

Media release

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CSIRO conducting world's best practice methane emissions research

For the first time in Australia, CSIRO is developing a dedicated methane research program in the Surat Basin to identify and locate sources of naturally occurring methane emissions, and in some cases, estimate how fast methane flows from these sources.

Gas Industry Social and Environmental Research Alliance (GISERA) Director Damian Barrett said the results of the CSIRO study field will increase knowledge of methane emissions in Australia and help define Australia's CSG emission profile.

"Understanding the total amount of background methane in the atmosphere and its source is critical to developing an accurate methane emissions recording system," said Damian Barrett.

"This can then be used to monitor future trends in methane emissions in the CSG production region of the Surat Basin. It is important to accurately attribute what portion of methane emission comes from which sources and to differentiate what is a human source from what occurs naturally."

To determine the methane levels, ground surveys were conducted using a methane analyser. The analyser covered a distance of more than 7,000km (between Roma and Dalby) over an 18-month period and determined background methane levels (about 1.80ppm) were consistent with background methane concentrations in other regional areas in Queensland. The research also includes making helicopter measurements to locate methane sources from the air and installing long term monitoring stations in the region.

"These methane emissions are very small, posing no health concern to humans, but measuring their concentration is important for locating sources and hence emissions rates into the atmosphere." Dr Barrett said.

The mobile ground survey detected methane emissions from irrigation ponds, cattle feedlots, grazing cattle near roads and CSG facilities.

"This report presents results from trials of the instruments and prepares the way for ongoing measurements and monitoring of methane emissions over the long term." Dr Barrett said.

"We've installed one methane emission monitoring station, southwest of Chinchilla in November 2014 and another will be installed this month."

"These monitoring stations will continuously measure methane and other gas concentrations and calculate the rate of methane emission over time, allowing CSIRO to determine whether methane emissions are trending up or down."

These results from long term monitoring will provide an accurate picture of assessing methane emissions in the Surat Basin and provide important background for other research in CSIRO on fugitive emissions.

GISERA program's conducts independent research that addresses social and environmental impacts arising from coal seam gas developments in the Surat and Bowen basins. It is funded through CSIRO in collaboration with industry members APLNG and QCG (gisera.org.au).

The report can be downloaded at http://www.gisera.org.au/publications/tech_reports_papers/ghg-emission-proj-methane-seeps.pdf

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