

## عنوان مقاله:

Experimental Investigation of Fines Migration Control in Porous Media using Nano particles in the presence of Magnetic Field

## محل انتشار:

اولین همایش ملی توسعه میادین نفت و گاز (سال: 1393)

تعداد صفحات اصل مقاله: 6

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## خلاصه مقاله:

Fines migration control has been much attended in both experimental and field case investigations. The main goal of the present study is to find out the ability and different effects of Nano particles (NPs) such as concentration, types and even the magnetic sensitivity to retain fines migration. In order for this, two groups of tests were conducted by engineered porous media. In this study, for the first time, an experimental setup was designed and constructed to investigate the control of fines migration in the presence and the absence of magnetic field using NPs which are sensitive to it. Three different types of NPs, SiO<sub>2</sub>, Al<sub>2</sub>O<sub>3</sub>, and Fe<sub>2</sub>O<sub>3</sub> were utilized to perform the experiments. Also, the effect of salinity and flow rate on fine migration was investigated through analysis of the effluent samples by turbidity meter apparatus. Experimental results showed that, SiO<sub>2</sub> NPs has the best performance to retain the fines and Fe<sub>2</sub>O<sub>3</sub> could control and mitigate fines migration.

## کلمات کلیدی:

Fines Migration, Nanoparticle, Magnetic Field

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/383057>

