

Members of the Review Panel:

I want to sound a note of caution about advocacy pieces that are being presented as unbiased science. In the United States, certain anti fracking activist groups purport to produce “studies” that are “peer reviewed”. One scientist or group will conduct a study without disclosing their affiliation with and/or funding from an activist group or charity, and then that study will be “peer reviewed” by another PhD anti fracking activist, again with no bias disclosed. This violates the ethics of peer reviewed research.

This type of study should not be given the same weight as true peer reviewed studies produced by universities, government bodies, or industry funded researchers who disclose their funding sources.

The tactic was used to great effect in New York State and led to a ban on hydraulic fracturing in that state. Scientists associated with the following activist groups have used these tactics:

- Concerned Health Professionals of New York
- Global Community Monitor
- Center for Environmental Health
- Earthworks
- Shale Test
- Coming Clean
- New Yorkers Against Fracking

In some cases, the activist “studies” use sampling methodology known to be unreliable. One example is called “bucket brigade” air sampling, which is known to taint the samples, but which activist groups use to “prove” air pollution from drilling activities. Another methodology that activists like, but which the scientific community regards as invalid sampling methodology, is to use very short term sample times.

I wish to be clear that being funded by an activist group does not necessarily lead to biased science, but it is important to disclose funding sources. If any of the scientists involved in a study are active in the anti-fracking movement, then that is more problematic, and it becomes unethical if the bias is not disclosed. If a “peer reviewer” who is an active opponent of the oil and gas industry does not disclose bias, then that too is a clear violation of professional ethics.

I am submitting a white paper on this topic written by Katie Brown, PhD, who writes and consults for Energy In Depth, an industry funded organization. The paper is titled “A Look Inside New York’s Anti Fracking Echo Chamber”.

The misleading tactics continue with more recent studies. For example, the anti-fracking group “Council of Canadians” is currently quoting a study by the Proceedings of the National Academy of Sciences (PNA), and using this study to claim that drinking water in Pennsylvania homes was contaminated by hydraulic fracturing in gas wells.

One of the authors of the study failed to disclose that he had worked as a consultant and advisor on a lawsuit by some of the “affected” Pennsylvania homeowners against a driller. That disclosure has now been made public, but only after the study was challenged, and numerous news organizations have had to issue corrections to their stories about the study.

The study also contained serious methodological flaws. The researchers discovered “very low concentrations” of 2-butoxyethanol, or 2-BE, in water wells (levels well within the threshold of safe drinking water), and suggested that the discovery of this chemical “could be” linked to hydraulic fracturing. It is difficult to understand why the researchers would make this speculative leap. 2-BE is used in hundreds of household products, including cleaning products used outdoors, and even as a food additive. It is also an ingredient in the cement that was used to set the casing in the water wells that were tested! Is this not a far more likely source of 2-BE in the water wells than deep gas wells a mile or more away?

I submit an analysis of the PNA study, again by Katie Brown of Energy in Depth, an industry financed organization. The article is titled “New Air Quality Report Uses Scientifically Dubious Methods”.

In Pennsylvania, the environmental department put up a web site in 2004 showing people how to safely vent methane from their water wells, because the problem was so widespread. This web site was put up at a time when no Marcellus shale well had ever been hydraulically fractured in the state.

Methane in water wells is not unusual in areas that are rich in natural gas. The most famous scene in the advocacy movie “Gasland” was of a Colorado home owner lighting water from his tap. This was blamed on hydraulic fracturing, but subsequent investigation by state authorities discovered that the home owner’s water well penetrated four different coal seams. The state investigators concluded that these coal seams were the source of the methane. The most famous image that anti fracking activists show members of the public has nothing to do with hydraulic fracturing!

Josh Fox, the activist director of “Gasland”, is also an advisor to several of the advocacy groups listed at the beginning of this letter.

Another member of the anti-fracking movement is Professor Anthony Ingraffea of Cornell University, who has admitted that his work is “a form of advocacy”. His studies, which anti-fracking activists like to quote, have been thoroughly criticized for poor methodology and misleading conclusions by his peers during the review process.

I realize that the members of this Panel have enough scientific acumen to separate real peer reviewed science from advocacy pieces dressed up in scientific clothing. However, the anti-fracking activists rely on the fact that most members of the public do not have enough scientific background to spot the difference. To help the members of the public who want to hear the other side of the story, I will submit a number of articles that analyze the questionable science.

Respectfully yours,

M. Jarvis
CEO
Shoal Point Energy

<http://energyindepth.org/wp-content/uploads/2015/04/EID-New-York-Fracking-Ban.pdf>

http://energyindepth.org/wp-content/uploads/2013/01/EID_Howarth_fact_sheet5.pdf

<http://nlhfrp.ca/wp-content/uploads/2015/01/AP-news-story-about-bad-science-by-K.-Begos.pdf>

<http://nlhfrp.ca/wp-content/uploads/2015/01/EID-letter-to-Josh-Fox-Aug.-2012.pdf>

<http://nlhfrp.ca/wp-content/uploads/2015/01/Errors-from-Start-to-Finish-in-Center-for-Public-Integrity.pdf>

<http://nlhfrp.ca/wp-content/uploads/2015/01/Five-Facts-about-Ingraffea-and-Howarth.pdf>

<http://nlhfrp.ca/wp-content/uploads/2015/01/Fracking-Activists-letter-debunked.pdf>

<http://nlhfrp.ca/wp-content/uploads/2015/01/Major-Research-Gaps-in-New-Groundwater-Study1.pdf>

<http://nlhfrp.ca/wp-content/uploads/2015/01/New-Air-Quality-Report-Uses-Scientifically-Dubious-Methods.pdf>

<http://nlhfrp.ca/wp-content/uploads/2015/01/New-Report-Sets-the-Record-Straight-on-Safe-Fracking-in-North-Carolina.pdf>

<http://nlhfrp.ca/wp-content/uploads/2015/01/Science-and-Ingraffeas-Natural-Gas-Emission-Study.pdf>