

The Application of Autonomous Underwater Vehicle (AUV) Technology in the Oil Industry – Vision and Experiences

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Key words: Autonomous Underwater Vehicle, AUV, Seabed Mapping, Swathe Bathymetry, Sub-bottom Profiling.

ABSTRACT

BP has been contracting commercial services using a survey class AUV to collect sidescan sonar, swathe bathymetry and sub-bottom profiler data at proposed oilfield development locations in the US Gulf of Mexico and the UK sector of the North Sea. In the deep-water Gulf of Mexico the surveys were conducted at proposed field facilities locations and along proposed pipeline routes in water depths ranging from 500 to 2300 metres. In the North Sea surveys were conducted on the continental shelf in water depths between 80 and 120 metres.

This paper will review the expectations we had of AUV technology before these surveys, contrast these expectations with our experiences during the surveys, and indicate directions in which we wish to see AUV technology develop.

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FIG XXII International Congress
Washington, D.C. USA, April 19-26 2002

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