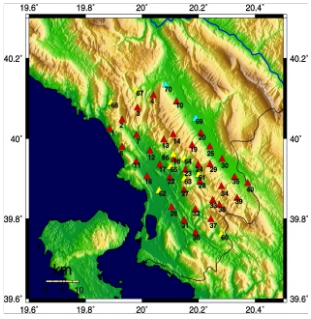
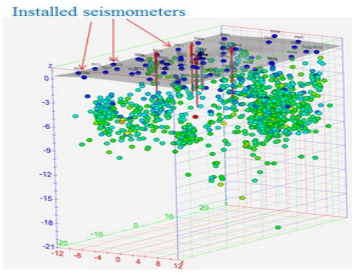
Application in an Oil & Gas Field (Albania)



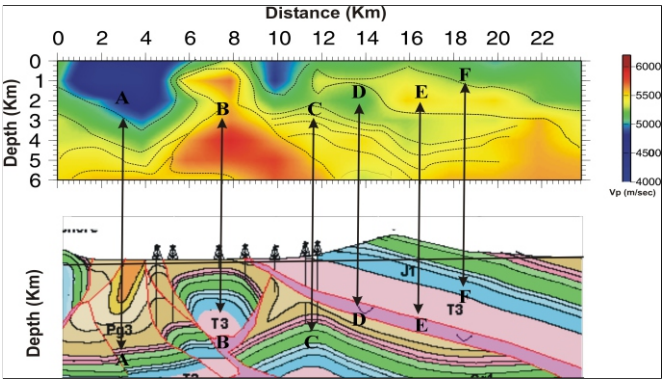
Seismic Network

- *LandTech-Geophyics* completed a successful Passive Seismic Tomography (PST) delineation of an oil and gas field in Albania for Stream Oil–Canada. By installing a network of 70 seismographs the complete 3D model of **800 km^2 mountainous** area was obtained and was in agreement with drilling data! **The scope of the survey was to delineate the producing reservoir and pin-point positions of new wells.** Geology and passive results correlate very satisfactory. The low velocities (A) correspond to quaternary and flysch deposits and high velocities (B) fit very well with Cretaceous, Jurassic and Tertiary outcrops. The anticline (C) is also reconstructed very well and also the Evaporitic-flysch (D), T3, Tertiary dolomites (E) and Jurasic Carbonates (F) layers are also described very well by the velocity section.



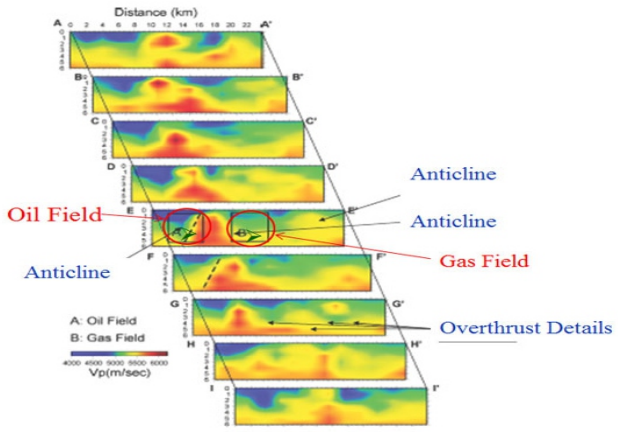
a

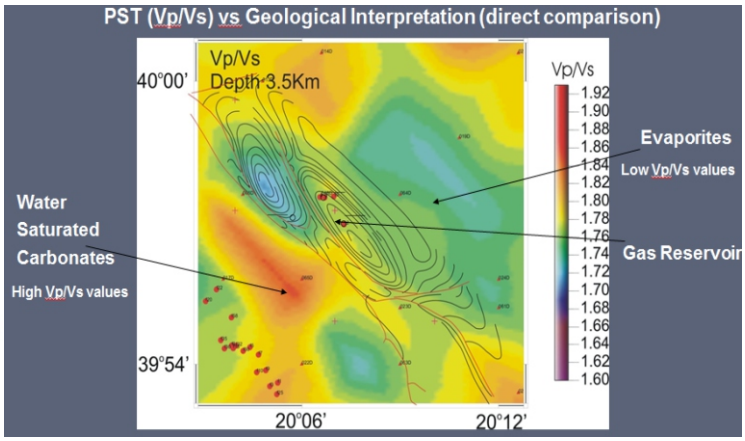
Recorded events (seismic sources bellow target!)

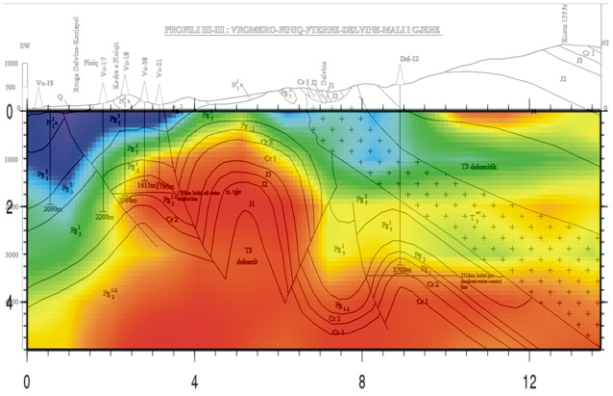


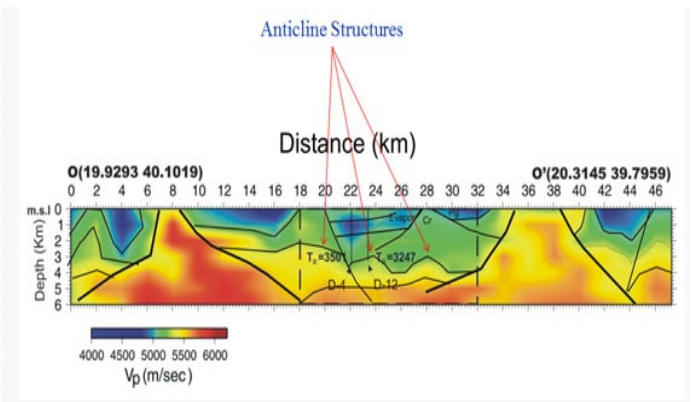
Comparison of PST and drilling data

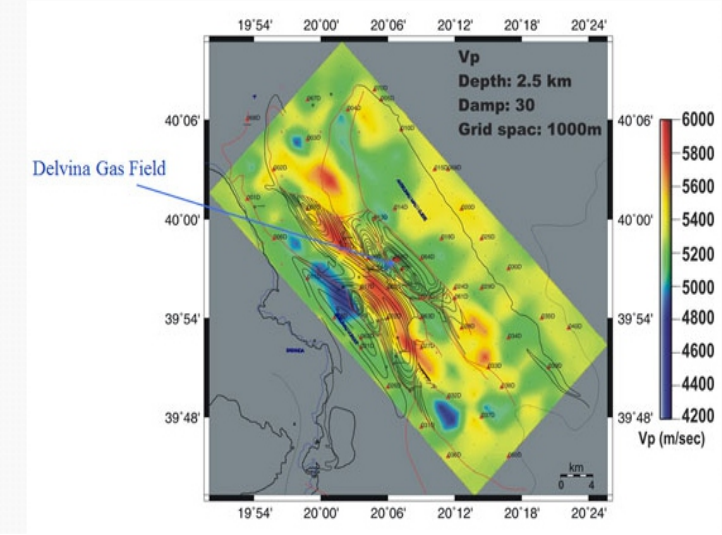
The figures below present some PST cross sections along the exploration block. The locations of the oil and gas fields are also shown. Examples of interpreted 2D section of PST results are presented in the following figures.



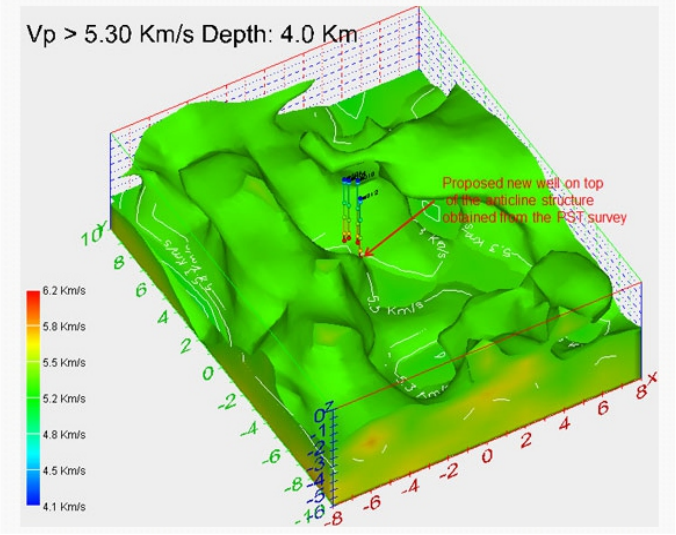






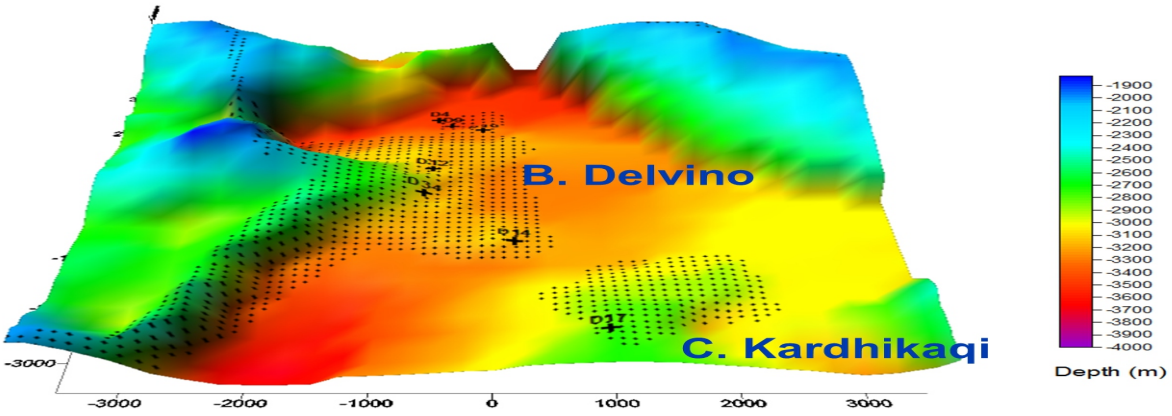


The correlation of PST Vp results with isodepths from wells at 3.5Km)



Producing well was located above the anticline

The results of the PST survey showed that the existing low production wells were in the vicinity of the anticline structure (see figure above to the right were we plot all the formations with Vp>5.3 from 4Km upward). We proposed the position of the new well to be on top of the anticline and the obtained production rates were satisfactory. On the basis of existing geological and other data, possible target areas for future drilling are characterized by:
5.2Km/s<Vp<5.6Km/s; 1.78<Vp/Vs<1.80; Depths below 2Km and are indicated in the following map.



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