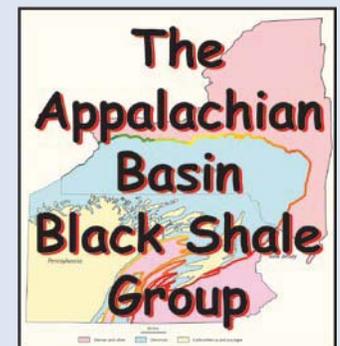


Large drainage units: Background

Recommended by Terry Engelder
to
The Economic and Workforce Development
Subcommittee
(Marcellus Shale Advisory Commission)



Acknowledgments:



Michael Reese, Law Student, Beasley School of Law

Brigid Landy, Law Student, Beasley School of Law

***Compulsory Pooling in Pennsylvania:
Getting to 'Yes' Proposal for Statutory Approach***



PENN STATE LAW

Anna M Clovis, Research Assistant, The Dickinson School of Law

Ross H. Pifer, Clinical Professor, The Dickinson School of Law

***The Pennsylvania Oil and Gas Conservation Law:
A Summary of the Statutory Provisions 58 P.S. §§ 401-419***



John K. Baillie, Senior Attorney, Penn Future

Pooling and Unitization in Pennsylvania

All but One of the Major Natural Gas Producing States have Pooling Statutes

State (*Gas Shale/Tight Sandstone*)

WHY?

Texas (*Barnett, Eagle Ford Shales*)

Louisiana (*Haynesville Shale*)

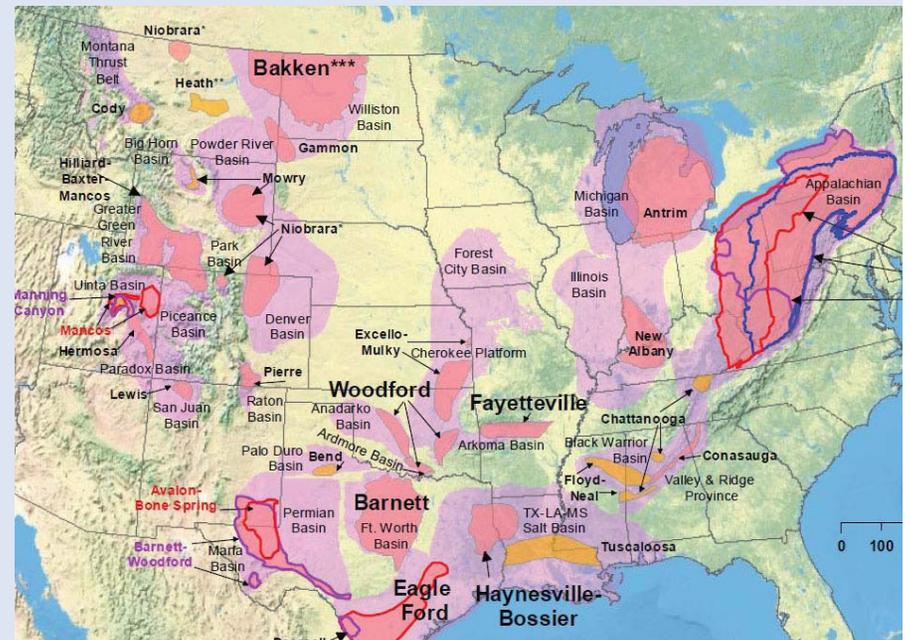
Oklahoma (*Woodford Shale*)

Arkansas (*Fayetteville Shale*)

Colorado (*Mesa Verde Sand*)

Wyoming (*Green River Sand*)

WV, OH, VA, KY, etc.



Why? Pooling Statutes:

-

1. Maximizes Economic Benefit
2. Minimizes Wasteful Stranded Gas
3. Minimizes Environmental Footprint
4. Provides Just and Fair Compensation

All private property would contribute to the greater public good while providing each and every land owner with just and fair compensation.

Constituents who benefit:

-

1. Maximizes Economic Benefit

All Citizens of the State

2. Minimizes Wasteful Stranded Gas

Conservationists

3. Minimizes Environmental Footprint

Environmentalists

4. Provides Just and Fair Compensation

Lessors

PA OIL AND GAS CONSERVATION LAW



Act 1961-359

What did legislators have in mind when framing the Conservation Law?

- **The Law makes it illegal to ‘waste natural gas’**
 - to foster, encourage, and promote the development, production, and utilization of the natural oil and gas.... in such manner as will encourage discovery, exploration, and development **without waste!**
 - to provide for the drilling, equipping, locating, spacing and operating of oil and gas wells so as to protect correlative rights and **prevent waste** of oil or gas or loss in the ultimate recovery thereof

PA OIL AND GAS CONSERVATION LAW



Act 1961-359

What did legislators have in mind when framing the Conservation Law?

- to regulate such operations so as to protect fully the rights of royalty owners and producers of oil and gas to the end that the people of the Commonwealth shall realize and enjoy the maximum benefit of these natural resources

The charge to the Marcellus Shale Advisory Commission is to assure this happens.

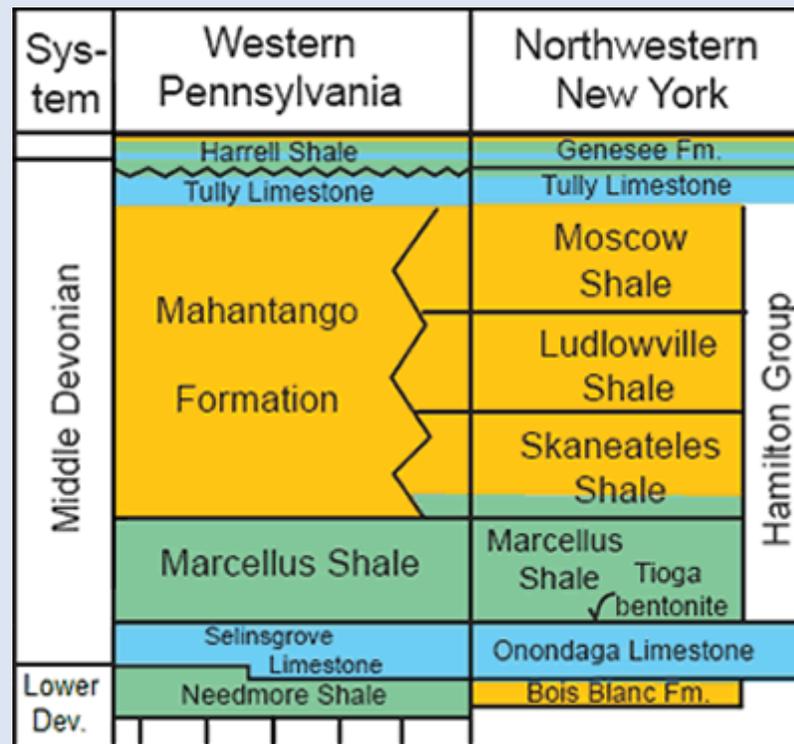
Conservation versus deep well

- A “conservation” well is defined as any well penetrating the top of the Onondaga Limestone (or equivalent formation when the Onondaga is absent) and is at least 3,800 feet deep. This term is defined by the Oil and Gas Conservation Law (Act 1961-359).
- The Pennsylvania Geological Survey considers a “deep” well to be any well that penetrates the Middle Devonian Tully Limestone.

Marcellus wells

- As the Onondaga Limestone is below the Marcellus gas shale, Marcellus horizontal wells are NOT conservation wells.

Reports of high initial production (IP) as well



Deep Wells



Conservation Wells

Background:

- Of the various legislative initiatives that have been discussed, **the large drainage unit** (i.e., pooling) has been the most controversial. Landowners who oppose natural gas development have been outraged by a proposal that would allow their property to be included in a natural gas production unit without their consent, even though there would be no surface impact on the land and they would be entitled to receive royalties. Although there was no legislation officially introduced, just the mention of *pooling* ignited a vociferous debate.

Dale A. Tice on February 08, 2011

<http://www.marcellusshalelawmonitor.com/legislation-and-regulation/>

Pooling may be the 'Holy Grail' for the environmentalists but not for the Conservationists, the Lessors, & other Citizens of the State

Why?

Hydraulic Fracturing

Fractures opened by hydraulic pressure generally drain a swath of a production unit about 300-500 feet either side of a well

- This is a common drainage distance even under unleased land

Rock splitting by hydraulic pressure is known to travel as much as 2000 feet from a horizontal well

- Some gas may come from distances up to 2000 feet although the volumes from this distance are very low.

Drainage from under non-consenting properties is a lawful practice

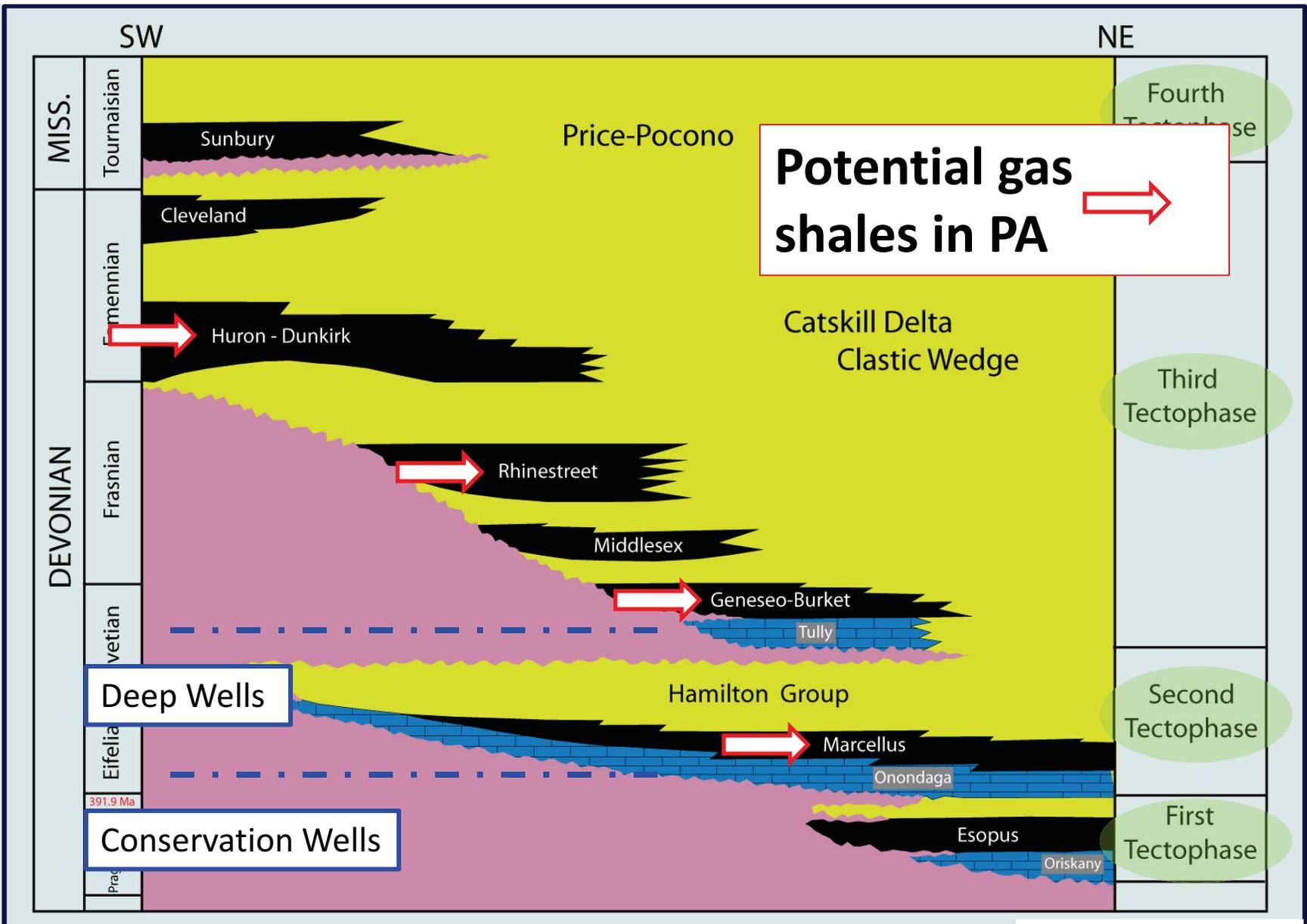
- Simple stated, the Rule of Capture allows drainage of unleased land without any benefit to the owner of the mineral rights
- Hydraulic fractures that cross under property boundaries are not subject to the laws of subsurface trespass

Why might 'Rule of Capture' apply to the gas industry?

- **Hydraulic fracturing is essential to America's energy security** (and PA's economic growth)
- The lateral growth of hydraulic fractures can not be predicted during engineering well design
- The lateral growth of hydraulic fractures can not be controlled during well stimulation
- Drainage after well stimulation and not be restricted within certain defined boundaries

2008 Legislation (not passed)

- **House Bill 2453** - allows Marcellus Shale to be included in “oil and gas conservation law “
Act-359
 - Outcome #1: No well to be drilled within 330 feet of land not leased.
 - Outcome #2: Act-359 sanctions pooling.
- **House Bill 2453** would have engendered further waste!



House Bill 2453 sets a precedent for stipulating that all gas shales in PA will be drained by Conservation Wells! Is this a good idea??

**The 'Holy Grail' for both
the environmentalists but
and the conservationists
is post-Sinclair era
legislation coupling
pooling with just and fair
subsurface trespass laws!**