

# Alpine Ocean Expands Environmental Data Collection

Alpine Ocean Seismic Survey, USA, has expanded its portfolio of environmental data collection services with the addition of a new suite of underwater video camera and sediment sampling technologies. The expanded offerings allow clients to take advantage of the latest environmental data collection technology on the market.

As part of the UK-based Gardline Marine Sciences Group, Alpine can now leverage both its own record, compiled over more than 50 years in the offshore survey industry, and Gardline's extensive resources and technologies.

Alpine's data collection services apply to the entire offshore project lifecycle, from pre-consenting baseline characterisation and impact assessment, through regular monitoring and post-construction surveying.

As part of the expansion of its environmental services, Alpine is introducing to the US market a suite of innovative underwater camera systems that offers an impressive array of configurations and deployment options in a cost-efficient package. Developed by Gardline, the cameras can record real-time video footage of the seabed as well as capturing digital stills on demand or at preset intervals. They offer options for shallow (0-250m) and deepwater (0-3,000m) operation, and can accommodate auxiliary sensors, including high-definition video cameras, CTDs, fluorometers, altimeters, laser scale bars, and profiling/imaging sonars.

A key component in the suite is Gardline's innovative freshwater lens camera, whose specially designed lens enables images to be collected in highly turbid environments where traditional underwater video and photography would be ineffective. This system allows scientists to overcome the challenges associated with high concentrations of suspended particulate matter, while still enabling relatively unintrusive sampling and habitat mapping.

"We've designed the camera with a distilled water lens, dedicated flash, and adjustable lighting to optimize results dependent on the level of turbidity," says Jon Spink, environmental scientist with Alpine. "With projects in shallow waters there's often poor visibility due to suspended solids, but our camera system's lens creates the clarity needed to capture seabed images in these environments without reducing the visual footprint."

Alpine is also introducing a suite of highly effective environmental grab samplers that are widely deployed in European markets but are not yet commonly used in the US. The grabs have been designed to gather high-quality samples across the range of nearshore and offshore marine environments.

Although Alpine's scientists can work from a variety of vessels, its clients can now benefit from its newly commissioned research vessel, the *Shearwater*, which provides an ideal platform for offshore environmental data collection. This highly manoeuvrable 110' twin hull survey platform has an azimuth thruster propulsion system, allowing it to conduct most sampling operations without the need to anchor. The vessel also features a laboratory with onboard data processing capabilities, two equipment moon pools, a two-ton stern hydraulic A-frame, a five-ton starboard fixed A-frame and a 14-ton (two-ton at 38' extension) crane.

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