



## **Wide-azimuth surveys benefit from RIL's 4D technology**

**Edinburgh, 1 June 2009:** Reservoir Imaging Ltd (RIL), the 4D seismic software services consultancy based in Edinburgh, Scotland has been working on the planning and QC of wide-azimuth surveys, the emerging marine seismic data acquisition technique being employed to image complex geologies such as the subsalt of the Gulf of Mexico.

RIL is drawing on its established expertise in ensuring the accuracy of 4D repeat seismic reservoir monitoring surveys to provide optimal positioning and QC for the large towed streamer spreads being deployed in wide-azimuth surveys. In particular, wide azimuth surveys have source lines shot multiple times by source vessels: these have to be accurately plotted in the same way as the repeat lines in a 4D seismic survey. A further challenge is the need for feather-matching, a process which ensures that the varying degrees of ocean turbulence affecting the seismic recording cables on each line recorded can be accurately accounted for in the seismic data acquired.

Last year RIL launched its Osprey suite of QC technologies for 4D survey positioning accuracy and repeatability, which has been adapted and enhanced to deal with the complexities of wide-azimuth acquisition. RIL personnel in the field perform the data quality control with all outputs loaded into a GIS database. The QC system incorporates mapping, repeatability, coverage, and documentation. Results are made available via a Web-based GIS server which enables all the stakeholders to be involved in the decision-making process regarding the survey's progress.

Keith Watt, managing director, RIL, said: 'It was always apparent that wide-azimuth surveys presented many of the same positioning and QC issues we have been dealing with for major oil companies in their 4D survey projects. We are delighted that BP is the first client to apply the new technology and services on a live project.'

**About RIL:** RIL, headquartered in Edinburgh, Scotland, was formed in 2005 by a team of experienced geoscientists to serve the global market for 4D



marine seismic surveys. The company specializes in providing design, planning, and acquisition QC to ensure that each survey in a 3D time-lapse (or 4D) seismic project can be repeated as accurately possible. Only if all the survey parameters are observed can companies track the performance of oil and gas reservoirs by comparing images of the subsurface recorded over time during production. RIL has a growing client list with projects in the North Sea, Gulf of Mexico, West Africa, and South East Asia.

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