**A Rebuttal to  
“The Top Ten Unfounded Health Scares of 2011 - 4. Hydraulic Fracturing”  
ACSH**

**Produced for the benefit of the public by  
Concerned Citizens of Medina County  
fracking.weebly.com**

**4. Hydraulic Fracturing, or “Fracking”**

**The Scare:** Commonly referred to as “fracking,” hydraulic fracturing consists of using highly pressurized water, mixed with various chemicals, to break through shale rock formations in order to obtain natural gas. Though fracking has tremendous potential to create many thousands of jobs while (S1) providing a clean source of energy (S2), environmental activists have mobilized to alarm and misinform the public about the possibility of groundwater contamination, even though the evidence does not support [these claims](http://blogs.scientificamerican.com/observations/2011/08/04/epa-study-from-1980s-linked-fracking-to-fouled-drinking-water/)(S3).

**Origin of the Scare:** A [report written in April](http://democrats.energycommerce.house.gov/sites/default/files/documents/Hydraulic%20Fracturing%20Report%204.18.11.pdf) by Representatives Henry A. Waxman of California, Edward J. Markey of Massachusetts, and Diana DeGette of Colorado, faulted gas and oil companies for, at times, “injecting fluids containing chemicals that they themselves cannot identify.” Commissioned by the House Energy and Commerce Committee, the report also alleged that 14 of the nation's most active hydraulic fracturing companies have used 866 million gallons of hydraulic fracturing products — not including water. More than 650 of these products (S4), the report claimed, contained chemicals that are either known or possible human carcinogens, are regulated under the Safe Drinking Water Act, or are listed as hazardous air pollutants.

**Media Coverage:** Following the release of the House report, the notoriously alarmist *New York Times*reporter Ian Urbina began to devote himself to finding ways to upset readers about fracking. Among other claims, he asserted that chemicals used during natural gas extraction may ultimately end up in our drinking water. Urbina even cited a previous report by the equally alarmist Environmental Working Group, claiming that benzene levels in fracking ingredients were as much as 93 times higher than those found in diesel fuel.

Urbina was also responsible for an entire [anti-fracking series](http://www.nytimes.com/interactive/us/DRILLING_DOWN_SERIES.html) in *The Times* called “Drilling Down,” which examined the risks of natural gas drilling. In one of his pieces (“A Tainted Water Well, and Concern There May Be More”), Urbina accused energy companies of keeping instances of contaminated water wells hidden, especially from the Environmental Protection Agency (EPA). Yet such claims are unsubstantiated. In fact, numerous academic, federal, and state investigators have conducted extensive research on groundwater contamination issues and have found that drinking water contamination from fracking has not been documented (S5), and its future occurrence is highly improbable (S6).

Much of the current fracking controversy was spurred by the 2010 film [“Gasland,”](http://anga.us/truthaboutgasland) a documentary that criticizes the natural gas drilling process. One of the movie’s signature moments shows a Colorado landowner setting his tap water on fire, an improbable (S7) but dramatic scene that has further fueled anti-fracking sentiments. The film's claims were so egregious, however, that the Colorado Oil and Gas Conservation Commission was compelled to set the record straight by publishing an information sheet that corrects the film's misleading depictions.

**ACSH Perspective:** Though environmental activists claim that fracking leads to the contamination of drinking water with chemicals such as benzene, ACSH’s Dr. Gilbert Ross contends that “carcinogenic effects associated with benzene come from studies of high-exposure occupational workers. This has little or nothing to do with the traces of benzene present in hydrofracking liquids (S8), let alone the hypothetical amounts that might conceivably migrate from shale gas deposits to drinking water. To deny Americans the possibility of plentiful, cheap, and safe natural gas because of hyper-precautionary fears about ‘toxic and carcinogenic’ chemicals from hydrofracking fluid seems terribly irresponsible.”

Indeed, even New York Governor Andrew Cuomo sees the vast potential that fracking has: His administration took steps to overturn a hydraulic fracturing moratorium in June that would allow the process to continue on private lands, thus opening New York to one of the fastest-growing areas of the energy industry. The N.Y. State Department of Environmental Conservation is scheduled to release proposed rules governing fracking processes early in 2012.

**The Bottom Line:** Hydraulic fracturing has real potential to become a vital source of energy that has the ability to create hundreds of thousands of jobs (S9), which are especially necessary in our current economic slump. While fears of environmental degradation are hypothetical, and water contamination from fracking is highly unlikely (S10), there is no doubt that this process can sustain our energy requirements (S11) while dramatically reducing our reliance on foreign oil and domestic coal, goals that the anti-fracking movement presumably favors. Perhaps the anti-fracking activists should consider the damage that results from avoiding fracking — more pollution from, and reliance upon, foreign oil (S12).

Simply put, hydraulic fracturing has been safely used in oil and gas production for the past 60 years (S13); to ban it now would be an economically and scientifically imprudent decision.Even President Barack Obama’s EPA administrator, [Lisa Jackson](http://www.youtube.com/watch?v=L4RLzlcox5c&feature=player_embedded), admitted at a U.S. House Oversight Committee hearing in May that the environmental risk of hydraulic fracturing is practically nonexistent: “I’m not aware of any proven case where the fracking process itself has affected water, although there are investigations ongoing (S14),” she said.

S1 - Economic benefits of hydraulic fracturing actually are largely short-lived. According to the Pennsylvania Department of Labor and Industry, over 70% of the jobs related to hydraulic fracturing are out of state hires. The highest paying jobs are transient; they move from state to state, depending on where drilling is occurring. As a result, the Department concluded, the jobs that are created when drilling occurs are low-paying and last only as long as drilling progresses. The Department reported that Pennsylvania gas development created 10,600 total jobs, roughly 70% being from out of state.

S2- See [Methane and the greenhouse-gas footprint of natural gas from shale formation](http://fracking.weebly.com/uploads/9/4/8/2/9482774/howarth-etal-2011.pdf), an open letter by professors at Cornell. They conclude that shale gas is, over its life cycle, is at least as dirty as coal. This is due to unconventional production, transport, and processing. Furthermore, claiming that shale gas is a panacea for America’s energy woes creates a false sense of security and draws attention away from renewable resources.

S3- Unfortunately, we cannot find the source for “the evidence”.

S4- See the Colborn health study, [Natural Gas Operations from a Public Health Perspective](http://fracking.weebly.com/uploads/9/4/8/2/9482774/fracking_chemicals_from_a_public_health_perspective.pdf), which concluded that 44% of 944 recognized chemicals used at least once had not been researched in depth for their health effects. 353 chemicals were researched with CAS numbers. The study documented the use of benzene, ethylbenzene, toluene, and xylenes (BTEX); all are known carcinogens.

S5- Some cases of suspected contamination may have proven to be false. But many others have been substantiated. See the Duke study, or the EPA report on water contamination near Pavillion, Wyoming. The EPAs of eight states have documented methane and ethane contamination of drinking water supplies.

S6- See the lecture by Anthony Ingraffea, a Cornell professor who identified problems with hydraulic fracturing in the 1980s.

S7-See the Duke study, “[Methane contamination of drinking water accompanying gas-well drilling and hydraulic fracturing](http://fracking.weebly.com/uploads/9/4/8/2/9482774/pnas2011.pdf)” It concluded not only a direct correlation between the distance from a gas well and methane concentration in drinking water, but a causal link established through isotopic analysis (distinguishing between thermogenic and biogenic methane).

S8- Methane and ethane contamination have been documented by every study conducted on the issue and by eight EPAs.

S9- See S1

S10- See S7

S11- See S2

S12- If renewable resources were pursued diligently, it would render fracking unnecessary.

S13- In fact, hydraulic fracturing has not been industrialized to the degree it is now until after the Energy Policy Act of 2005 exempted the process from the Safe Drinking Water Act. Problems with hydraulic fracturing now are due to its increased industrialization, among other changes, without adequate regulations.

S14- This was before the EPA finished their report. The federal EPA has a policy of not using data from other reports, because the methodologies would not be identical.