

ABSTRACT

Seismic Data Processing Including Compensating for Source and Receiver Ghost Effects in Reverse Time Migration

Methods and systems for compensating for source and receiver ghost effects in a reverse time migration (RTM) equation are described. Boundary conditions associated with the RTM acoustic wave equations for the source and recorded wavefields are modified. The resultant modified RTM acoustic wave equations are solved to generate ghost compensated modeled seismic images. In another aspect an imaging condition is also modified and the resultant RTM acoustic wave equations are solved to generate velocity and impedance perturbation images.

Fig. 7