

## CONCEPT STUDY WELLHEAD PLATFORM

Carnarvon Basin, Offshore Australasia

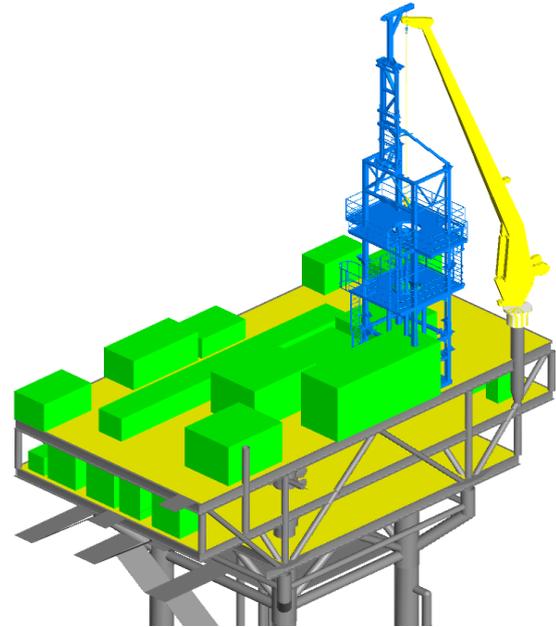
In 2021, ICON Engineering was engaged by an independent Australasian energy company to conduct a Concept Study for an unmanned wellhead platform. The engineering focused on developing a minimum facilities platform design that could be installed using the jack up drilling rig.

Project specific challenges included:

- Requirement for large top deck to accommodate a large hydraulic workover spread; and
- Platform crane design - Needed to be located to enable access to all well locations in addition to supply boat operations.

The ICON scope of work included the following deliverables:

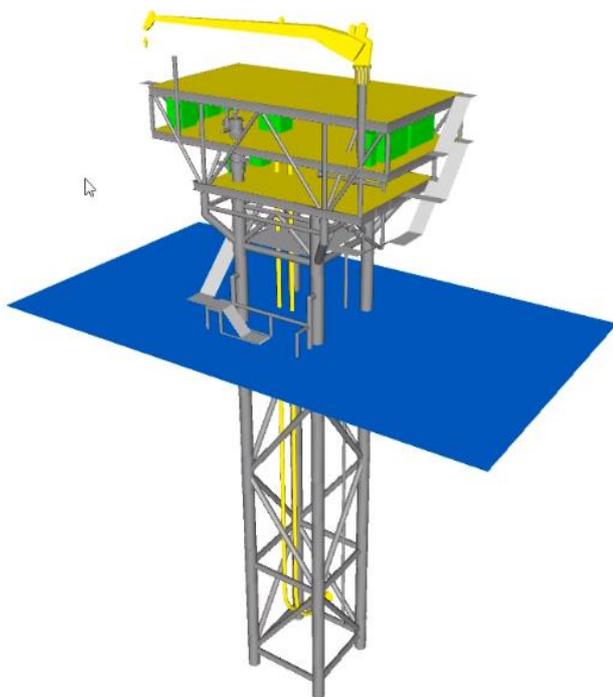
- Platform Basis of Design and Functional Specification;
- Process and Utilities Definition, and Equipment List;
- Platform Layout – Topsides and Substructure.
- Platform Weights - Topsides and Substructure;
- Basic Workover Equipment Layout and Interfaces;
- Installation Methodology; and
- Platform Cost Estimate and Schedule.



Top Deck – Hydraulic Workover Unit (HWU) layout schematic.

Following the completion of this Concept Study the major features of the Platform were:

- Minimum facilities WHP topsides that incorporates all required interfaces including FPSO and well workover;
- Slim, vertical four-legged jacket that can be readily installed by the Jackup drill rig;
- Vertical drilled and grouted piles/well conductors— one inside each jacket leg, installed using the Jackup drill rig; and
- Large top deck and platform crane to accommodate the portable Hydraulic Workover Unit (HWU).



Platform Schematic for 400mT unmanned wellhead platform.

### Platform Data:

Water Depth	30m
Jacket Weight (excl. piles)	220mT
Topsides Weight	180mT