## **Economics Legislation Committee**

## ANSWERS TO QUESTIONS ON NOTICE

Industry and Science Portfolio
Budget Estimates Hearing 2015-16
3 and 4 June 2015

**AGENCY/DEPARTMENT:** Commonwealth Scientific and Industrial Research Organisation (CSIRO)

**TOPIC:** Phase 2 – Fugitive Emissions Report

**REFERENCE:** Question on Notice (Hansard, 3 June 2015, page 93)

**QUESTION No.:** BI-11

**Prof. Barrett:** Senator, there are two reports here. The first report that you are referring to was phase 2 of the GISERA methane seeps report. The report that you are referring to in terms of the 43 wells, that is a separate report done on fugitive emissions for the Department of the Environment.

**Senator WATERS:** That you helped them to undertake, as I understand.

**Prof. Barrett:** That is right, CSIRO undertook that work.

**Senator WATERS:** Is there a phase 2 of that report?

**Prof. Barrett:** There is more work happening in relation to the Department of the Environment contract, which could be regarded as phase 2 of that initial report. That is looking at well completions and hydraulic fracturing events associated with it.

**Senator WATERS:** Could we focus in on that report? Thank you for the background on the other. That is also interesting and I will come back to that. I refer to that as phase 2—I am sorry if I used confusing language before. What is the time frame on that phase 2 report?

**Prof. Barrett:** At the present time that work is due to report at the end of June this year.

**Senator WATERS:** And are you on track for that?

**Prof. Barrett:** Field work is underway. We are making progress. At this stage we are due to finish on time.

**Senator WATERS:** Okay—so, in just a few weeks?

Prof. Barrett: Yes.

**Senator WATERS:** It is June this year?

**Prof. Barrett:** June this year, yes.

**Senator WATERS:** Staying with that report: what is the sample size for that one?

**Prof. Barrett:** I cannot give you an exact number of the wells that are being considered as part of that work, the reason being that it is logistically difficult to be in the location at the exact time that hydraulic fracturing operations are under way and where well completions are occurring. We need to coordinate with the industry to be able to access wells at that time. There are health and safety issues that we need to consider as well there.

We will be doing as many as we can in the time period that we have allotted. I can give you an update as a question on notice as to how many wells we have visited thus far.

**Senator WATERS:** On notice? Yes—okay, thank you.

## **ANSWER**

To clarify the work CSIRO is undertaking on methane emissions, CSIRO would like to provide the following summary of recent measurements that have been conducted in relation to emissions associated with coal seam gas (CSG) production.

In relation to CSIRO's work with the NSW Environment Protection Authority (EPA), CSIRO has conducted field measurements at four well sites in the Pilliga region of NSW, including both on-site

measurements and mobile surveys near other wells and infrastructure along public roads in the region (May 2015).

In relation to phase 2 of the Department of the Environment 'methane fugitive emissions' study, CSIRO participated in a controlled release experiment in Canberra during May 2015 organised by Geoscience Australia to verify the methodology to be used in the study. As advised in our answer to Question on Notice AI-4 arising from the February 2015 Budget Estimates Hearing, coordinating the deployment of measurement equipment at the same time and in the correct location as well completion has been difficult to achieve. As a consequence of the difficult practical logistics, field measurements have been delayed. The contract for this work has thus been extended until December 2015 with the approval of the Department of the Environment. Negotiations are underway with technical staff from CSG producers to arrange CSIRO access to well completion activities.

In relation to CSIRO's work with GISERA in the Surat Basin, CSIRO has conducted measurements of soil gas emissions and ambient methane concentrations in the Chinchilla region in Queensland, including determining the emission rates of methane from abandoned boreholes and irrigation bores (June 2015).