

# Hydraulic Fracturing Developments and Debunking the Bunk

*Presented to*

**Houston Association of Professional  
Landmen**

*by*

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# Disclaimer

- **This presentation does NOT constitute legal advice**
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  - d.) OR OF . . . .

# Hachiko – a/k/a @gaslawdog



# Goals

- **Visit and review debunking some of the current anti-development efforts to attack hydraulic fracturing**
- **Find where facts and provable links can be found**
- **Become energized to respond and to speak out to defend the truth**
- **Have some fun**



**George Phydias Mitchell**  
**1919--2013**

The “father” of hydraulic fracturing. Founder of Mitchell Energy,  
Philanthropist

# Let's Start with "Just the facts, ma'am"



# The Facts

- **When did hydraulic fracturing begin in the US?**
  - **1940's**
- **How many US oil and gas wells have been hydraulically fractured?**
  - **c. 1,000,000+**
- **How many proven cases of ground water contamination caused by hydraulic fracturing have been documented in the US?**
  - **0 (that is ZERO)**

# Say WHAT????

- **How can that be????**
- **But that's not what people hear every day on television, radio, in newspapers, *etc.*!**



# What about the DUKE report?

- **Duke University—68 Pennsylvania domestic water wells in a shale gas area**
- **“We found no evidence for contamination of drinking-water samples with deep saline brines or fracturing fluids,” write the four scientists from Duke University in their study, [published](#) in the *Proceedings of the National Academy of Sciences*. *Forbes*, 5/20/11**

# Duke Report, cont'd

- **But then . . .**
- **“We conclude that greater stewardship, data, and— possibly—regulation are needed to ensure the sustainable future of shale-gas extraction and to improve public confidence in its use.”**
- **Say what ? ? ?**

# AND

- Duke report says that there was more methane in water wells near gas wells than in wells not near gas wells
- BUT, Scott Perry, Pa DEP O&G Chief responds:  
“We’ve collected enough data to completely refute the Duke study ... We have a large sample set. It really shows there’s no correlation.” *E&E News.*
- *i.e. BUNK*

# **Sure, but what about the Range case in Texas?**

- **Landowner claims Range Resources contaminated water with a frac**
- **Range denies**
- **Tx RRC Agrees**
- **EPA jumps over RRC and orders Range to remediate reservoir**
- **Range litigates**

# What Happened?

- Range wins
- RRC crow: “EPA now acknowledges what we at the Railroad Commission have known for more than a year: Range Resources' Parker County gas wells did not contaminate groundwater. “
- Texas court permits Range to pursue landowner and consultant for defamation and business disparagement
- **HOW IS THIS POSSIBLE IN THE USA ???**



**Al Armendariz, Former EPA Reg 6 Chief**

**“The Crucifier”**

# The “Crucifier” ???

Come on, . . .

- His regulatory philosophy from HIS mouth:
- “The Romans used to conquer little villages in the Mediterranean. They’d go into a little Turkish town somewhere, they’d find the first five guys they saw and they would crucify them. And then you know that town was really easy to manage for the next few years.”

# Didn't EPA Find Frac Induced Water Contamination in Wyoming?

- That's what EPA claimed
- But then-----An independent review of the EPA's controversial draft study on hydraulic fracturing in Wyoming concluded federal regulators had insufficient data to suggest the natural gas drilling technique allowed methane to contaminate groundwater, near the town of Pavillion. *Junkscience.com*



# More about Pavilion, Wyoming EPA Misfire

- . . . according to a report initially released this week by S.S. Papadopoulos & Associates Inc., an environmental and water resource consulting firm, the EPA's study did not "adequately distinguish between potential natural impacts and those from gas drilling activities."

# **MORE about EPA – Wyoming Misfire**

- **US Geological Survey Questions Test Results**
- **Wyoming regulatory agency disproves EPA position**
- **One of 2 EPA wells not built to EPA's own specs leading to identifiable contaminants**
- **One of 2 EPA wells defective and permitted non-frac related stagnant, polluted water to remain at collection point**
- ***i.e.* BUNK!**

# What about Dimoch?

- **Methane in several residential water wells in NE Pa after fracing of wells**
- **Company claims naturally occurring, state originally agrees then demands remediation**
- **State determines migration from bad cement**
- **Eventually, EPA becomes involved and then withdraws**
- **Neighbors attest pre-drilling natural occurring**

# Dimoch

- **Company provides water, buys properties from those willing to sell, *etc.***
- **EPA steps in and then withdraws finding water not dangerous – some residents furious**
- **Peer reviewed journal *Groundwater* reports that naturally occurring methane in NE Pa water is “ubiquitous” *Groundwater June 2013***
- **Neighbors disagree on issues, friendships lost**
- **Tough mix of facts, issues, interests**

**And the beat goes on, and on and . . . !**

# **Bet you can't get around *the earthquakes !***

- **Well, by definition, hydraulic fracturing creates seismic events BUT**
- **Energy released is equivalent of a quart of milk falling to the kitchen floor from a countertop!**
- **Remember progression on Richter scale is GEOMETRIC, not arithmetic**

# Earthquakes, cont'd

- Don't confuse hydraulic fracturing with waste water disposal well activity
- Disposal wells regulated by EPA
- Have been known to cause seismic activity for decades
  - Particularly when permitted into a faulted area
  - Not a hydraulic fracturing specific issue
- *i.e.* BUNK!

# **But all that leaking gas will certainly end the world, right?**

- **Yet another fog**
- **September, 2013 University Texas / Environmental Defense Fund study**
- **The UT-EDF study . . . looked at 190 onshore natural gas production sites in the United States. During completion activities (including hydraulic fracturing), the authors found that emissions were “nearly 50 times lower than previously estimated by the Environmental Protection Agency.”**



# So what?

- **Attacks on hydraulic fracturing are tips of the anti-development movement's anti-oil and gas spear set**
- **Mass confusion and fear has been caused by propaganda**
  - **In the classic sense---repetition of even the most absurd fictions until they become "facts" in the public mind**

# So what?

- **More and more of the public are being persuaded that “where there’s smoke there’s fire” by the sheer volume of anti-development invective**
- **Many schools are spreading the anti-development mantra**
- **Community groups and thought leaders are beginning to fear speaking out against obvious anti-development bunk**

# What's the Most Dangerous Attack

- **It's subtle**
  - **Well, even if we cannot (yet) prove hydraulic fracturing directly causes environmental ruin**
    - **What about collateral activities—trucking, *etc.***
    - **Should we not defer this activity until it can be fully studied, including full consideration of . . .**
    - **Cumulative effects**
      - **An environmental tool to avoid any activity for eternity**
      - **At what point can one stop the search for true cumulative completion**

# Where are the antidevelopment folk going?

- Anywhere and everywhere they can go to create concern, worry and perception of risk
- An example
  - A real, ongoing “study” of
    - **American cooks, radiation and natural gas**
- **EGADS!**

# Who's Paying for This ?

- **WE** are through governmental action, grants and funded studies and tax deductions for “non-profit” anti-development groups
- “THEY” are through massive donations allegedly funneled through off-shore banks to anti development organizations
- Say What ? ? ? Oh, come on !
- Go to EID and check it out!

# WHO ARE THE ANTIS ???

- **Many different groups**
  - **Honest, true believers in their movements**
  - **Organization executives and employees who earn their bread pushing this agenda**
  - **Tens of thousands of ordinary, misinformed fellow citizens who have been scared and worried by the anti-development movement**
    - **And who have no access to the facts in an understandable format from people they trust**
  - ***Etc.***

# What does this mean?

- The task is more difficult because of the diversity of the antis
- A different approach is necessary for each different anti-development group
  - Shouting “*Liar ! Liar!*” when *deliberate lies are afoot*
  - Reasoned, persuasive, verifiable objective fact based conversation for the misinformed
  - A constant, positive detailed AND big picture attitude with all

# What is the risk if inaction?

- **New York / Delaware River Basin / Vermont / Maryland style moratoria**
- **Redundant and unnecessary regulation that renders development un-economic**
- **Loss of energy resources for USA**
- **Loss of re-industrialization of dying regions**
- **Loss of renewed manufacturing base**
- **Loss not only of industry jobs but of millions of other good jobs for America**



# But What Can I Do?

- **Keep track of the anti-development movement's morphing of their stories**
- **Become educated on the flaws, fallacies and fictions in the evolving anti-development mono-myth**
- **Educate family, friends and co-workers to the facts**
- **Speak out and challenge the bunk each and every time**

# Does this mean I have to be anti-regulation?

- **Absolutely not!**
- **The energy industry track record clearly shows ongoing support for rational and effective regulation**
- **Shares best practices and assures a level, fair playing field**

# BUT

- **EVERYONE** needs to be actively against
  - **STUPID** regulations
  - **Carbophobic, anti-development animus masquerading as legitimate regulation**
  - **Regulations FOR THE SAKE OF REGULATIONS**
  - **Regulations stemming from the slide we saw earlier**
    - **We found no problem BUT recommend additional regulations anyway**

# What else can I do?

- **Stop spelling FRACING WITH A “K”**
  - “FRAC**K**ING” is a construct of the antis !
- **Use the real name: hydraulic (or hydro) fracturing whenever possible**
- **Join the “United Americans For Truth By Shouting “Liar! Liar! Club””.**
- **Club recruitment interlude . . .**

# Where Can I Get Reliable Facts?

**[energyindepth.org](http://energyindepth.org)**

- **Provides**
  - **Ongoing monitoring of the newest lies and fictions**
  - **Ongoing research, debunking and fact proving links**

# Conclusions

- **Fracing is an industrial process and any industrial process can have accidents**
- **The few problems are quickly and properly addressed**
- **The energy industry track record in general and with respect to fracing is impeccable**
- **Everyone needs to support quality regulatory regimes and fight those that are not**
- **We in the know need to communicate, debunk, educate and persuade the world**
- **SO**

# Conclusions

- **BE IT RESOLVED THAT each of us will**
  - **Be knowledgeable about the facts related to our industry and its evolving technology**
  - **Be on the watch for BUNK**
  - **Be sensitive to the mental state of the “bunkor”**
  - **DEBUNK the BUNK by appropriate means to the bunkor, including, if appropriate by shouting, in a kind and sensitive way:**

**LIAR ! LIAR!**

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