عنوان مقاله:

Effect of Mud Acid on shale formations

محل انتشار:

اولین همایش ملی نفت و گاز ایران (سال: 1392)

تعداد صفحات اصل مقاله: 4

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خلاصه مقاله:

Generally in the field operation and for acid stimulation, Ammonium bifluoride (ABF) is added to hydrochloric acid to generate hydrofluoric acid (HF) and in order to disperse and suspend the solids; amutual solvent is incorporated into the acid blend. This paper describes and focuses on laboratoryworks on the use of different formulations of hydrofluoric acid in order to generate effective blend of mud acid for overcoming drill pipe stuck in one of Iranian gas wells. Drilling of this well had been stopped in 3363m MD in 12 ¼hole due to stucking problem of the pipes in shale formation of S8.Several tests have been conducted to investigate the effect of Mud Acid on shale formations and to check if it is effective to dissolve materials which caused drill pipe stuck. The tests were conducted on different formation samples. Laboratory tests were performed on mixtures of sand and clay utilizingdifferent solvent systems. In addition, compatibility tests of different additives with mud acid solution were done and optimum dosage for these additives were selected and used as final formula for real job operation design. Objectives of treatment which have been reached through this study are: Wash out and dissolve theremained Shale and clay on drilling string and remove pipe sticking to continue drilling of this well and focusing on safe operation and special precautions for Ammonium Bi fluoride usage; both operationally and technically.

کلمات کلیدی:

Ammonium bifluoride, Mud Acid, Stuck pipe, Shale

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