

ABSTRACT

METHODS AND SYSTEMS FOR RECONSTRUCTION OF LOW FREQUENCY PARTICLE VELOCITY WAVEFIELDS AND DEGHOSTING OF SEISMIC STREAMER DATA

[0073] Computational methods and systems for deghosting marine seismic streamer data are described. In particular, an exploration-seismology vessel tows a number of streamers that form a data acquisition surface located beneath a free surface. The methods computationally deghost or substantially remove receiver ghost signals from seismic data recorded by steamer receivers. The deghosting methods include low frequency compensation to recover vertical velocity wavefield information that is typically lost due to a low signal-to-noise ratio over a low frequency range independent of the free surface conditions or the shape of the data acquisition surface.

FIG. 6