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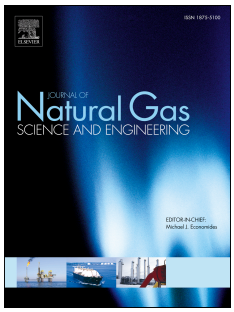

Improvement of non-aqueous colloidal gas aphron-based drilling fluids properties: Role of hydrophobic nanoparticles

Amir Hossein Hassani, Mohammad Hossein Ghazanfari

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Improvement of Non-Aqueous Colloidal Gas Aphron-Based drilling Fluids Properties: Role of Hydrophobic Nanoparticles

Amir Hossein Hassani[1, a], Mohammad Hossein Ghazanfari[a].

[a] Department of Chemical and Petroleum Engineering, Sharif University of Technology, Tehran, Iran.

Research highlights

- The role of nanoparticles in improving non-aqueous CGA drilling fluid properties is investigated.
- Kerosene as a base fluid and Bentone 34 as a stabilizer are used for non-aqueous CGAs generation.
- Sorbitane monooleate as a non-ionic surfactant is applied for a non-aqueous CGAs generation.
- Two special designed setups are used for evaluating pore blockage ability of CGAs.
- Hydrophobic nanoclay showed better performance in enhancing features of non-aqueous CGAs.

[1] Corresponding author, email:amirh.hassani@yahoo.com, Sharif University of Technology, Chemical and Petroleum Engineering Department, Azadi Ave., Tel: +989132999983, Fax: +98-21-66622853.