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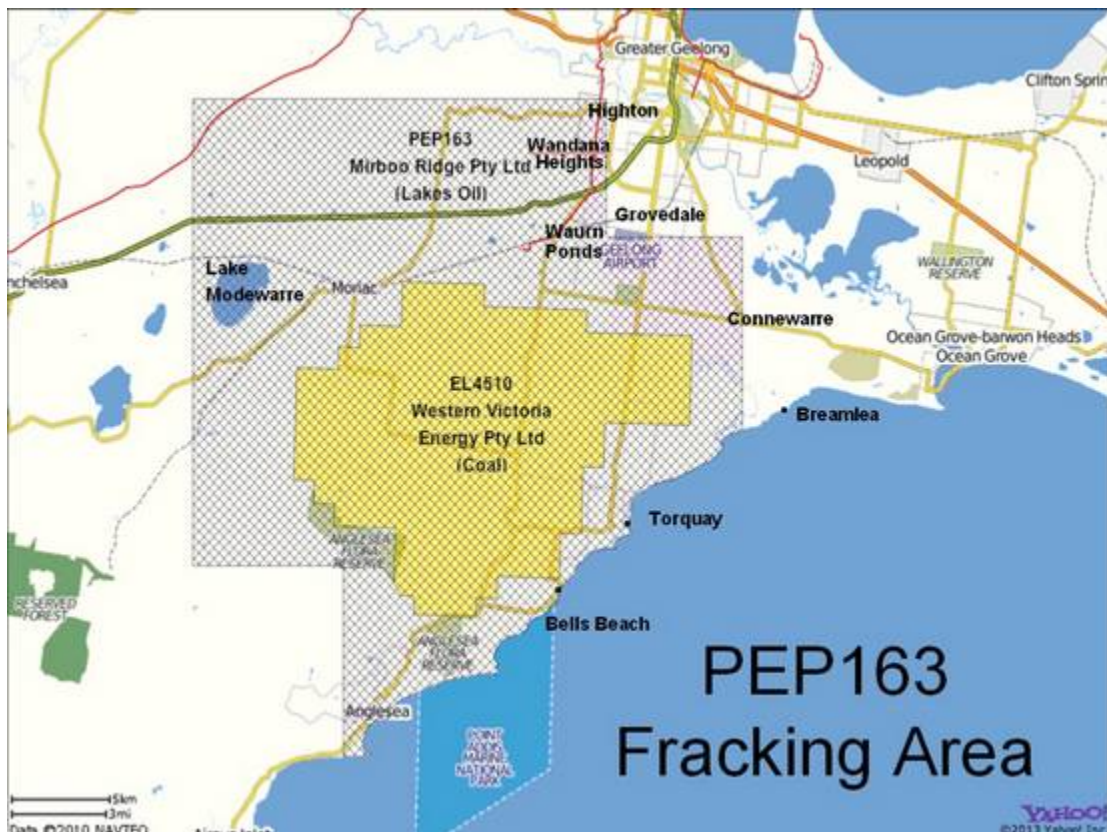
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Submission – Unconventional Gas Mining

Introduction

This submission provides ample evidence to conclude that the Unconventional Gas (UG) mining industry is unsafe to the environment, the communities it encroaches upon and natural resources such as water, air and soil.

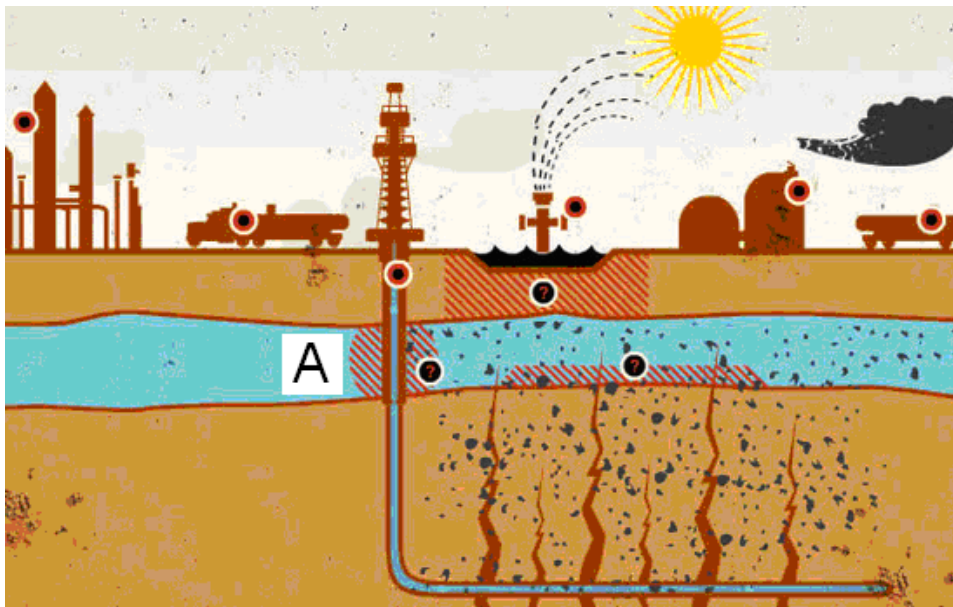
I have become aware that numerous exploration wells have been drilled throughout Victoria over many years to ascertain where UG mining is commercially viable. In the Geelong region, Petroleum Exploration Permit (PEP163) covers the region where onshore natural gas exploration has been approved as shown shaded below.



As UG mining operations are highly dangerous to the natural environment to the personnel performing the work and to those living in the communities affected by these operations, I am opposed to this form of unconventional mining for the following reasons:

1. Fracking operations involve pumping **millions of litres of locally produced drinking water** down each well that can never be recovered. As Victoria is prone to drought, an industry requiring such vast quantities of limited drinking water is not sustainable.

2. The various processes that Fracking uses to extract the gas from the rock deep underground require a huge quantity of **highly toxic chemicals** with which to 'fracture' the rock.
3. These **chemicals have to be transported along suburban and country roads** to their destination. As there are many trucks involved in transporting the chemicals and later, the toxic wastewater for disposal, the likelihood of an accident occurring that results in a **toxic-hazard emergency** occurring is very high. Cleanups do not always eliminate 100% of the spill; so the community affected is often left to endure the after effects from such accidents.
4. The **well liners are not always leak-proof**. This allows not only methane gas (that is a greenhouse gas at least 25 times more potent than CO₂) to escape into the atmosphere, but it also allows other toxins to enter the aquifer (point 'A' below).



5. Reports are available where **well liners have exploded** out of the wells causing toxic fracking fluid to escape into the environment – see below.



A fracking well operated by Carrizo Oil and Gas out of Texas in [Washington Township, Wyoming County, PA](#) malfunctioned and began spewing out dangerously chemical-laden

fracking fluid at a rate that peaked at 800 gallons per minute. The spill lasted for hours and when all was said and done, about 227,000 gallons of fracking fluid had spilled.

6. In a land as dry as Australia, **we cannot take any risk that gambles with the purity of 'our aquifer water'**, which is the lifeblood of communities (people), livestock and crops, which we all depend upon.
7. A bore hole from a fracking operation can be directed to go horizontally in any direction – so that if one neighbour allows a mining company onsite to drill a well, **the horizontal section could be located underneath the next door neighbour's property. This has the potential to destroy the neighbouring land and environment** if methane gas manages to leak into the neighbour's water supply.



8. The presence of mining UG companies within communities restricts the freedom of the local people to move about as usual. High level truck operations are known to ruin local roads.



Fracking operations going on for days, less than a week and the road , [Chenango St.](#), collapsed in crumbling sections along about a 3 mile stretch...

9. Politicians have been accused of taking bribes to allow Fracking companies to have their way:

- a. In [Ireland](#)
 - b. In the USA - [Pennsylvania](#)
 - c. In the UK - [Sussex](#)
 - d. In Australia – [NSW politicians](#): Independent Commission Against Corruption
10. There are no benefits for local communities from UG mining. The only benefits are for the miners, their investors and the government.
11. There are [few if any jobs](#) for local people.



12. The health and welfare of communities affected by Fracking operations become severely affected.



Critical Evidence

The above claims are well known, as experience in the USA proves there is little or no benefit to any community affected by UG mining. The following points add weight to the forgoing claims.

A summary of the comments from the articles referenced is presented below. Links at the rear of the document enable you to click on the webpage to check the facts for yourself.

Fact 1: People are scared about fracking for good reason

David Shearman [ABC – The Drum](#) | November 5, 2013

Fracking poses a risk to clean water, safe food and unpolluted air...

Fracking represents an unhealthy battle between the community, backed by much independent medical and scientific expertise, and an alliance of governments and industry.

This year, **the AMA adopted** a policy resolution urging governments: "... to ensure that all future proposals for coal seam gas mining are subject to rigorous and independent health risk assessments, which take into account the potential for exposure to pollutants through air and groundwater and any likely associated health risks.

The AMA added: "In circumstances where there is insufficient evidence to ensure safety, the precautionary principle should apply. **Applying the precautionary principle means that unless an activity is proven to be safe, it should be avoided**..."

Fact 2: Groundbreaking Report Calculates Damage Done by Fracking

[Environment America](#) | October 3, 2013

As US federal policy makers decide on rules for [fracking](#) on [public lands](#), a new report calculates the toll of this dirty drilling on our environment, including 280 billion gallons of toxic [wastewater](#) generated by fracking in 2012—enough to flood all of Washington, DC, in a 22-foot deep toxic lagoon. The [Environment America](#) Research & Policy Center [report](#), *Fracking by the Numbers*, is the first to measure the damaging footprint of fracking to date.

"The numbers don't lie—fracking has taken a dirty and destructive toll on our environment," said John Rumpler, senior attorney for Environment America. **"If this dirty drilling continues unchecked, these numbers will only get worse."**

Table ES-1. National Environmental and Public Health Impacts of Fracking

Fracking Wells since 2005	82,000
Toxic Wastewater Produced in 2012 (billion gallons)	280
Water Used since 2005 (billion gallons)	250
Chemicals Used since 2005 (billion gallons)	2
Air Pollution in One Year (tons)	450,000
Global Warming Pollution since 2005 (million metric tons CO₂-equivalent)	100
Land Directly Damaged since 2005 (acres)	360,000

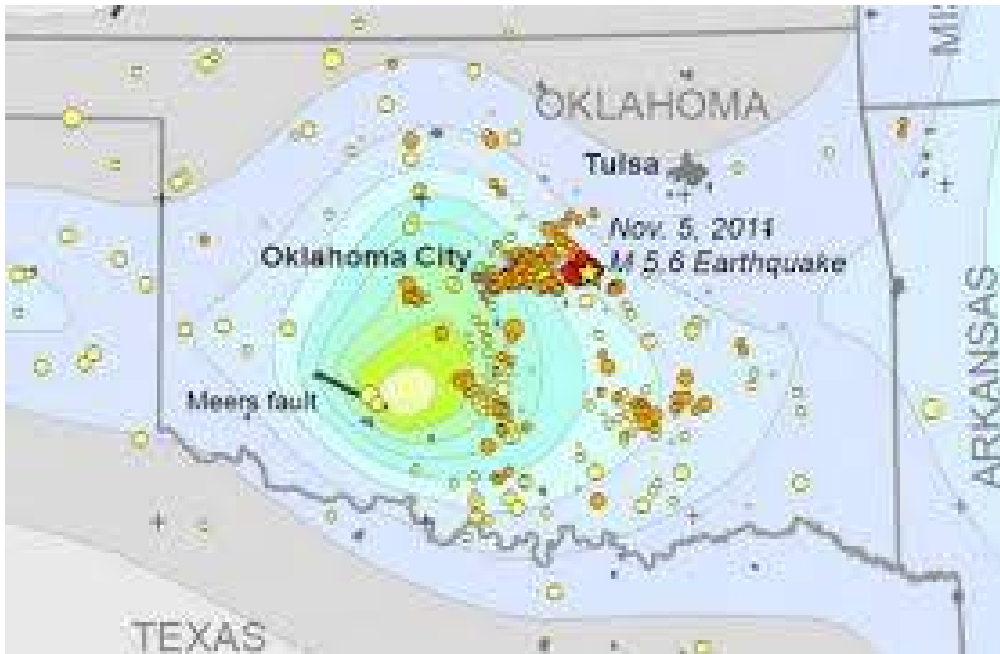
Fact 3: Fracking & Injection Wells causes earthquakes

[By Kevin Simpson, The Denver Post](#)

...A few miles away in the city, Gail Jackson joined neighbors spilling out into the street, wondering if a plane crash had triggered the big bang and sudden vibration that dissipated as quickly as it arrived. All over, phones rang and neighbors compared notes as the mystery unraveled: Weld County had felt the tremors of a magnitude-3.2 earthquake — jarring but accompanied by little, if any, damage.

In an area peppered with wells pulling energy resources from below ground — and **many pumping wastewater from the process back into it through injection wells** — an old question resurfaced: **Could the same geological tinkering that has revved a formidable economic engine also trigger potentially damaging earthquakes?**

<http://www.popsci.com.au/space/observatories/the-usgs-is-mapping-humancaused-earthquake-hazards-403200>



Fact 4: Bubbling river blamed on gas

David Wroe, [Sydney Morning Herald](#). February 27, 2013

Video has emerged of a **major gas leak on the Condamine River in Queensland** that conservationists say could be dangerous methane leakage from a nearby coal seam gas project.



Water bubbles appear on the Condamine River Qld

Anti-UG campaigner Drew Hutton, who helped to shoot [the video](#) on the river west of Brisbane, said there were several stretches of river where furious bubbling was happening, each stretch about 30 to 40 metres long. The leak site is close to a UG project from energy giant Origin.

Mr Hutton said the gas could explode if it reached a certain concentration. "There are hundreds and hundreds of bubbles coming to the surface," he said. **"Our gas metres shows that it's methane. It's dangerous."** Of Origin, he said: "They know about it. They've been out there. This has been happening for weeks and weeks. I'm not ruling out that it could be naturally caused but he chances are pretty minimal. It's over too long a stretch of the river and there's too much of it."

He called on Origin to release all the data it had on the area. **UG projects reduce the groundwater, which can cause gas to "migrate" underground and emerge in other places. "When you draw down the water, you open up the possibility for pathways to be established."**

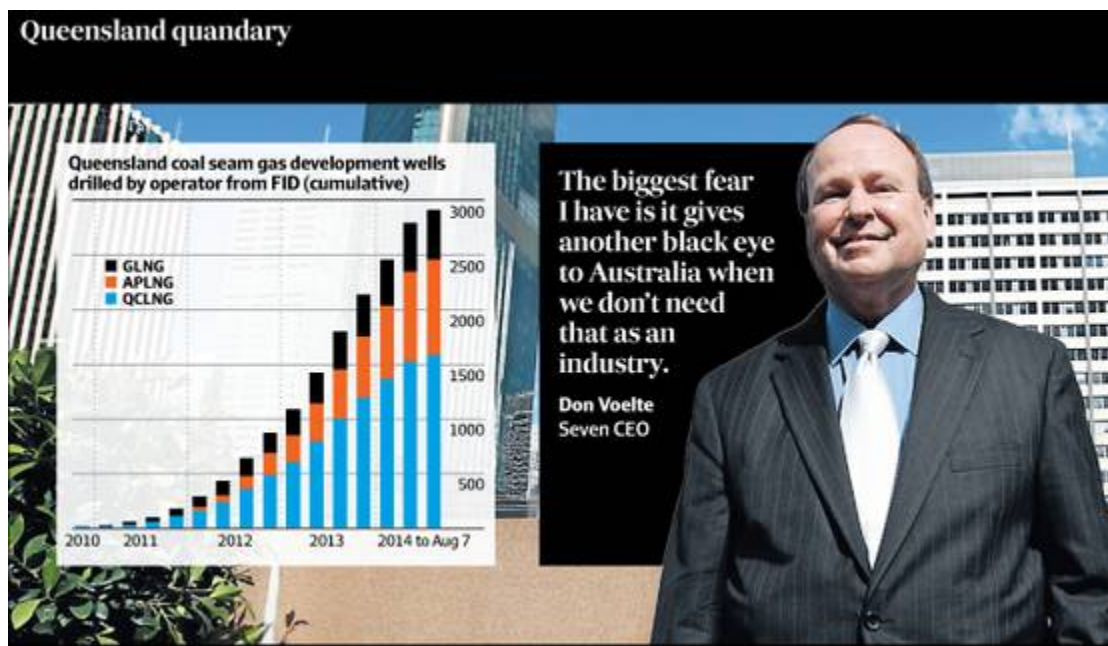
Fact 5: UG Mining not profitable – a "black eye industry"

James Chessell [Financial Review](#) 11 Sep 2014

Queensland LNG doesn't add up, says ex-Woodside boss Don Voelte

Seven Group Holdings chief executive Don Voelte has raised fresh questions about the viability of \$70 billion worth of gas export plants in Gladstone, warning the economics of the industry had become tougher and coal seam gas remained difficult to extract – he described the investment of BG Group's Queensland Curtis, Santos's GLNG and Origin Energy's APLNG as "a big bet" in a process "with no pilot and no test".

"It's OK to have one or two of the those problems," he said. **"The biggest fear I have is it gives another black eye to Australia when we don't need that as an industry."**



Fact 6: Fracked off - natural gas victims flee Colorado's toxic air

Paul Thacker / [The Ecologist](#)

Natural gas is widely touted as a 'green fuel'. But as Paul Thacker found in Colorado, fracking's national 'ground zero', it's anything but. Lives and health are being ruined by pollution from taxpayer-subsidized gas wells, flaring and refining plants, while property values collapse. **Now a mass of environmental refugees are fleeing the ravaged state.**



A general contractor in Colorado's Grand Valley, Duke Cox says the first time he became aware that drilling for gas might be a problem was back in the early 2000s when he happened to attend a local public hearing on oil and gas development. A woman who came to testify began sobbing as she talked about **the gas rigs that were making the air around her home impossible to breathe.** "There were 17 rigs in the area, at that time", Cox says. "And they were across the valley, so I wasn't affected. But she was my neighbor."

Fact 7: New study shows gas workers could be exposed to dangerous levels of benzene

Susan Phillips / [State Impact](#) August 28, 2014

A new study out this month reveals unconventional **oil and natural gas workers could be exposed to dangerous levels of benzene, putting them at a higher risk for blood cancers like leukemia.** Benzene is a known carcinogen that is present in fracking flowback water. It's also found in gasoline, cigarette smoke and in chemical manufacturing. As a known carcinogen, benzene exposures in the workplace are limited by federal regulations under OSHA. **But some oil and gas production activities are exempt from those standards.** A summary of the peer-reviewed article was [published online this month on a CDC website](#). In several cases benzene exposures were found to be above safe levels.

A spokeswoman for NIOSH says none of their studies draw any conclusions about exposures to nearby residents, but focus specifically on workers. **But Dr. Goldstein says it shows that there could be potential risks to residents as well.**

Fact 8: Pa. faults Chevron for lack of oversight, poor communication in fatal well fire

Katie Colaneri / [State Impact](#) August 6, 2014

In a new report out today, the Department of Environmental Protection says **Chevron was "too guarded" in its communication with state regulators and the media, and did not provide adequate information after a fatal well fire in southwest Pennsylvania.** The DEP admits it is also to blame for the poor communication and that the agency did not immediately assert its authority following the incident in February.

DEP investigators found the explosion was likely caused by an inexperienced contractor – known as a "greenhat" – who was sent to assist a more experienced worker in preparing to put the three wells on the pad into production. The agency determined the unnamed greenhat did not properly tighten a bolt and locknut assembly on one of the wellheads, **allowing gas to escape and eventually ignite.** "Our investigation revealed that the oversight of that operation was somewhat less than it should have been," said DEP spokesman John Poister. A contract worker, 27-year-old Ian McKee, was killed in the fire on Feb. 11.

DEP staff were “excluded from discussions” with Chevron and Wild Well Control – the specially-trained group called in from Texas to fight the fire – “while they developed the information provided at the regularly scheduled briefing.” The report found members of the press were also not properly informed. The company set up an information center at the Bobtown Polish Club, a small bar and event hall just over a mile from the well pad. However, Chevron personnel staffing the center were not authorized to speak to reporters. Media communications were handled by DEP officials and local lawmakers who were not receiving detailed reports from Chevron.

Fact 9: Shale drillers’ landfill records don’t match those of Pennsylvania DEP

Anya Litvak and Maxwell Radwin / [Pittsburgh Post-Gazette](#) August 31, 2014

Documents tell different story on drilling waste

Data submitted by oil and gas operators on the amount of drilling cuttings and fracking fluid sent to Pittsburgh-area landfills don’t match up to reporting required of landfills. The DEP has opened an investigation into drillers’ **under-reporting of the landfill waste.**

Six facilities in this part of the state reported receiving nearly 95,000 tons of drill cuttings and fracking fluid from the Downtown-based oil and gas operator last year. The landfills’ records are the correct ones, said Mike Forbeck, waste management director with the DEP. He said the agency has opened an investigation into drillers’ under-reporting of landfill waste.

The EQT case — **21 tons vs. 95,000 tons** — may be the most dramatic example of how data submitted by oil and gas operators don’t match up to reporting required of landfills. The DEP said it has been aware of the problem for “a number of months” and is looking into why the different reporting channels aren’t yielding the same results.

Fact 10: “Utah grapples with toxic water from oil and gas industry”

Brian Maffly / [The Salt Lake Tribune](#) August 24, 2014

Grand County evaporation ponds avoided air quality regulation for years, documents show.

A massive stream of wastewater tainted with hydrocarbons has been flowing into Utah from oil and gas mining on Colorado’s West Slope. **Evaporation ponds used to process the contaminated water in Grand County have released tons of toxic chemicals into the air since April 2008.**

But the Colorado company running the 14-pond facility operated without a Utah air-quality permit for more than six years, public documents show, while providing officials faulty data that underreported its emissions and exaggerated the efficiency of its emission-control equipment.

But a later, more reliable analysis indicated the company’s emissions were not negligible, but were instead tens and possibly hundreds of tons a year — revealing the site was a major emission source for hazardous air pollutants and volatile organic compounds.

“They were out of compliance for many years, but they hung on debating with DAQ over how to estimate emissions. It was clear they were never a de minimis source, ever,” said Chris Baird,

a former member of the Grand County Council and Planning Commission who is now executive director of the Canyonlands Watershed Council.

Fact 11: More than 250 Medical organisations, doctors, health professionals and scientists say Fracking isn't safe.

TODAY [29 May 2014], Sandra and other members of [Concerned Health Professionals of New York](#) are joined by 25 health and medical organizations and over 200 individual health professionals and scientists in saying to New York Governor Cuomo and Acting Health Commissioner Zucker:

“We, the undersigned physicians, nurses, researchers and public health professionals, write to update you on the alarming trends in the data regarding the health and community impacts of drilling and fracking for natural gas. The totality of the science... shows that permitting fracking in New York would pose significant threats to the air, water, health and safety of New Yorkers.”



Summary

I do hope that senators reading this submission will take the time to click on the links provided to appreciate that there are many communities around the world experiencing the negative impacts of Fracking operations on their health and general welfare.

Victoria has the opportunity to not make the mistake of allowing UG mining operations to impact its clean and green agricultural and tourism industries. Other Australian communities are not that fortunate.

Please **DO NOT** allow Unconventional Gas Mining to expand its operations throughout Australia, as the damage this industry causes to the communities, the environment and to the health of those impacted far outweighs any economic benefit the industry claims it provides to the communities affected.

END



Yours sincerely,

Alan Manson
Frack Free Grovedale

Links to referenced documents:

Introduction:

5. Washington Township, Wyoming County, PA - <http://www.dailykos.com/story/2013/04/11/1200893/-Fracking-Resumes-Less-Than-a-Month-After-200-000-Gallon-Spill>
8. Chenango St. - http://article.wn.com/view/2014/03/11/Big_buyers_of_Cabot_Oil_Gas/
- 9.a Ireland <http://www.belfasttelegraph.co.uk/news/local-national/uk/ministers-accused-of-fracking-bribe-30297851.html>
- 9.b Pennsylvania <http://www.truth-out.org/news/item/8051-fracking-fracking-corruption-a-part-of-pennsylvanias-heritage>
- 9.c Sussex <http://www.frackfreesussex.co.uk/corruption-vested-interest/>
- 9.d NSW politicians <http://www.theaustralian.com.au/national-affairs/state-politics/nsw-icac-in-bid-to-curb-coal-mining-corruption/story-e6frgcxz-1226749490899?nk=aad101c8ca2097b2827e1f82a8cbf119>
11. few if any jobs - <http://ecowatch.com/2013/11/21/study-confirms-job-exaggerated-by-fracking-industry/>

Fact points:

- Fact 1: ABC – The Drum - <http://www.abc.net.au/news/2013-11-05/shearman-people-are-scared-about-fracking-for-good-reason/5069910>
- Fact 2: Environment America <http://ecowatch.com/2013/10/03/report-calculates-damage-by-fracking/>

Fact 3: The Denver Post http://www.denverpost.com/news/ci_26441036/amid-oil-and-gas-boom-colorado-continues-role

Fact 4: Sydney Morning Herald <http://www.smh.com.au/federal-politics/political-news/bubbling-river-blamed-on-gas-20120530-1zib9.html>

Fact 5: Financial Review
http://www.afr.com/p/business/companies/queensland_lng_doesn_add_voelte_EHshjwpmVn9WeNNKr_q3fFP

Fact 6: The Ecologist
http://www.theecologist.org/News/news_analysis/2535304/fracked_off_natural_gas_victims_flee_colorados_toxic_air.html

Fact 7: State Impact <http://stateimpact.npr.org/pennsylvania/2014/08/28/new-study-shows-gas-workers-could-be-exposed-to-dangerous-levels-of-benzene/>

Fact 8: State Impact <http://stateimpact.npr.org/pennsylvania/2014/08/06/pa-faults-chevron-for-lack-of-oversight-poor-communication-in-fatal-well-fire/>

Fact 9: Pittsburgh Post Gazette <http://powersource.post-gazette.com/powersource/companies-powersource/2014/08/31/Shale-drillers-landfill-records-don-t-match-the-state-s-Pennsylvania/stories/201408310111>

Fact 10: Salt Lake Tribune <http://www.sltrib.com/sltrib/news/58298470-78/danish-flats-ponds-company.html.csp>

Fact 11: Concerned health professionals of New York <http://concernedhealthny.org/>