

Water Quality Monitored at Dredging Sites



Fastwave's™ OceanStar system has been commissioned to monitor the water quality on ten sites located off Port Hedland on Australia's™ North West coastline. Port Hedland is a key export location for Australian iron ore exports. BHP Billiton is carrying out a 100-million-tonne/year outer harbour expansion at the port.

OceanStar enables real-time monitoring of various water quality parameters required for environmental-compliance reporting associated with activities such as dredging and marine construction.

GHD, a global engineering and environmental services firm, commissioned the system in order to provide marine water quality data from monitoring sites located in areas

surrounding the port dredging operations.

The multi-award winning system acquires data from in-situ sensors by integrating subsea, satellite and internet technologies. It offers global coverage through iridium satellite telemetry, and has a design that allows sensors, instrumentation and electronic equipment to be located below the surface or on the seabed, rather than on the surface or suspended from data buoys. This configuration enables low-cost system deployment due to the small size of the relay buoys and correspondingly reduced mooring requirements. It also reduces vulnerability to extreme weather events, theft, vandalism and collisions that can affect larger data buoys. The system can be integrated with various types of sensors, depending on the application.

Since 2007 OceanStar has been deployed at some of Australia's largest offshore energy development projects, including Woodside Energy's Pluto project and Chevron Australia's Gorgon project. The system has proven reliability in some of the most demanding marine conditions, including in cyclonic weather.

The system delivers sensor data to users anywhere in the world within seconds via an online marine data management system. The system is not restricted in its deployment by the limited offshore range of cellular or radio networks, making it ideal for use in remote locations. It can also be easily re-deployed from one project to the next due to its modular design. The system offers extended endurance capability with low maintenance requirements when compared to conventional data buoy systems, significantly reducing the cost of operation.

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