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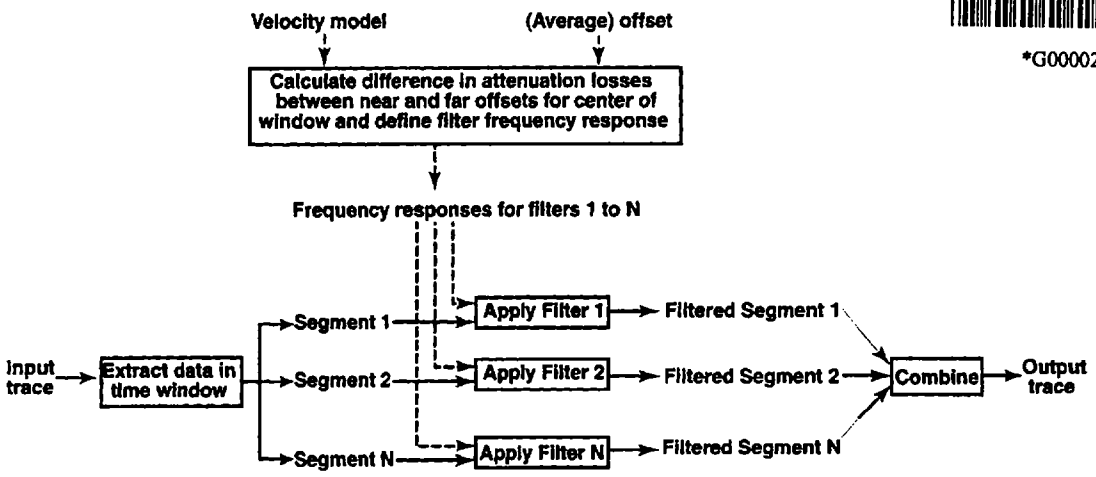
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(54) Title: METHOD FOR SPECTRAL BALANCING OFFSET SEISMIC DATA

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(57) Abstract: A method for spectral balancing of near and far offset seismic data by determineing velocity and offsets by creating and using an NMO stretch compensation filter created by estimating the frequency spectrum (Filters 1 to N), and calculating a factor B for the frequency spectrum by using the velocity and offsets. A stretched frequency spectrum of near offset seismic data is calculated based in the stretch factor B. The frequency spectrum of near data is divided by the stretched spectrum of near seismic data and generating a first frequency response filter (12). The data is then limited by the filter and convolved with the low pass filter, then the NMO filter is applied and second a relative Q compensation is applied with a difference calculated between the near and far seismic data with steps of calculation filtering and limiting and convolved and generating and finally applied to the seismic data.

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