



ENVIRONMENTAL GAME CHANGERS FOR HYDRAULIC FRACTURING AND SHALE GAS DEVELOPMENT

DALLAS ENERGY LAW SECTION

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OUTLINE

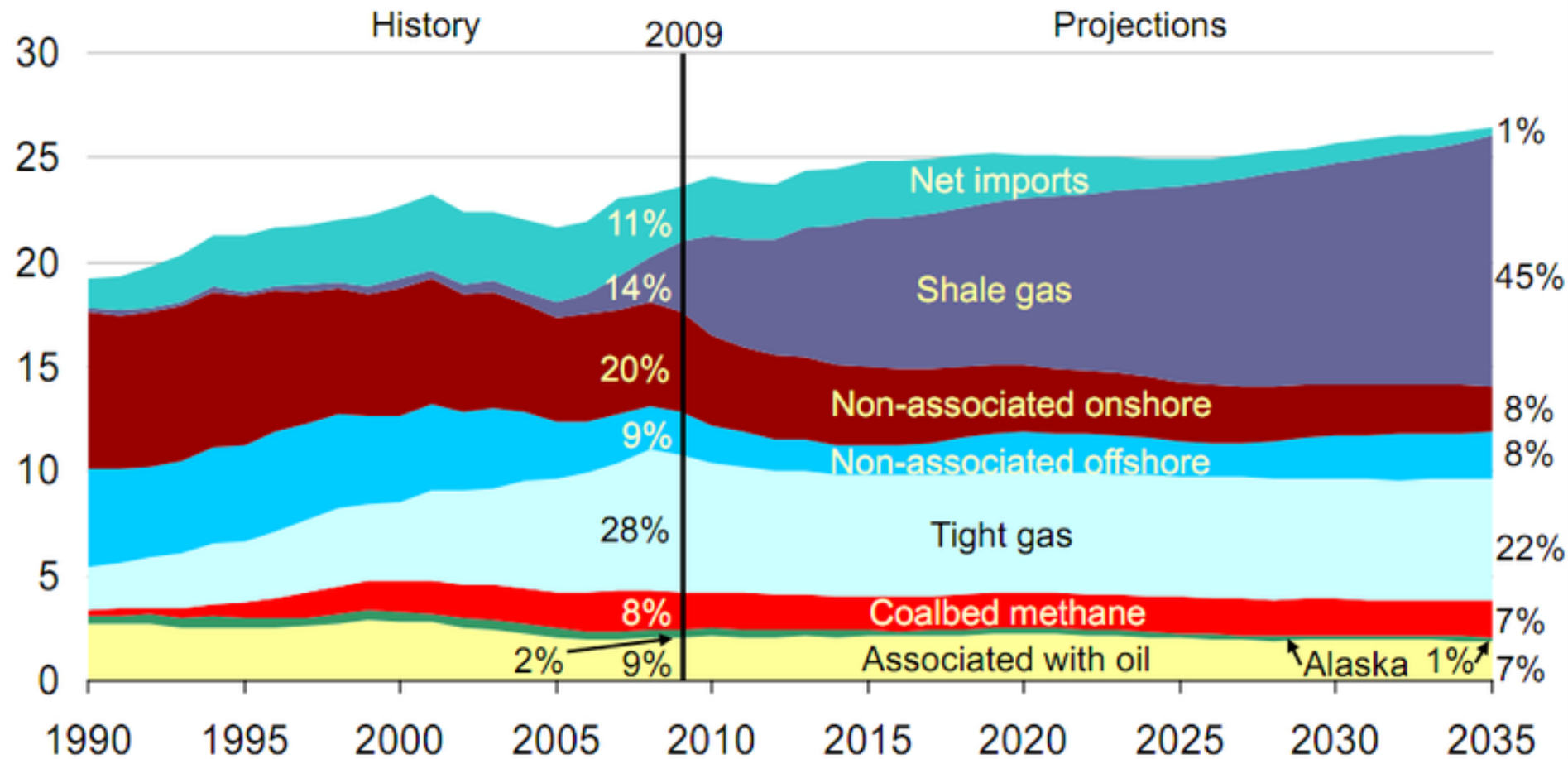
- Why should you care?
- Federal Statutes
- Federal Studies
- University Studies
- Recent Litigation

RECENT NPR ARTICLE (3/7/12)

- U.S. energy self-sufficiency is now in sight
- Within a decade, the U.S. will no longer need to import crude oil and will be a natural gas exporter
- Experts estimate that by 2020, the U.S. overall will be the largest hydrocarbon producer in the world; bigger than Russia or Saudi Arabia

Shale gas offsets declines in other U.S. supply to meet consumption growth and lower import needs

U.S. dry gas
trillion cubic feet per year



Lower 48 states shale plays

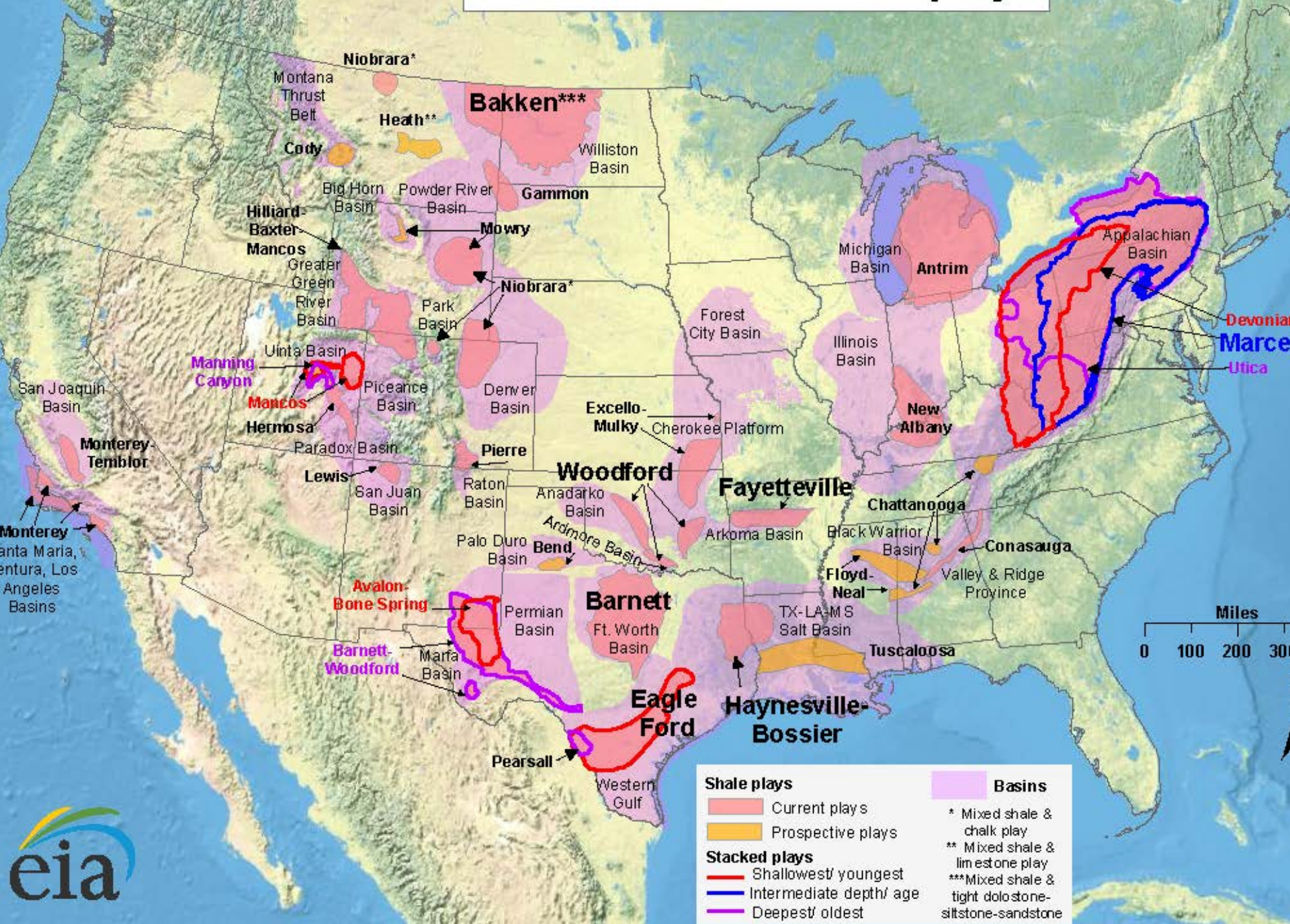
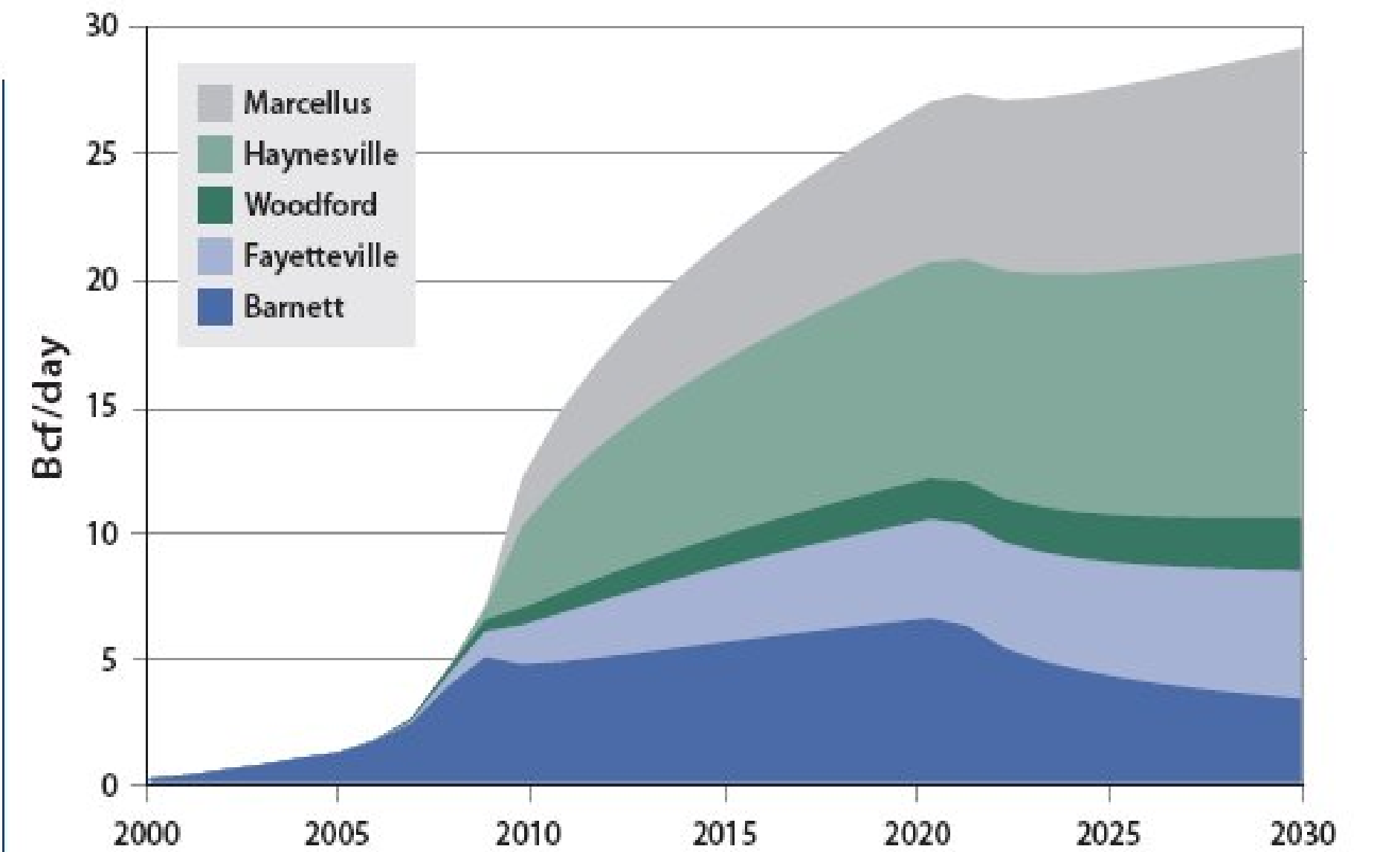
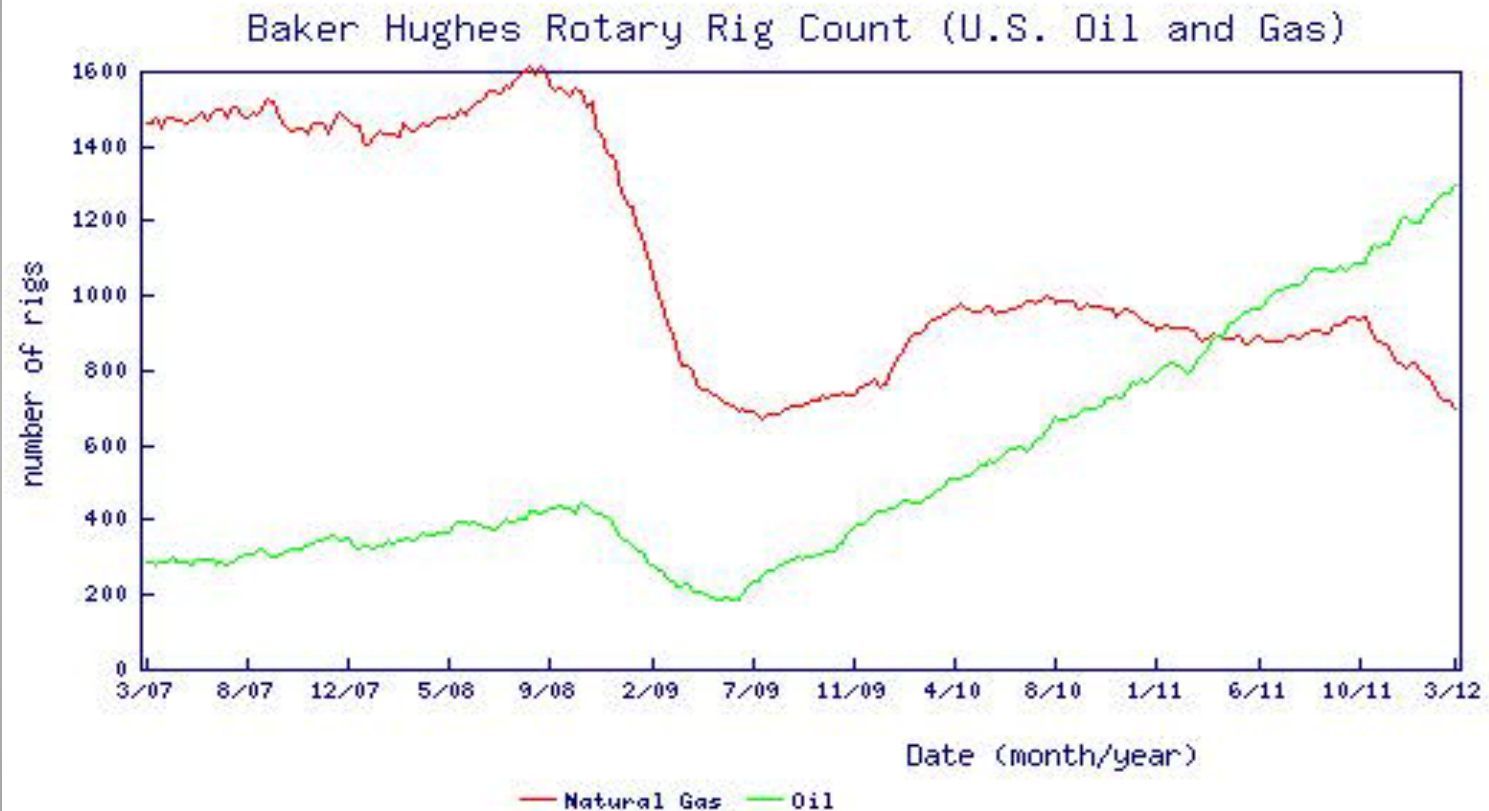


Figure 2.17 Potential Production Rate that Could Be Delivered by the Major U.S. Shale Plays up to 2030 — Given 2010 Drilling Rates and Mean Resource Estimates



Source: MIT analysis

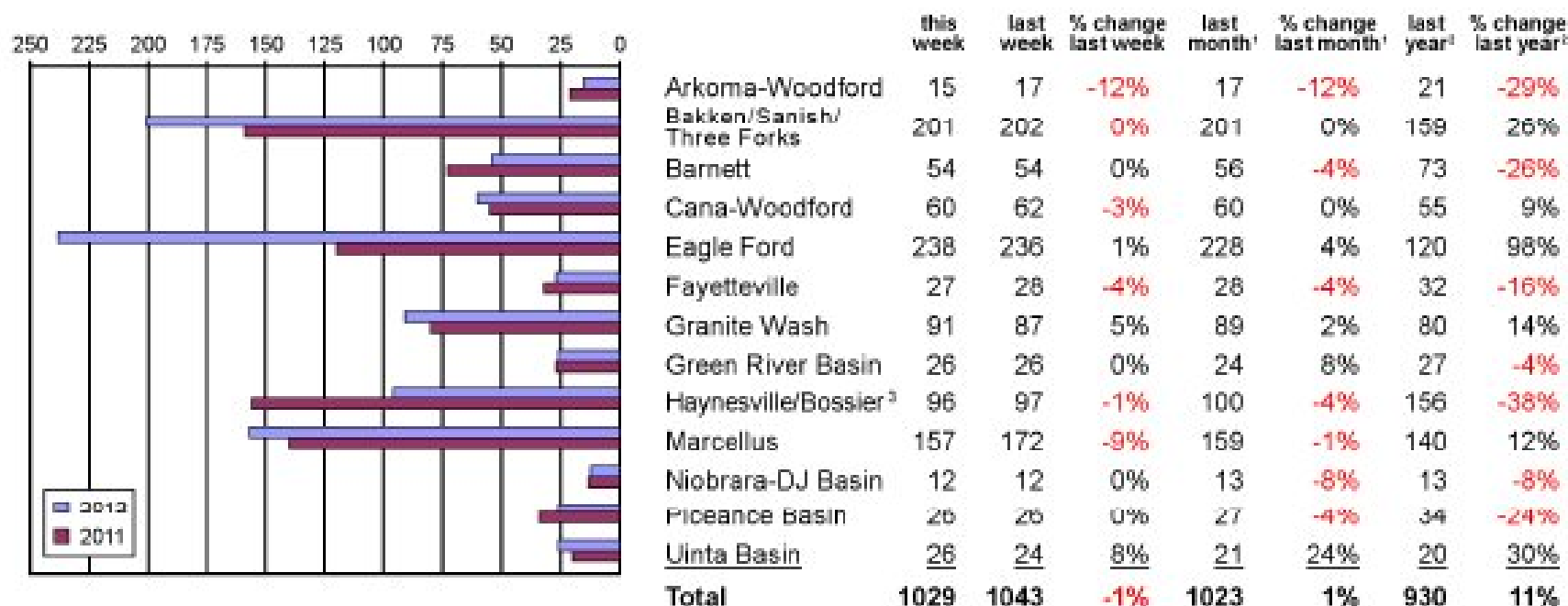
COMPANIES ARE MOVING INTO OIL PLAYS



Recent Rig Counts

NGI's Shale Daily Unconventional Rig Count

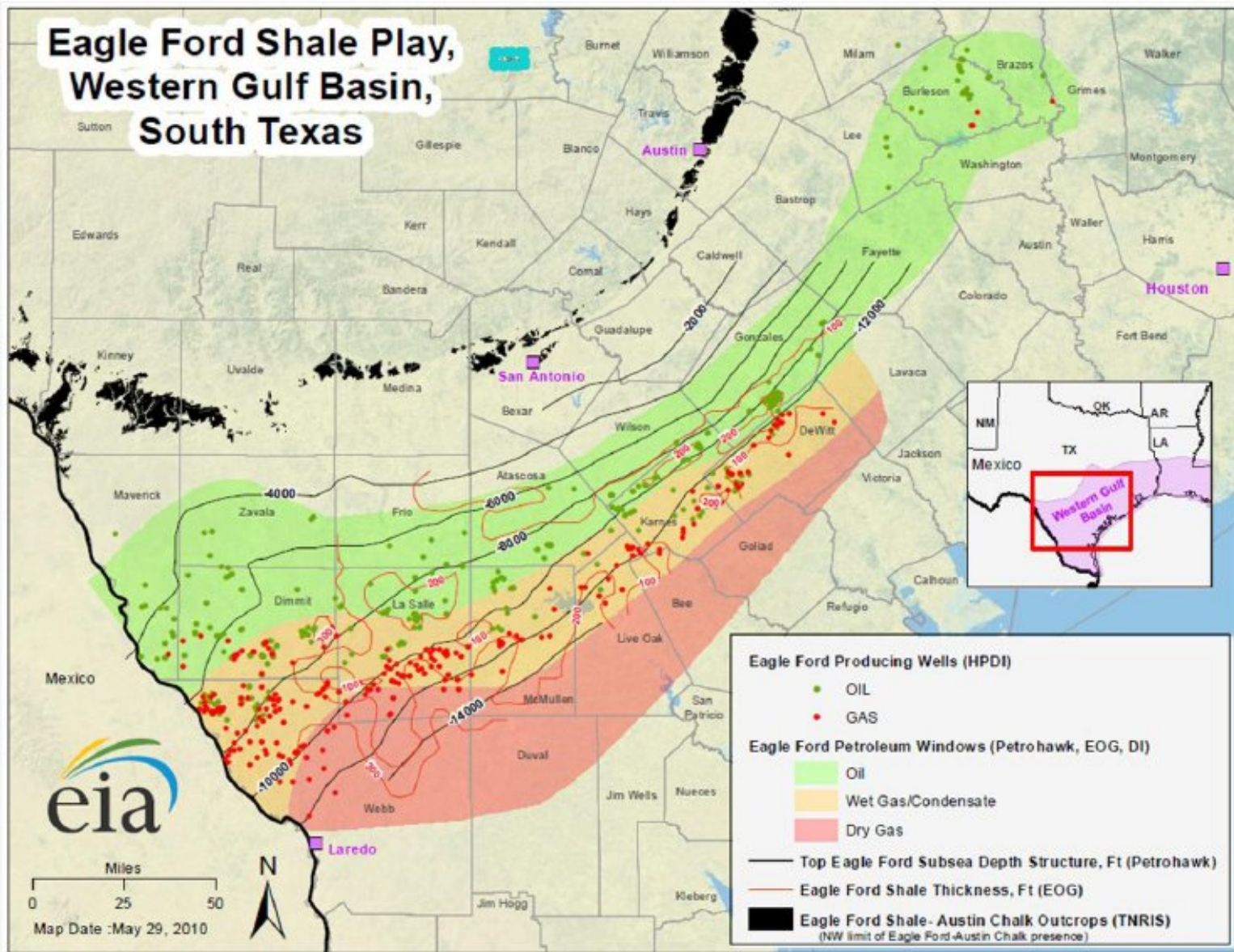
for the week ending January 6, 2012



Notes: ¹Last month based on data for week ending Dec. 9, 2011. ²Last year based on data for week ending Jan. 7, 2011. Shale Basin rig counts compiled by NGI's Shale Daily based on underlying rig count data used with permission of South Bits, a Schlumberger company. Figures include oil and gas rigs in the respective unconventional resource plays and may contain rigs that are targeting conventional formations. ³Haynesville/Bossier also includes rigs targeting the Cotton Valley tight sands formation.

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RECENT ARTICLE ON PERMIAN BASIN (3/14/12)

- Over next 2-3 years the Wolfcamp Shale in the Permian Basin will rival the Bakken
- Wolfcamp is the thickest of any onshore U.S. oil play with up to 1000 feet of potential payout across hundreds of acres
- Pioneer has 900,000 under lease
- Pioneer's first two wells producing 800 to 1000 barrels of oil a day

EPA EXAMINING EXISTING AUTHORITIES TO STEP UP REGULATION OF FRACKING (3/16/12)

- Fred Hauchman, director of EPA's Office of Science Policy said:

“We’re doing a pretty comprehensive look at all statutes to determine where there are some holes to allow additional regulation.”

FEDERAL STATUTES

**Safe Drinking Water
Act**

Clean Water Act

Clean Air Act

**Toxic Substance
Control Act**



RCRA

CERCLA

**Emergency Planning and
Community Right-to-
Know Act**

Endangered Species Act

FEDERAL STUDIES

**EPA's Draft
Hydraulic Fracturing
Study**

**Department of Health and
Human Services**

**Secretary of Energy
Advisory Board
("SEAB")**



**Securities and Exchange
Commission**

Dept. of Interior

IS NATURAL GAS THE BRIDGE FUEL?

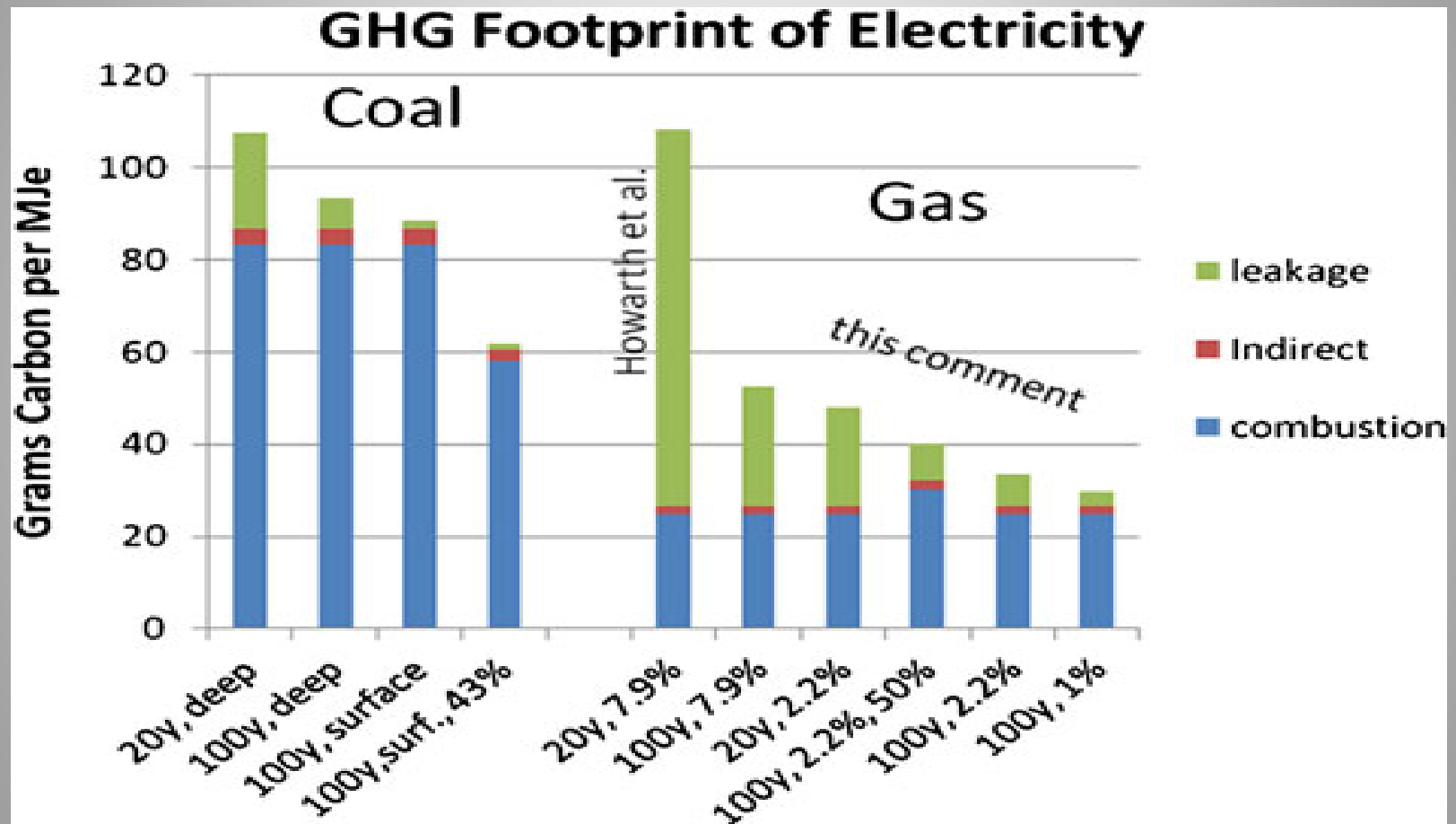
Cornell I



Carnegie Mellon Study

Cornell II

IS NATURAL GAS THE BRIDGE FUEL?



DOES HYDRAULIC FRACTURING CAUSE GROUNDWATER CONTAMINATION?

MIT University Study

Cabot Oil and Gas Study



Duke University Study

University of Texas Study

NEW STATEWIDE RULE 29



[HYDRAULIC FRACTURING](#)
HOW IT WORKS

[GROUNDWATER](#)
PROTECTION

[CHEMICAL](#)
USE

[REGULATIONS](#)
BY STATE

[FIND A WELL](#)
BY STATE

[FREQUENT](#)
QUESTIONS

WELCOME

Welcome to FracFocus, the hydraulic fracturing chemical registry website. This website is a joint project of the Ground Water Protection Council and the Interstate Oil and Gas Compact Commission.

On this site you can search for information about the chemicals used in the hydraulic fracturing of oil and gas wells. You will also find educational materials designed to help you put this information in perspective.

[LEARN MORE >](#)

[Welcome](#)

[Hydraulic Fracturing](#)

[Casing & Cement](#)

[State Regulations](#)

[Chemical Use](#)

Is groundwater protected?

Groundwater Protection: Priority Number One

Oil and natural gas producers have stringent requirements for how wells must be completed. The genesis of these requirements is water safety.

Looking for information about a well site near you?



Search for nearby well sites that have been hydraulically fractured to see what chemicals were used in the process.

FAQs

◀ 1 / 3 ▶

Q. Do states conduct ongoing testing of water wells and oil and gas well construction?

A. It depends on the state. When it comes to water wells, many states have water well construction standards but not routine testing requirements. As regards the construction of oil and gas wells, all states have well construction requirements. These can be reviewed by going to the [Regulations by State](#) page, selecting the state in question and then selecting View Regulations.

INDUSTRY THOUGHTS

- EPA using CERCLA instead of SDWA in response to Range Resources (GE v. Sackett cases)
- Pavillion and Dimock Studies might preempt EPA Study – no coordination
- More congressional oversight – EPA has prejudged that HF poses an environmental threat before completion of study
- Now that we have disclosure of chemicals, environmentalist focus on:
 - Monitoring waste water and air emissions
 - Report compliance histories
 - Obtain baseline water test (landowner privacy concerns)
 - Water use issues

HYDRAULIC FRACTURING LITIGATION



- Since 2009, over 20 lawsuits complaining alleged contamination from HF
- Filed in AR, CO, LA, NY, PA, TX, WV, ND
- Plaintiffs are either surface owners or neighbors

RECENT TEXAS LAWSUITS

- 8/11/10 *Scoma v. Chesapeake* (N. D. Tex.)
- 11/3/10 *Sizelove v. Williams Production, Mockingbird Pipeline, XTO, GulfTex Operating, Trio Consulting and Enxco* (Denton County)
- 11/3/10 *Heinkel-Wolfe v. Williams Production, Mockingbird Pipeline, XTO, GulfTex Operating, Trio Consulting and Enxco* (Denton County)
- 12/15/10 *Mitchell v. Encana and Chesapeake* (N. D. Tex.)
- 12/15/10 *Harris v. Devon Energy* (N. D. Tex.)
- 1/18/11 *U.S. v. Range Production, Co.* (N.D. Tex.)
- 2/28/11 *Town of Dish v. Atmos Energy, Crosstex, Enbridge, Energy Transfer, Texas Midstream* (Denton County)
- 3/8/11 *Parr v. Aruba, Ash Grove, Encana, Halliburton, Republic Energy, Tejas Production* (Dallas County)
- 6/20/11 *Lipsky v. Range Production Co.* (Parker County).

LAWSUITS OUTSIDE OF TEXAS

8/27/09	<i>Maring v. Nalbone, et al</i> (NY)
9/21/09	<i>Zimmermann v. Atlas America</i> (PA)
11/19/09	<i>Fiorentino v. Cabot Oil</i> (PA)
9/29/10	<i>Berish v. Southwestern Energy</i> (PA)
10/27/10	<i>Armstrong v. Chesapeake</i> (PA)
10/10/10	<i>Hagy v. Equitable Production, et al</i> (WV)
2/11/11	<i>Baker v. Anshutz Exploration</i> (NY)
3/23/11	<i>Strudley v. Antero, et al</i> (CO)
4/15/11	<i>Andre v. EXCO Resources</i> (LA)

LAWSUITS OUTSIDE OF TEXAS (CON'T)

4/18/11	<i>Beckman v. EXCO Resources</i> (LA)
5/17/11	<i>Ginardi v. Frontier Gas</i> (AR)
5/17/11	<i>Tucker v. Southwestern Energy, et al</i> (AR)
5/17/11	<i>Berry v. Southwestern Energy, et al</i> (AR)
7/20/11	<i>Evenson v. Antero Resources, et al</i> (CO)
8/11/11	<i>Dillon v. Antero Resources, et al</i> (PA)
8/11/11	<i>Becka v. Antero Resources, et al</i> (PA)

TYPICAL CAUSES OF ACTION

- Nuisance
- Trespass
- Breach of contract
- Negligence
- Negligence per se
- Abnormally dangerous activity

KEY DEFENSES

- Permanent vs. Temporary Injury
 - Statute of limitations
 - Damages
- Standing
- Causation

CAUSATION



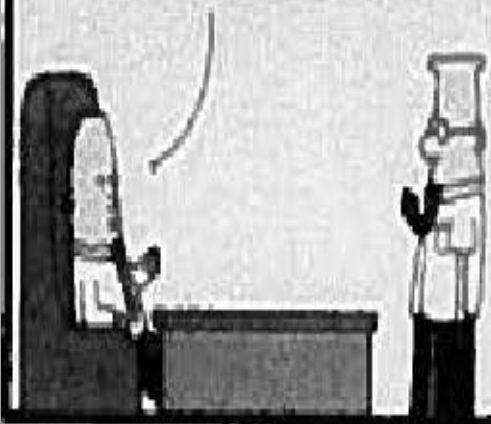
■ Causation

- EPA did not think that gas in the water wells before Range was “germane or relevant to issue at hand”
- EPA did not evaluate the geology or consider Strawn formation
- Does not know the pathway
- Did not consider nitrogen levels

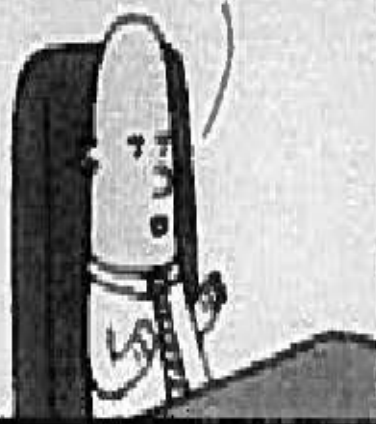
SUMMARY

- Increased regulatory oversight
- More litigation is likely
- Legal defenses are available
 - Lose at court of public opinion
 - Industry needs to get its message out

WE'RE GOING TO
START FRACKING
UNDER OUR BIGGEST
COMPETITOR'S
HEADQUARTERS.

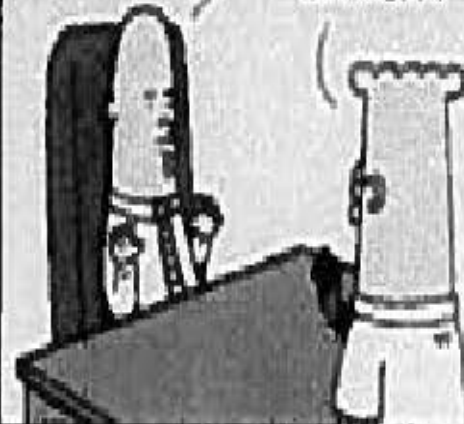


MY PLAN IS TO
POLLUTE THEIR WATER
AND GENERATE EARTH-
QUAKES TO DESTROY
THEIR CAMPUS.



THE PROJECT CODE
NAME IS 'FRACKING
AWESOME.'

CATCHY



QUESTIONS?

