Methods Of Processing The Well Bottom Zone Of The Layer

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ABSTRACT

In this article, in order to increase the specificity of extracting Wells, processing of the layer into the extraction zone is carried out at all stages of drilling oil fields in order to restore and increase the filtration properties of the well bottom zone of the layer. In order to restore and increase the filtration properties of the fossil zone of the layer in order to increase the productivity and receptivity of extractive Wells, the types of processing of the layer into the extraction zone are presented at all stages of drilling in oil fields.

Keywords: restoration of filtering properties; exposure to the fossil zone; acid baths; washing off foam or SFM solution; hydroimpulse effect

In order to increase the specificity of extractive Wells, processing of the borehole zone of the layer is carried out at all stages of drilling an oil field (fields) in order to restore and increase the filtration properties of the borehole zone of the layer. In order to increase the productivity and receptivity of extractive Wells, processing is carried out to the extraction zone of the layer at all stages of drilling an oil field (field) in order to restore and increase the filtration properties of the drilling zone of the layer. The choice of the method of processing the layer into the mining zone is carried out on the basis of special hydrodynamic and Geophysical Research on the study of the causes of low productivity of Wells, taking into account the physicochemical properties of mining-collector rocks and their saturating fluids, as well as assessing the filtering properties of the mining Processing of the layer to the mining zone is carried out only in technical well wells, in case of hermetic operation column and cement ring, confirmed by studies. The technology and periodicity of work on the impact of the layer on the fossil zone is justified by the geological and technological services of the oil and gas-producing enterprise, taking into account the technical and economic assessment of their effectiveness in accordance with the current instructions for the project of mining the field, certain types of processing of the layer Exposure to the mountain zone of the Layer 1 time and many times is carried out in the following cases: - in uniform layers up to 10 meters thick; with more than 0.5 selection (filling), the coverage coefficient is affected once; - not all proclastas are covered by selection (pumping) and have multiple (interval-wise) interactions using temporarily blocking (insulating) materials or equipment in cases where the coverage coefficient is less than 0.5. For all types of processing into the foam zone of the layer, it is mandatory to carry out preparatory work and in its composition - provide the necessary equipment and tools, - preparation of the well, greenery and filter for processing. Underground tools are carried out in wells equipped with a deep pump, for example, which do not provide for the implementation of processing work on the

drilling zone of the layer, lifting the underground equipment and unloading the pump compressor pipe, as well as other necessary equipment. After processing into the mining zone of the layer, they check the wells with the methods of selection, which are installed and not installed in the profiles (depressions) in accordance with the well inspection modes before processing into the mining zone of the layer. The following technological operations are carried out depending on the reasons and geological and technical conditions for cleaning the borehole filter and the borehole zone of the layer from various impurities: - acid baths; - washing foam or SFM solution; - hydroimpulse effect (variable pressure method); - cyclic effect by creating controlled depressions on the layer using effluent pumps; - multi-cycle cleaning using foam systems; - exposure to the excavation zone of the layer using the hydroimpulse pump; - Processing to the excavation zone of the layer using self-forming foam systems; - exposure to the excavation zone of the layer using solvents (butylbenzene fraction, stable Kerosene, etc. Acid processing Saltic acid is used to process carbonate collectors consisting mainly of calcite, dolomite and other salts of coalic acid, as well as terrigene collectors, which are high in carbonates (more than 10%). The application of sulfamine and acetic acids is allowed. Carbonate collectors that do not contain sedimentary compounds (sulfates, iron compounds, etc.) are treated with 10-16% water solution of saltic acid. Collectors containing sediment-forming compounds are treated with acetic (10% mass) or sulfamine (10% mass) acids. When processing carbon collectors with iron compounds in their composition, acetic (3-5% mass) or citric (2-3% mass) acids are additionally introduced to prevent the formation of sediment in the solution when using hydrochloric acid. For deep processing (stretching) in crack and crack-noise collectors, slow interacting compositions with hydrochloric acid-based carbonates, emulsions and dispersion systems of the type of condensed solutions are used: - for the preparation of acidic foams and petroleum acid emulsions, SFM (sulfonol, OP-10, etc.) and stabilizer (KMS, etc.; - for the preparation of condensed acid, KMS or sulfite-alcohol is introduced into a saline solution (mass from 12 to 15%) in a bar (mass 0.5-3.0%). Treatment of carbonate collectors in Wells is carried out using a hydrophobic acid emulsion (diamindioleate, primary amines, alkylamides) with a special emulsifier at a temperature of 100 to 170 ° C, with a concentration of 0.5 to 1%. The volume of the acid solution and the time it is stored in the layer are selected from the table, depending on the type of effect, the composition receptor used and the geological and technical conditions (thickness, porosity, conductivity, mine temperature, layer pressure). Clay acid solutions made from saline (10% to 12%) and plavik (3% to 5%) acids are used for processing less than 10% carbon terrigen collectors, as well as in contaminated CCPS. Ammonium Crystal biftoridphtoride can be used in place of plavic acid. In clay acid treatment, the volume of the solution is selected from the conditions for preventing the violation of layered rocks. In primary processing, a solution of 0.3 - 0.4 M3 is used per 1 meter of the perforated thickness of the layer. Salt-acid solutions with 6% to 10% of the mass of sodium nitric acid are used to treat anhydride-dominated collectors. In all cases, a corrosion inhibitor is introduced into the solution during acid treatment.

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