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**ABSTRACTS OF PAPERS**

**3D Seismic: an indispensable tool to delineate hydrocarbons**

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Sarawak Shell Bhd./Sabah Shell Petroleum Co.

Shell Companies are involved in Exploration and Production operations in more than 50 countries all over the world. As operators for themselves and their partners, they are responsible for producing some 3.5 MMbbls of oil and 12 billion cubic feet of gas per day.

With such extensive activities, Shell Companies are major users of seismic and therefore heavily involved in developing the technology.

One of the first 3D seismic surveys was acquired by Shell in the Netherlands in 1975 and since then Shell Companies have carried out some 250 surveys over some 70,000 km<sup>2</sup>, in different environments.

Since 1984 SSB/SSPC has embarked on a phased 3D seismic acquisition campaign over the major hydrocarbon accumulations and prime exploration acreages in her contract area. This has resulted in an extensive 3D coverage of some 4,000 sq. km.

It is generally accepted that the subsurface picture provided by the interpreted results of 3D surveys is generally more precise and detailed than those obtained with 2D seismic.

The main objectives of shooting 3D seismic are to delineate geologically complex structures and if possible to predetermine fluid contacts and content in order, to optimise targetting of our exploration, appraisal and development wells, to reduce the uncertainties in structural interpretation and to reduce the risk of sub-optimal field development.

New reserves of hydrocarbons will be found more and more in smaller accumulations and in geologically more complex areas.

It is only through application of this technology combined with the professional who masters it, that one can be in a better position to find and produce these reserves economically.

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