2007 CSPG CSEG Convention

Let It Flow of Ideas, Hydrocarbons and Business

What Factors are Important for the Future of Land Exploration using Cablefree Systems?

Robert G Heath* Ascend Geo, LLC, Denver, CO, United States rgheath@btconnect.com

and

Scott. K Burkholder Ascend Geo, LLC, Denver, CO, United States

The New Era of Land Acquisition

Major seismic land system manufacturers now acknowledge that the industry is rapidly turning to hardware which does not rely on digital telemetry cabling for reflection data recording. More than half the channels sold in 2007 are expected to be cablefree.

However, after a number of years in varying real field environments, it is becoming clear that operating cablefree systems and planning surveys to make the most of their various advantages, in many ways requires discarding old bad habits acquired with cable systems and learning more appropriate methodologies much more suited to the new era.

Along with this process of understanding how the land industry can now best move forward, it is necessary to review what we should expect of a cablefree system and the sensors attached so that the future of land acquisition does not have handed on any of the restrictions which have hampered the past, but which may have then been previously necessary due to the difficulties which come from use of digital telemetry cables. In this way, we will better understand how to bring to reality all the benefits of cablefree systems, including lower HSE exposure, and crews able to use many tens of thousands of channels and low cost.

With case studies of cablefree systems used in real field conditions, we examine and compare field data so that conclusions can be drawn about the most efficient way to go forward. We conclude that the experience and attitudes of the past in many ways would only be a hindrance if carried to the future.

References

Pelletier, K. 2006 "An HS&E Perspective on the Changing Technologies in Seismic Acquisition". CSEG Recorder, December 2006.

Heath, R. G. 2006 "Time to re-evaluate our aproach to 3C land seismic acquisition". First Break, February 2007.