

# Composite piping and tank delivered on time for Shell's Crux wellhead platform

Reducing risk, maintenance, and installation time with corrosion-resistant solutions offshore Australia

## Background

Shell is developing the Crux Field as a backfill gas supply source for the Prelude floating liquefied natural gas (FLNG) facility offshore Western Australia. The project will consist of a not normally manned (NNM) platform with five production wells in water depths of about 165 m (541 ft). A 160-km (99-mile) export pipeline—about the distance between New York City and Philadelphia—will connect this wellhead platform to the Prelude.

After fulfilling the supermajor's Design and Engineering Practices specification, along with NOV Fiber Glass System's proven track record with Shell, we received the contract to supply the corrosion-resistant and lightweight portable water tank and piping for the Crux offshore platform.

## Solution

We designed, engineered, and manufactured the 4-m (H) x 6-m (ID; 13-ft x 20-ft) glass-reinforced vinyl ester (GRVE) tank at our facility in Iuka, Mississippi. Meanwhile, our manufacturing plant in Malaysia delivered the Bondstrand™ 7000M glass-reinforced epoxy (GRE) pipe for seawater systems.

## Results

Bondstrand 7000M GRE piping provides a robust combination of corrosion resistance, electrostatic safety, and structural reliability. Unlike steel, GRE piping systems are not susceptible to rust or pitting caused by saltwater, eliminating the need for cathodic protection or coatings while minimizing maintenance requirements and extending service life in harsh offshore environments.

## Case study facts

**Location:** Australia

**Customer:** Shell

### Supply details

- GRVE portable water tank
- Bondstrand 7000M GRE piping systems

### Opex benefits:

- Excellent corrosion resistance
- Enhances safety
- Reduces maintenance costs
- Proven long-term durability
- Lowers total cost of ownership

The conductive fibers in this pipe series ensure safe dissipation of static electricity, enabling a safer operating environment. Moreover, using lightweight GRE and GRVE simplifies installation by eliminating the need for heavy equipment and minimizing hot work. These advantages not only reduce installation and long-term maintenance costs but also further improve safety.

Together, our composite solutions will help reduce Shell's total cost of ownership by enhancing durability and reducing maintenance demands.

