

A bright future for IOR/EOR

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1. Introduction

When the worldwide oil consumption and oil production continue to grow at an average rate of 1,5 to 1,8 % (about 1.2 to 1.6 Mb/j) per year during the last 10 to 15 years, the new reserve discoveries tend to decrease on an annual bases. These new discoveries which were about 30, 40 or even 50 Gb of oil per year over 30 to 40 years, haven't exceeded 10 Gb per year since the beginning of the XXIst century.

Accordingly, new discoveries haven't allowed the renewal of oil reserves produced each year since the 1980's. Between 1999 and 2003, new discoveries have accounted for less than 1/3 of the renewal of the oil reserves. The decreasing share of new discoveries in the renewal of reserves concerns all areas in the world.

In this context, and having in mind the fact that on average in the world only 35 % of the oil in place in the fields is today recovered, the technologies, methodologies and knowledge's allowing a better recovery of the oil in place take on new importance.

2. Key Features

The paper will first remind how the worldwide oil reserves have been renewed for several years underlining the importance of the increase of oil recovery factor in the future.

It will describe rapidly the different technical ways that can contribute to improve the recovery of oil in place from reservoir characterization to EOR production technologies.

A focus will be done on EOR production processes, as well as EOR projects in the world. Those projects that represent only a little part of the current production could increase significantly in the coming years taking into account the context: the price of oil will probably stay at a high level, it is more and more difficult to maintain the level of production in some basins etc.

3. Conclusions

The increase of the recovery factor of oil will be in the coming years an increasing challenge to maintain the production in some basins or for producing countries. The present context emphasized by a high level of price, a difficult access to new reserves will allow the development of IOR/EOR projects and technologies in the future.

Speaker's Biography

Nathalie ALAZARD-TOUX is Director of the IFP Economics Division since 2001. She was previously head of the Strategic Marketing Division of IFP in charge of market research in the field of oil and gas, energy and transportation. Trained in geology (graduate engineer in mining engineering from the Ecole National Supérieure de Géologie in Nancy) and economics (graduate degree in petroleum economics and management from IFP School), she performed different studies and wrote articles about the economy of upstream oil and gas industry, the impact of technology in exploration and production and the outlooks in terms of reserves and resources. She has also recently contributed to the writing of a book on biofuels.