

## The Role of Petroleum Technology in Carbon Dioxide Capture and Storage in Japan

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Based on the Summary for Policymakers, IPCC WG-I AR4, it became much clearer that we have to mitigate the global warming as soon as possible. In order to reduce CO<sub>2</sub> emission from burning of fossil fuels, Carbon Dioxide Capture and Storage (CCS) is the most efficient and effective technology as a large amount of CO<sub>2</sub> emitted from large point sources can be sequestered from the atmosphere. Many countries have firm plans to carry out large scale demonstrations to confirm CCS is feasible. It is necessary also for Japan to perform a large scale CCS demonstration to prove the technology is also feasible in its own territory.

Petroleum exploration and development technologies, such as site evaluation, injection facility construction including drilling wells, injection operations, monitoring and verification, are essential to conduct CCS operations. These technologies are being tested and ready for use in the CCS operations. In this paper, the role of these technologies will be discussed and their current status will be introduced.