

EOR Enhanced Oil Recovery Worldwide

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Abstracts

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Enhanced oil recovery (EOR), also referred to as improved oil recovery or tertiary oil recovery, is most often achieved by injecting a liquid or gas into an oil reservoir, thereby lowering oil viscosity and increasing the amount of oil available for production. Some of the more common EOR methods include CO₂-EOR, thermal EOR and chemical EOR. Microbial EOR and seismic EOR also hold a strong niche in the EOR market. While only about 10% - 30% of oil is typically extracted by conventional oil production processes, EOR methods can enhance these recovery rates by an additional 5% to 20%, on a conservative average.

The global market for EOR, estimated at nearly \$62.5 billion (for barrels of crude oil) for 2009, has shown exciting growth since 2005, when it totaled \$3.1 billion. Technological challenges, hazy regulations, and costly implementation have often kept oil companies from using EOR. However, EOR is quickly becoming more feasible, due to rising government interest and investment, new technologies, and increased availability of required materials (such as CO₂). It is expected EOR will continue to perform extremely well in the world marketplace.

The world's governments' interest in EOR has been fueled by a number of factors, the most obvious being an increase in oil production. Besides increasing oil revenue, countries that are able to increase their oil production are often lowering their increase in demand for oil imports. There is also much anticipation regarding the use of CO₂-EOR to sequester CO₂ permanently in the ground. It is estimated 130 billion tons of CO₂ worldwide could potentially be captured through the use of CO₂-EOR, which would help to reduce industrial emissions, and in turn reduce greenhouse gas emissions. Some governments are also taking note that EOR has the potential to propel substantial economic growth. In Texas, where EOR now accounts for 20% of its oil

production, it is estimated the benefits of EOR production will result in additional revenue of \$200 billion and will create 1.5 million jobs.

Many of the world's oil fields have experienced or are experiencing a decline in oil production; using EOR has the potential to reverse this downward trend. Oman's historical oil production reflects this; between 2001 and 2007 its oil production fell by 27%, but by 2009, due mostly to EOR projects, oil production increased by 17%.

EOR Enhanced Oil Recovery Worldwide contains comprehensive historical (2005-2009) and forecast (2010-2015) data; plus EOR's share of overall standard oil production, market size in terms of barrels of oil, and dollar value. This report identifies key trends, regulations, new technologies, economic factors, environmental factors, and industry hurdles affecting the direction and size of market growth, and discusses market size and growth in various countries. Profiles of major - or simply interesting - companies using EOR are also included.

Report Methodology

The information in *EOR Enhanced Oil Recovery Worldwide* is based on data from government agencies, such as the U.S. Census Bureau, U.S. Department of Energy, and the Central Intelligence Agency; trade associations; business, science and law journals; company literature and websites; interviews with key individuals; and from research services and institutes from around the world.

How You Will Benefit from This Report

EOR Enhanced Oil Recovery Worldwide details significant trends, numbers, and technologies for a clear overview of the complex EOR market.

This report will help:

Managers identify market opportunities and develop implementation plans for EOR.

Research and development professionals stay on top of competitor initiatives, and to explore the ups and downs associated with EOR projects.

Advertising agencies working with clients in the oil and energy industries to help

design appropriate messages and images for the EOR market.

Business development executives understand the dynamics of the market and identify possible partnerships.

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