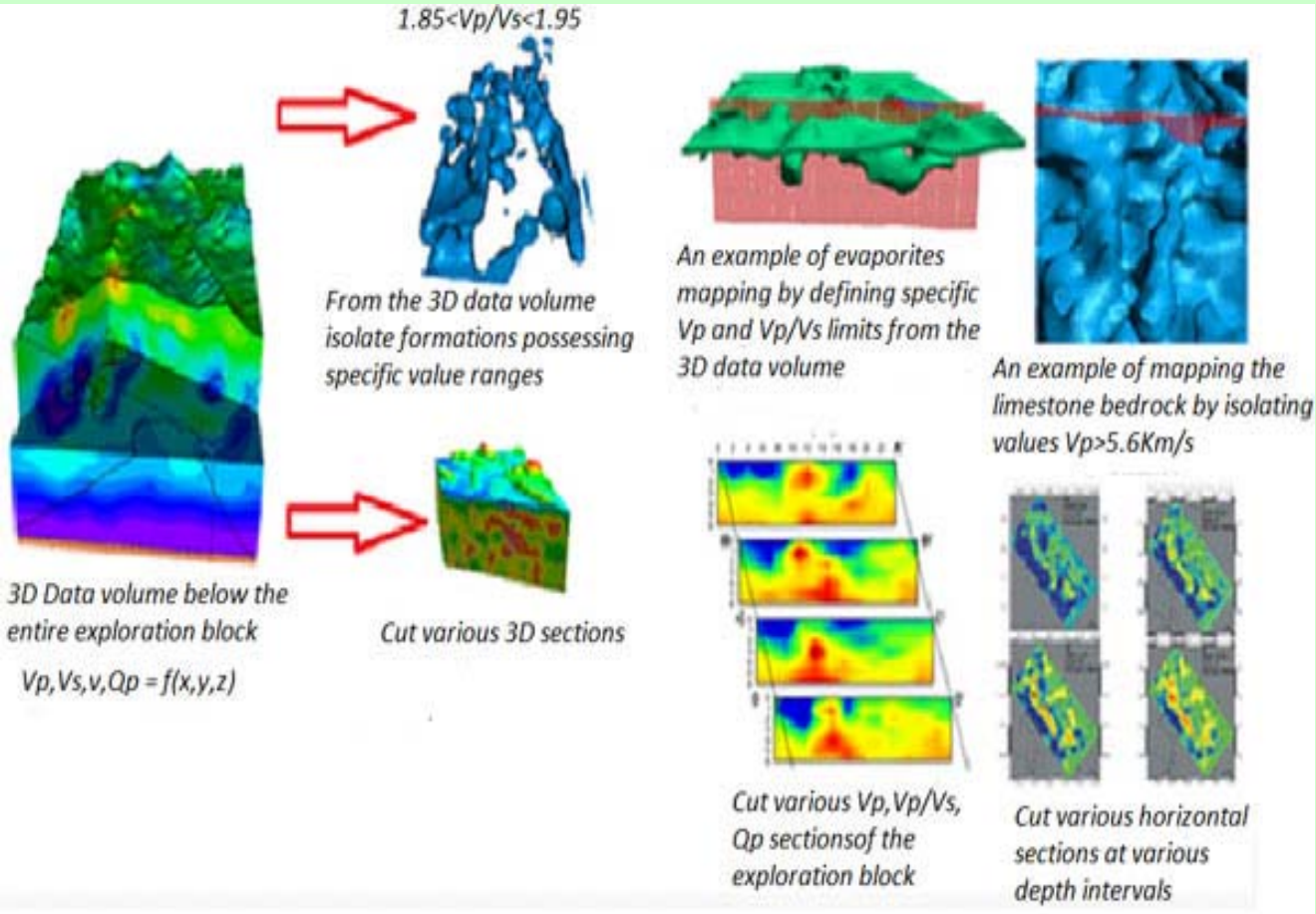
How to Use Passive Results

Passive Seismic Tomography (PST©) results are in the form of a 3D data volume depicting the variations of seismic velocities, Poisson's ratio and in some cases attenuation, in the space below the investigated block. Since most of the geophysicists are used in conventional seismic sections usually presenting reflection horizons in time or depth space they often cannot realize the importance of the information and the benefits provided by a PST survey.



Use of PST Data

⇒ No farther processing-directly interpretable.

⇒ Cut various 3D sections throughout the PST data volume.

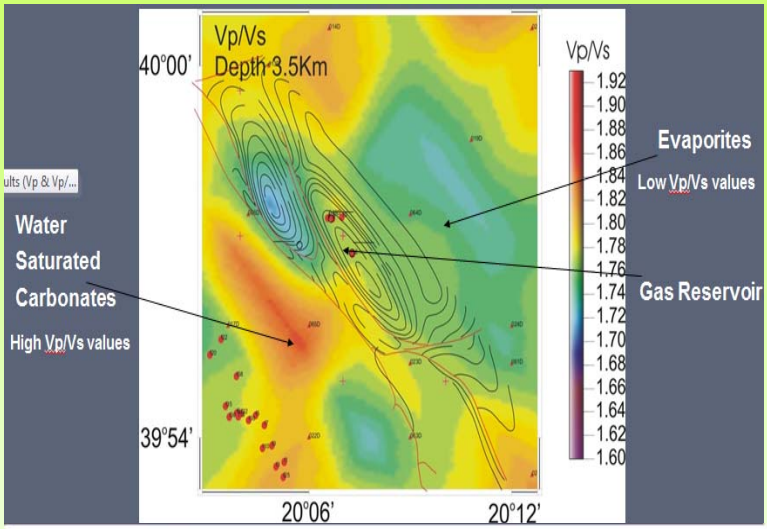
⇒ Reveal formations by setting data variation limits.

⇒ 2D horizontal and vertical sections throughout the block.

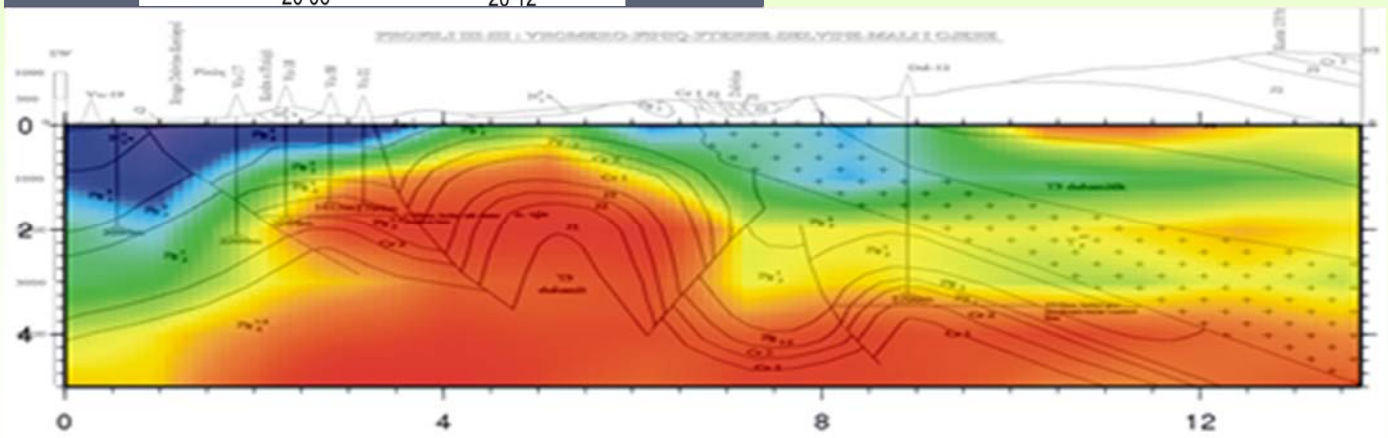
⇒ Accurate 3D velocity cubes to reprocess (PSDM) conventional seismic data.

⇒ Oil and gas indicators by interpreting Poisson's data.

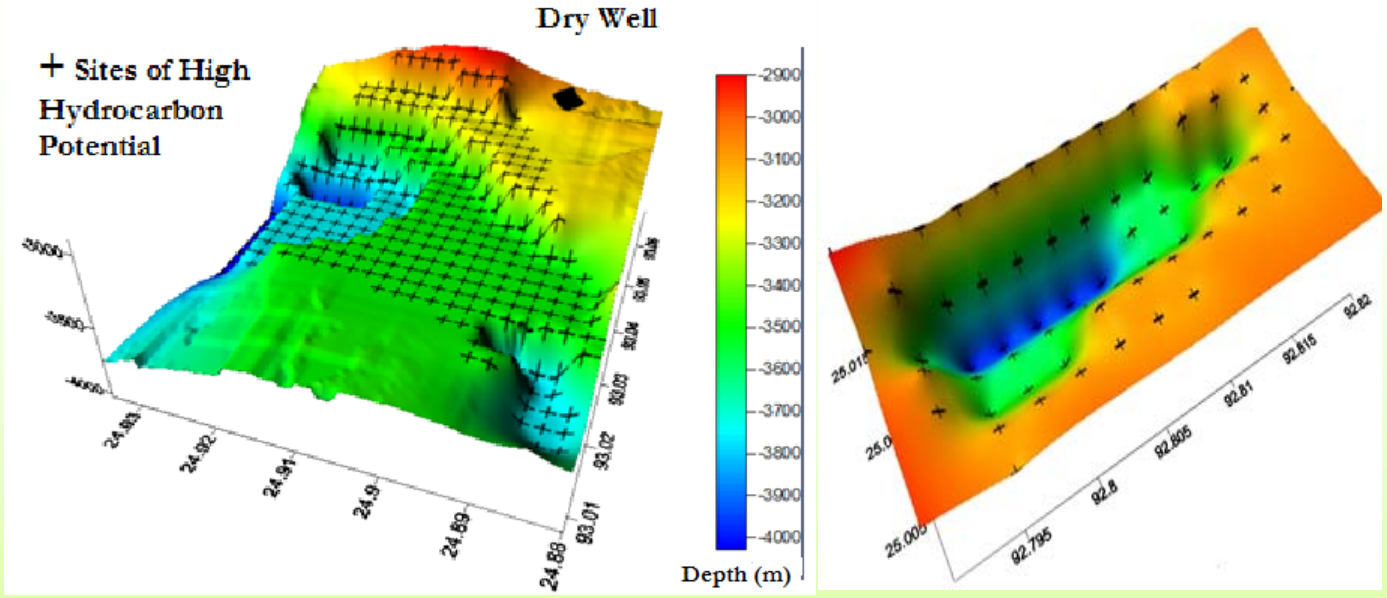
⇒ Lithological interpretation by combining 3D data volumes of V_p,V_s, ν and attenuation and training a neural network to derive prevailing lithologies below the exploration block.



PST provides a detailed 3-D seismic Velocity (Vp,Vs), Poisson's ratio (ν) and quality factor Q 3D model of the upper few Km of the crust below the **entire exploration block**. Careful interpretation can transfer the 3D passive data model into a complete 3D subsurface structural and lithologic images. This information is difficult and extremely expensive to obtain from conventional 2D and 3-D reflection surveys.



Furthermore regions of high hydrocarbon potential can also be proposed by imposing certain limits for the obtained PST parameters (see figure below).



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