

Clare Donohue  
LIVING THE DRILL  
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New York, NY 10024

Mr. Edward Hanlon  
Designated Federal Officer  
Environmental Protection Agency  
The Science Advisory Board Staff Office  
Ronald Reagan Building  
1300 Pennsylvania Avenue  
Suite 31150  
Washington, DC 20004

Feb. 25, 2011

Dear Mr. Hanlon,

Thank you for taking the time to review this email submission. A corresponding hard copy submission of public comments was sent to your office, via FedEx, arriving Monday, Feb. 28, 2011. This email contains the digital version of those comments, regarding the EPA's Draft Hydraulic Fracturing Study Plan. Comments are drawn from those compiled via an online registry, LIVING THE DRILL.

LIVING THE DRILL began in January, 2011, as a Community Page on Facebook. The registry serves to catalog, as the description states, "anyone, anywhere in the world, whose water, air quality, land, business, health, or community has been adversely affected by gas drilling or gas pipelines." Members, primarily Americans in Arkansas, Pennsylvania, Texas and the Southwest, post their first-person experiences with drilling, compressor stations, and pipelines. They also post news stories, videos, and photo albums. In the 2 months since it began, 354 members have joined, with almost 9,000 post views. Members live as far away as Canada, Australia, New Zealand, and Europe. No matter where they live, members of this community are suffering from the effects and threats of gas drilling.

As the Science Advisory Board reviews the EPA's Draft Study Plan for Hydraulic Fracturing, these personal accounts can be a valuable way for the members of the board to understand what it is like to live in a place where gas drilling has begun. Every one of these towns ought to be studied.

A palpable sense of despair, anxiety, and helplessness is only one result of living with gas drilling; a component of the process that should not be taken lightly. Pollution of air, water and land are the most evident hazards of drilling; the stress from noise, fumes, greatly increased road traffic, loss of property value, and the inability to choose one's own destiny, also take a physical toll. Cumulative impacts are physical, emotional and psychological, as well as environmental; all impacts must be included in the Hydraulic Fracturing Study. Please, as you read the testimony of the people and towns whose stories are attached, give it the full weight it deserves. These are stakeholders, whose health and welfare you are charged with protecting; I trust the Science Advisory Board will not take that responsibility lightly.

As an open Community Page, LIVING THE DRILL is available for public viewing, you do not have to be a member of Facebook to view the entries. Although some links are not publicly available, most are. As you'll see if you scroll through the posts (choose "Living the Drill + Others" to read all posts), the community of LIVING THE DRILL is a big fan of the EPA, frequently posting your help-lines and news items. We are, after all, a community that expects our government to protect our air, water and citizens.

On behalf of all the people who are part of LIVING THE DRILL, I appreciate your consideration. My sincere thanks for reviewing these comments,

Respectfully,

Clare Donohue  
LIVING THE DRILL

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From LIVING THE DRILL online registry

**Stephanie Morley Hallowich**

"We have a very long story about our life above the Marcellus Shale. Our home is now surrounded by 4 gas well pads, a 4 acre impoundment, a gas processing plant, a compressor station, meter station, numerous pipelines and access roads. We have to deal with three different gas companies."



[A Dream Dashed by the Rush on Gas](#)

news.nationalgeographic.com

*"The shale gas industry maintains that its safeguards protect drinking water and land. But there have been accidents, and mistrust has been sown as the industrial process has moved into rural communities."*

January 7, 2011 at 11:04pm

"We live in an agricultural zoned area. It looks like an industrial site! We deal with 24 hour traffic, noise and vibrations from the 7 compressors that live next door, contaminated well water and daily odors. We have spent about \$7K for water in the last year and a half. Our two children (ages 6 and 9) have limited exposure out doors. When we are out, we experience burning eyes, throats, headaches, dizziness, bloody noses, and the list goes on...

January 7, 2011 at 11:05pm

<http://news.nationalgeographic.com/news/2010/10/101022-energy-marcellus-shale-gas-environment/>

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From LIVING THE DRILL online registry

**Sandra DenBraber**

"Frack water recovery tanks do not go away yet they are allowed to vent their fumes into our environment(sic)— toxic fumes that have cancer causing chemicals—When is someone going to demand that stop? UTA's president Spaniolo states 'The University of Texas at Arlington is deeply committed to ensuring and preserving air quality, not only in the Barnett Shale but across the state of Texas.' Actions speak louder than word(s) and [those] words are not truthful to neighbors."  
February 20, 2011 at 10:47am

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"It took almost 3 years to prove the drilling was making me ill yet they were told in the beginning. My physician, the bloodwork and the TCEQ proving there was no other source for the drilling chemicals in me and doucmenting, documenting and documenting some more. Make sure doctors letters are sent certified mail return receipt."

"UTA and Carrizo have NEVER made any effort to cover medical bills they caused yet they GOT THE MONEY.

Drilling can be done safer. Make them do it in the absolute safest way, Work on changing the law and DEMAND Safest for all. Including Compressor stations because they NEVER GO AWAY."

Tuesday, 2/22/11 at 9:13am

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"The drill site is less than 600 feet from my home and they drilled 22 wells with almost a month of drilling 24/7 for each well. The fracking came after that with the noise of very very loud freight train—from up to 10 diesel engines running. The noise would vibrate homes and windows. One time with a neighbor I made a health and safety complaint at the University of Texas Arlington and the VP ran to the police and filed a complaint against me. The real terror was they were setting off my carbon monoxide detector and I have no gas in my home. The police came out and the driller shut down the fracking before they arrived so it would be quiet. The driller did not know the police came back and they could not believe how loud it was and nothing was ever done to us.

Drilling is about GREED, not for the little person but the drillers and the University.

Diesel exhaust has been proven to cause brain damage as well as much much more. Toxic fumes are given off and even if they make you ill the drill(ers) will state we didn't do that. They hide under permit by rule stating they are allowed to release those chemicals—CANCER causing chemicals that I test positive for.

The state of TEXAS has outdated rules that do not protect people from urban drilling and most doctors NEVER studied Toxicology to really understand what these exposures are doing to people.

Arlington, Texas is in Tarrant County and we have been in non-attainment of the Federal Clean Air Act over 20 years and now the EPA is trying to step in to help us but our governor his trying to stop the EPA. Oh what a Greedy state that does not protect it's citizens we have.

Tuesday, 2/22/11 at 3:30pm

From LIVING THE DRILL online registry

**Tim Ruggiero**

"My 'story' is quite long. Here's the short version; Sept 16, 2009 Aruba Petroleum waited for my wife and daughter to leave before taing cutting torches to out \$15K pipe and cable fence to let in their bulldozers. They tore up more than 3 of our 10 acres, effectively destroying our daughter's horse pasture. The set up a drill 300 feet outside our back door and drilled two wells, going at it 24/7 for more than 2 months. They spilled thousands of gallons of condensate, toxic waste water and who knows what other crap out there. They have seede it 3 times, yet nothing grows, not even weeds. Then they installed a pipeline through the other side of the property, and didn't exactly live up to heir promise of putting everything back. Check out the videos on YouTube. Search Aruba Petroleum, you'll find them."

January 2 at 10:49pm ·

**Catherine Scott**

"Tim, had you leased your land? Or did they just do this?"

January 3 at 9:35am ·

**Tim Ruggiero**

"We do not own the mineral rights. We were not even notified as state law requires. Aruba just showed up unannounced and tore down our fence."

January 3 at 10:45am · Like

"The real tragedy is that this has been done to hundreds of families. Believe it or not, I've seen much worse. The working poor are really being taken advantage of."

January 3 at 5:09pm · Like

"We just got in some new air testing results-both outside the home and inside that I hope to share. And no, it's not good news. There are some strage VOC's at a higher reading in my daughter's bedroom than outside the house. I might point out that this is after the TCEQ took enforcement action and after Aruba 'fixed' their equipment. I think their definition of 'fixing' is walking up to it, looking it over and saying "Looks good to me."

January 10 at 7:08pm ·

"This is the site that is about 600 feet outside our front door-but less than 300 feet and blowing in the direction of my elderly neighbors."



Aruba Petroleum Wright Lease 6h 05-28-2010wmv

on WN Network (wn.com)

Tuesday, 2/11/11 at 1:38pm

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From LIVING THE DRILL online registry

**Jana Wilson DeGrand**

I will write more soon, I am one of the few who won their fight, but still have 21+ wells within 1/2 mile. My story is the *Behind the Shale* series from the *Denton Record Chronicle*. I'm in Argyle, TX.  
January 2 at 11:33pm



[YouTube - Drilling Mud Deliveries in Denton, County Texas](#)

<http://www.youtube.com/watch?v=ghAFPmpO2xg>  
*Drilling Mud Deliveries in Denton, County Texas*  
[www.youtube.com](http://www.youtube.com)

"Welcome to the unincorporated part of Argyle, Texas. Drilling operators looking for natural gas & oil have flocked to the unincorporated areas like vultures to roadkill. There are few protections in place from the state, county and Texas Railroad Commission. This video is of the Whitespot well"  
January 2, 2011 at 11:36pm

"The pad is 10' off my fence, the 5 proposed wells were going to be 50' from our fence and about 250' from our house."  
January 2, 2011 at 11:38pm

"Barnett Shale, unincorporated Argyle, Texas, no city, county, or state protection!"  
January 3, 2011 at 12:05am

**Bill Ferullo**

"Not much protection here in N.E. Bradford county ,PA. trying to monitor water and soil.Now that I see what really has to be done I could use an army of helpers.Himm don't see any helpers yet (Working on it) but I'll do what I can .This thing is much bigger then I thought.Hoping for you people in Texas and anywhere else that has to go through this crap  
January 3, 2011 at 9:23am

**Kim Triolo Fell**

Bentonite-the main component in drilling mud is toxic to the lungs per MSDS sheets.  
January 3, 2011 at 11:09am

<http://www.youtube.com/watch?v=ghAFPmpO2xg>

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From LIVING THE DRILL online registry

**Laura D. Flanders**

"Mine is a story in process. I live near the EOG well that blew out for 16 hours in the Penfield Pa. area. I live in Elk Co., right at the Clearfield Co. Line. Their (EOG's) work was temporarily halted, so they came to my road and began work on 4 wells about a mile and a half from my house, in state forest land. In the opposite direction, another company was drilling in the Brockway area water authority land. Their frac pond fumes blow my way. My story, so far, is one of extreme road dirt, respiratory illness and an obvious poisoning of some kind that kept me pretty under the weather for awhile. Currently, there is a slight break in activity as the road is being widened in preparation for the traffic of 27 more wells. I had a border garden in front of the house which disappeared while I was out on a few errands. (The town contracted this though, so I can't say EOG did it.) I sit and wait in anxiety as I know 27 wells close together is just asking for it. My water is still OK. A neighbor, a bit below me, now has saline water that the DEP said is from low water table due to drought. (If that were true, mine would be the same.)"

"Driving down this road, I usually can smell gas from somewhere. I'm going to the next town supervisor's meeting to see if he will consider a ban. The last meeting, he was not at all open to it. Will keep you posted and will do the full future story on a note."

January 2 at 11:48pm

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**Jana Wilson DeGrand**

"Did you get baseline air and water testing?"

January 2 at 11:50pm · Like

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**Laura D. Flanders**

"I got the water testing. Not the air. I do understand that there may be a compressor station both to the north of me and to the south. Also have a landfill in the valley right below these well sites that is taking the drilling core wastes and is also capturing methane to sell as gas. sigh.."

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**Laura D. Flanders**

In response to a post of a story in the THE COURIER EXPRESS, from Tuesday, February 15, 2011

"New drilling concerns in Brockway"

"Water stopped flowing briefly to a Brockway Borough Municipal Authority-owned artesian well Thursday when drilling by Flatirons Development pierced the aquifer."

<http://www.thecourierexpress.com/courierexpresscourierexpresslocal/909034-349/new-drilling-concerns-in-brockway.html>

<http://www.thecourierexpress.com/courierexpresscourierexpresslocal/909034-349/new-drilling-concerns-in-brockway.html>

Laura Flanders, continued:

"This article is from a week or so ago. We live about 2 miles east of this company's 'site' and share the same mountain, 'ridgetop' gravel road but sadly are downwind. A little closer to us in the opposite direction are leases from EOG. (4 wells with plans for 27 more) Drilling activity was stalled by both companies for a few months, due to a Lawsuit (Flatirons above) and general winter conditions, though site and pad preparations have been ongoing. During the break, I noticed such a feeling of time pressure, of urgency, to learn and do whatever I could to insure our well-being. The dust and fumes were unbearable for us, causing illness and the constant fear and UN-knowing about our well water being compromised, was/is such a weight to bear. Two nearby friends already lost water and after reading a study on high-density drilling...it looks inevitable! One water test isn't enough...it must be monitored but who can afford that?  
Last month, the Township came in to widen our gravel road. Noise and dust came to visit once more. The project took 3 feet of our front lawn, including my entire front flower garden border. I felt a heartache at this...as many of my flowers were from my deceased Mother. I also have an incline in my driveway now...and it's very difficult to get out of, especially on ice! The road is twice as dusty as before we addressed the town on dust issues. The whole ordeal of this industry invasion is one huge grief process plus never ending anxiety and despair. Companies trump residents . . . : ( "

"I'm 8 miles North of the first well blowout (16 hours-Clearfield Co. Pa) and that has never been released from my memory....It's like waiting for the next bomb to drop! (And slowly being murdered by all of the leaking pipelines beforehand) : ( Thanks for this space..."  
Wednesday, 2/23/11 at 9:19am

**Laura D. Flanders**

32 Photos:

<https://www.facebook.com/album.php?aid=2078112&id=1412379061&l=b5f2d2318c>

[My road, Marcellus Shale, Elk County, Pa \(3\)](#)



My road, Marcellus Shale, Elk County, Pa

"This road was once a one lane road covered in trees and teeming with wildlife. (Also an occasional ATV) It is a designated ATV trail. Truck views are from my living room window. Quehanna sign is at Parker Dam, about 6 or 7 miles south. Quality of Life is a Very Big issue in The Marcellus Shale. Going from a one lane dirt road with trees and wildlife to dust, diesel fumes, trucks and noise can only be described as Traumatic. Shale Shock."

Wednesday, 2/23/11 at 10:42am

(Facebook Photo Album is not available for public viewing)

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From LIVING THE DRILL online registry

**Kim Triolo Feil**

"When I interviewed with FOX 4 at the UTA drill site about my part in the gas drilling case near the Cowboy Stadium in my neighborhood, me and the reporter felt ill from the gasey smell by the fence line. In the middle of the interview I said "Can we go now, I don't feel right"

[Gas Drilling Site Proposed Near Cowboys Stadium](#)



"Gas Drilling Site Proposed Near Cowboys Stadium"

[www.myfoxdfw.com](http://www.myfoxdfw.com)

A natural gas drilling site could go up near Cowboys Stadium., More from myfoxdfw.com.  
January 5, 2011 at 8:56am

<http://www.myfoxdfw.com/dpp/news/010411-gas-drilling-site-proposed-near-cowboys-stadium>

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From LIVING THE DRILL online registry

February 15 at 10:08pm

**Jay Langham's** photo essay about discovering a super mister pit in Washington County, PA using google earth. The mister pit sprays frackwater in order to evaporate it. This pit is estimated to be 6 or 7 acres in size.

[The Super Mister - fracking side effects article with photos | Voices of Central Pa](#)



[The super m...pdf \(4.9 MB\)](#)



A Super Misting pit used in gas extraction as seen from Google Earth  
Washington County Pennsylvania

<http://voicesweb.org/super-mister-fracking-side-effects-article-photos>

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From LIVING THE DRILL online registry

**Scott Cannon**

"This is my experience with Chief Gas & Oil regarding a compressor station the(y) want to build 1,300 ft. from 4 schools in Dallas, PA."  
Tuesday, 2/22/11 at 7:52am

[A link provided leads to this letter, with links to video:](#)

A letter to Senator Baker and State Representative Boback: Hop Bottom Compressor Tour  
by Scott Cannon on Saturday, February 19, 2011 at 8:41pm

Dear Senator Baker and State Representative Boback,

When Chief Gas & Oil announced last week that they were going on a tour of the Barto Compressor site in Lycoming County, I went there to shoot some video footage of the site and interview some nearby residents to get their opinion on the sites and sounds of compressors. I posted the video on YouTube. The next day, they cancelled the public tour and scheduled the "undisclosed location" tour you attended on February 15, 2011.

Here is the Barto compressor link:

<http://www.youtube.com/watch?v=N-ZYqpVQwfl>  
[YouTube - Barto Compressor Video Tour 2/11/11](#)

I happened to do some research on where the closest compressor stations were to Dallas and was lucky enough to visit the Hop Bottom compressor station a few hours before you got there. I wasn't surprised that it was not running. A resident of Hop Bottom who is very knowledgeable about the gas industry in that county told me it has been down for a while and won't be operational until the summer. I had one more stop on my trip. That was a compressor station 5 miles up the road in Dimock owned by Cabot Gas. It was fully operational and I have video, infra red video (which shows gas emissions and leakage that the human eye does not see), and commentary from my tour guide who owns the infra red camera. The reason for spending so much time and effort into producing these videos is to make sure people get an accurate picture of what having a gas compressor station nearby is really like. I do not believe Chief Gas & Oil is giving you an accurate picture. Please consider these videos as my testimony in any endorsements you make regarding gas drilling operations in Luzerne County.

Here is the Hop Bottom compressor link:

<http://www.youtube.com/watch?v=Ww2Dpw7dEHQ>  
[YouTube - Double Secret Hop Bottom Compressor Tour](#)

Sincerely,  
Scott Cannon

<http://www.youtube.com/watch?v=Ww2Dpw7dEHQ>

<http://www.youtube.com/watch?v=N-ZYqpVQwfl>

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From LIVING THE DRILL online registry

**Pat Klotz**

"Accident on Route 6 in Bradford County, Pa.  
A piece of equipment being pulled from an embankment where it went over."



Wednesday, 2/23/11 at 9:11am

**Pat Klotz**

"Truck Troubles on Route 1038 Warren Center, Pa"



Tuesday, 2/22/11 at 6:11pm

Another spill in Pennsylvania, as reported by "THE EXPRESS," 2/22/11 on Lochaven.com:

"3,400 gallons of frack water spilled in accident "

"SWISSDALE — The state Department of Environmental Protection confirmed this morning that 3,400 gallons of treated frack flowback water were spilled . . . There have been numerous concerns about the speed and safety of drilling trucks, especially in the area of Friday night's accident, near the 'horseshoe curve' in Woodward Township. DEP spokesman Dan Spadoni said, 'We have no information that any waterways were threatened by this.' "

**Dave Decker** commented:

"Just another 'cost' of doing business. As long as continuous heavy truck traffic batters the roadways, these 'accidents' will increase in frequency. (The driver was very lucky to survive the wreck.)"

Tuesday, 2/22/11 at 1:15pm

<http://lockhaven.com/page/content.detail/id/529606/3-400-gallons-of-frack-water-spilled-in-accident.html?nav=5009>

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From LIVING THE DRILL online registry

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**Sharon Wilson**

"Here is my story."

(blog link, "about me")

[BlueDaze: DRILLING REFORM FOR TEXAS: How I became a "far-left-radical with a socialist agenda" etc.](#)

January 3 at 11:43pm · Like

Profile of Sharon:

FORT WORTH WEEKLY, "We Are Doing It" by Jeff Prince, 3/25/2009

[FWWeekly: Feature: We Are Doing It](#)

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**Alan Septoff**

"Sharon saying 'this is my story' when referring to her blog is like Tolstoy saying War and Peace was just some book he wrote. People new to the issue, especially people living with it, should spend a few hours there. Sharon collected case studies of people living with the drilling industry in the Barnett, including the Ruggieros (see below), and posted them here:

<http://earthworksaction.org/BarnettShaleCaseStudies.cfm>

[EARTHWORKS - Barnett Shale Case Studies](#)

January 10 at 7:28pm · Like

Note:

Case Studies in second link:

**Sandra DenBraber**

**Deborah Rogers**

**Bob and Lisa Parr**

**Tim and Christine Ruggerio**

<http://txsharon.blogspot.com/2007/12/how-i-became-far-left-radical-with.html>

<http://archive.fweekly.com/content.asp?article=7581>

<http://earthworksaction.org/BarnettShaleCaseStudies.cfm>

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From LIVING THE DRILL online registry

**Jennifer Thomas**

"I am affected because I understand the dangers, and do not want this activity to continue, I do not have frack water coming out of my tap, yet."

January 16, 2011 at 1:21pm ·

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**Jude Armstrong**

"Sugar Run, Pa. Marcellus Shale. Home of Methane in the Susquehanna with many water wells contaminated and some you can no longer live in but must pay the mortgage on a home worth little."

January 16, 2011 at 2:59pm

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**Denice Barnhart Grubb**

"Clarion PA, Nw Corner Marcellus Shale. We are over run with gas companies, we have a poor economic climate just lost lots of jobs, huge amounts of open farm lands and game lands, two rivers, a perfect storm. Our chamber and economic dev. had an informational meeting last night— room full of farmers and land owners looking for the truth. We were not allowed to speak or ask questions; gas industry spokesman and a guy from penn(sta)te university, which i believe the research program is funded thru gas industry, and an epa rep who said it's never been a problem. And they are prepared for any problems. too scary." (sic)

January 19, 2011 at 1:59pm

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**Kevin J Pusey Jr**

"There has been a definite negative impact here in Wyoming...particularly The Jonah and Pinedale Anti-Cline Fields...concerning air quality, water quality, new road developement, traffic, crime, and not to mention the wildlife. Too much development, too fast...too much impact."

January 4, 2011 at 9:39pm

**Brenda Seldin**

"I live in Narrowsburg, NY. No drilling yet but leases have been signed in the county. Am working really hard to stop it from coming here. I see what my friends in PA are going through with contaminated air and water, abandoned by the state government - a fiefdom where the corporations rule!"

"Bottom line is that it's not safe, and it has not been shown to be able to be done safely. This type of gas drilling should be stopped everywhere. Unfortunately, money speaks loudly and a neighbor of mine said that if he is offered the right amount of money he'll take it, and if his water gets contaminated he'll just lock his gate and walk away. We have to fight the idea of "having the right to make money" to what is one's responsibilities to this world and the people and other sentient beings that we share it with."

January 4, 2011 at 11:38am ·

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**Calin Riffle**

"We the people should not at our expense before or after the fact have to prove drilling is or is not safe ! The laws should be in place to have the industry corporations incur this expense and PROVE IN ADVANCE that no harm or damage will come , currently the LAW does NOT do this , they are the foxes guarding the hens ...and we all know how that plays out."

January 4, 2011 at 11:58am

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From LIVING THE DRILL registry

January 20, 2011 at 7:31pm

[Arkansans for Gas Drilling Accountability: Ex Gas Driller Writes a Letter Telling the TRUTH](#)

"Ex Gas Driller Writes a Letter Telling the TRUTH"

Jack is an ex-gas driller who is convinced that the current scheme of drilling/fracking is dangerous and fraught with misinformation. He sent me the following letter that really sets things straight:

The truth could have set them free and they would have no fear. Some truths:

- The truth is that the sand fracking has been the same for many years, only the pressure, chemicals, or fluids are changed for different formations. Since horizontal slickwater fracking began to be utilized recently, new biocides and other chemicals have been added. The lack of disclosure of the toxic chemicals is suspect. If they are hiding something it is for a reason, and you would be smart to fear.
- They say shale play is no different than any other drilling; in the past it was called directional drilling now it called horizontal drilling. The truth is they now start all drilling from the surface with TOXIC chemicals and if you only consider fracking alone; you will miss the greater danger. Most of the fresh water is contaminated in drilling the surface without laws in place for protection.
- They say the ARKANSAS OIL and GAS COMMISSION is a state agency. The truth is it was designed by oil and gas, for oil and gas, and is run by oil and gas; and because they judge one another and you will always lose.
- They claim gas drilling is good for our small cities. The truth is they are destroying the small cities. Property is devalued, taxes go up, people are fleeing the area, schools are considering closing, many cannot sell their property near a "dump site" and the rural community that feeds the small city is losing their water wells and will lose all. I have known many a prospering contractor who bought into this GAS scheme soon finds when the drilling ends and production takes over (without the need of local support or labor), that he will lose his family home and all he has gained.
- They claim you have to frack to get gas from shale. No, the truth is, there is only so much gas in any one given spot, if you drill in four different directions your gas well will produce at a slower rate for more years. This would actually create a better tax base for Arkansas and slower profit for the gas companies.
- They claim it is too late to tax the oil and gas. No, the truth is, we can call for a vote if we are a democratic state. Let us have, say, ten percent at the well head volume and retail price.
- They say drilling with air hurts nothing. Wrong, oil heat and air forms a toxic mix, for the same reason you have a pvc valve on your car. The manufacturer will tell you air from this compressor is not for breathing. So why does the state allow this near homes, and schools? Near my home they were using up to eight thousand cubic per minute.
- No oil or gas well produces without toxic gas. All natural gas must be cleaned and dried before it has a commercial value; the toxic gas is most often filtered or separated and released to air near homes and schools. These very toxic gases are of great danger. Also, where ever you see a pipe line compressor beware of the low the noise. It is often nerve wracking. If you examine the scientific evidence you will find that this noise is also a danger to hearing and the heart.

Some say oil and gas drilling (along with production) can be clean and safe. True, if the government demands it. These corporations have one goal: money. They are without human emotions: they have no sorrow, no guilt, no happiness, and no ending. They will continue to destroy until something stops them. They must be controlled, and you, the citizen, have that say.

Jack

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From LIVING THE DRILL online registry

Bill Ferullo

14 Photos:

<http://www.facebook.com/album.php?id=1750886478&aid=33114>



IMPOUNDMENT POND beauty.....want one for your backyard?  
N.E. Bradford county PA  
February 5, 2011 at 2:13pm

(Facebook Photo Album not available for public viewing, available upon request)

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From LIVING THE DRILL online registry

**Heather McCabe**

"While we are living with and fighting Natural Gas Development, we are also suffering the damage from other resource mining in our community, lost water wells, sinking land and the problems associated with both affect us daily."



Penobsquis, CA

[Concerned Citizens of Penobsquis](#)

February 10, 2011 at 1:04pm

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"The first seismic was in 1997...Penobsquis has had this for THAT long....all of the gas produced here is actually pumped into the pipeline and sent to the US...we can't even use the gas (not that I would). The only place locally using Natural Gas is the local Potash mine which owns 1/2% of some of the wells here in conjunction with Corridor Resources. Between the Potash mine and the Gas companies, our community is destroyed yet we can't get local people to care or our government to listen."

January 20, 2011 at 7:44pm ·

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" Just rechecked dates....the first Natural Gas wells were drilled here in 2000 - 2001."

January 20, 2011 at 8:04pm

(The writer is Canadian, expressing concerns typical of someone who has been experiencing drilling)

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From LIVING THE DRILL online registry

**Cynthia Thompson Feinberg**

"This is video from the meeting on Tues about the loud compressors. Andy and I tried to stir things up, but the locals did not need our help."



SWN Compressor Noise Quitman, AR Jan 18. 2011

[SWN Compressor Noise Quitman, AR Jan 18, 2011 on Vimeo](#)

vimeo.com

Folks in Quitman are having issues with the noise the Desoto Gathering/Southwestern Energy natural gas compression station. They have been unable to sleep and are having physical and mental problems due to the low frequency noise.

January 20,2011 at 9:38pm

**Cynthia Thompson Feinberg**

commented on an ARKANSAS ONLINE story, "Compressor noise rattles Quitman residents":

"Her sleepless nights were the driving force behind a public hearing on noise complaints Tuesday at Quitman City Hall. Houston and many other rural Quitman residents spoke out about Southwestern Energy's noisy new compressor station, Quitman CPF No. 3, northeast of town. Representatives from the oil and gas company listened to the complaints and promised change."

<http://www.arkansasonline.com/news/2011/jan/23/compressor-noise-rattles-quitman-residents/>

Feinberg, continued



*Bertie Houston of Quitman talks to Southwestern Energy's John Lee about the noise that has been keeping her awake at night. Houston and a crowd of others lodged complaints Tuesday about noise from the oil and gas company's compressor station, the Quitman CPF No. 3.*

[Compressor noise rattles Quitman residents](#)

January 23 at 9:59pm

"I have to sleep in my recliner because of all the vibrating," said Houston, who lives one-half mile from the station. "Sunday night, I couldn't even stay in the recliner."

John Lee, vice president of field operations for Southwestern Energy, promised quiet nights would return, but not until May 27. He said steps are already being taken to ensure a quieter compression station, which includes installing a post-muffler and erecting a metal building around the compressors. He said it would take 16 weeks to complete the project once he signs a purchase order. He admitted that he had not signed one yet.

"We've started the design stuff already," Lee said.

Lee said short-term steps would be taken to help ease the noise level from the compressors. He said the quieter machines will now have higher run times, two mufflers will be insulated, and engine speeds will be varied.

"We're going to play with the units a little bit and see if running some faster and some slower might help," Lee said. "It's not a permanent solution."

That's not exactly what Houston or any of the others in attendance wanted to hear. They want a permanent solution immediately.

"If you have a solution to the noise problem, why don't you just shut it down until you fix it, instead of keeping everyone awake all night?" asked Mike Montgomery, who lives near the compressors.

Cindy Feinberg of Little Rock had the same question. She owns a weekend home in Pangburn, where she said

Feinberg, continued:

oil and gas companies are causing problems for residents.

"To me, this is harassment," Feinberg said. "If there is a loud party at our neighbor's house, you call the police. How can this go on?"

It can because there are no laws governing noise. Kendra Jones, an environmental attorney for the Arkansas Attorney General's Office, told the crowd that Southwestern Energy is doing nothing illegal when it comes to noise.

"The real change is going to have to come from the state Legislature," Jones said. "You have to realize that there are no state laws on noise."

Law or no law, Montgomery said, the gas company needs to be a good neighbor. He said their compressor station is causing a lot of psychological and physical harm to people.

"You don't care about that," Montgomery said. "You don't listen to the [compressors] at night, do you? You're going to continue to disrupt lives. You're making money off our misery."

"I beg to differ," Lee shot back. "We're not into misery for profit."

Ray Houston said the conditions are miserable. He manufactures livestock trailers and said the vibrations created from the noise rattles his shop doors and causes other problems.

"It vibrates your back," he said. "It gets in your nervous system."

Others at the meeting said the pulsating noise causes pictures on their walls to move and windows to rattle. They all are ready for the noise to end, especially Bertie Houston, who has doubts that her nights will ever be quiet again. She said it took numerous calls and complaints to Southwestern Energy before the company would even address the issue through a public hearing. She said company representatives simply ignored her calls or made promises that were never met.

"I've been putting up with this since October," she said. "We'll see if they actually do what they say. I don't know how anyone is going to sleep until then."

January 23, 2011 at 10:00pm

## Clark and Tammy Hagy's Story:

My name is Tammy Hagy. I would like to share some of my personal gas well stories with you. Maybe I can be of help to you or others. For 20 years my husband and I lived on 90 acres of beautiful, private land located up a holler in West Virginia. There is no public water along our county road. Residences water sources are springs and water wells.

We raised two wonderful sons there. They were raised surrounded by nature.



They learned a lot about living off the land. Respecting god and nature was a very important part of their lives. We had many precious resources in which we used in our daily lives. The most precious resource was our water well. We were so proud of our wonderful mountain water so clean and pure, it never ran dry.

In 2007 we received a call from a gas company, but unfortunately we don't own the mineral rights to our property. They were sold by previous owners in the 1800's. They told us they would be drilling on 1 and ¼ acre of land, four wells twenty feet apart. This site is 1100 feet from our house, 200 feet from a neighbor's home. The first question my husband asked the land man, would this gas drilling ruin our water well? The land man said "oh no". He stated that our water well was over 1000 feet from the gas site and that it was too far away for anything to happen. We believed him. My husband went ahead and requested a water test before they began drilling, which was a very smart move. The water test came back very good.

The well sites are back in a holler, very secluded and close to a creek. My husband told them there's a lot of water in that holler. They didn't seem to care; they said they dealt with water all the time. For several months they excavated the holler.



They dozed, shoved, and pounded rocks for weeks. They used a huge packing machine to pack big rocks and dirt. Finally the little holler looked like a huge mountain. The transformation was amazing. I believe they drilled on top of our water aquifer.

The simple gas drilling that I thought would take place turned into





what they call hydraulic fracturing, or fracking deep down into the rich Marcellus shale gas reserve. It was nothing like what I had expected. This was a huge operation and it lasted day and night for up to eight months. Trucks went up and down the road 24 /7. The smell of fumes would make you sick. One

night my husband could hear something like a giant drill bit drilling under our house, our house even vibrated. Little did we know this would change our lives forever?

During the summer of drilling our water would look a little different at times. I

would see black particles and sometimes turn completely brown.

I thought it was because of the drought conditions we were in. Both of our sons took our well water home with them to drink. Both sons lived in the city and didn't want to buy bottled water. They loved their water from home. One day my oldest son called and said, mom there's black stuff in my water. I told him just pour it out and



I'll give you more when I see you next. I really didn't relate the drilling with how our water was looking until October 2008 when my other son Clark called from Columbus, OH. He said he made an appointment with a throat specialist, he said he was spitting up

blood. Clark told me he couldn't drink our well water anymore. Clark's doctor treated him for acid reflux disease, which he's never had before in his life. The problem went away after he quit drinking our water. After I got off the phone with Clark, I started thinking about his medical problem. A red flag finally came up. All of us have been drinking this water for 10 months. We started talking about changes in our health.



Every one of us had a cyst on our body. My husband and I had been very weak and tired all summer. That was not normal for us. I began to worry. Could all of this be related to the water? We immediately ordered another water test from the gas company. In November of 2008 the water test came back, it was bad. The land men said do not drink the water but it was safe to bathe in. Two months later I developed a rash. My

dermatologist told me it was contact dermatitis and told me, do not bathe or wash my clothes in our water. Not only was our water bad but the quantity of water was lost. We started seeing a black substance in our commode, hot water heater and dishwasher. We were getting headaches, and feeling very sick, which wasn't normal for us. We told the land man we had all been sick. No comment.

We asked the land man what happened to our water. He said that the company and EPA got together and seen that they drilled under our house, our water well is close to our house and this must have done something to our water.

The next day we talked to the land man again on the phone about our water. All of a sudden the story he told us the day before had changed. This time he said to my



husband they weren't sure if they did drill or frack under our house. He acted like he really didn't know what happened. Now another red flag went up. This land man was telling us too many lies. He couldn't be trusted now. Too many things were happening. We were starting to hear stories about things that happened on the site. Before they started to frack one of the workers went down to the neighbors house and told them that they'd better get a water sample before they started to frack, because all hell was going to break lose. I wish we had been warned. Another bad problem occurred, one of their toxic pit ponds slipped over the hill into the creek. They needed more property to dig a new one. Instead of coming to us and asking for more property, they just took more of our land without asking us. My husband noticed that they were taking more of our land, so they didn't get away with it.

One of the wells was never used. We asked the land man why and he said they dropped some kind of tool down in the hole. The neighbors down the creek had talked to one of the gas workers and he told them they lost a million dollar drill bit during one of the drilling processes. I wonder if that was what my husband heard that night when he told me he heard drilling and felt the house shake.

Our neighbor's double wide trailer was knocked off of the foundation. They were also having health problems and their water is bad too.

On November 2<sup>nd</sup> of 2008 my son Clark came in for the weekend. He was sleeping in my bedroom and I was sleeping in the spare bedroom. All of a sudden I awoke to a rattling like an earthquake. The pictures on the wall were shaking and my



bed shook. I have never experienced anything like that in my life. My son and husband slept through it. I described what had happened and they were totally shocked. From the time I woke up it lasted for about 30 seconds, but it seemed longer. We reported this to the gas company and they said it was from trucks going up and down the road. I worry about the impact of drilling on our property.

January of 2009 the gas company set up a meeting at our home with the land man and a water expert from Pennsylvania. They sat at our kitchen table and talked to my husband. My husband told him about our water situation and how we have all been sick. No Comment. My husband also told this man about how we had been living. Using jugs of water (which they supplied) to drink and cook with and how we needed water to bathe in now. No Comment. My husband suggested that they get us a motel room so



we could go and get cleaned up. There was no answer on that suggestion right away. The man started talking about drilling us another water well, but it couldn't be guaranteed that we could get a good one. He had a release paper that had to be signed before they could drill another well, but we didn't sign it. That afternoon the land man called to tell us they got us a motel room, it was about 25 minutes from our home. We were able to take

our dog with us. It felt so good to take a nice hot bath. It made us feel better for a little while.

The end of January 2009 we bought a radon test to check for radon in our home. We were worried about the frequent headaches we were getting. The radon test came

back positive. Now we needed the motel room more than ever. We had to stay out of our home now.

March 20, 2009 was the cut off time for our motel room. Our attorney called to tell us the gas company wouldn't be furnishing us a place to stay now since we got a lawyer. We also asked the gas company what kinds of chemicals were used during the fracking process and they told us they wouldn't give us a list since we had an attorney.

We had to make a fast decision on where we were going to live. We stayed in our camper for a month after March 20th. We were very lucky to find a rental home during the middle of April 2009. We have been here ever since. This rental home is 45 miles from our property. I guess you could say we were just riding the storm out.



There is so much more about this story I could write about, but I really have to end this now. Our situation will have to be hashed out in court. I really hope that all the truth will be told. There are so many unanswered questions. I feel as if we were going to be left in our home to just waste away!! Thank god we had our water tested before and after. I have no clue what is going to happen. The waiting game is so hard! Will we get to move back to what we call home? I don't know that answer. I'm more concerned about my health and my families. Everything is so uncertain. I hope others can learn something from this experience so they can help themselves or others. We were so unknowledgeable about this situation. We just didn't know the effect it would



have on our lives. I wrote this July 22, 2010 and we have been living in our rental house now for 15 months. We still don't know anything about what is going to happen. I get very anxious. I keep telling myself things could be worse. God, my family and friends help me through this. I hope no one else has to go through such an ordeal.

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From LIVING THE DRILL online registry

link posted January 17, 2011 at 12:15 pm

***"Retired Engineer Finds New Disease Caused by Natural Gas Compressor Station Noise"***

After being tortured by intense Low Frequency Noise (LFN) for three days that was being emitted from a large natural gas compressor station 0.9 miles from his home, Charles Morgan, P.E., Inactive had to go to the hospital emergency room. What they found could not be explained, brain damage due to severe lack of blood flow to the brain. Why? Morgan had lived on his cattle ranch east of Dew, Texas for 21 years in near perfect health. Then came a natural gas compressor station that gradually built up to eleven 1,340 horsepower compressors with no noise abatement installed.

A series of visits to doctor specialists including neurologist, heart and pulmonary specialist, found brain and heart damage, but they could not explain the cause. Morgan believed the damage was caused by the Low Frequency Noise (LFN) and began researching this issue trying to find the relationship between body damage and LFN. He found that two symposiums on LFN had been held, one in Sydney, Australia, the other in Lyons, France. Most industrialized countries had representatives presenting research papers, but no United States representatives could be found.

Morgan followed up on two major sources of research, Canada and Portugal. Canada's, Mr. Robert DeGagne, had stated that Canada had a Rule 038 that gave parameters for detection and control of LFN. Morgan obtained a copy of Alberta, Canada's Rule 038 from their website on the internet. The rules were pretty good for controlling the noise, but did not show the relationship to body damage. A subsequent review of papers presented by Lisbon, Portugal's Human Development Center revealed that environmental LFN can indeed cause numerous symptoms just while sitting in ones home. The Lisbon Center named the disease, Vibro-Acoustic Disease (VAD).

Another Internet source, Health Effects of Noise, revealed the basic relationship of LFN to body damage. The LFN causes the adrenaline glands to secrete adrenaline throughout the human body. The adrenaline in turn causes the blood vessels to constrict (vasoconstriction). From Morgan's experiences, the body's extremities are usually affected first with numbness in ankles and hands. Then the genital area begins to hurt and then the top of ones head. Before ones head starts to hurt, the neck veins usually feel like they are burning. Morgan has suffered a ruptured ear drum twice as have children in the neighborhood. The hearing loss has been substantial. Other neighbors have reported severe dizziness such that for two weeks one lady could not get out of bed and standup. This is vertigo. Her husband now has restless leg syndrome and must wear socks to bed to keep the sheets from wearing the skin off his toes because his legs jerk so much when trying to sleep. They could not hear the LFN, but called Mr. Morgan after his visit and the weird symptoms. He had previously recorded 102.5 decibels of 25 cycles per second noise at the couple's driveway using a rented noise meter. He had taken noise readings at various compressor stations, his home and nearby homes. At 70

continues . . .

dba hearing protection is required according to EPA rules. Only two percent of the population can hear the LFN since its frequency (25 to 500 cps) is below normal human hearing.

Morgan contacted the Lisbon Human Development Center trying to find whether they could provide names of doctors in the United States who know about VAD. Two doctors' names were provided. Dr. Debbie Wright, M.D., a cardiologist in Lafayette, Indiana and Doctor Nina Pierpont, M.D. from Malone, New York. When Morgan advised Dr. Wright of tests performed and problems diagnosed, she requested a copy of his echo-cardiogram. This is the preferred tool to determine whether VAD is present. Dr. Wright's review of the echo-cardiogram confirmed a thickened pericardium of the heart, a sure sign that VAD was present.

Mr. Morgan and persons living in the Lanely Community five miles east of Dew are being tortured daily by very loud LFN in their homes. Vasoconstriction is causing high blood pressure as high as 214/113. When out of the LFN, Mr. Morgan's blood pressure is 127/70.

What can be done about the VAD and what can be done about the cause?

As for the VAD, take anti-adrenaline tablets (Butalbital) and get out of the LFN if possible. Since the LFN travels five to eight miles, it depends on how many compressor stations are in a county as to how far one must travel to get out of its range of influence. In Mr. Morgan's situation, there are 130 compressor stations throughout Freestone County, Texas. One must leave the county to try to get out of the LFN. In Texas, there is so much natural gas production that few counties are safe. Mr. Morgan has traveled 150 miles south past Houston to Friendswood, east to Nacogdoches (two hours drive from his home), north to Dallas and west to Waco. The LFN was still present. Adjacent states have similar natural gas development. He has received e-mails from Arkansas, Ohio, western Pennsylvania and New York inquiring what can be done to alleviate the situation. This is a national issue.

There is a federal law concerning noise, the 1972 Noise Control and Abatement Act that is still in effect. The EPA was tasked to develop guidelines for noise limits. Low Frequency Noise was not specifically addressed. Only a one page guideline was produced in 1974. In 1982, the EPA noise control office was closed and authority to regulate noise was delegated to state and local governments. The local level will not do anything without a state law. Only six states out of 50 have a state law on noise control. They are California, Illinois, New York, Maine, Massachusetts and just recently Colorado.

A person can initiate a legal suite in federal district court at a cost of about \$50,000. Mr. Morgan has contacted and provided data to 25 large law firms who will not take his case on a contingency basis. They state that too much money is required up front or statutes of limitations are a question. No one enforces the federal law and few states have noise laws, so most of us are just out of luck and must put up with the torture and will probably die an early death.

The compressor station can be fixed to abate the noise. However, the gas production companies do not want to spend a dime. They must be forced to clean up their problem.

Meanwhile, our children are faced with learning and reading problems due to lack of concentration, hearing loss, body damage and even death. Numerous children have died of heart attacks in Ft. Worth, Texas but no one knows why. Channel 8 NEWS in Ft. Worth interviewed a doctor there in December 2008. He stated they were doing electro-cardiograms on area children. This is the wrong tool and will not detect the problem. An echo-cardiogram is required and a doctor who knows what to look for. As stated above, they are scarce. Recently, two persons died of brain aneurisms and a third, a young lady, almost died of two brain aneurisms. They all lived in Freestone County, Texas.

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From LIVING THE DRILL online registry

More on Tim Ruggiero's story, which he has posted about here earlier. [and others]  
January 29 at 8:05pm

[Toxic drilling waste is getting spread all over Texas farmland. | Fort Worth Weekly - News, Entertainment, Restaurants, Music](#)

FORT WORTH WEEKLY, May 12, 2010

*"Toxic drilling waste is getting spread all over Texas farmland.*

*Gas drilling waste is getting spread all over Texas farmland."*

WEDNESDAY, 12 MAY 2010 07:43 ERIC GRIFFEY

When Tim and Christine Ruggiero bought their dream home on 10 acres in Decatur six years ago, they imagined their daughter riding horses and taking in the clean country air. The last thing they imagined was that all three of them would end up covered in rashes from being exposed to toxic chemicals such as benzene and arsenic in their own backyard.



A tanker distributes drilling mud onto a land farm. Courtesy Sharon Wilson

The family doesn't own the mineral rights on their property, and earlier this year, they had no say in the matter when Aruba Petroleum showed up to drill a gas well 300 yards away from their door. The Ruggieros made a decision then to allow Aruba surface use of part of their land, in return for a \$30,000 one-time payment. They didn't understand then what trouble and toxins they were letting themselves in for.

The drilling caused its own problems, but it wasn't until the company spread muddy drilling waste over several acres of their land that all three of the Ruggieros, at about the same time, began to suffer from similar-looking rashes.

"We get it in different places on our body," said Tim Ruggiero. "If you look at it, it all looks like the same rash. One of our neighbors has the same rash, and she has it worse than we do."

Alisa Rich, president and co-founder of Wolf Eagle Environmental Engineers and Consultants, said that several of her clients have experienced similar rashes that appear as fast as 15 minutes after they are exposed to toxic wastes from gas drilling operations.

"We believe it is from some of the chemicals, specifically some of the sulfites," she said. The extent of the rash, she said, seems to depend on the concentration of the chemicals.

In the Ruggieros' case, the foul-smelling mud that drilling crews had spread over their land turned out, when tested by Rich's company, to contain high levels of arsenic and benzene, both of which can cause cancer.

It's a situation that is happening more and more often in Texas, as the Barnett Shale boom continues. Drilling produces major quantities of sludgy waste — and many activists, scientists, and landowners are very worried about where that waste is going, what's in it, and how the dumping of that chemical-laden mud is being regulated.





Ruggiero: "There was a very strong sewage smell." Anna Routh

The practice is called land farming, and it's legal in Texas and lots of other places, though there are restrictions on where and how much of the drilling waste may be spread and how full of toxins it is allowed to be.

Oil and gas officials say that the process is safe and actually helps the land — that the drilling waste acts as fertilizer and makes grass and other crops grow more lush and green than before.

Ramona Nye, a spokeswoman for the Texas Railroad Commission, which is charged with regulating the oil and gas industry, said that land farms pose no real threat.

Many scientists also say that, if done properly and in small doses, land farming may actually be a viable and safe way to dispose of drilling mud. However, opponents of the practice have documented numerous cases of oil and gas companies cutting corners and risking the safety of the people and animals who live near the land farms and waste pits.

Many rural families fear that anything grown on acreage that has been improperly land farmed may be contaminated with carcinogens and that the grass and crops are potentially harmful to humans and animals. In some cases, they report, animals will not even eat the affected grass.

Both activists and scientists say that the land itself isn't the only thing being threatened by land farming. When the mud dries up, if it has not been properly tilled into the soil, a stiff wind can pick up toxins and blow them around the landscape, affecting neighbors and, eventually, the air quality of a whole region. And in wet weather, they believe, toxins from the mud can run off into creeks and contaminate surrounding water supplies.

That's what happened in Arkansas, which last year began the process of revoking permits on 11 land-farm sites where runoff had contaminated local water supplies.

In Texas, critics of the Railroad Commission point out that, in an area with more than 15,000 shale gas wells, there is only one state-permitted commercial land farm. But more than 6,500 permits for small, temporary —

and much less regulated — land farms have been issued since 2005.

Activists believe that much of the waste mud from drilling is being dumped illegally, without consent of surface owners or under illegal conditions. They also charge that the oil and gas industry is largely allowed to police itself on waste-disposal practices. It is the drillers themselves who test the waste to see whether it is too toxic to dump. And when citizens go looking for those records, to see for themselves what is being dumped on their land or their neighbors' or what is running off into their creeks or blowing across their yards, they find that the records are almost impossible to obtain. The companies are also supposed to test land-farm and waste-pit sites daily. The only oversight the Railroad Commission performs, according to Nye, is reporting requirements and routine, unannounced inspections.

Well-known blogger and activist Sharon Wilson, who lives close to several land farms in Decatur, is one of many who believe that the current regulatory system is not just broken but nonexistent.

"It's an honor system," she said. "If they [oil and gas companies] find out that [the mud] is too toxic to land farm it, then what do they do? They have to pay more money to dispose of it. Do you think they ever find any that's too toxic?"

Dick Ross, who lives 50 feet away from a 100-acre land farm and just down the road from another, said that he is ready to sell his house and move somewhere far away. He has been a one-man protest rally against land farming and has been engaged in what he characterized as a pitched battle with the Railroad Commission, which, he said, exists only to serve oil and gas companies, not to regulate them.

"The Railroad Commission is in the pockets of oil and gas companies," he said. "They make all of these rules and regulations, and they never back them up."

Several other states, Wilson said, have toughened their laws and their oversight of land-farming practices.

"Texas can't seem to learn by watching others," she said. "We just keep on letting the industry have complete carte blanche."

Shale gas wells have produced many millions of dollars for gas companies, governments, and, in some cases, landowners in Texas. But the process is also highly productive of something else: waste. The millions of gallons of toxic wastewater produced by drilling operations are disposed of underground in injection wells meant to isolate the chemical-laden and super-salty liquids. But the process also produces a mountain of slushy waste that must go somewhere. It includes drilling "mud" — the clay, water, and chemical slurry that's used to keep drilling bits lubricated and bring drilled-out material to the surface. But mixed in with it are those drilled-out materials, which can be radioactive, and many other chemicals.





Hogan: "They weren't supposed to have an open, unlined pit." Anna Routh

In most cases, the sludge is first put into a waste pit at the well site, so that some of the liquid can evaporate. In Texas, there is no requirement for those pits to be either lined or fenced, meaning that chemicals can leach into the ground and that farm animals and wildlife have access to them.

Companies then take the slightly drier sludge and spread it out over a large piece of ground, like poisonous jam on toast. The waste is tilled into the soil so that, theoretically, microbes from the healthy soil can eat dangerous hydrocarbons, enriching the soil in the process. The companies then scrape the stuff up again and take it to a permanent land-farm disposal site.

That last step was what began happening two years ago on the Hill County ranch next to Dick Ross' place, but he didn't understand it then.

The first he knew of it was when a seemingly endless procession of 18-wheelers began rolling in and out of his neighbor's property in the pre-dawn hours. Ross, a 62-year-old retiree, started calling around. He had no idea that he was entering a rabbit hole that would consume the next two years of his life.

Upset with the noise of the trucks and worried about toxic dust blowing onto his property, Ross raised a ruckus. In the ensuing months, he became one of the most prominent land-farming activists and experts in North Texas.

"They are dumping millions of gallons of hazardous waste here," he told Fort Worth Weekly in an angry, exasperated tone. "They are polluting water wells, destroying land, jeopardizing my family's health. I have the same problem that the people in DISH have, except it's not just the air. I have contacted all my local, state, and federal representatives, and not one of them will do anything to help. They are all financed by the energy industry."

Ross had to teach himself everything he knows about land farming and how the oil and gas business works. Because he is poor, he said, he cannot afford to hire a lawyer to fight the land farms in court and cannot afford the same kind of independent tests that the Ruggiero family had done.

He takes credit for a major change in drilling-related laws in recent years: the addition of a requirement that land-farming sites be at least half a mile apart. Though he never requested the change, he believes that the industry was forced to make it because of his complaints and persistence.

Ross said his biggest frustration is that there is no one policing energy companies. He believes they operate freely, often outside of the law.

There are three types of land-farm permits issued by the Railroad Commission. "Minor" permits, for up to 60 days, involve smaller volumes of drilling mud. "Centralized" permits last between two and five years and involve larger volumes of waste. Then there are commercial land farms. All land-farm permits, according to Nye, require the approval of the surface owner. Minor permits can be issued by the commission's district offices, and the larger permits are issued out of Austin.

Ross and others say that oil and gas companies get around using the commercial land farm by abusing the law on smaller land farms. For example, the land farm across from Ross is on a minor permit for three acres, though the property is close to 100 acres. What the Railroad Commission did, Ross said, was to issue 22 minor permits for 22 allegedly separate operations on the property.

Ross has made countless complaints about this to the commission, to no avail. He said that obtaining multiple "minor" permits for what is actually a major commercial dumping operation is standard procedure in the industry.

Nye did not respond to questions about the propriety of the commission's issuing multiple permits in such situations.

Operators of land farms that accept waste from multiple drilling sites or multiple companies are required to obtain a centralized land-farm permit. Such sites are more closely regulated than "minor" operations, though the state still does not require the waste pits there to be lined in all cases. Ross points out that there has been only one centralized permit issued in the Barnett Shale — and that was issued to TXO for a site on private property three miles from Ross' home.

"Why would somebody drive all the way from Tarrant County in an 18-wheeler, drive 60 to 70 miles to drop a tank of [waste mud] in Hill County?" he said. "Surely they can find somewhere closer."

According to records obtained by the Weekly, XTO is allowing other energy companies to dump their waste on that land. The owner of the land, Ross said, has made millions of dollars by allowing the companies to use his property as a toxic dumping ground. The property is also dangerously close to the area's well-water supply, he said.

By law, land-farm operators are not allowed to contaminate surface or subsurface water. "An operator must consider this prohibition when constructing a [waste] pit," Nye wrote in an e-mail.

She denied that land farming and waste pits are unregulated. However, in almost every reply she provided to the Weekly, she noted that the operators of the land farms are responsible for testing.

For example, oil and gas companies are responsible for not allowing runoff to leak into nearby creeks or soil. "It is the operator's responsibility to monitor and maintain a pit to prevent any unauthorized discharge to the surrounding area," Nye said.



Ross: "There's no one around to police them." Anna Routh

She said that the Railroad Commission has "referred land-farm permits to enforcement" for multiple violations but also noted that, "To this date, all corrective actions required by Barnett Shale local district offices have been achieved without having to resort to filing enforcement actions, according to staff."

Nye also said that operators of some small disposal sites are not required to do sampling or analysis of the material accepted for disposal. In larger pits and land farms, she said, it is the responsibility of the operator to sample and analyze pit contents.

"The Commission may require an operator to test soil in the case of a complaint, spill, discharge from the permitted area, or some other circumstance that may arise," she said.

When the land-farm sites have reached capacity and are to be closed, state law requires a soil analysis. According to records obtained by Ross, the Railroad Commission district that covers the Barnett Shale area has never asked for any such analyses.

Gary Hogan, a Fort Worth environmentalist and drilling activist, forced drillers to remove sludge they had spread on property behind his home, back in 2005.

"In the early days of the gas drilling, I had an open drilling pit on the first well that they drilled" on the site, he said. "They weren't supposed to have an open, unlined pit, but who knew at that time?"

"When they got done drilling, they took all of the mud out of that pit, and they spread it on this 13 or so acres of land on a field behind my house. I had a concern, so I called the gas well inspector's office at that time, and the next thing I knew, they were scooping that stuff up and putting it in trucks and hauling it all off."

There are very few, if any, other documented examples of land farms in Tarrant County. Ross believes that is by design.

"They are not doing this in Tarrant," Ross said. "They're doing this in the country because there's no one around to police them."

Last September, Tim Ruggiero was at work when his neighbor called to say that a crew was digging up his property. He and his wife rushed home to find a backhoe at work in his horse pasture, about 300 feet away from his front door. Now parts of the property look like a scene from a post-apocalyptic movie: Remnants of a muddy mound teeming with dangerous chemicals partially fills a waste pit within a football field's reach of the house, and there are holes in the ground filled with a red liquid that ignites when lighted by a match, caused by what the Ruggieros believe is a methane leak.

Ruggiero said that when he confronted the drilling crew, the foreman told him they could drill without the couple's permission, and, what's more, they could use the surface of the land as well, whether he agreed or not. (Drillers can claim use of some surface land during drilling, but rights to spread drilling waste on the land are not automatically included.)

"He said [Aruba] was trying to be a good neighbor" by offering to pay the family \$30,000 for those surface rights when it didn't have to, Ruggiero said.

Not knowing the ins and outs of the situation, the couple agreed to take the check.

Since then, they have struggled repeatedly to limit the intrusions of the drillers and to make them adhere to whatever rules apply, both to the drilling operation itself and to use of their land for spreading waste. The Ruggieros say they've gotten almost no help from the Railroad Commission in trying to protect their health, home, and property.

After months of drilling, Ruggiero said, the crews put all of the toxic mud into a waste pit, where it sat for a number of months. Then the workers mixed what one truck driver described as cement kiln dust into the muddy mix to soak up some of the chemical soup.

"They let that sit for about a week and used a backhoe to scoop it all out and a bulldozer to spread it out all over the place," said Ruggiero. "That sat there for I don't know how many weeks. Then a bulldozer came back and pushed it all back into the pit."

Nye said that the Ruggiero property was not land farmed but was the site of a drilling reserve pit. However, the Ruggieros provided the Weekly with photo evidence to the contrary. Nye also said that the analysis of chemicals provided to the commission by Wolf Eagle did not show any arsenic.

"Three soil samples taken by Wolf and provided to the commission recorded results for benzene below regulatory limits, she said. "And, since Jan. 11, when these samples were collected, the operator has cleaned up the pit site."

Ruggiero said that the smell was so bad he called the Texas Commission on Environmental Quality to inspect it.

"There was a very strong sewage smell, a hydrocarbon odor to it, and some other acrid chemical smell," he said.

The smell worried them so much that they hired Rich's company to test the soil and water. The testing company found more than a dozen dangerous chemicals, including high levels of several carcinogens.

Rich said that the heavy rains during the past winter made land farming in this area even more dangerous.



Dust blows off a land farm in Hill County. Courtesy Sharon Wilson

"We've had a very wet winter, and what had happened on a lot of properties, not just the Ruggieros', is that much of the hydrocarbons that were intended to be land farmed got rinsed off into the streams, rivers, and creeks in the area and got washed off onto the property," she said.

The Ruggieros are on well water, so the rain that fell on their land farm posed a particularly big threat. The well water, according to the Wolf Eagle Test, was indeed contaminated and unsafe.

"Who knows how much of that seeps farther into the ground and alternately into the water table?" Ruggiero said.

Rich said that she has encountered several examples of the chemicals from land farms running off into creeks.

"I have definitely seen it in Wise County. I have seen a land farm next to a creek that feeds the Trinity River," she said. "Land farming was occurring on large acreage, and due to heavy rains, the creek water was [affected]."

She also said that she herself has witnessed the illegal dumping of drilling mud into creeks.

"I literally saw a guy at Mountain Creek unloading his drill mud into the creek while they were drilling a new well," she said. "When he saw me, he stopped and waited until I drove off."

"I have another client where drilling mud was, without any question, deposited into their stream. And they didn't find out about it for three months because of the size of the property."

Rich also said that soil that has been land farmed could be dangerous for growing food, and the grass could be a threat to grazing animals. She cited an example of farmers who grew peanuts on contaminated soil. Growing peanuts actually helps to re-enrich depleted soil, so it's not an uncommon practice, but in this case people who ate those peanuts suffered anaphylactic shock.

"I would not want to eat those [crops]," she said.

Sam Feagley, a soil and crops sciences professor at Texas A&M University, said that he has never encountered an example of crops or animals that were contaminated by the residual effects of land farming.

"From what we've seen and what I've found, if it's done properly, you won't have any problems," he said. "The only problem that I've ever seen with drilling mud is if it gets put on too thick, you may actually kill the forage and have to start [the re-enrichment] process over again."

Rich, however, cited an example of a client who had recently lost two calves because they drank out of a creek that was contaminated by the same drilling fluids that mix with the waste mud.

"On a lot of these large acreages, you have gas wells with the animals right next to them, so what if they are eating chemicals their whole life?," she said. "I can tell you that I've seen some amazingly green grass that the cows won't eat. So my guess is there's a chemical taste to it, as our food would be bitter if we grew something in poor quality soil."

Ross said that his neighbor across the street, who leased his property to an oil and gas company for land farming, found that, after the lease was up, he couldn't get anything to grow there. After several barren seasons and many failed attempts, he has managed to grow wheat, but there are still dead patches where nothing will grow, Ross said.

The Ruggieros said they felt pressured to make a split-second decision.

"They offered that to us hours after they already cut down our pipe and fence and started bulldozing the land without prior notice. My wife and I are often criticized for taking the money, and my response has always been, 'If you were in my shoes, what would you do?'"

There is an element of sweet revenge to leaven the bitterness of that part of the story, however.

"We've used over 10,000 of those dollars to pay for attorney fees and testing the soil, the air, and the water," he said.

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From LIVING THE DRILL registry

link posted February 16, 2011 at 4:43pm ·

Marcellus-Shale.us post about Beaver Run Reservoir, PA:



Although fishing has been banned at Beaver Run Reservoir since 1952, the Municipal Authority of Westmoreland County (MAWC) decided to allow Marcellus Shale gas well drilling on their property next to this 1,300 acre lake in Salem, Bell and Washington townships.

The lake provides water to 150,000 people in northern Westmoreland County, Pennsylvania. Three horizontal wells are being drilled by CNX Energy in 2010 over the objections of some residents who are concerned about their water quality being affected. There was a spill at Cross Creek Lake, a fishing lake at a county park in western Pennsylvania in 2009.

The authority responded to resident's concerns with this statement, "MAWC will be very vigilant in the protection of our source of supplies from any contamination." Furthermore, these projects would "...improve

continues . . .

the overall financial condition of the MAWC and thus benefit ratepayers.”



Two Marcellus drilling sites can be seen in the photo above, one toward the top left edge of the photo and the other toward the middle.





These new gas wells at Beaver Run Reservoir will be approximately 7,000 deep with 2,000 foot horizontals through the Marcellus Shale layer



Drilling site overlooks the reservoir that provides drinking water to 150,000 customers in Westmoreland County near Pittsburgh, Pa

"Special consideration should be give to well operations that occur in proximity to water bodies (natural or man-made) that are utilized for drinking water (e.g. reservoirs and lakes) where even on individual adverse impact can have tremendous, perhaps irreparable, economic and social cost. Concepts used in other regulatory programs such as the Surfac Mining Conservation and Reclamation Act, where areas are deemed unsuitable of extraction when in proximity to large scale water supplies, may be appropriate for oil and gas controls. Further, Drinking Water Suppliers should specifically be given notice and opportunity to comment on any proposed permit plan or application within a certain distance of identified storage or source areas."



Production pit full of 'Mr Yuk' flowback.



ADDENDUM:

The following stories and hyperlinks were not mailed as hard copies, and are provided as additional background for the Board. Hard copies can be mailed upon request. Posts to LIVING THE DRILL are added daily, please check the page anytime to see what the community concerns are.

**Barbara Guterl**

*"Gas well explosion injures three workers"*

www.post-gazette.com

Washington County and state officials are investigating the cause of an explosion

at a gas well site in Avella Wednesday that injured three workers.

Thursday, 2/24/2011 at 7:26am

<http://www.post-gazette.com/pg/11055/1127660-503.stm>

**Dory Hippauf**

*"Drilling Pollutes Home and Groundwater"*

www.youtube.com

<http://www.youtube.com/watch?v=P6qWR8bjNS8>

<http://www.youtube.com/watch?v=P6qWR8bjNS8>

"A young family struggles with methane contamination in their home and groundwater caused by Marcellus Shale natural gas drilling. Pa. State Representatives Mike Hanna and Camille "Bud" George say Pennsylvania needs a fair and reasonable severance tax."

Wednesday at 3:34am

•  
"Drillers deny responsibility. home lost 85% of value, now worth \$35k"

Wednesday, 2/23/2011 at 3:41am

•  
*2010 People's Oil and Gas Summit: Panel 1- Health Impacts*

www.youtube.com

[http://www.youtube.com/watch?v=m\\_6klz1bwcY](http://www.youtube.com/watch?v=m_6klz1bwcY)

[http://www.youtube.com/watch?v=m\\_6klz1bwcY](http://www.youtube.com/watch?v=m_6klz1bwcY)

This panel is the first discussion at the 2010 People's Oil and Gas Summit. Panelists share real-life stories of health impacts being felt by citizens living with gas development, information on drilling and fracking chemicals known to have health impacts.

January 7, 2011 at 12:46pm

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" This excellent video contains testimony by John Fenton, Lisa Parr, Wilm Subra,

and Wes Wilson presenting on behalf of Dr. Theo Colborn "

January 7, 2011 at 11:02pm

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<http://www.postindependent.com/article/20110104/VALLEYNEWS/110109981/1083&ParentProfile=1074>

<http://www.postindependent.com/article/20110104/VALLEYNEWS/110109981/1083&ParentProfile=1074>

*Silt Mesa family claims gas fumes forcing them out | PostIndependent.com*

www.postindependent.com

SILT, Colorado

January 7, 2011 at 5:19am

**Denice Barnhart Grubb**

"Hi from Clarion Pa

I personally witnessed a residual waste frack truck leaking right on our main st."

January 5, 2011 at 12:03am

**Living the Drill**

"Here are 42 incidents of contaminated water."

[http://switchboard.nrdc.org/blogs/amall/incidents\\_where\\_hydraulic\\_frac.html](http://switchboard.nrdc.org/blogs/amall/incidents_where_hydraulic_frac.html)

*Incidents where hydraulic fracturing is a suspected cause of drinking water contamination* | Amy Mall

switchboard.nrdc.org

January 6, 2011 at 12:16am

•  
"In this report from Aug 2010, Washington, PA, a reporter is on screen taking a whiff of the fumes.

Dead fish, stillborn calves, residents getting sick; one of the better videos to cover the issue:"

<http://www.marcellusprotest.org/onq-video>

*What's in the Water?* [WQED Video] | Marcellus Shale Protest

www.marcellusprotest.org

"It may be the answer to the needs of an energy-hungry nation, but it's a different story for people who live close to drilling sites. WQED OnQ's Chris Moore talks with some western PA property owners in this report which examines the promise and heartbreak of Marcellus Shale drilling"

January 5, 2011 at 11:13am

