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(54) **Title:** CONSTRAINED SIMULTANEOUS SOURCE SHOOTING

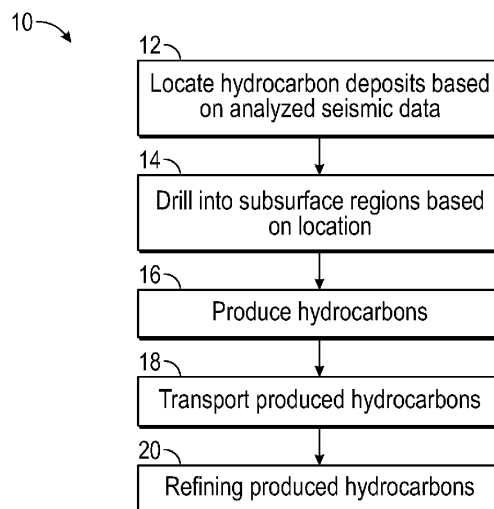


FIG. 1

(57) **Abstract:** System and techniques to fire a first source array at a first time of a first shot timing distribution comprising first time values according to a firing schedule and fire a second source array at a second time of a second shot timing distribution comprising second time values subsequent to firing the first source array and prior to another firing of the first source array according to the firing schedule. Additionally, at least a portion of the second shot timing distribution overlaps with the first shot timing distribution or the at least a portion of the second shot timing distribution is separated from the first shot timing distribution by less than a predetermined period of time and the first time and the second time of the firing schedule are separated by at least the predetermined period of time.

[Continued on next page]

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