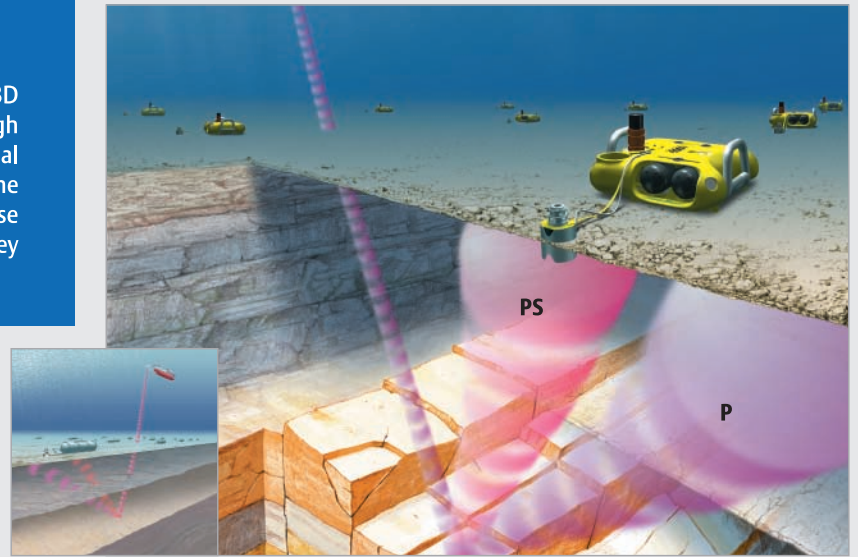


## 4C-3D Acquisition

The CASE NODE acquisition system is applicable for 2D, 3D and 4D acquisition models. The high resolution and high quality data acquired with the CASE system can be a real benefit in the effort to obtain a better understanding of the hydrocarbon reservoirs. The CASE acquired data can increase the understanding and improve the definitions in several key elements like:

- Reservoir volume
- Lithology
- Fluid content
- Porosity
- Permeability
- Fracturing
- Principle stress direction
- Azimuthal anisotropy

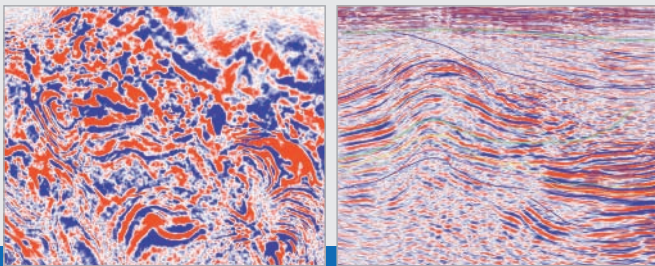


## Wide Azimuth Imaging

### PZ FINAL PSTM RESULTS

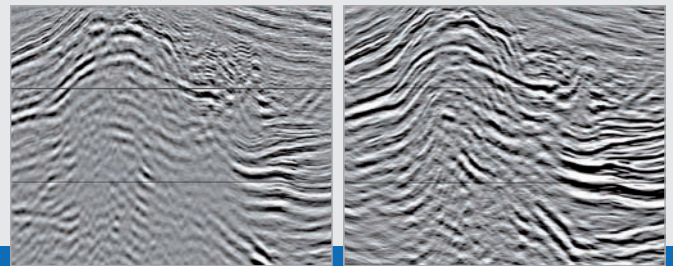
TIME SLICE 2200

INLINE 1280



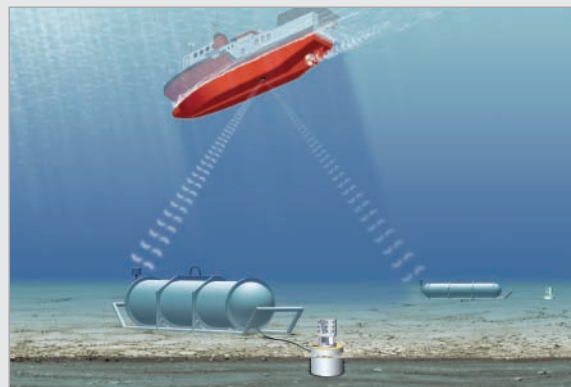
INLINE 1293 (OLD OBC DATA)

INLINE 1293 (NEW NODE DATA)



- Full 4C-3D azimuth coverage
- Using existing velocity analysis tools
- Improved true 3D PP and PS imaging

- Improved lateral mapping of reservoir characteristics through potential of true amplitudes and higher frequencies



## Hydro Acoustic Communication

All communication with the CASE units at the seafloor is done hydro-acoustically. The CASE unit is equipped with a programmable communication transducer and modem. An equivalent transducer and modem are placed on the vessel. A specific request will be sent from the operator onboard the vessel to the CASE unit. The computer inside the CASE unit will gather the requested information and send it up to the vessel again. The information includes status of the CASE unit as well as seismic data if required.

Request from operator to CASE unit



CASE unit gathering request information



CASE unit sending information to operator