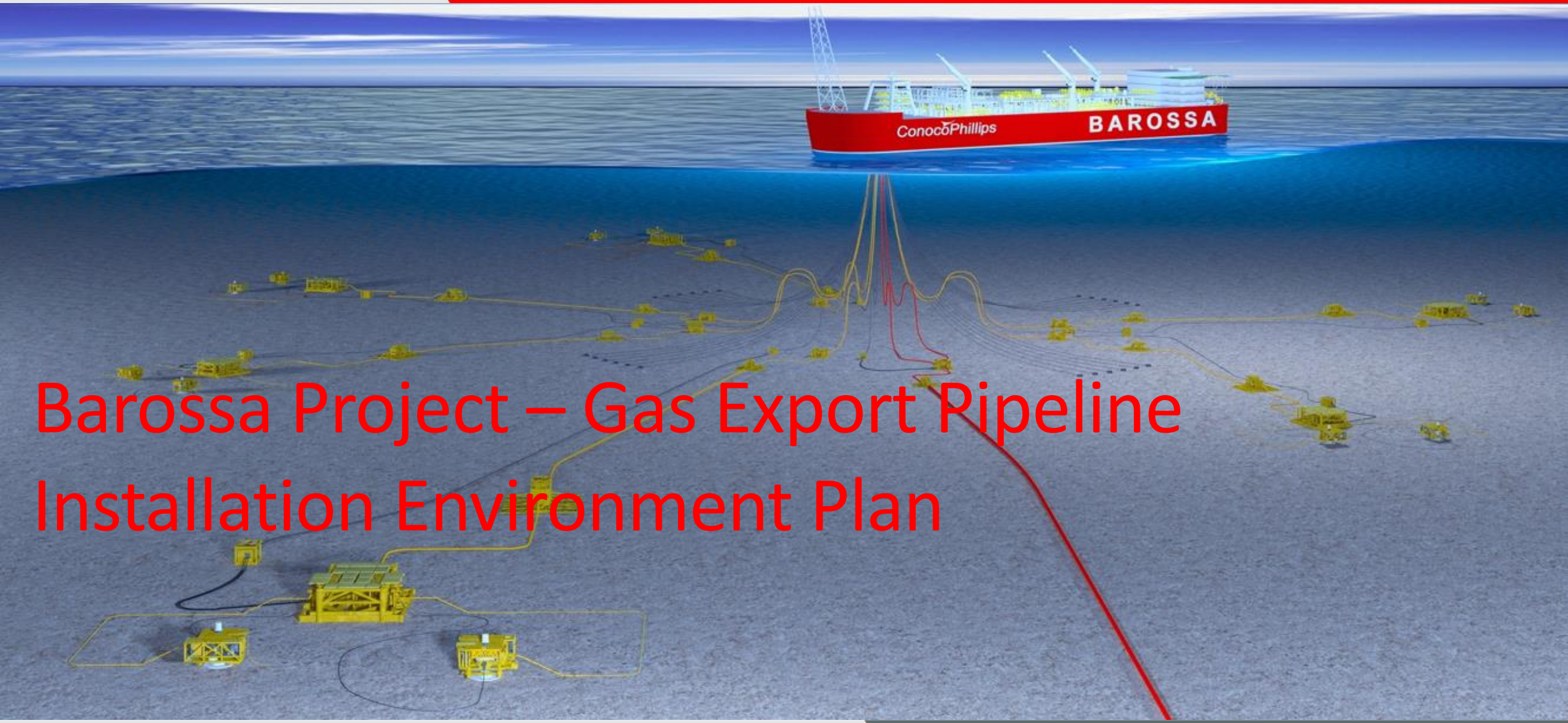
ConocoPhillips



Barossa Project – Gas Export Pipeline Installation Environment Plan

April, 2019

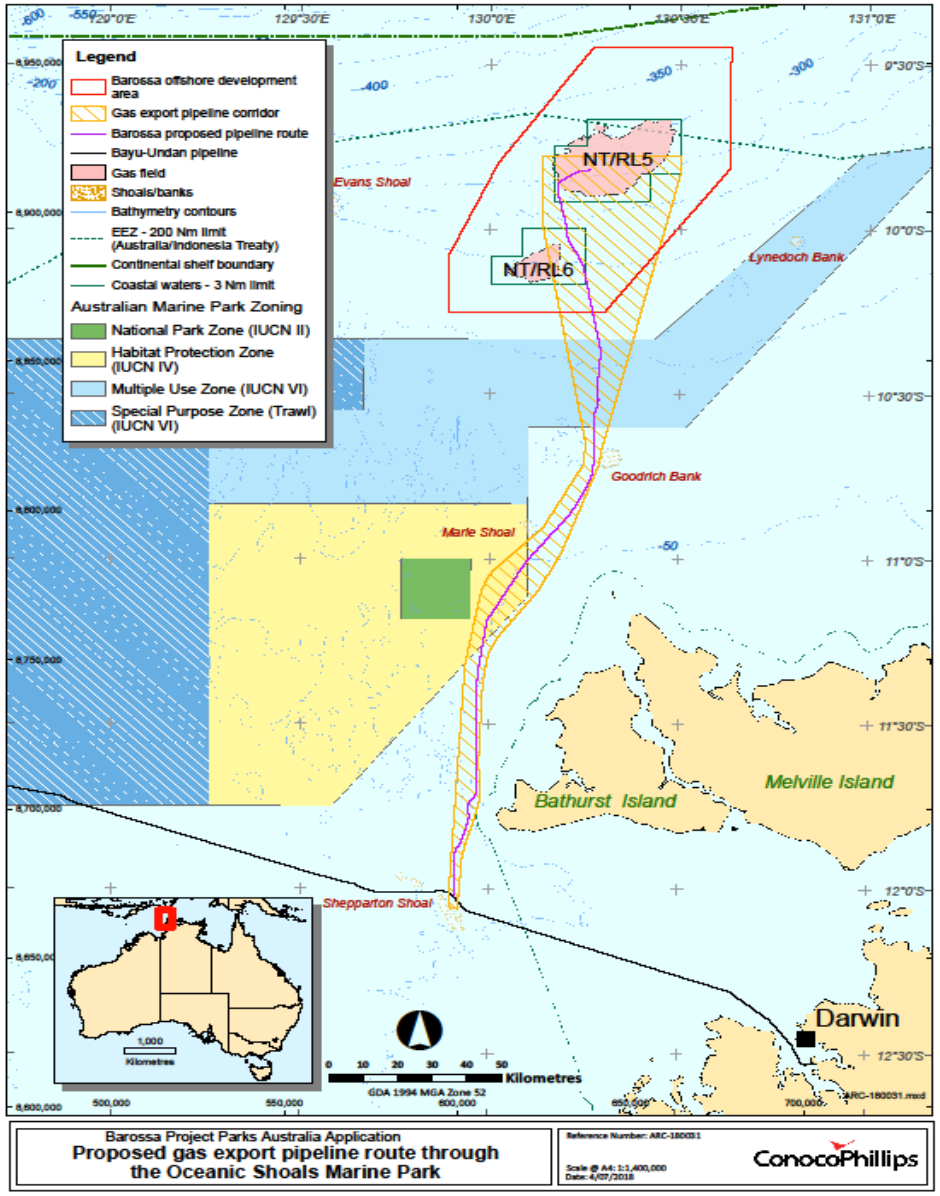
Agenda

- Barossa Project Overview
- Gas Export Pipeline (GEP) Activities
- GEP route
- Operational Area
- GEP installation Schedule
- Consultation Process

Barossa Project Overview

- Barossa field located approximately 300 km north of Darwin.
- Gas and condensate – condensate exported from the Floating Production Storage and Offloading (FPSO) facility.
- Dry gas exported via the GEP to tie into the existing Bayu-Undan pipeline to feed the existing Darwin LNG Facility, subject to commercial arrangements being negotiated with the infrastructure owners, where it would be processed into LNG for export.
- Offshore Project Proposal (OPP) accepted by NOPSEMA in March 2018.

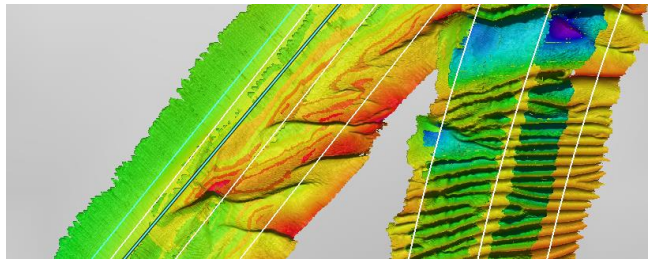
GEP Route



- The Barossa OPP presented a pipeline corridor within which the pipeline would be installed.
- Based on additional field survey and engineering studies, ConocoPhillips Barossa has identified a proposed pipeline route, shown as the purple line within the hatched corridor area (refer to slide 4).
- The proposed route would traverse two areas within the Oceanic Shoals Marine Park: a 30 km section through the Multiple Use Zone (IUCN Category VI) and 31.5 km section through the Habitat Protection Zone (IUCN Category II).
- Consultation ongoing with Parks Australia; in-principle licence agreed December 2018.

GEP Installation Activities and Sequence

Pre-lay survey



Performed nominal 3-9 months prior to pipelay to enable the installation contractor to confirm span requirements and procure span rectification materials.

Pre-lay span rectification

Preformed prior to pipelay or during pipelay subject to span locations and contractor methodology.

PLET base and lateral buckling mitigation structure installation

Subject to the PLET design a pre-installed base may be required

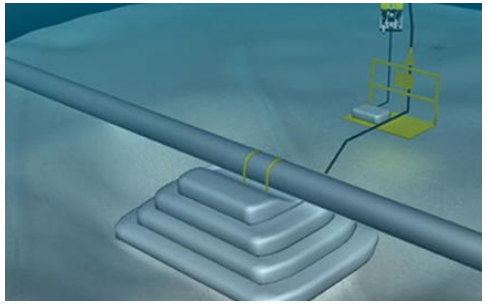
Pipelay

Pipelay could be from deep to shallow or visa versa subject to installation contractor preferences. Survey will be performed on an ongoing basis

PLET Installation

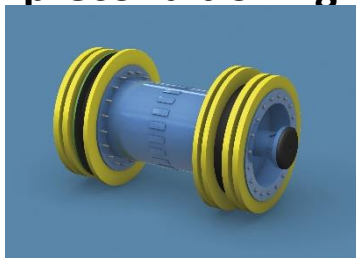
Pipeline end terminations (PLETs) installed at the end of the pipelay campaign.

Post lay span correction



Spans will be corrected prior to flooding

Flood / clean / gauge / testing / dewatering / preconditioning

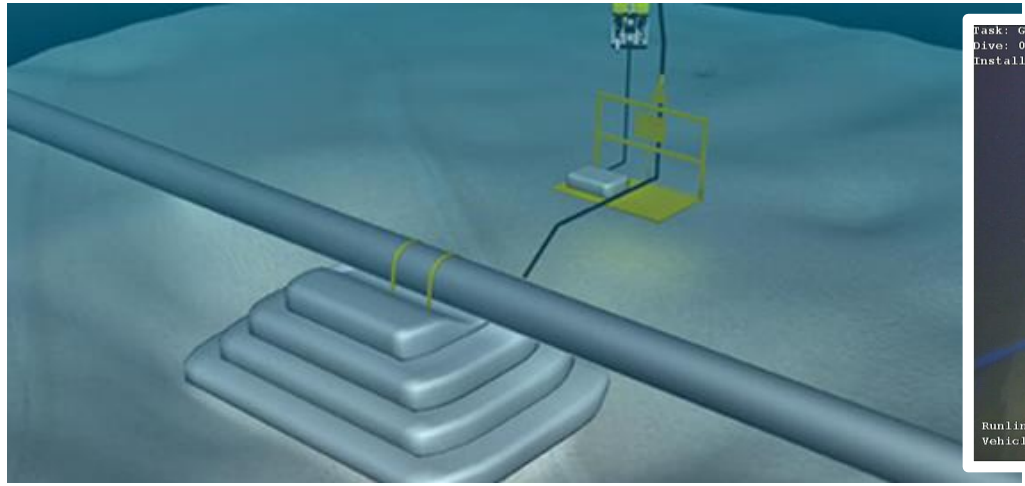


Operational Area

- The operational area is the geographic extent of the GEP installation campaign, which is considered and risk assessed in the EP.
- The operational area is defined as 2,000m either side of the pipeline route, except in the following areas:
  - Adjacent to Goodrich Bank and adjacent to Bathurst Island where the width of operational area has been reduced to the east of the pipeline centreline to remain within the pipeline installation corridor presented in the accepted OPP.
  - At both Pipeline End Termination (PLET) locations where the operational area has been extended to a radius of 3,000 m for operational purposes (whilst remaining within the pipeline installation corridor in the accepted OPP).

Pre-lay and Post-lay Span Correction

Concrete mattresses are expected to be the primary technique for pre-lay span correction.



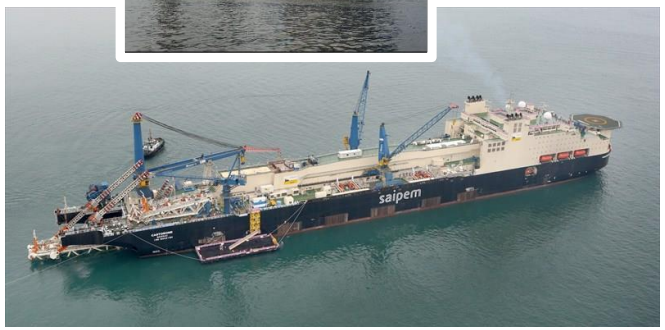
Post-lay span correction is expected to be performed through the use of Remote Operated Vehicle (ROV) installed pumpable grout bags, or pre-filled grout bags.

Other options may also be available subject to Contractor methodology, environmental risk assessment and ALARP (As Low As Reasonably Practicable) Principle:

- Mass flow excavation
- Rock dump
- Gravel bags, prefilled grout bags
- Mechanical supports (concrete, steel)
- Span shoulder modification.

Typical Installation Spread

Pipelay vessel



Dynamically positioned specialist pipelay vessel

Support Vessels

Prelay survey vessel

Construction support / Survey vessel

FCGT vessel

Supply vessel

Bunker vessel

Pipehaul Vessels

Crew Boat

General Cargo Vessels

PSVs

GEP Installation Timing/Schedule

- Total in-field duration approximately 9 months:
  - Subject to Contractor methodology, vessel availability, weather conditions and operational efficiencies.
- Pipeline installation expected to take approximately 3 months.
- Pre-lay survey could commence up to 9 months earlier than pipeline installation.
- Pre-lay span rectification may occur up to 30 days prior to pipeline installation.
- Pipeline installation expected to take approximately 3 months.
- Activities expected to commence as early as Q1 2021 and finish as late as Q1 2024.

Consultation Process

- Initial Fact Sheet provided to all relevant and interested stakeholders.
- Direct follow up with all relevant stakeholders.
- Detailed written responses to all stakeholders who raise questions, issues or claims, including how these are proposed to be addressed in the EP.
- Incorporation of stakeholder feedback into the EP.
- Ongoing consultation process:
  - General enquiries process
  - GEP installation activity notification

Further Information

- Barossa Project contact address: barossa@conocophillips.com

- Barossa Project webpage: http://www.conocophillips.com.au/what-we-do/our-projects-activities/barossa-project/