**MEDIA RELEASE**

# Victor Vescovo and Dr. Osvaldo Ulloa complete the first ever crewed decent of the Atacama Trench, Chile

Dallas, TX (January 24th, 2022) – Explorer Victor Vescovo, Founder of Caladan Oceanic, along with Dr. Osvaldo Ulloa, Director of the Instituto Milenio de Oceanografia (IMO), have completed the first ever crewed dive to the deepest point of the Atacama Trench (Peru - Chile), the deepest trench in the South-Eastern Pacific. The maximum depth recorded at the Atacama Trench's lowest point was **8,069 meters, +/-8 meters***

This was the first dive in the Chilean leg of the Ring of Fire Part 2 (2022) expedition, a fully permitted science expedition supported by Dr. Ulloa and the IMO to undertake extensive bathymetric mapping of the seafloor in the exploration area and collect samples at various depths of the trench.

The expedition was again supported by expedition leaders EYOS Expeditions along with technical partners Triton Submarines and Greenroom Robotics.

Vescovo also completed a further dive on January 23rd with Dr. Ruben Escribano of Chile along the eastern slope of the Richards Deep, the second-deepest location in the Atacama Trench (at 7,727 meters). The new deepest point identified by Vescovo and Ulloa is now an unnamed deep in the Atacama Trench, 77 nautical miles north from the Richards Deep.

This will be followed by dives to other points of high scientific interest in the region, including an attempt to make the first crewed descent of the Mid-American Trench off the western coast of Mexico. Both trenches follow the deep-ocean fault lines located off the western coast of Latin America and no human has ever visited the deepest points of these two trenches.

Victor Vescovo, Founder of Caladan Oceanic said: "It was a great privilege to pilot the first human descent to the bottom of the Atacama Trench with Dr. Ulloa. Being able to glide along the seafloor for three hours, personally investigating interesting

points with someone who has studied the area for much of their career, was just fantastic." He continued, "Together we witnessed some amazing evidence of what appears to be more examples of chemosynthesis in the world's deep ocean trenches. Here, however, we saw long bacterial tendrils coming off of rock faces that never see any sunlight, and obtain their energy from the minerals and gases seeping from the rocks, surrounded by a freezing seawater environment, Just extraordinary."

Dr. Osvaldo Ulloa, IMO's Director, and Professor at University of Concepcion added: "This has been a great day for Chilean science. Thanks to Victor Vescovo and Caladan Oceanic we were able to directly bear witness to the amazing geological and biological richness of the Atacama Trench. Doing exploration at Victor's side has been a tremendous privilege and rewarding experience, and we are very thankful to him, as well as the entire team of the submersible Limiting Factor and its support vessel Pressure Drop."

The main objective of this expedition for the IMO is to map the seabed of the Atacama Trench in order to determine the optimal places to install the sensors for the Institute's future IDOOS project (Integrated Deep Ocean Observing System for geoscience research). IDOOS aims to establish the first observation system anchored in the deep ocean along Chile's long coast, including the Atacama Trench, in order to study both the structure and temporal variability of the physical geochemical and biological conditions present in the area -- such as the deformation of the seabed over time.

This interdisciplinary work - which combines Geophysics with Oceanography - will make it possible to detect, quantify, and understand different processes that take place in these abyssal depths. Additionally, it will provide a future scientific basis that can be used both as a cornerstone for the establishment of a possible National Observation System for Climate Change - essential for the protection of the marine ecosystem. It would allow Chile to implement an eventual early warning system for earthquakes and tsunamis and allow for the study of their origin.

**2022 dive plans:** It will be an exciting year ahead for Victor Vescovo and the team at Caladan Oceanic.

In the coming months there will be further expeditions including warship search expeditions to the Midway and Samar oceanic battlefields, first-ever human-occupied dives to the bottom of the Yap and Palau trenches, and a further scientific dive to the deepest point of the ocean, Challenger Deep.

This will be followed by dives to the Manila, Ryukyu, Izu-Ogasawara, Japan and Kuril-Kamchatka trenches in cooperation with key scientists from JAMSTEC [Japan Agency for Marine Earth Science and Technology).

During the 2022 dives, Victor's team will attempt to test and perfect the world's first full ocean depth (or 11,000 meters)-capable sidescan sonar, capable of mapping swaths of the seafloor up to 1.5 km wide even at the very bottom of the ocean. Current technology is usually limited to only 6,000 meters of depth.

During the expedition, 15,360 square kilometers of the seafloor has been mapped, and the majority of information collected was from previously unmapped areas. The multibeam echosounder installed in the Pressure Drop allows data to be collected from the seabed with 4 times greater resolution than other deepwater multibeam systems.

The lander deployments on the approved scientific dive expeditions will continue to collect samples for analysis by the respective science teams to help further our knowledge of life in the deep ocean. Separately, the ship and team will continue to map tens of thousands of square kilometers per month to support the GEBCO 2030 initiative to map the entire seafloor by the year 2030.

For more information, visit caladanoceanic.com and follow us on Twitter @VictorVescovo for ongoing updates.

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## NOTES TO EDITORS

* This depth was measured by three independent and calibrated depth instruments onboard the submersible *Limiting Factor* and adjusted according to the UNESCO depth formula to account for non-standard temperature, salinity, and even position on the Earth.

**About Caladan Oceanic**

Caladan Oceanic is a private company dedicated to the advancement of undersea technology and supporting expeditions to increase the understanding of the oceans. Founder Victor Vescovo, a former Commander in the US Navy, has long had a passion for exploration and has summited the highest peak on all seven of the

world's continents including Mt. Everest, and skied at least 100 kilometers to both the North and South Poles. With the completion of the Five Deeps Expedition in August 2019, Vescovo became the first person in history to have been to the top of all the world's continents, to reach both poles, and to descend to the bottom of all its oceans. He also holds the record for the most dives to the bottom of Challenger Deep, the deepest point on the planet, a total of twleve times. He was awarded the Explorer's Club Medal in March 2020 and will receive the 2021 SeaKeeper of the Year Award at the International SeaKeepers Society ceremony in Miami on February 17th, 2022, as well as the Don Walsh Award for Ocean Exploration by the Society for Underwater Technology (SUT) and The Marine Technology Society (MTS) in London in early 2022.

**About EYOS Expeditions**

EYOS Expeditions has been designing complex and challenging expeditions for private vessels since 2008. Drawing on the decades of experience of the company's co-founders, the EYOS team has delivered over 1,200 safe and successful expeditions to some of the most remote destinations on Earth. EYOS Expeditions holds several "world firsts" and routinely take clients to destinations rarely or never before visited. EYOS Expeditions and sister company Expedition Voyager Consultants have worked behind the scenes on many of the industry's ground-breaking itineraries and have a long history of delivering once-in-a-lifetime experiences for clients while maintaining the highest standards of safety, professionalism, and environmental stewardship. EYOS Expeditions is today regarded as the industry leader for planning and operating remote expeditions using submersibles.

**About Triton Submarines**

Triton Submarines of Sebastian, Florida, is the most experienced civil submarine producer in the world today – and the only contemporary manufacturer of acrylic and titanium pressure-hull-equipped personal submarines to deliver multiple classed and certified vessels with rated diving depths as shallow as 200 meters to depths as great as 11,000 meters. Triton Submarines' senior staff have over 400 years of combined experience with more than 100 different submersibles, and their operations team members have together logged over 35,000 dives. Triton clients also enjoy superlative after-sales service and technical support from a company dedicated to their total satisfaction.

**About Greenroom Robotics**

Greenroom Robotics is an Australia-based company specializing in technologies related to deep-sea exploration. The company led the recent refit of the submersible *Limiting Factor* in Perth, Australia to ensure it was ready for Caladan's South Pacific

2021 expedition and is still supporting its continuing missions in the areas of Test & Evaluations, Submersible Operations, and Maintenance at Sea. Caladan Oceanic has made specific use of Greenroom's novel mission management software for automated data management and post-mission analysis, which now handles the comprehensive data and media generated for each dive.

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