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## Technology of pulse and wave development of a network of cracks in a bottom-hole zone of oil or gas layer

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The most effective ways of processing of a well – hydraulic fracturing, torpedoing, chemical processing is most expensive, ecologically dangerous technologies. In most cases creation of long cracks of hydraulic fracturing is unprofitable – gives low effect and leads to flood. I suggest applying the pulsing hydraulic fracturing pressure to creation of a network of short cracks. The reasons for applying the pulsing hydraulic fracturing pressure are as follows:

- It is economic, the constant high pressure isn't required, powerful pump units aren't used, the technology of multistage hydraulic fracturing isn't applied, a large number of people and equipment isn't required.
- Cracks extend in all directions, and inflow of oil is carried out from all directions.
- On it is required to fix cracks proppant. After repeated processing yes the end aren't closed by crack pressure.
- The chemical reactants which are negatively influencing ecology aren't applied.
- Application for production of slate oil and gas is especially effective.

**Example:** The technology of pulse and wave processing for delivery wells which I developed is repeatedly tested on crafts of the Volga region, Kazakhstan and China. For work hoisting works aren't used, 2 cars are used, work is carried out by 2 persons. The technology is successfully applied. Together with National Mineral resources university work on creation of hydraulic fracturing in coal layers for preliminary removal of methane is carried out. The pulse and wave technology of creation of cracks for the extracting oil and gas wells passes tests, in the industry isn't applied yet.

### Biography

Shipulin Alexander Vladimirovich graduated from the Leningrad Mining Institute in 1976. He worked as the Head of the Laboratory and the Teacher in Mining Institute for 30 years. He is a candidate of technical sciences and received degree in 1994. He has also been a Full Member of the International Power Academy since 2000. He directed a company dealing with repair of oil wells for 12 years. He published 130 scientific works, 3 books and holds 92 patents for inventions. Now, he is an individual Businessman-Researcher. He performs some works together with National Mineral Resources University.

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