

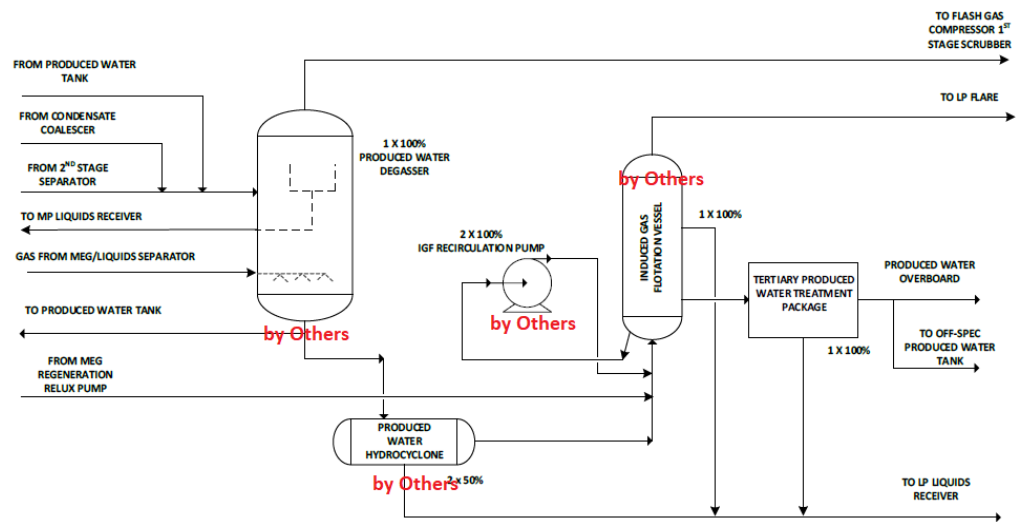
Package No: 0482-MI20-94PO-1480

**PRODUCED WATER TERTIARY TREATMENT PACKAGE**

Scope of Work

Tertiary Produced Water Treatment System shall be designed to handle 20,000 bpd throughput of oily water content of 30 mg/L and Hg content of 10 ppbw from upstream Primary and Secondary Produced Water Treatment System.

The purpose of the Produced Water Treatment System is to remove hydrocarbons from the produced water stream and meet the overboard specifications which is to be designed and maintained to achieve a final total OIW that can be demonstrated to be ALARP and acceptable to Australia regulations. The target design value for the 24-hourly average OIW shall not be greater than 30 mg/L (dispersed and dissolved) as an upper bound.



**Produced Water Treatment System Schematic**

The treated produced water from primary and secondary treatment system is subsequently treated in Tertiary Produced Water Treatment System. Both the primary and the secondary produced water treatment techniques only target dispersed hydrocarbons present in the produced water, but they do not remove the dissolved hydrocarbons like BTEX, PAH, phenol and its derivatives. So, any reduction of oil-in-water concentration of the produced water below 30 mg/liter is only possible through tertiary produced water treatment technologies designed to remove these dissolved hydrocarbon components.

Hydrocarbon liquids Tertiary Produced Water Treatment System is sent to the LP Liquids Receiver. The produced water, at a temperature less than 60°C, is discharged to a depth at least 10 m below mean sea level. An off-Spec Produced Water Tank (by others) is provided in the hull to accept any off-spec water under upset conditions.

The footprint, the weight, the CAPEX and the OPEX for the tertiary produced water treatment will be there main criteria for technologies selection. Low pressure steam, fuel gas, inert gas are available from the FPSO facility.

The Tertiary Produced Water Package shall include, but not limited to all the equipment within skid; on-skid instrumentation, junction box, cable trays, etc suitable for Zone 1 hazardous area requirement; on-skid inter-connecting piping, fittings and valves; common structural skid/module, platforms, handrails and ladders for access and maintenance as applicable, etc.

The scope of work shall be but not limited to design, engineering, fabrication, inspection and testing, start-up and performance testing and performance guarantee for the Tertiary Produced Water Treatment Package suitable for continuous operation on an FPSO to be located offshore Australia.

- Contract Award Q2 2020; Q2 Delivery 2021

## Project Registration

ConocoPhillips is committed to ensuring Australian Industry full, fair and reasonable opportunity to participate in the Barossa Offshore Project. Expressions of Interest are invited from contractors and suppliers with the relevant capability and capacity to undertake the scope of work.

This is a request for specific expressions of interest. Contractors and suppliers will be considered for prequalification and tender if suitably qualified against this package.

**Note** that an important part of the project registration process is to register an Expression of Interest at the correct Scope level.

Scope level definition:

**Full scope:** Able to produce / supply the entire package.

**Partial scope:** Able to produce / supply one or more of the sub-packages.

All registrations are to be completed via ICN Gateway [BarossaOffshore.icn.org.au](http://BarossaOffshore.icn.org.au). Please contact the ICNNT if registration assistance is required. Contact details: (08) 8922 9422 or [admin@icnnt.org.au](mailto:admin@icnnt.org.au).

Project Website: [ConocoPhillips Australia](http://ConocoPhillips Australia)