

Otway Offshore Project

Thylacine Wells Subsea Installation & Commissioning



Information Sheet | 17 November 2022

As a producer of natural gas, Beach Energy is contributing towards a lower carbon future as natural gas is widely recognised in playing an important role in emissions reduction globally and in Australia. It is also a vital aspect of energy security.

Natural gas produced by Beach supplies the strong demands of Victorian homes, business and industry.

In the Otway offshore basin Beach is continuing development of natural gas reserves to ensure ongoing production at the Otway Gas Plant near Port Campbell.

Completion of Drilling Campaign

Project activities commenced in 2019 with assessment of seabed locations, followed by a drilling program from February 2021 to July 2022 in which one exploration well and six production wells were drilled.

Two of the new production wells (Geographe 4 & 5) have already been connected to the existing offshore-to-onshore pipeline to the Otway Gas Plant, processing gas for the Australian east coast gas market.

The drilling campaign saw outstanding safety and environmental compliance, positive engagement with the commercial fishing sector and minimal disruption to their activities, and successful management of safety and logistical challenges due to COVID-19.



Skandi Singapore Construction Support Vessel

Connection of Thylacine production wells

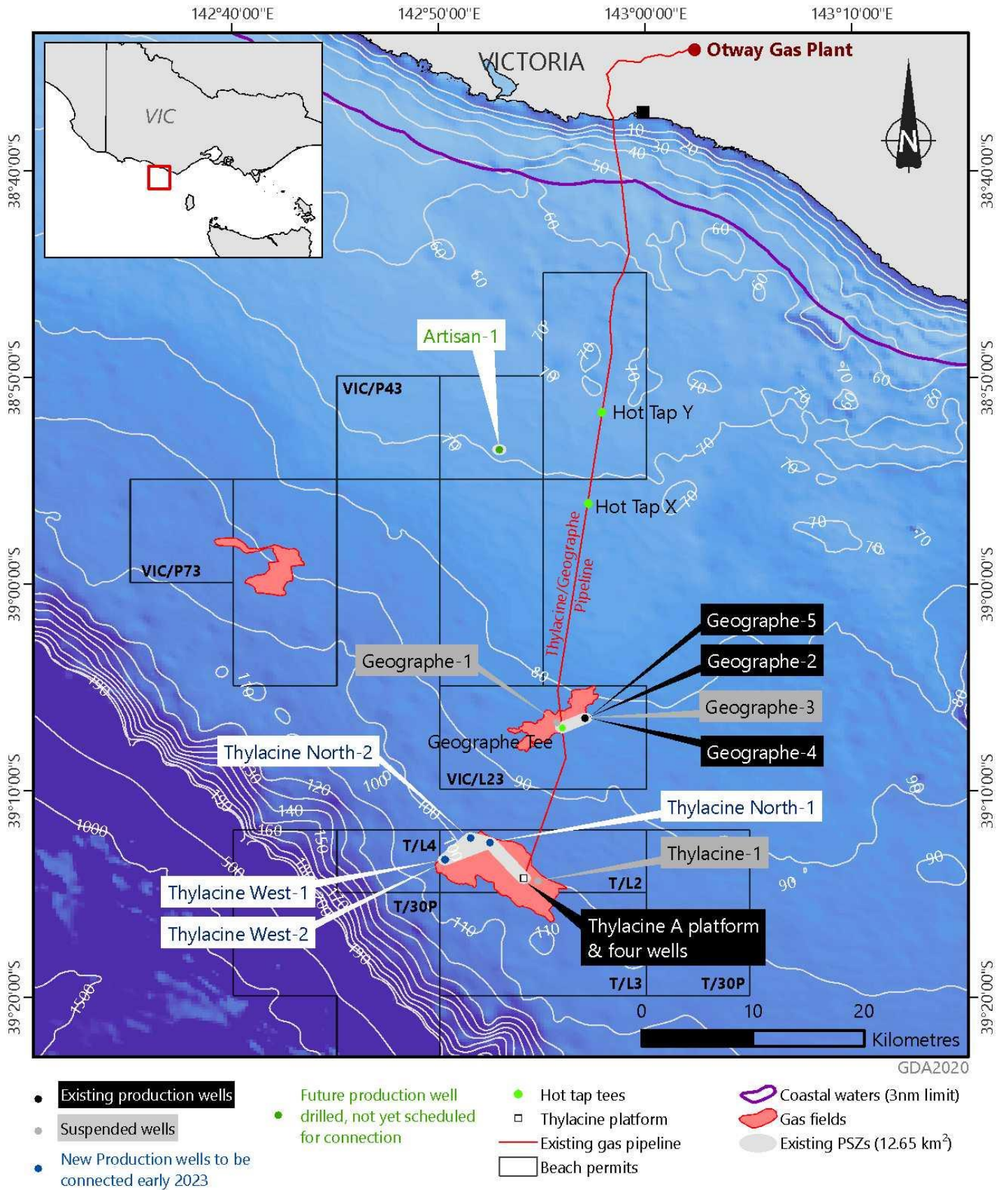
The next phase of activities will include installation of additional seabed infrastructure to connect the four new Thylacine production wells to the existing offshore-to-onshore pipeline.

New seabed infrastructure will include:

- Integration module of approximately 14m² placed on the seabed near the Thylacine A platform, to be installed and connected to the platform by divers for later connection to the Thylacine production wells
- Flowlines and various subsea connection modules to connect the production wells to the existing platform and pipeline
- Electrical and hydraulic controls within cables that enable remote monitoring and control of the production wells.

A specialist construction support vessel will use a submersed remote operated vehicle to install the seabed equipment, connect and commission the production wells.

Project area map



15/11/2022

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

OT22-0010 R5

Activity Location

The new Thylacine wells are approximately 68 km south of Port Campbell, in Commonwealth waters.

Timing and Duration

Activities are expected to commence in February 2023 and take approximately 9 weeks to complete, subject to weather conditions.

Project plans will be finalised after Beach has received all regulatory approvals, and exact timings will be subject to vessel and contractor availability and weather conditions.

Notifications will be issued to marine users two weeks before activities commence.

Environmental regulations and approvals

Each new offshore activity requires an Environment Plan (EP) to be assessed by the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA), in accordance with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations (2009)* (Environment Regulations). The EP must:

- be appropriate for the nature and scale of the activity
- include a comprehensive description of the activities
- describe the existing environment (including social, economic and cultural features) that may be affected by the activities
- include details of the particular relevant values and sensitivities (if any) of that environment
- identify and evaluate environmental risks and impacts from the operational activities, including potential emergency conditions
- include appropriate environmental performance outcomes and control measures to reduce any potential impacts
- include an appropriate implementation strategy and monitoring, recording and reporting arrangements

- set out a method to identify “a person or organisation whose functions, interests or activities may be affected by the activities to be carried out under the environment plan” (*Relevant Persons*)
- demonstrate that consultations have been carried out in accordance with the regulations, and appropriate measures adopted, because of the consultations.

The EP must demonstrate to NOPSEMA how the activities will be conducted to ensure that potential impacts and any residual risks will be managed and reduced to ‘As Low As Reasonably Practicable’ (ALARP) and an acceptable level.

If NOPSEMA is satisfied that the EP meets the criteria set out in the Environment Regulations, it will accept the EP and publish it on its website.

Over the course of the Otway Offshore Project Beach has consulted *Relevant Persons* in the preparation of several EPs.

Beach has developed a draft EP for the subsea installation and commissioning of the new Thylacine production wells and it is available on the Beach website.

The existing Otway Offshore Operations EP will be revised to include the operation of the new Thylacine production wells.

Consultation and Feedback

This information sheet has been prepared to inform *Relevant Persons* and seek consultation.

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

Beach will consider all feedback, questions and concerns and responses will be provided.

All consultation records and emails will be provided to NOPSEMA with EPs.

Relevant Persons may request that information they provide is not to be published, and it will be identified as sensitive information and not published in the EP.

Environment description

The EP describes the existing environment in the immediate activity area and in the broader emergency planning area where there is a variety of marine fauna including the presence of:

- Blue, humpback and fin whales, particularly during the summer months
- Southern right and minke whales, particularly during the winter months
- Common dolphins and shark species throughout the year
- New Zealand and Australian fur seals throughout the year
- Loggerhead, green turtle and leatherback turtles throughout the year.

There are no marine parks within the activity area. However, within the broader emergency planning area, there are National Marine Parks and State Marine Protected areas (see map).

Socio-economic and cultural values within the activity and planning areas include:

- Commonwealth managed fisheries, including southern and eastern scalefish and shark; and southern squid jig fishery
- Victorian managed fisheries, including rock lobster and giant crab
- Commercial shipping activity
- Sea Country values and sensitivities held by Aboriginal peoples
- Shipwrecks in close shoreline proximity
- Recreational fishing, usually within close shoreline proximity
- Recreational diving focussed on shipwrecks and reefs close to the shoreline
- Significant tourism features and activities associated with the Great Ocean Road, Twelve Apostles and Bay of Islands Coastal Park.

Beach recognises the environmental, cultural, heritage, social and economic values in our activity and planning areas. The Thylacine offshore platform, associated pipeline, gas plant and

associated exploration and drilling activities have operated safely in close proximity to sensitive coastal areas such as the Twelve Apostles Marine National Park since 2007.

Beach has a proud track record for safety and environmental performance, adhering to performance measures set out in EPs and Safety Cases accepted by regulators.

Emergency Planning

When conducting any offshore activity, there is an extremely unlikely risk of an oil spill. The existing four Thylacine gas wells to be connected are isolated and protected to ensure there are no leaks. For the construction support vessel, there is only a risk of a spill of marine diesel oil (MDO) in the extremely unlikely event of an accident.

Beach operating procedures include an Oil Pollution Emergency Plan (OPEP). Beach has amended its OPEP to include the potential risk of an MDO release during the activities required to connect and commission the Thylacine wells. The OPEP forms part of an EP that must be accepted by NOPSEMA before activities can commence.

Preparing an OPEP involves using hydrocarbon or MDO release modelling information for the local area using a worst-case spill 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 or MDO.

The plans also assess the likelihood and consequences of any hydrocarbon or MDO release which must be reduced to ALARP through a range of control measures and include detailed response plans.

An OPEP describes the arrangements for responding to and monitoring any release of hydrocarbon and includes:

- 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 worst 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) 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 oil spill modelling and why it is required for the preparation of environment plans, [watch this video](#) from the NOPSEMA website.

Maritime safety protocols

At Beach, safety takes precedence in everything we do. Marine construction vessels must have their specific Safety Cases accepted by NOPSEMA, and operate in accordance with standards, regulated by the Australian Maritime Safety Authority (AMSA) including:

- issuing notifications to the Australian Hydrographic Office before mobilising to the operational area and when demobilising
- providing advanced notice of activities and vessel contact details to Relevant Persons
- communicating with other vessels using standard maritime protocols
- maintaining safe operating distances.

Safety exclusion and cautionary zones

All vessels in the area will be required to observe the existing Petroleum Safety Zone (PSZ) of 500m radius around the Thylacine well heads and infrastructure.

The Australia Hydrographic Office will issue a Notice to Mariners for safety exclusion and

cautionary zones before activities commence and when completed.

Questions and Answers

What about impacts on commercial fishing?

The Otway Offshore Project is located within existing designated Commonwealth and State fisheries. Each fishery covers a vast area, whereas the wells, platform and seabed infrastructure cover a very small area. Prior to developing EPs for the seabed assessments and drilling campaign, Beach assessed commercial fishing in the area, consulted with the commercial fishing industry, and has continued consultation throughout the activities to minimise the risk of disruption to commercial fishing.

Beach has a Fair Ocean Access procedure which sets out Beach's commitment to consultation, minimising impacts of its activities, circumstances in which a fisher may claim compensation, evidence required and how to make a claim.

What about impacts to whales?

Based on the low intensity sound generated from marine vessels, any impacts to whales will be minor and temporary. Avoidance and disturbance of whales will be managed in accordance with the *Environment Protection and Biodiversity Conservation (EPBC) Regulations 2000*. This includes adhering to required speeds and distances from whales, and in accordance with mitigation measures set out in the EP, which include independent Marine Mammal Observers on the construction vessel.

What's Beach's approach to climate change?

As an oil and natural gas explorer and producer across Australia and New Zealand, Beach is committed to sustainably delivering energy for communities. Beach recognises that climate change is one of the global challenges of this century and understands the role we must play in managing our carbon emissions.

Beach has an aspiration to reach net zero Scope 1 and 2 emissions by 2050 and a target to reduce

emissions intensity by 35% from its entire portfolio by 2030. See further information in Beach's [Sustainability Report](#).

Why is Beach continuing gas development in the Otway Basin?

Natural gas from the Otway Basin has been supplying Australia's east coast gas market for many years. Beach holds several permits in the area near its existing Thylacine platform, which flows raw gas to the Otway Gas Plant for processing and supply to Victorian homes and businesses.

Beach is required to continue to search for recoverable hydrocarbons in the production license that contains the Thylacine platform in accordance with requirements set out by the National Offshore Petroleum Titles Administrator (NOPTA).

Industry and regulators continue to see tight gas supply for south-east Australia. To positively impact declining production from existing fields as reservoirs deplete, new gas projects need to be undertaken.

Why do we still need natural gas?

Natural gas has a wide variety of uses in our daily lives. This includes generating electricity, residential heating, hot water and cooking. In the industrial sector, gas is a primary heat source for manufacturing glass, steel, cement, bricks, wood, ceramics, tiles, paper and in producing food. Gas is a common ingredient in the manufacturing of fertilisers, plastics, pharmaceuticals and fabrics.

The Australian Energy Market Operator's (AEMO) latest [Victorian Gas Planning Report](#) in March 2022 forecasts demand shortfall risks as soon as 2023.

What role is natural gas playing as Australia transitions to renewable energy?

Carbon emissions of natural gas are 50% to 70% lower than coal. As old coal fired power stations are removed from Australia's energy mix, electricity powered from natural gas ensures a stable energy supply as our economy transitions to renewable energies. AEMO's ([2022 Integrated System Plan](#)

[\(ISP\)](#) forecasts more gas will be required in all modelled scenarios. In the most ambitious "Step Change" scenario, a 90% reduction in carbon emissions from power generation is achieved by 2041-42 as a result of 33% more gas fired electricity generation, enabling generation from renewables to increase by 285%.

Is Beach Energy increasing retail gas prices?

No. Beach Energy is a gas wholesaler and supplies gas under contracted prices to energy retailers in Australia. Beach is not involved in setting retail prices.

Is Beach exporting gas from the Otway Basin?

No. The gas Beach produces from the Otway Basin is processed at the Otway Gas Plant in Victoria and directly supplied via an existing pipeline to retailers in the Australian east coast gas market to meet residential, business and industry demands.

About Beach Energy

Beach Energy is an ASX listed oil and gas, exploration and production company headquartered in Adelaide. It has operated and non-operated, onshore and offshore, oil and gas production from five production basins across Australia and New Zealand and is a key supplier to the Australian east coast gas market.

In Victoria, Beach is the operator of all onshore and offshore assets held in joint venture by: Beach (60%) and O.G. Energy (40%).

We welcome your questions and feedback. Please contact us:

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E: community@beachenergy.com.au
www.beachenergy.com.au

All consultation records will be provided to NOPSEMA in accordance with regulations.

Please advise us if you do not want any consultation information published by NOPSEMA.