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ECO-FRIENDLY TECHNOLOGY OF PULSE HYDRAULIC FRACTURING OF OIL LAYERS

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The most effective technologies of restoration of permeability of oil layer of the road are also dangerous. At hydraulic fracturing the stretching efforts develop a crack in length. Shortcomings-expensive and difficult technique and very high pressure is applied, application of chemical reactants is necessary. One big crack is as a result formed. At repeated processing the same crack opens. At explosion there is a crushing and consolidation of breed. For development of cracks it is necessary to fill them with liquid with periodic repetition of processes of expansion and compression. The best decision is combination of ways of fragile and plastic rock breaking which allows to create network of cracks, then to develop these cracks. Experiments proved high efficiency of creation of network of cracks with a low pressure of injected fluid, without application of the proppant and chemical reactants. The technology is very economic and eco-friendly.

BIOGRAPHY

Alexander Shipulin completed his training at Leningrad Mining Institute, during 1971-1976. He is Mining Power Engineer and Full Member of the International Power Academy since 2000. His area of research interest is in the hydrodynamics of oil and gas wells. He worked as the Laboratory Assistant, the Junior Researcher and the Senior Engineer during 1976-1982. He is the Leading Engineer, the Head of the Laboratory and training in postgraduate study during 1982-1994. He started his career in teaching field in Mining Institute, conducting scientific researches during 1994-1998. He worked and researches in the territory of the Volga region, Belarus, Kazakhstan and China on the "Creation and plant management on repair of oil wells" during 1998-2012. He carried out research works together with Mining University on "Pulse hydraulic fracturing of coal layers in Kuzbass" during 2012-2015. Currently he is the CEO of the developing company on repair of oil wells. He published more than 140 scientific works, 3 books and 96 patents for his inventions.

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