

seismic data associated with a subsurface of the earth. The instructions ~~implement the method step discussed above~~ comprise receiving seismic data "d" recorded with one or more land receivers, wherein the seismic data includes shot recordings generated by plural sources that are simultaneously actuated; forming either a continuous receiver trace or trace segments from the received seismic data; selecting plural overlapping spatial blocks that cover the surface shot locations; assigning the shot recordings to the plural overlapping spatial blocks; applying a mathematical technique to the recordings to determine de-blended data; and generating an image of the subsurface based on the de-blended data.

BRIEF DESCRIPTION OF THE DRAWINGS

[0021] For a more complete understanding of the present invention, reference is now made to the following descriptions taken in conjunction with the accompanying drawings, in which:

[0022] Figures 1A-B are graphical illustrations of un-blended seismic data;

[0023] Figures 2A-B are graphical illustrations of blended seismic data;

[0024] Figure 3 is a graphical illustration of cross-talk in seismic data;

[0025] Figure 4 is a flowchart of a method for de-blending seismic data according to an exemplary embodiment;

[0026] Figure 5 is a schematic diagram of a subsurface and plural overlapping spatial blocks according to an exemplary embodiment;

[0027] Figure 6A is a flowchart of steps of a method for de-blending seismic data according to an exemplary embodiment;

[0028] Figure 6B is a flowchart of a method detailing a step of the method illustrated in Figure 6A according to an exemplary embodiment;

[0029] Figure 7 is a graphical illustration of various steps of a method for de-blending data according to an exemplary embodiment;

[0030] Figure 8 is a graph illustrating blended data;

[0031] Figure 9 is a graph illustrating de-blended data according to an exemplary embodiment;