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EXPERIMENT OF MICROBIAL CORE FLOODING USING MOLASES AS A SUPPLEMENT

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ABSTRACT

Microbial enhanced oil recovery (MEOR) techniques have been developed for the oil industry. The research and application of MEOR have been done in the United States, Europe, Australia, and some Asian countries. The reported results of this research have indicated good potential, especially when related to the world's environmental and energy supply problems.

MEOR can be developed by an in-situ process using activated microbes in oil wells or by using an ex-situ process. Successful MEOR application depends

on several parameters, such as microbes, media, supplement, and also reservoir condition. Molases is one possible supplement for enhancing microbial growth and bioproducts for MEOR.

With the support of the PERTAMINA Research Grant Programme, an MEOR study was conducted at LEMIGAS Research and Development Centre for Oil and Gas Technology. After selection of microbes, media, supplement and core, the microbial enhanced oil recovery was simulated in the laboratory using microbial core flooding under varying reservoir conditions, such as temperature and pressure. The results using molases as a supplement were very promising as tests showed increased oil recovery.

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