

From: James Groombridge
To: [fracking inquiry](#)
Subject: sSubmission to review into unconventional gas and hydraulic fracture stimulation in the Northern Territory.
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Attachments: [CV Jim Groombridge.docx](#)

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Dear Panel

My name is James Groombridge. I make this submission to your review into unconventional gas and hydraulic fracture stimulation in the Northern Territory.

I attach my CV with contact details. This shows that I am a petroleum industry professional with broad education and relevant experience.

I was employed by the NT Dept. of Mines and Energy from 2001 to 2007 as safety case assessor and reservoir engineer.

The Discussion Paper refers to the previous work undertaken through the Hawke Reports (2014 and 2015) as well as the 2016 Hunter Report. These should be the building base for the current Panel's work.

Credible, and non political, recent Inquiries have concluded that, when exploring for and developing gas and oil from unconventional sources, hydraulic fracturing is unlikely to pose any significant risk to groundwater or to human health, providing appropriate robust regulations are in place, and that these are adhered to and enforced, to reduce risk to low as reasonably practicable.

The conclusions of such recent Inquiries are:

- Prior to the Hawke Report 2014 The Australian Council of Learned Academies (ACOLA) Report "Engineering Energy: Unconventional Gas Production A Study of Shale Gas in Australia" 2013, found that with appropriate safeguards in place shale gas development using fracture stimulation represents no greater risk than conventional gas; providing appropriate regulatory oversight is applied to maintain the risk of unfavourable outcomes to as low as reasonably practicable.
- The NSW Chief Scientist and Engineer, Professor Mary O'Kane conducted a review of Coal Seam Gas (CSG) and while we note that CSG is not the subject of the panel's Inquiry, we believe her findings apply to this Panel's deliberations. Page 7 of her Report (30 Sept 2014) states "There is a perception in some parts of the community that CSG extraction is potentially more damaging and dangerous than other extractive industries. This perception was heightened following the release of the American movie *Gasland* in 2010. The Review examined this issue in detail and concluded that while the CSG industry has several aspects that need careful attention, as do almost all industries, it is not significantly more likely to be more damaging or dangerous than other extractive industries". This Review debunked the hype associated with the movie *Gasland*, and recognised that each extractive industry has its own unique characteristics which must be recognised, managed and regulated appropriately to achieve ALARP.
- The Western Australian Upper House reviewed the issue of fracture stimulation, and concluded that this can be carried out safely if regulated appropriately. It found the impact on human health and the environment were 'negligible' despite widespread concerns about the practice.
- The South Australian (SA) Natural Resources Committee recently completed a two year Inquiry into unconventional gas and the use of fracture stimulation, and issued its final Report on 30 November 2016. Its key recommendation was that unconventional gas is unlikely to have any impact on groundwater.

There have been many Inquiries worldwide, but the UK is relevant to Australia, as its ownership to mineral rights is similar to Australia. The Royal Society and the Royal Academy of Engineering carried out a rigorous inquiry on hydraulic fracturing and shale gas development. Professor Sir Mark Walport UK Chief Scientist, when giving a speech in Germany in September 2014, summed up the findings, with the following statement - "There are really 3 science and engineering concerns about hydraulic fracturing. The first of these is: will it cause earth tremors? The second is: will you get contamination of the water table? And the third is: will there be fugitive release of the methane gas? And what the science and the engineering tells you is that this is a drilling technology and no drilling technology is completely risk-free. **But if it is done well, if it is engineered well, if it is governed well, then it is as safe as any other form of drilling**, recognising that there is no 'free lunch', there is nothing that is completely risk-free." He went on to note

"Those are the engineering concerns, and that's what the Royal Academy of Engineers' report said and actually multiple other reports have all essentially said the same thing. But the public or publics who are protesting, at least in some parts of the world, about fracking are coming at in from a different angle. They're coming at it from the values angle and from the 'my pain, your gain' angle. And so there's a group that dislike fracking because they dislike fossil fuels, there's another group that dislike fracking because they actually just don't like big companies, and then there's a third group who just don't want the inconvenience of having something industrial happening in their back yard."

- In line with the UK Inquiry and the recommended outcomes, the UK Infrastructure Bill 2014-15, was passed through the UK Parliament, and it, which among other things will permit fracking below 300 meters in the UK.

It is on this basis that I urge the Panel to adopt a factual and evidence based approach toward assessing the potential risks regarding the exploration for and the development of unconventional gas and oil, and the use of hydraulic fracturing to enhance its production, providing at all times, there is a robust regulatory regime that, through strong enforcement, enables risk to be reduced to ALARP.

Yours sincerely

James Groombridge