

New Geometry of a 3D Design

Ladmek Abdeldjebar

Sonatrach Division Forage, Hassi Messaoud Algeria

In seismic 3D acquisition, the geometry design is one of the big concern, because of the difficulties in handling the problems caused by

- the lack of fold
- bad azimuth distribution
- irregularities in offset distribution
- footprint
- bad spatial continuity
- no contribution of source in spatial filtering

The scope of this new 3D design geometry is to enhance the weaknesses related to other methods by laying out regularly and continuously the receivers lines in both direction in easy way in the field.

This method has these advantages:

- increasing the fold significantly
- reducing by half the shot density
- allow a good distribution of azimuths
- reduce the holes in offsets distribution
- reduction of acquisition footprint
- symmetrical sampling
- good spatial filtering