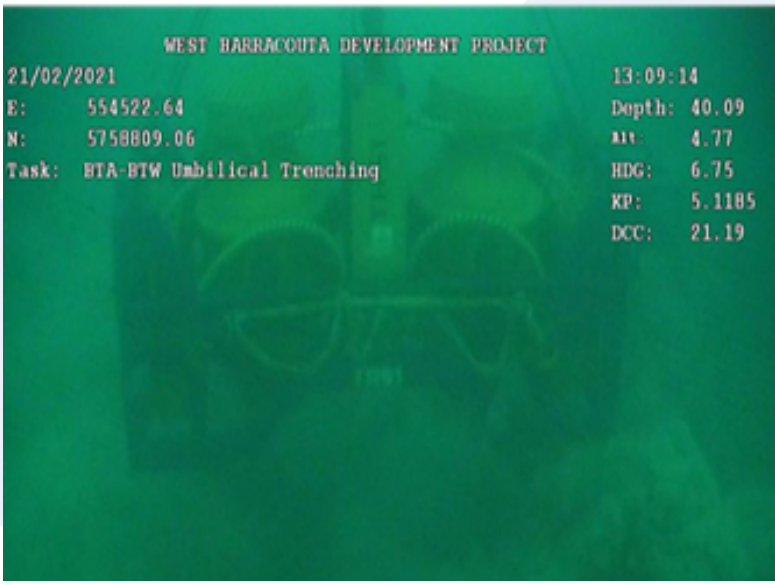
Rotech Case Study
TRS1

Post-lay Umbilical Trenching - Offshore Aus

Project Overview
Rotech Subsea was contracted by Subsea 7 to deliver post-lay trenching services using the TRS1 Jet Trenching tool for an umbilical installation offshore Australia. The project scope involved the burial of 6,000 metres of 118mm diameter umbilical to a client-specified depth of 0.6 metres Top of Cable. Operations were carried out from the vessel Seven Eagle, beginning in January 2021. The TRS1 was deployed using the vessel's crane and operated in water depths of up to 50 metres LAT, encountering a range of soil conditions from medium to coarse-grained sand to more cohesive, harder materials.



The Rotech Solution
Rotech Subsea deployed its TRS1 tool, designed for high-performance trenching across variable seabed conditions. The equipment was mobilised and installed efficiently, with the trenching tool performing consistently across differing soil types. In the softer areas, the TRS1 achieved trench depths between 1.3 to 1.6 metres Bottom of Trench (BOT) at an average progress rate of 4 metres per minute. In the harder, cohesive soils, trench depths between 1.0 to 1.3 metres BOT were achieved at a rate of 3 metres per minute. All trenching was completed in a single pass. Cable specification in just one pass.

Results
The project was completed with only 22 operational hours of the TRS1, underlining the system's efficiency and performance. Rotech Subsea successfully trenched the full length of umbilical to the required specification, surpassing expectations in both trench depth and productivity. Subsea 7 expressed high satisfaction with the TRS1's technical capabilities and the overall outcome. The successful delivery not only ensured compliance with client requirements but also resulted in reduced overall project costs. Rotech Subsea anticipates future collaboration with Subsea 7 following this strong performance.

Project Information
Client: Subsea7
Scope: Post-lay Umbilical Trenching
Water Depth: Up to 50m LAT
Soils: Medium to coarse-grained sand and harser more cohesive sands
Vessel: Seven Eagle