عنوان مقاله:

The Application of Carbon Nano Tubes in Designing Heavy Weight Cement Slurry with High Elastic (flexural) Strength.

محل انتشار:

چهاردهمین همایش بین المللی نفت، گاز و پتروشیمی (سال: 1389)

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خلاصه مقاله:

the studies have proved that the compressive strength of cement is not capable of palying a major role neither in preventing the degradation of cement sheath and in more severe conditions casing collapse , nor in improving the cement stability in cement - to - formation contact. as the common cement slurries with high compressive strength do not solve the above problems effectively the idea of designing elastic cements with low youngs modulus and high posson's ratio comes to the mind . these elatica cements are designed to prevent the creation and development of point loads due to layers creep along with cement sheath. in addition these slurries accept elastic strains caused by imposed loads in the range of cement elastic behavior before any failure happens in the cement sheath. to increase the elasticity, tensional and flexural strngths , new additives have been evaluated in different ranges of slurry weight and in most acses; the desired elastic properties have been achieved.

کلمات کلیدی:

gas migration , thichening time , gel strength, fluid loss , light weight , rheological properties, compressive strength