Blue, humpback and fin whales, particularly during the summer months.
- Southern right and minke whales, particularly during the winter months.
- Common dolphin and shark species throughout the year.
- New Zealand and Australian fur seals throughout the year.
- Limited numbers of Loggerhead, green and leatherback turtles throughout the year.
- Economic value within the project area include:
  - Commercial fishing activity.
  - Commercial shipping activity.

Social and heritage values within the project area include:

- Multiple Use Zone of the Zeehan Australian Marine Park.
- Two shipwrecks: 'S.S. Selje' and 'Albert'.
- West Tasmania Canyons key ecological feature.

### **Maritime safety**

At Beach, safety is our number one priority. The marine vessels contracted by Beach will operate in accordance with Australian Maritime Standards, regulated by the Australian Maritime Safety Authority. Notices to Mariners will be issued by the Australian Hydrographic Office requesting that vessels do not approach closer than two nautical miles of the assessment vessel.

### **Environment protection regulations**

The National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA), regulates activities in accordance with the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations (2009) (Environment Regulations) and the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (OPGGGS Act). The OGV Project will require

Environment Plans to be accepted by NOPSEMA before commencement of activities.

Environment Plans must include a description of the existing environment and the proposed activities, an evaluation of the impacts and risks, environmental performance outcomes and controls, implementation strategy, and reporting requirements. They must also demonstrate that consultations with persons or organisations whose functions, interests and activities may be affected by the activities in the Environment Plan ('relevant persons'), have been carried out in accordance with the regulations.

For successful gas discoveries that will proceed to development, an Offshore Project Proposal (OPP) will be required and will undergo a public consultation phase. Once an OPP is accepted, further Environment Plans will be required for construction activities and commissioning the new wells. Development of an OPP requires Beach to identify impacts and risks of the activities conducted over the life of the project and to demonstrate to NOPSEMA that the impacts and risks will be managed to acceptable levels. The OPP process involves a completeness assessment by NOPSEMA, followed by a public comment period, before final acceptance of the OPP by NOPSEMA.

## Questions and Answers

### Why are seabed assessments needed?

The seabed assessments are required to obtain detailed information on the bathymetry, seabed features and shallow geology at potential well locations, as well as between the well locations and the Thylacine and Yolla platforms. This information will be used to determine future drilling and infrastructure opportunities for the OGV Project.

### Is Beach conducting seismic surveys for its new drilling program?

No, the range of different well types being planned for the OGV project are in areas that have previously been assessed with a seismic survey.

### What will happen to any discharges from the borehole drilling?

Seawater and/or bentonite will be used to lubricate the drill bit and stabilise the borehole, as well as remove seabed material produced through drilling, called cuttings. As the fluids and cuttings come out of the

borehole they will be deposited onto the seabed. Bentonite is an inert material classed as posing little or no risk to the environment.

### Will the site assessments impact upon commercial fishing?

The seabed assessment area is located within existing designated Commonwealth and State fisheries. Engagement with fisheries has identified the area as not a peak activity area. Each fishery covers a vast area, whereas the seabed assessments will only require access to a relatively small area for a very short period of time.

Beach is committed to minimising the impact of its activities and will consult with commercial fishers on arrangements to ensure each other's operational plans are understood, helping to minimise any impacts to fishing activities.

To avoid entanglement and safety risks, fishing nets, lines or pots should not be placed in the seabed assessment area during the activities.

### Will the activities affect whales?

Based on the low intensity sound generated from the equipment, any impact to whales will be low and temporary given the short duration of the activities. Shutdown and exclusion zones will be used to manage any impacts to whales that may be in the area during the seabed assessment. Avoidance of whales and dolphins will be undertaken in accordance with the EPBC Regulations (2000), including adherence to distance and speed requirements

### Will an exclusion zone exist?

Exclusion zones will not be in place during the seabed assessment and normal navigational requirements will be followed.

### Why can seabed assessments be undertaken within the Zeehan Australian Marine Park?

The seabed assessment area overlaps a small area of the Zeehan Australian Marine Park Multiple Purpose and Special Purpose Zones, which allow for seabed assessments if they are undertaken as per the accepted Environment Plan. No geotechnical samples will be taken within the Zeehan Australian Marine Park so there will be no impacts to the seabed and associated values. Geophysical surveys, which are non-intrusive, will potentially be undertaken within the marine park to obtain information in relation to the seabed

bathymetry and structure. If feasible, drop camera images will be obtained to gain information on the seabed habitat within the marine park. All information collected within the marine parks will be shared with the Parks Authority. There are no plans to undertake any drilling or other activity in the Marine Park.

### **Will the seabed assessments impact shipwrecks?**

Though two shipwrecks have been identified within the seabed assessment areas, there is the possibility that unknown shipwrecks could also be present. The aim of the geophysical survey is to identify any seabed obstructions such as shipwrecks. This will allow any geotechnical samples to be taken outside of the area of any obstructions, including shipwrecks. Where a shipwreck is identified from the seabed surveys it will be reported to the Department of Climate Change, Energy, the Environment and Water as per the requirements of the *Underwater Cultural Heritage Act 2018*.

### **Will there be impacts to the West Tasmania Canyons Key Ecological Feature?**

The West Tasmania Canyons are an area of high productivity and aggregations of marine life with sponges concentrated near the canyon heads, with the greatest diversity between 200m and 350m depth. The aim of undertaking the geophysical and drop camera surveys is to identify any key features that should be avoided for well and anchor locations and future infrastructure.

### **How much seabed will be disturbed by the seabed assessments?**

The geophysical surveys will not disturb the seabed. To take a core seabed sample a coring frame ~5m x 5m (footprint of ~25m<sup>2</sup>) is placed on the seabed to allow a core of ~15cm diameter to be taken. The PCPT is taken within the coring frame area. Thus, each sample may disturb an area up to 25m<sup>2</sup>. Up to 150 core samples may be taken within the seabed assessment areas, which is ~3,750m<sup>2</sup>. Due to the small area of disturbance at each location there is no impediment to the disturbed areas recolonising from the undisturbed surrounding areas.

## **Further information and consultation**

This information sheet has been prepared to inform Relevant Persons whose functions, interests or activities may be affected by the activities to be carried out under the Environment Plan being prepared for the OGV Project drilling activities.

Consultation is an important part of developing Environment Plans as its purpose is to ensure that potential impacts have been identified and appropriate measures adopted because of the consultations.

Please contact us if you would like further information, have any questions, or feedback, or wish to consult with us about how this project may impact your functions, interests or activities.

Beach will consider all feedback, including any concerns or objections and will explore measures to reduce any impacts and risks.

Relevant persons may request that the information they provide not be published, and it will be identified as sensitive information and not published in the Environment Plans.

If there is someone you believe may be affected by the proposed activities, please have them contact us.

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