Short Course
“Seismic Acquisition Project Essentials: from Concept to Completion and Beyond”
by Jan de Bruin
“地震采集基础: 从概念到完成”
-前壳牌首席采集专家杨安博

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Course overview

Existing courses and books with the title ‘seismic acquisition’ typically deal with designing seismic surveys, and sometimes also with processing and evaluation of the acquired data.

Design: Although I treat design in a somewhat less conventional way, it is an important part of this course too, but other equally important subjects receive equal attention.

These are:

Clients: We need to know who our clients are and understand what they want and why they want it. Without them and their support we won’t have a project, and there will be no point designing a seismic survey.

Finance: It would be unfortunate to have the best possible design in the world that will achieve your clients’ objectives and find out that it is too expensive and the company will not set a budget aside for it.

Procurement: A seismic survey is usually not bought “off the shelf”. We need to identify companies that can carry out the seismic survey according to our design and our HSE requirements. We need to sign a contract with the company that we select to do the work. The course will also look at this from the perspective of seismic companies.

Scouting: In order to come up with a good design that is not too expensive it is essential to scout the area where seismic data is to be acquired. Scouting costs relatively little and helps to avoid unpleasant and expensive surprises during execution.

Communities: For the duration of the survey, and in case of success for many years thereafter, we will be co-habitants of the area together with the people who have lived there for generations. Those people can and often will have a significant influence on the project and can make it impossible to complete it.

Execution: Even with good preparation, unexpected things will happen when the work in the field starts, making life more complex and more interesting. When a crew of 1000 people is at work or a 10 streamer vessel is acquiring data there is little room for mistakes and not much time to decide what to do.

Equipment: Equipment changes faster than any of the other elements in this course. Ever since the beginning of seismic acquisition these changes have been towards larger quantities, better quality and lower prices for seismic sources and receivers. This process is expected to continue and the equipment used today may be very different from equipment that will be used in the seismic industry 10 years from now.

Project management and Safety: These are the two pillars on which any good project rests. Good project management includes good safety management. One could even argue that the two are largely the same. Seismic acquisition is an industry where significant hazards exist and serious accidents still happen. These can and must be avoided.

About the instructor

Jan de Bruin has 29 years experience as a geophysicist with Shell and has covered the full range of geophysical jobs from new recruit to Chief Geophysicist, and from software development to processing to quantitative interpretation to seismic acquisition. From 1999 until 2015 he has been accountable for the successful initiation and completion of many geophysical surveys.

Jan de Bruin has a MSc Physics degree from Delft University in the Netherlands. He has also completed the Henley MBA. He joined Shell in 1986 and has worked for Shell in 9 different countries. He left Shell in 2015 when the opportunity arose to make a change, helped by the drop in oil price, and has used 2016 and part of 2017 to develop this course and to become involved in several interesting projects.

Contact

For more information or enquiries about this short course, please visit the event’s website (www.eage.org) or contact the EAGE Asia Pacific office via asiapacific@eage.org, +603 2722 0140.

We hope to see you in Beijing.