

<b>Reference:</b>	Action Item 31.5 – Questions from PFTP
<b>Request:</b>	<p>To The Chair of the NGPCCC, and the committee delegates.</p> <p>I would like to revisit the Dec 2017 NGPCCC meeting where I raised the matter of an unanswered question submitted by Tony Pickard. It was directed to Santos.</p> <p>A summary of this question: Is the <u>outer</u> cement used on all gas wells in Pel 238 of a type that resists Sulphate Bacteria attack? I would like to stress the word <u>outer</u>.</p> <p>Santos's answer in writing included the statements: Santos has no SRB <u>in</u> its PEL 238 wells. Also – Santos bores are adequate for the environment they are in, without taking extra precautions for a bacteria not present <u>in</u> our systems. The answer only referred to SRB <u>in</u> the wells or system.</p> <p>When asked again to be more specific Peter Mitchley gave a verbal answer to Tony's question, which he refused to put in writing.</p> <p>The answer was : There was no Sulphate Reducing Bacteria on the outside of the wells either.</p> <p>This answer is at odds with a Narrabri CCC Information Request Response provided by Santos which gives the results of 17 tests for SRB around Wilga Park, Dewhurst, and Bibbilwindi, which show positive results for SRB.</p> <p>I have included a copy of these results for the EPA delegate.</p> <p>Is there an explanation for this anomaly?</p> <p>Stuart Murray People for the Plains.</p>
<b>Response:</b>	<p><b>Sulphate-reducing Bacteria</b></p> <p>Santos has answered questions relating to sulphate reducing bacteria on a number of occasions. As Santos has said previously, sulphate reducing bacteria are found in many natural and engineered environments where sulphate is present. There is no evidence of any issues related to sulphate reducing bacteria in any of Santos' PEL 238 wells.</p> <p>Wells in PEL 238 are constructed, monitored and maintained in accordance with the requirements of the NSW Code of Practice for Coal Seam Gas Well Integrity to ensure their long-term integrity.</p> <p>The NSW Code of Practice for Coal Seam Gas Well Integrity is a best practice framework which requires:</p> <ul style="list-style-type: none"> <li>• Mandatory standards for well design and construction to ensure the environmentally sound, safe production of coal seam gas and the protection of groundwater resources;</li> <li>• Well monitoring and maintenance;</li> <li>• The management of back flow or 'produced' water from the coal seam gas (CSG) extraction process;</li> <li>• The design of all CSG wells to guarantee the safe and environmentally sound production of gas by: <ul style="list-style-type: none"> <li>○ Preventing any interconnection between coal seams and aquifers;</li> <li>○ Ensuring that gas is contained within the well and associated pipework and equipment without leakage;</li> <li>○ Ensuring isolation between different aquifers and water bearing zones;</li> <li>○ Not introducing substances that may cause environmental harm; and</li> <li>○ Requiring all chemicals used to be disclosed during the approvals process.</li> </ul> </li> </ul>

	<p>It is a mandatory requirement of the Code that the well design guarantees all fluids produced from the well travel directly from the production zone to the surface without contaminating groundwater.</p> <p>Well construction, which takes up to a month, involves the insertion of steel casings around which cement is pressure injected to adhere to the surrounding rock. The wells are then tested under very high pressure to establish there are no leaks.</p> <p>A copy of the Code of Practice for Coal Seam Gas Well Integrity is available at <a href="https://www.resourcesandenergy.nsw.gov.au/landholders-and-community/coal-seam-gas/codes-and-policies/code-of-practice-for-coal-seam-gas-well-integrity">https://www.resourcesandenergy.nsw.gov.au/landholders-and-community/coal-seam-gas/codes-and-policies/code-of-practice-for-coal-seam-gas-well-integrity</a></p>
<b>Date:</b>	8 June 2018