

IFPEN launches Dolphin™, an experimental research project with industry.

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In collaboration with six industrial partners, IFP Energies nouvelles (IFPEN) has just launched the Dolphin™ research project, which aims to examine the impact of chemical enhanced oil recovery (EOR) processes on water management system.

EOR could play a key role in increasing the quantity of oil extracted from a field. In a context of rising oil prices, it becomes a major challenge for oil operators. Chemical recovery uses viscosifiers and surfactants, in particular, making it possible to produce up to 20% more hydrocarbons from an oil field.

One of the problems raised by the development of chemical EOR is the impact of the products used on the water cycle. This means that it is important to study the compatibility of EOR processes with fluid separation technologies, to develop appropriate solutions to facilitate the treatment of produced water and to define the conditions for reinjection of water into reservoirs for the purpose of enhanced recovery.

To this end, IFPEN, working with Petrobras and Statoil, has just finalized an 18-month preliminary study in the laboratory designed to gain a clearer understanding of the impact of chemical EOR on surface water treatment facilities. Given the technical hurdles that still need to be overcome, IFPEN is now launching an ambitious research program open to oil operators via the creation of the Dolphin™ project. In addition to Petrobras and Statoil, IFP Technologies Canada, OMV, Shell and Wintershall have already joined Dolphin™.

Scheduled to last three years, Dolphin™ should make it possible to study the impact of chemical EOR on the production system as a whole, in conditions representative of oil fields, and, more specifically, assess the compatibility of chemical EOR substances with treatment additives, along with their impact on well performance, surface installations and reinjection processes.

IFP Energies nouvelles (IFPEN) is a public-sector research, innovation and training center active in the fields of energy, transport and the environment. Its mission is to provide public players and industry with efficient, economical, clean and sustainable technologies to take up the challenges facing society in terms of climate change, energy diversification and water resource management. It boasts world-class expertise. IFPEN has been strongly involved in chemical EOR for more than two decades and develop innovative solutions based on state of the art laboratory and modeling facilities. Learn more at www.ifpenergiesnouvelles.fr.