

Allseas Takes Delivery of Seatools Deep-sea Mineral Collection Equipment



On behalf of its client Allseas, subsea technology company Seatools has completed the engineering, manufacturing and qualification of the electronics, instrumentation and hydraulics for Allseas' pilot polymetallic nodule collection vehicle. The vehicle will be part of a pilot nodule collection test conducted by Allseas, which is scheduled to take place in 2022 in the Pacific Ocean.

Allseas developed and manufactured the core nodule collection technology and surrounding mechanical assembly for the 70+ ton tracked subsea vehicle in-house. Seatools brought the nodule collector alive with the delivery of the entire hydraulic, electronic and control system. This included the entire development trajectory including design, building, qualification and testing.

New Range of Sensors

Although Seatools could draw upon its experience and toolbox developed through similar past projects, a significant part of the project concerned the development and qualification of new technological elements. For instance, in order for Allseas to be able to extensively monitor and control the equipment, process and environment, Seatools extended its technology base with a new range of sensors. According to Seatools standards, rigorous qualification and factory acceptance testing on both the component and the system level provide a high degree of assurance on the proper functioning of the entire vehicle infrastructure during the upcoming trials.

Rutger Bosland, project manager Polymetallic Nodule Collection at Allseas: "Completion of the hydraulic, electronic and control system for our subsea nodule collection vehicle is a major milestone in the preparation of our pilot mineral collection operations. The complexity of the scope and timeline for delivery has challenged Seatools to step up and deliver a high-tech solution capable of excelling at water depths up to 5,000m."

Jan Frumau, managing director at Seatools, said: "We are honoured to play a prominent role in this pioneering project. The rigorous engineering approach has resulted in space technology quality levels and we believe we have equipped Allseas with state-of-the-art ROV and subsea technology. Seatools' contribution underpins the value of our multidisciplinary engineering approach, and confirms our strength in high-end, mission-critical subsea equipment for leading offshore contractors such as Allseas."



The pilot polymetallic nodule collection vehicle, developed by Seatools.