



US005908267A

United States Patent [19]

[11] Patent Number: **5,908,267**

Schuring et al.

[45] Date of Patent: **Jun. 1, 1999**

[54] **TREATING NON-NATURALLY OCCURRING SUBSURFACE SOIL CONTAMINANTS WITH PNEUMATIC INJECTION OF DRY MEDIA**

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[21] Appl. No.: **08/690,219**

[22] Filed: **Jul. 26, 1996**

[57] ABSTRACT

[51] **Int. Cl.**⁶ **B09C 1/08**; B09C 1/10; E21B 43/26

A method for pneumatically fracturing a soil formation, and thereafter utilizing or maintaining the fracture network thus formed by continuous injection of a gas stream into the fracture network, and introducing into that gas stream dry media which is entrained in the gas stream and thereby dispersed and distributed through the soil formation in substantially predictable or predetermined patterns, is described. The fracture network and/or the dry media contained therein create or enhance usefulness for a given purpose with respect to the soil formation. The method utilizes novel apparatus, especially high velocity nozzles which are substantially planar or directional and can be used in combination with the borehole casing to achieve a variety of fracturing and dry media injection effects.

[52] **U.S. Cl.** **405/128**; 166/308; 405/131; 435/262.5; 588/253

[58] **Field of Search** 405/128, 131, 405/258, 263; 166/308; 210/747; 435/262.5; 588/253

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15 Claims, 16 Drawing Sheets

