



Bayu-Undan to Darwin Pipeline

Environment Plan Renewal - Notice of Consultation

December 2017

Overview

ConocoPhillips Pipeline Australia Pty Ltd (ConocoPhillips) is the majority interest holder and operator of the Bayu-Undan field in the Timor Sea, located 250 kilometres south west of Timor-Leste and 500 kilometres north west of the Northern Territory in Australia. Since 2006, The Bayu-Undan Participants have been extracting hydrocarbons from the Bayu-Undan field and sending dry gas for processing via a 502-kilometre, 26-inch pipeline, to the Darwin LNG plant at Wickham Point. The gas is then converted into Liquefied Natural Gas (LNG) for export.

The pipeline was installed in 2005 following stakeholder consultation and regulatory approvals from the Australian, Northern Territory and the Designated Authority for the Joint Petroleum Development Area. The largest section of the pipeline is in Commonwealth Waters and is regulated by the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) and Northern Territory Water regulated by the Department of Primary Industry and Resources (NT-DPIR).

Approval for the Bayu-Undan to Darwin Gas Export Pipeline Environment Plan (the EP) is granted in accordance with requirements under the Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 (OPGGs (E) Regulations). Regulation was transferred to NOPSEMA in 2012 and the approved pipeline EP was revised and accepted at that time. A renewal is now required to cover the next five-year period of operation in both Commonwealth Waters and NT Coastal Waters.

The purpose of an EP is to manage environmental risks to as low as reasonably practicable (ALARP) and impacts to an acceptable level for all pipeline operations and maintenance activities. The renewal does not propose any new activities, rather the continued operation, inspection and maintenance of the pipeline. The most recent inspection found the pipeline to be in sound condition.

The EP renewal process includes consultation with all relevant stakeholders prior to submittal to NOPSEMA and the NT Department of Primary Industry and Resources (NT-DPIR) for assessment. The initial step in that process is distribution of information to all interested and relevant stakeholders. This includes information on the pipeline's location, history, purpose and ConocoPhillips' environmental management, as well as the regulatory and consultation process.

The section of the pipeline within the Northern Territory Coastal Waters is regulated by the Northern Territory Government under the Energy Pipeline Act and NT Coastal Pipeline Licence 1 (NT/CPL1) which includes an accompanying EP consistent with all relevant Commonwealth legislation. In providing opportunity for stakeholders to also comment on the section within NT waters, this consultation period will also enable submission of the EP to the NT-DPIR for renewal.



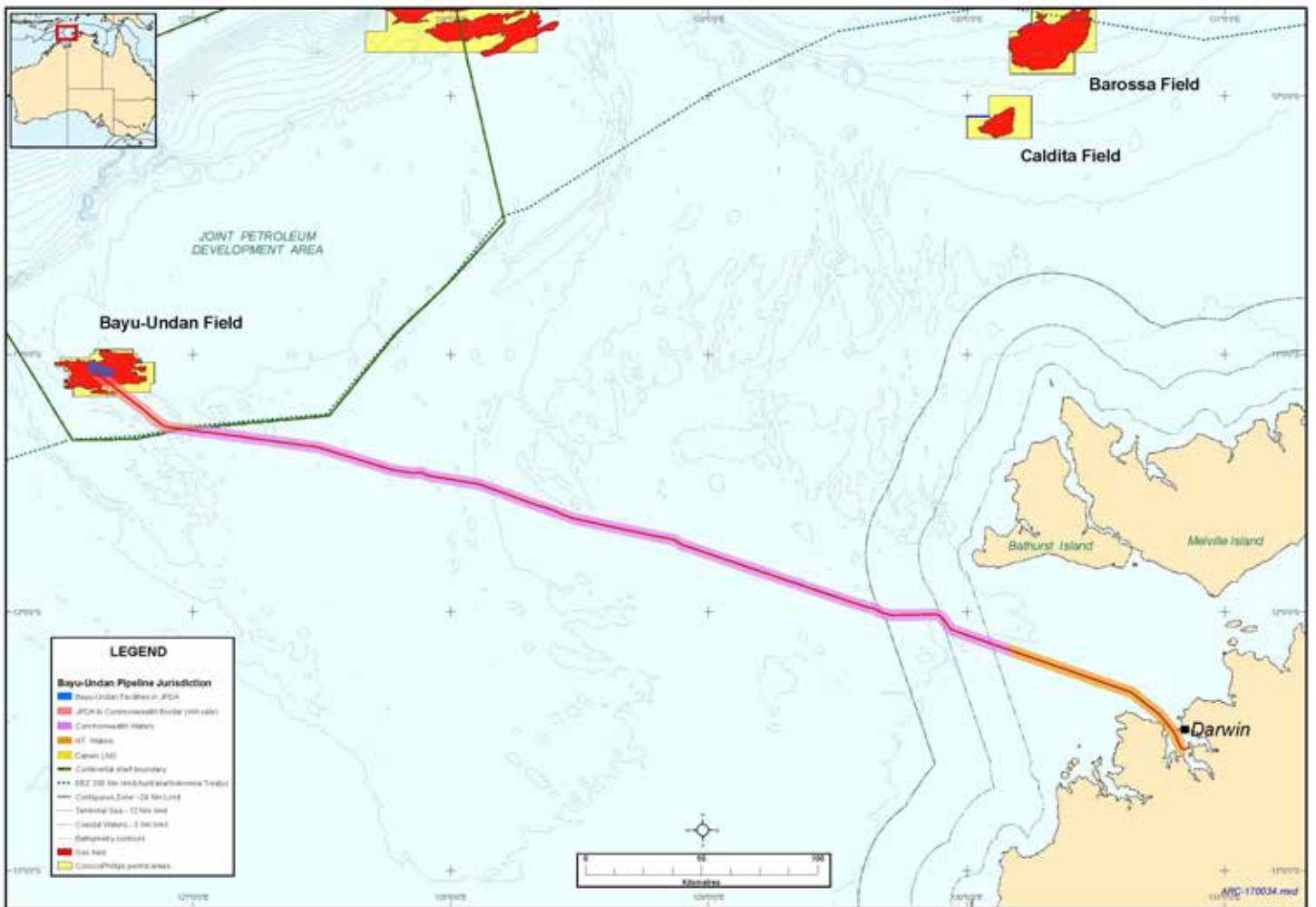


Figure 1: Bayu-Undan to Darwin Gas Export Pipeline

Pipeline Location

The Bayu-Undan field is located within the JPDA approximately 500 km north-west of Darwin and 250 kilometres south west of Timor-Leste. Figure 1 shows the regional geographical location of the pipeline, and the three different jurisdictional areas.

The nearest land mass to the pipeline in Commonwealth waters is Bathurst Island (located approximately 20 km to the north). The shallow sub-tidal and intertidal areas of the Tiwi Islands (Melville and Bathurst Islands) have rocky and coral reef features, however, are distant from the potential area of influence of the pipeline.

The section of the pipeline within Commonwealth Waters lies on the sea floor in water depths between 60m and 140m. The dominant sediments along this section are typically soft silty sands. The pipeline passes through the Commonwealth Oceanic Shoals Marine Reserve which is zoned as a multiple use zone, in which a range of existing activities (including petroleum exploration and production) may occur.

The Timor Sea is an active commercial fishing area used by both Australian and Indonesian fishermen. There are seven main Australian commercial fisheries operating in the areas surrounding the pipeline in Commonwealth Waters including: Northern Prawn Fishery, Timor Reef Fishery, Northern Territory Demersal Fishery, Northern Territory Spanish Mackerel Fishery, Northern Territory Shark Fishery, Western Tuna and Billfish Fishery, and Southern Bluefin Tuna Fishery.

The section of the pipeline within NT Coastal Waters enters Darwin Harbour where the seabed is dominated by gravel. Within the harbour the pipeline is installed in a trench below seabed level and protected from dragged or dropped anchors by a protective rock berm. Most of the harbour is less than 10 m deep and much of it is intertidal.

Pipeline Operations

The pipeline has been safely operated for over 10 years without incident, supplying dry gas extracted from the Bayu-Undan field to the 3.5 million tonne per annum (mtpa) capacity LNG plant at Wickham Point, Darwin (Darwin LNG).

The Pipeline is a lean gas (dry gas) export pipeline, with a low fraction of residual liquid hydrocarbons following removal of most of the condensate at Bayu-Undan, and is subject to continual operational controls to maintain pipeline integrity throughout the life of the activity.

In addition to the transfer of gas to Darwin LNG, pipeline operations include planned maintenance activities such as use of Remote Operated Vehicles (ROVs) from inspection and maintenance vessels. Inspections are scheduled under the Pipeline Integrity Management Plan and follow a risk-based inspection (RBI) schedule. The most recent inspection was conducted in 2017 and found the pipeline to be in sound condition with no degradation. The operations involving the inspection and maintenance vessel include waste and quarantine management activities.

Environmental Management

Under the OPGGS(E) Regulations, ConocoPhillips conducts an Environmental Risk Assessment of the Pipeline. This process helps to identify and understand the types of environmental risk associated with pipeline activities, and what existing controls and additional/alternate controls are available to manage them. The EP includes an implementation strategy to define an Environmental Performance Objective (EPO) for each risk identified.

The two main environmental risks are an uncontrolled gas release from the pipeline and an unplanned fuel release from a maintenance vessel. These risks are remote and very unlikely, but ConocoPhillips manages them through a comprehensive Risk Management Process that includes a range of mitigation measures including detailed fuel transfer procedures, incident response plans, pipeline monitoring systems, and internal and external inspections and maintenance programs.

Regulatory Processes

The Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009 require a titleholder to have an accepted environment plan (EP) in place for any petroleum activity or greenhouse gas activity, including operation and maintenance of a pipeline. The regulations exist to ensure that any petroleum activity undertaken in an offshore area is managed in a manner consistent with the principles of ecologically sustainable development (ESD) as set out in the *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*, and carried out in a manner by which the environmental impacts and risks of the activity are reduced to as low as reasonably practicable (ALARP) and acceptable levels. This regulatory function, for Commonwealth Waters, is managed by NOPSEMA.

For the section of the pipeline within NT waters, the *Energy Pipeline Act Part VA* governs environmental management, with specific application to Crown lands, including the seabed within the limits of NT coastal waters. Under the Act, ConocoPhillips holds an accepted Pipeline Management Plan including an EP consistent with the OPGGS (environment) Regulations and NT Onshore Pipeline EP Guidance. This regulatory function, for NT Coastal Waters, is managed by the NT-DPIR.

Pipeline inspection maintenance vessel – MMA Pinnacle



Scorpion SN20, a Work-class Remotely Operated Vehicle (WROV) performing subsea inspection activities





Consultation

ConocoPhillips is committed to safe and environmentally responsible operation of the Bayu-Undan to Darwin Gas Export Pipeline. In preparing the EP covering the Commonwealth Waters section in 2013, ConocoPhillips consulted with all key stakeholder groups, including Commonwealth and Northern Territory Government departments, commercial fishery associations, private fishing operators and relevant spill response agencies. As a result of this consultation no concerns were raised by stakeholders regarding pipeline management that needed to be addressed or incorporated into the EP accepted by NOPSEMA.

For this current consultation period, ConocoPhillips is seeking input from all stakeholders identified as being relevant or interested in the sections of the pipeline in both Commonwealth and NT waters. All correspondence received during the consultation period will receive a written response and be considered in the preparation of the EP to NOPSEMA and the NT-DPIR. A further written communication will be provided to all relevant and interested stakeholders closer to the submittal of the EP to NOPSEMA and the NT Government.

Who we are

ConocoPhillips is the world's largest independent E&P company based on production and proved reserves. Headquartered in Houston, Texas, ConocoPhillips had operations and activities in 17 countries, \$75 billion of total assets, and approximately 11,600 employees as of Sept. 30, 2017. Production excluding Libya averaged 1,403 MBOED for the nine months ended Sept. 30, 2017, and proved reserves were 6.4 billion BOE as of Dec. 31, 2016. For more information, go to www.conocophillips.com.

Feedback

To provide feedback or seek further information on the operation and environmental management of the Bayu-Undan to Darwin Gas Export Pipeline please email:
pipeline@conocophillips.com

Please provide feedback by **Friday, 12 January 2018**

Find out more www.conocophillips.com.au

