CO2CRC

CRC FOR GREENHOUSE GAS TECHNOLOGIES

MEDIA RELEASE

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International team in Victoria for CO_2 storage research

Researchers from Australia, New Zealand, the USA and Korea have gathered at the CO2CRC Otway Project site in south west Victoria to install a highly sophisticated array of instruments a kilometre and a half below the earth's surface. The array will assess the ways carbon dioxide is trapped permanently in rock formations during deep geological storage.

The work is part of ongoing research at the site into carbon capture and storage (CCS) technologies, which have the potential to make deep cuts in global CO_2 emissions.

"Over the past two years, the Otway Project has demonstrated that we can safely store and monitor geologically stored carbon dioxide," said Dr Peter Cook, Chief Executive of the CRC for Greenhouse Gas Technologies (CO2CRC), which is leading the international team.

"In this new research we will be injecting carbon dioxide and water and then extracting it to determine how much gas is trapped in the tiny rock pores and how much is dissolved in formation water.

"Both these mechanisms are believed to be important in trapping carbon dioxide permanently underground."

By using the instrument array to measure pressure, temperature and tracer gas concentrations, scientists will get field measurements of the amount of carbon dioxide securely stored by these methods.

A system which allows samples to be taken from the reservoir 1400 metres underground, known as a U-tube system, is also part of the instrument package.

"We used the U-tube system during Stage 1 of the Otway Project and found it immensely useful," said Dr Barry Freifeld from Lawrence Berkeley National Laboratory in California.

"The system enables us to chemically analyse samples of water and dissolved gas direct from the reservoir, at original pressure. We can see precisely what's going on underground."

The CO2CRC Otway Project involves researchers from Australian universities and research organisations as well as researchers from the United States, Korea, Canada and New Zealand. The Project has been financially supported by the Australian Federal Government, the Victorian State Government and the US Department of Energy, as well as CO2CRC members.

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Follow Stage 2 of the Otway Project at co2crc.com.au/otway/whatsnew

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