

A NEW MOVE TOWARDS INTERACTIVE WELL-SEISMIC DATA CALIBRATION BY ADJUSTING INTERVAL VELOCITY

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It is a major progress in technology, which has proved fairly positive in matching seismic 2D & 3D with synthetics for accurate correlation. Currently synthetic seismograms act as a reliable tool for correlation of the geologic tops and reflective surfaces of the seismic data. This study is based on the reality that a match between seismic and synthetic can also be obtained by manipulating interval velocities interactively besides performing the normal time and phase shift operations.

Initially the well with checks shot data aided in creating synthetics from Time and Phase Shifts. Secondly this approach encircles an area where mostly wells are devoid of check shot data. Still we were able to generate accurate tie between seismic and synthetic by tying synthetic events with already known regional seismic reflectors. It is done with the help of a cursor projection on seismic. It guided in designing check shots for wells with no check shot survey previously available.

Finally for the wells without sonic curves this approach proved very effective in creating synthetics, these created synthetics were in uniformity with seismic, and most significantly helped in generating sonic curve for these wells.

It is an efficient technique for an interpreter who bears a sound knowledge about associating seismic markers to geological units because he can successfully create time-depth relationship for areas without any well data.