

## عنوان مقاله:

Modeling of Asphaltene Precipitation in a Light Oil Reservoir with High Producing GOR: Case Study

## محل انتشار:

دومین کنفرانس دوسالانه بین المللی نفت، گاز و پتروشیمی (سال: 1397)

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## نویسندگان:

Amin Izadpanahi - *Department of Petroleum Engineering, Faculty of Petroleum, Gas and Petrochemical Engineering, Persian Gulf University, Bushehr, Iran*

Reza Azin - *Department of Chemical Engineering, Faculty of Petroleum, Gas and Petrochemical Engineering, Persian Gulf University, Bushehr, Iran*

Shahriar Osfouri - *Department of Chemical Engineering, Faculty of Petroleum, Gas and Petrochemical Engineering, Persian Gulf University, Bushehr, Iran*

Reza Malakooti - *School of Energy & Electronics, University of Portsmouth, Portsmouth, United Kingdom*

## خلاصه مقاله:

Asphaltene precipitation is an important phenomenon faced during oil production that causes many problems such as plugging the reservoirs, production wells, and transmission pipelines. Therefore, it is necessary to predict the asphaltene precipitated as a function of temperature and pressure. The aim of this study is to investigate the effect of pressure and temperature on the asphaltene precipitation in an Iranian oil reservoir. For this reservoir, the heaviest component is splitted and regrouped with a Commercial PVT Modelling Software. The new heaviest component is divided into precipitating and non-precipitating components. An equation of state (EOS) is tuned by using experimental data including constant composition expansion (CCE), differential liberation (DL) and separator tests. The results of the stability analysis show that there is a high risk of asphaltene precipitation in this reservoir. The maximum amount of asphaltene precipitation occurs around the saturation pressure. It is also observed that asphaltene precipitation is increased by decreasing the temperature along the production wells and transmission pipe-lines.

## کلمات کلیدی:

Modeling; High GOR; Asphaltene Precipitation; Oil Reservoirs; Reservoir Management

## لینک ثابت مقاله در پایگاه سیویلیکا:

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