

Debunking the misleading claims of the oil and gas industry

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October 2014

CLAIM #1: Many of the chemicals that are used in fracking are found under your kitchen sink.

<http://www.cred.org/facts-about-fracking/>

TRUTH:

“Using the health effect information for the 353 chemicals with CAS numbers, we created a profile of possible health effects that depicts the percentage of chemicals associated with each of the 12 health effect categories. More than 75% of the chemicals on the list can affect the skin, eyes, and other sensory organs, the respiratory system, the gastrointestinal system, and the liver. More than half the chemicals show effects on the brain and nervous system. These first four categories represent effects that would likely be expressed upon immediate exposure, such as eye and skin irritation, nausea and/or vomiting, asthma, coughing, sore throat, flu-like symptoms, tingling, dizziness, headaches, weakness, fainting, numbness in extremities, and convulsions. Products containing chemicals in powder form, irritants, or highly corrosive and volatile chemicals would all come with MSDS warnings in one or more of these categories. In all probability, none of the chemicals in these categories would normally be ingested during natural gas operations, but immediate eye, nasal, dermal contact, and inhalation could lead to rapid absorption and cause direct exposure to the brain and other vital organ systems.

<http://endocrinedisruption.org/assets/media/documents/GasManuscriptPreprintforweb12-5-11.pdf>

Unless you are a chemist like “Walter” on Breaking Bad, you will NOT have benzene, toluene, naphthalene and other carcinogens under your kitchen sink. These are however, found in frack fluid.

Claim #2: Most of what is used in fracking fluid is 99.5% water and sand. (so not a high quantity of chemicals----- right? WRONG!)

<http://www.cred.org/facts-about-fracking/>

TRUTH:

Sand causes its own set of environmental problems:

Frac sands (99% silicon dioxide – SiO₂) are meant to “prop” open the rock after fracturing is complete, termed “proppants.” Aside from water, these sands represent the second largest constituent pumped into a typical well to hydraulically fracture the shale. Usage of frac sand as a proppant is increasing due to the rising costs associated with synthetic substitutes like ceramic and related resin-coated materials. Ideally, such sand must be

uniformly fine and spherical, crush-resistant, acid soluble, mature, and clay/silt-free.

Environmental impacts may be the biggest cause for worry. Some mining operations can cover more than 450 acres and often involve the destruction of forests. This may happen piecemeal, perhaps 20 acres at a time, but forest habitat and the associated functions (e.g. carbon storage and accrual) are nevertheless diminished.

<http://www.fractracker.org/2013/11/sand-mining/>

The amount of chemicals in that 1% ends up being quite a lot when you consider the volume of frack water used and the fact that a well can be fracked up to 18 times! Anywhere from 1-8 million gallons of water per frack are used.

“ In 2010, the U.S. Environmental Protection Agency estimated that 70 to 140 billion gallons of water are used to fracture 35,000 wells in the United States each year. This is approximately the annual water consumption of 40 to 80 cities each with a population of 50,000. Fracture treatments in coalbed methane wells use from 50,000 to 350,000 gallons of water per well, while deeper horizontal shale wells can use anywhere from 2 to 10 million gallons of water to fracture a single well. The extraction of so much water for fracking has raised concerns about the ecological impacts to aquatic resources, as well as dewatering of drinking water aquifers.”

“The oil and gas industry and trade groups are quick to point out that chemicals typically make up just 0.5 and 2.0% of the total volume of the fracturing fluid. When millions of gallons of water are being used, however, the amount of chemicals per fracking operation is very large. For example, a four million gallon fracturing operation would use from 80 to 330 tons of chemicals.[1] –“

http://www.earthworksaction.org/issues/detail/hydraulic_fracturing_101#.VCLaZPldX3A

<http://www.dangersoffracking.com/>

CLAIM #3 What oil and gas operations are doing (fracking) has been done since 1947 (over 60 years).

<http://www.cred.org/facts-about-fracking/>
www.energyfromshale.org/

TRUTH : Horizontal Fracking was developed in the 1990s.

http://www.eesi.org/files/fracking_technology_120111.pdf

CLAIM #4: Fracking will create hundreds of new jobs for Ohio.

<http://www.api.org/hydraulicfracturing>

TRUTH: Many frack jobs are filled by out of state workers.

<http://www.dispatch.com/content/stories/local/2014/01/28/so-wheres-the-boom-that-was-promised.html>

<http://www.policymattersohio.org/fracking-apr2014>

80 jobs a year are created by mining and logging in OHIO.

<http://ohiogasdrilling.files.wordpress.com/2013/07/pogco-factsheet-actual-job-numbers.pdf>

CLAIM #5 Water is not contaminated by fracking.

<http://www.nytimes.com/2014/09/16/science/study-points-to-well-leaks-not-fracking-for-water-contamination.html>

(study points to faulty wells and cement and steel pipes but these leaking pipes still are a direct result of fracking)

TRUTH: There are documented cases of water wells being contaminated.

<http://thetimes-tribune.com/news/sunday-times-review-of-dep-drilling-records-reveals-water-damage-murky-testing-methods-1.1491547>

CLAIM #6 “Radiation from frack water is no worse than laying your banana on a granite countertop” (quote taken from an oil and gas trade publication).

TRUTH: Radiation levels in mud in Pa found to be 45 times higher than background radiation and sewage plants cannot remove these radio nucleotides.

<http://www.dispatch.com/content/stories/local/2014/01/27/radioactive-threat.html>

“A geological survey report found that millions of barrels of wastewater from unconventional wells in Pennsylvania and conventional wells in New York were 3,609 times more radioactive than the federal limit for drinking water and 300 times more radioactive than a Nuclear Regulatory Commission limit for nuclear plant discharges.”

http://www.ellwoodcityledger.com/news/local_news/fracking-wastewater-can-be-highly-radioactive/article_38ff256c-35ea-5ac7-9301-f66de358952f.html

"What's lacking is enforced monitoring," Vengosh says, noting that the samples collected by Duke suggest that radioactive water was still being discharged in 2012. He says more research is needed."

<http://www.usatoday.com/story/news/nation/2013/10/02/fracking-radioactive-water-pennsylvania/2904829/>

CLAIM #7 Local and state economies will boom due to fracking.

Truth: Most jobs are in specific sectors and in fact social issues are now costing local economies in the form of housing prices, road repairs and social issues such as increases in crimes (drugs and prostitution).

TRUTH: SOCIAL ISSUES

“Crime has soared as thousands of workers and rivers of cash have flowed into towns, straining police departments and shattering residents’ sense of safety.”

“It just feels like the modern-day Wild West,” said Sgt. Kylan Klauzer, an investigator in Dickinson, in western North Dakota. The Dickinson police handled 41 violent crimes last year, up from seven only five years ago.”

<http://www.nytimes.com/2013/12/01/us/as-oil-floods-plains-towns-crime-pours-in.html?hp& r=0>

“Prosecutors and the police note an increase in crimes against women, including domestic and sexual assaults. “There are people arriving in North Dakota every day from other places around the country who do not respect the people or laws of North Dakota,” said Ariston E. Johnson, the deputy state’s attorney in neighboring McKenzie County, in an e-mail.”

<http://www.nytimes.com/2013/01/16/us/16women.html?pagewanted=1& r=0>

Jan. 25 (Bloomberg) – “The gravel road that borders Dave Hynek’s North Dakota farm is designed to carry 10 tractor-trailer trucks a day. In a recent 24-hour period, about 800 passed by.

Some are traveling 90 minutes west to Williston, where schools Superintendent Viola LaFontaine expects as many as 3,800 students this fall, about 57 percent more than her primary schools were built to hold.”

<http://www.businessweek.com/news/2012-02-01/north-dakota-oil-boom-brings-blight-with-growth-as-costs-soar.html>

More accidents are occurring in regions where brine and water trucks compete for rural roadways.

<http://www.wtov9.com/news/features/local-news/stories/-truck-troubles-harrison-county-5293.shtml>

Claim #8 OIL and Gas are highly regulated.
<http://energyindepth.org/national/shale-exempt-from-federal-laws-um-not-even-close/>

TRUTH: Oil and gas companies are the only industries that DO NOT have to abide by any of the federal regulations such as Clean Water Act, Clean Air and Community Right to Know CERCLA ACT.

http://www.shalegas.energy.gov/resources/060211_earthworks_fs_oilgasexemptions.pdf

“Then, in 1987, congress amended the act, requiring the EPA to develop a permitting program for storm water runoff, but the exploration, production, and processing of oil and gas exploration was exempt. And as part of the Energy Policy Act of 2005, also known as the "Halliburton Loophole," these exemptions were once again expanded; therefore now including exemptions for waste water from gas and oil construction activities which includes "oil and gas exploration, production, process, or treatment operations and transmission facilities" as part of the definition of construction activities.^[3]”

http://www.edcnet.org/learn/current_cases/fracking/federal_law_loopholes.html

CLAIM #9 Produced water is safe and can be recycled.
http://www2.epa.gov/sites/production/files/documents/09_Mantell_-_Reuse_508.pdf

TRUTH: The above report does not mention the approved use of produced water to salt roadways (which is OK in Ohio according to Bill) also no mention of the radiation of this water.

“Ohio, according to ORC 1509.226, allows the application of fracking wastewater on roads for dust and ice control as a legitimate form of disposal.”

<http://www.bloomberg.com/news/2013-10-02/radiation-in-pennsylvania-creek-seen-as-legacy-of-frackin.html>

http://www.sourcewatch.org/index.php/Ohio_and_fracking

The above industry report points to the fact that burning methane actually produces water vapor (it also produces millions of tons of carbon dioxide) the report doesn't focus on that, however!

CLAIM #10 Fracking does not cause Earthquakes.

<http://www.energyfromshale.org/faq#n166>

TRUTH:

There is a definitive link between major increases in earthquakes nationwide and the expansion of horizontal hydraulic fracking.

<http://ecowatch.com/2014/03/12/fracking-earthquakes-ohio/>

Injection waste wells are a major concern when it comes to creating unstable ground situations in areas with these wells.

“In 2012, more than 14 million barrels of toxic waste from oil and gas drilling were injected into the ground in Ohio's Class II disposal wells, with 8.16 million barrels of waste from other states. Wastewater injection wells pose a series of threats to public health and the environment, including groundwater contamination.”

<http://www.dispatch.com/content/stories/local/2013/07/01/fracking-waste-keeps-rolling-in.html>

<http://www.sciencemag.org/content/345/6192/13.summary>