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From: Inquiry into Unconventional Gas POV eSubmission Form
<cso@parliament.vic.gov.au>
Sent: Friday, 10 July 2015 12:25 PM
To: EPC
Subject: New Submission to Inquiry into Unconventional Gas in Victoria.

Inquiry Name: Inquiry into Unconventional Gas in Victoria.

Dr George Carman
[REDACTED]

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SUBMISSION CONTENT:

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The community, local government and State and Federal political party representatives are currently being inundated with emails, emotive literature, fact sheets and pamphlets often containing misleading or uninformed or factually incorrect information and often we see these media being used as levers to manipulate/influence others in need of votes or community acceptance. In the words of the Chairman of the Frack Free Geelong meeting held late last year “ We will use media stunts to get attention”. I fear that the many shire administrations are falling for these tactics.

I have worked 40 years in the oil & gas profession as an exploration and production geologist and in my humble opinion I assert that the geology of Surf Coast Shire will NOT support -----

Gas Fields - mother nature has not endowed the area with accumulations of gas.. many wells (about 13 in the Anglesea Torquay area) including two drilled in the Anglesea township in the early 20th C and more recently the Bellarine-1 drilled in 2006 near Moriac proves this. They have all generally record background gases (usually mostly methane of low calorific value) as is common in most sedimentary basins. That is Mother Nature’s way of de-gassing the rocks as they are buried.

In a similar way the Great Artesian Basin has oodles of methane floating around in it. Water wells in western Queensland are 'famous' for being gaseous. You will find them mentioned in historical records long before the petroleum industry ventured out there. In fact it was reports of naturally gaseous water wells that drew the early petroleum explorers (in the 1960s) into western Queensland and this led eventually to the discovery of the Cooper Basin (a very important gas source for Australia). Mother Nature has placed gas in aquifer systems millions of years ago

Coal Seam Gas will not happen because the coals here in Corangamite are simply too immature being Brown Peaty coals. CSG needs black coals.

Shale Gas... the Otway basin is ranked about 8th in Australia in terms of possible shale gas occurrence. However the top order ranks have failed to deliver - and I think you will find that the explorers working in

the more prospective shale gas basins such as the Cooper and Georgina and abandoning their projects because the geological ingredients are not in Australia's basins. Australia's geology is not particularly conducive to Shale gas exploitation.

Frac'ing -Is a mechanical method of inducing/stimulating fluid (liquid and gas) to flow through rocks. Over the past 50 years many stimulation techniques have been used. To fracture a rock requires it to have particular density, composition and mechanical properties and requires infrastructure and more importantly the presence of oil or gas is required. The Torquay Sub basin underlying the Corangamite area is geologically immature and does not contain commercial quantities of petroleum. Therefore there is no need/incentive to fracture the rock.

(In areas where mechanical fractures are formed the process is a proven technology and practitioners can engineer fractures of the required length -- usually a few hundred feet... Essentially all deep wells drilled and cased execute a fracture test (called a "Leak Off Test LOT") to measure the formation fracture gradient. With scores of wells in the basin and typically 2-3 LOT's per well, industry have very good knowledge of the mechanical properties of the rock.)

Water Contamination. In addition to reference to the Great Artesian Basin above ... Please visit the Barwon Water website to see that generally all of our water in the Corangamite region comes from surface dams and catchments. In times of low rainfall Barwon Water produces water from the Anglesea and Barwon bore fields from about 700 m depth and this water requires treatment (presumably at some added cost) and at best can only supply about 20% of our needs (as I read it).

<https://www.barwonwater.vic.gov.au/learning/water-supply>.

IF (and that is a very big huge hypothetical IF) a company was to carry out a fracture operation for oil or gas in Surf Coast Shire it would have to be at the conventional depths of oil and gas extractions... usually 2 km-3 km depth and the fractures would not extend anywhere near the shallow water bearing layers. The greatest risk to surface waters is the runoff (animal waste, pesticides etc) .

To allege that our community aquifers are at risk in Corangamite (and probably most of Victoria) by quoting case histories experiences elsewhere in the world is simply scaremongering.

Legacy Wells. Australia does not really have a legacy well problem. It is in the USA where literally 100,000's of wells were drilled prior to legislation where they have the problem not knowing where these wells were drilled and how they were completed. In Australia the wells are safely documented and recorded and are publicly accessible to be found at <http://er-info.dpi.vic.gov.au/energy/scratch/>

Clean Energy: I have also worked 4 years as Storage Director of the Victorian & Federal Governments CarbonNet Project - to sequester CO2 emissions offshore in deep geological formations in the Gippsland Basin. This is a real positive initiative for providing clean energy and preserving many of the 'luxury's ' we human-beings rely on... energy for domestic and industry use, energy for all of our consumables, cement, electricity, etc. etc. We need to manage a transition or take a very hard line.. The Surf Coast Shire Councils approach appears to be to take the very hard line. .. take a look at this recent article..

https://www.google.com.au/search?q=a+hard+deadline:+we+must+stop+building&ie=utf-8&oe=utf-8&gws_rd=cr&ei=REebVfDAJI7i8AXu8In4Ag

In only three years there will be enough fossil fuel-burning stuff—cars, homes, factories, power plants, etc.—built to blow through our carbon budget for a 2 degrees Celsius temperature rise. Never mind staying below a safer, saner 1.5°C of global warming. The relentless laws of physics have given us a hard, non-negotiable deadline, making G7 statements about a fossil fuel-phase out by 2100 or a weak deal at the UN climate talks in Paris irrelevant.

Are we really ready to close down production of cars, homes, factories and power plants and all that they encompass. ??

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File1:

File2:

File3: