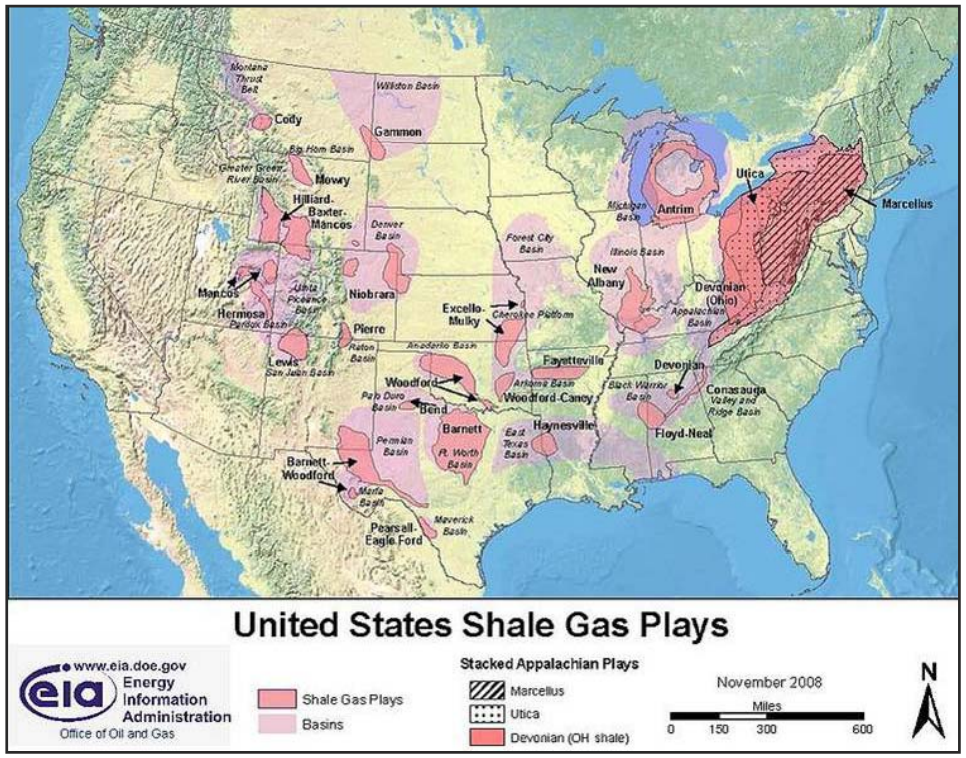
Barnett vs. Marcellus

A Comparison of Two Shale Gas Giants

CASEY PATTERSON

June 18, 2009



Shale Gas

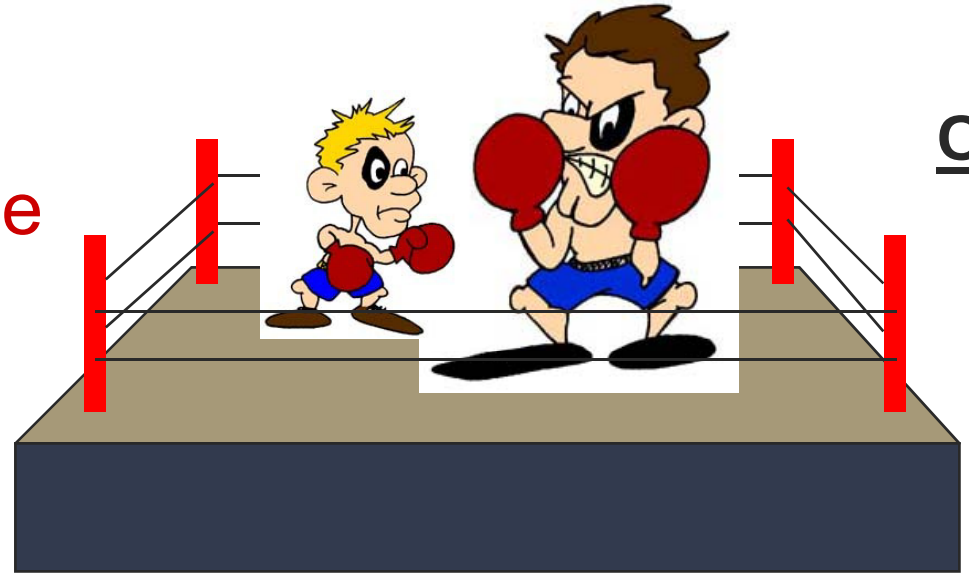
natural gas produced from fine grained, organic-rich rocks distinguished by low permeability

ANTELOPE – ANTRIM – ATOKA – BARNETT (FWB) – BARNETT (PERMIAN) – BEXAR – BONE SPRINGS – BOSSIER – CANEY – CHATTANOOGA – CISCO – COLORADO – CONASAUGA – COW BRANCH – CUMNOCK – EAGLEFORD – EXCELLO / MULKY – FAYETTEVILLE – FLOYD – FRONTIER – GENESEO – GREEN RIVER – HAYNESVILLE – HONAKER TRAIL – HORTON BLUFF – HURON – KETTLE POINT – LEWIS – LOCKATONG – LORRAINE – MANCOS – MANNING – MARCELLUS – MAYES – MEADE PEAK – MILK RIVER – MISSION CANYON – MONTEREY – MONTNEY – MOWRY – MUSKWA – NEAL – NEW ALBANY – NIOBRARA – OHIO – PARADOX – PEARSALL – PIERRE – PINE ISLAND – RHINESTREET – TUSCALOOSA – TUXEDNI – UTICA(APP) – UTICA(STL) – WALTMAN – WOLFCAMP – WOODFORD (ARK) – WOODFORD (PERM)

Champion Vs. A Challenger
Which One is Better?

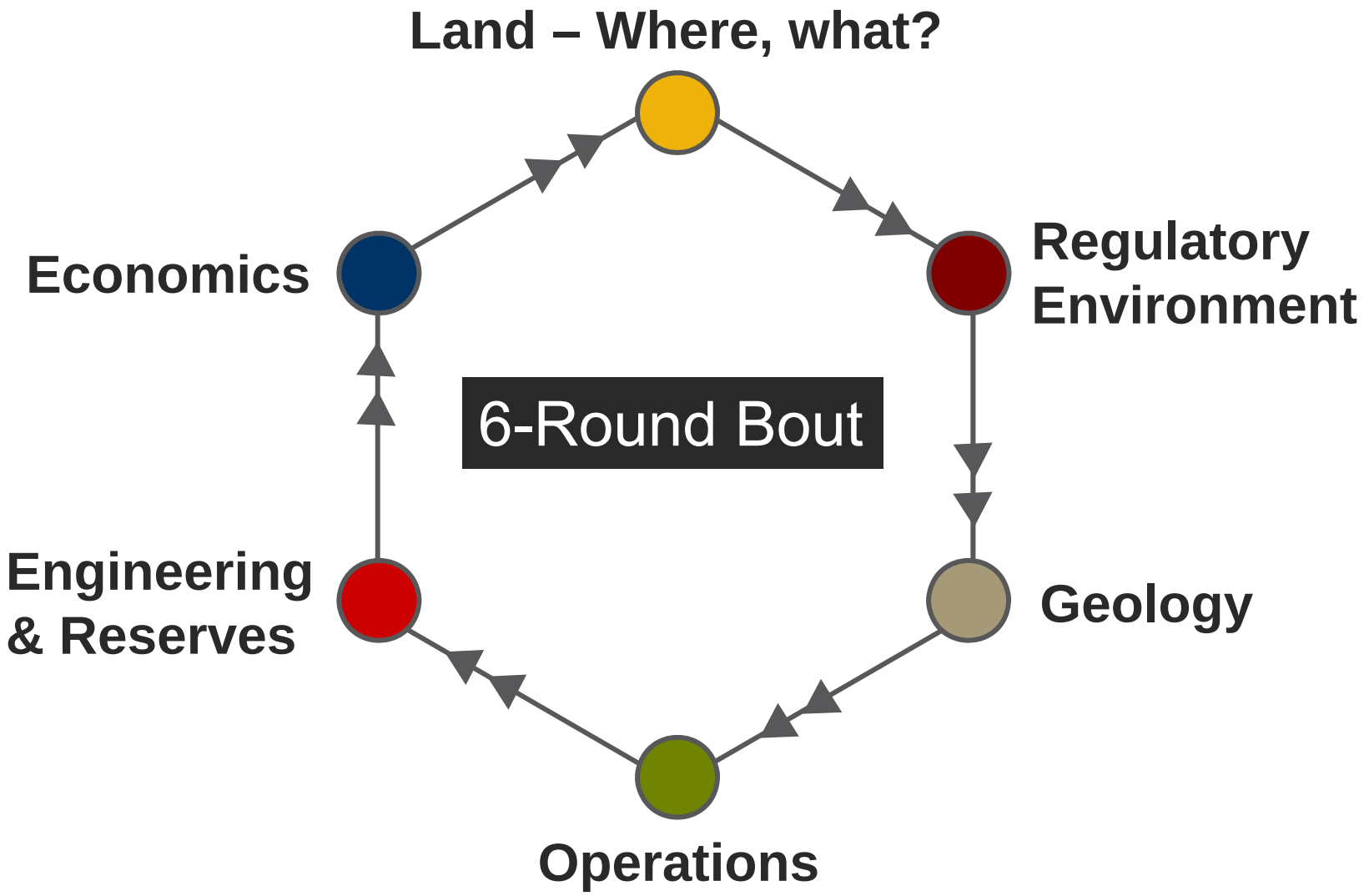
Heavyweight Prize Fighters

CHAMPION
Barnett Shale



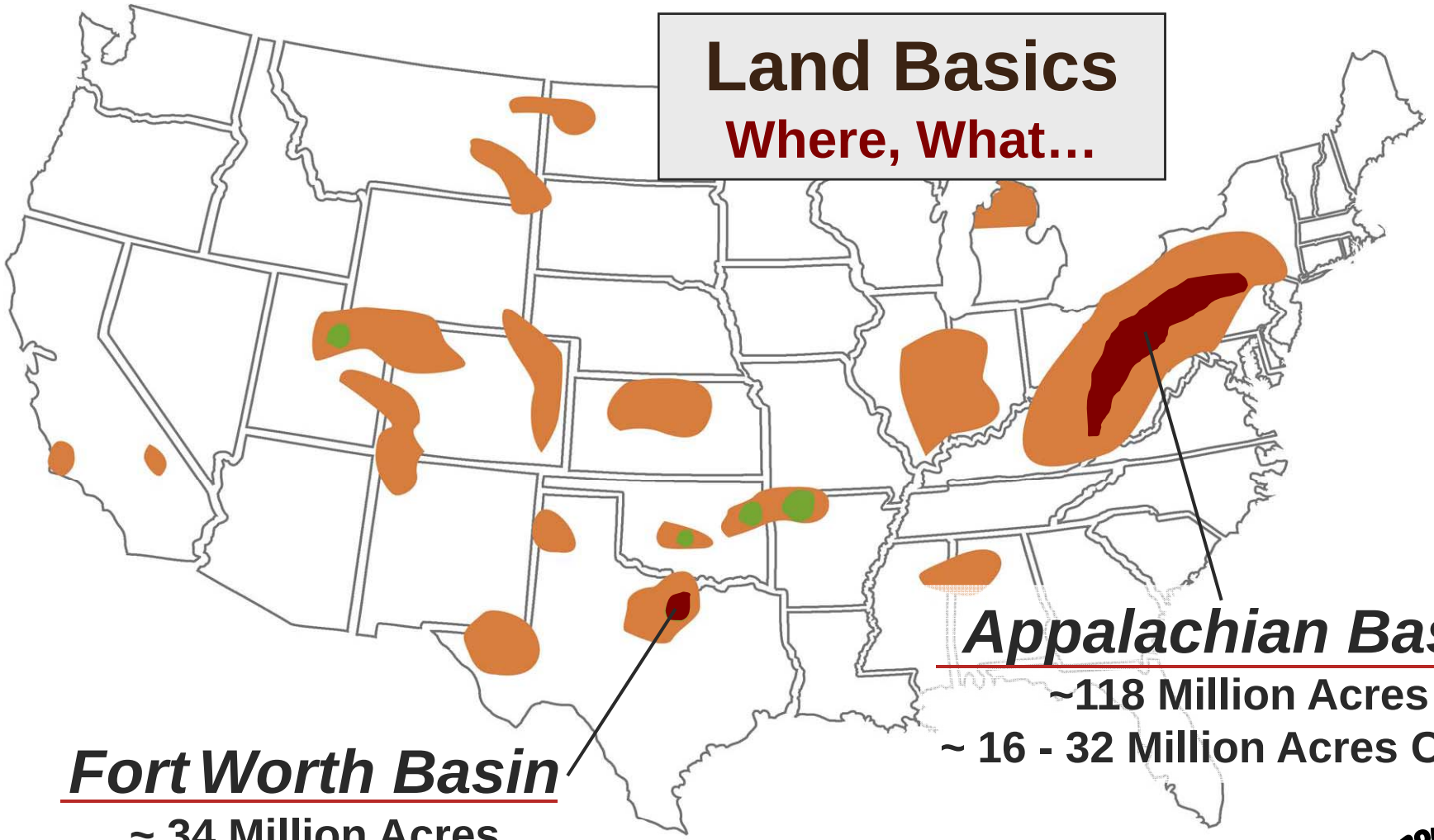
CHALLENGER
Marcellus Shale

General Layout



Land Basics

Where, What…



Appalachian Basin

~118 Million Acres

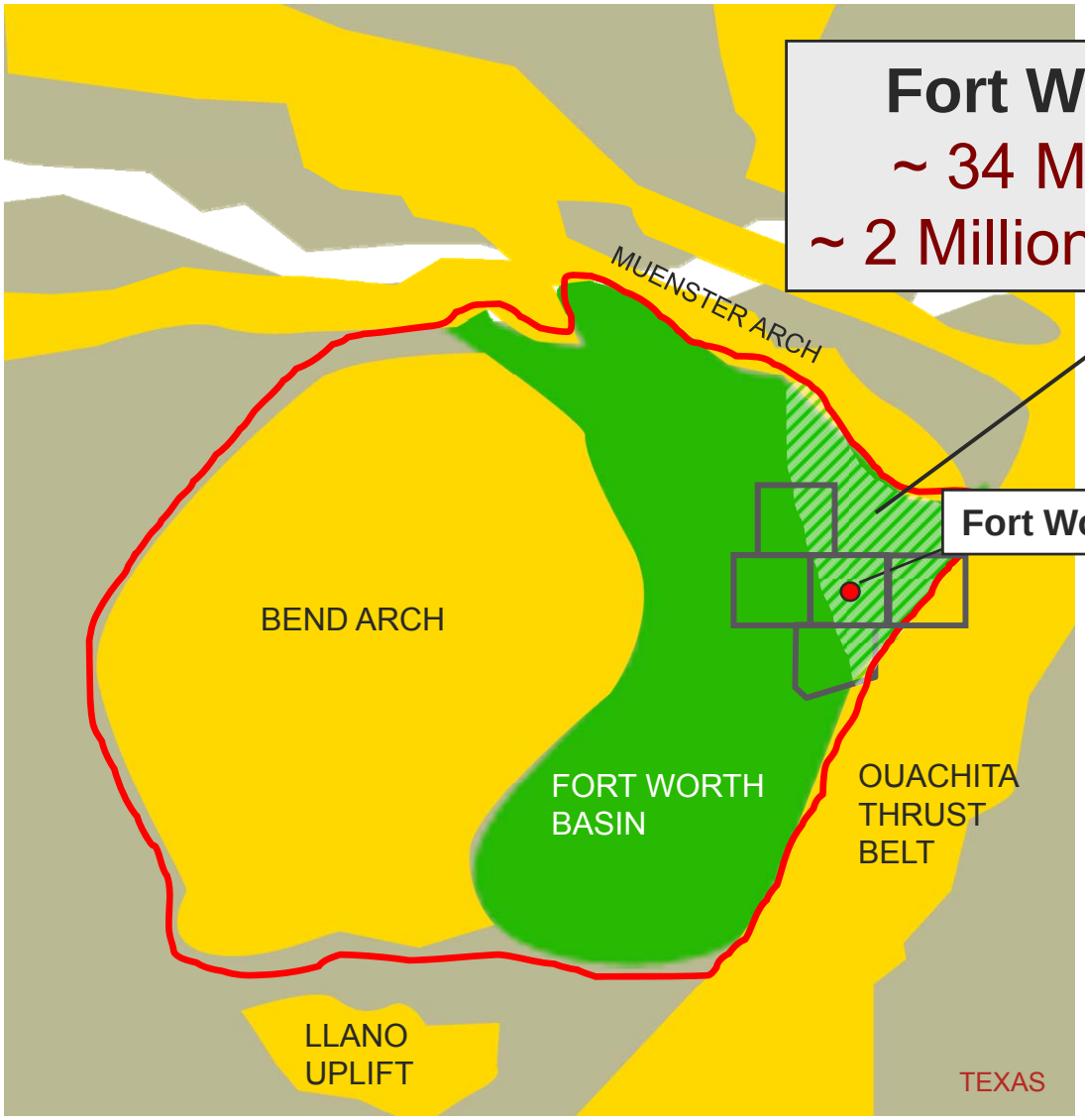
~ 16 - 32 Million Acres CORE

Fort Worth Basin

~ 34 Million Acres

~ 2 Million Acres CORE

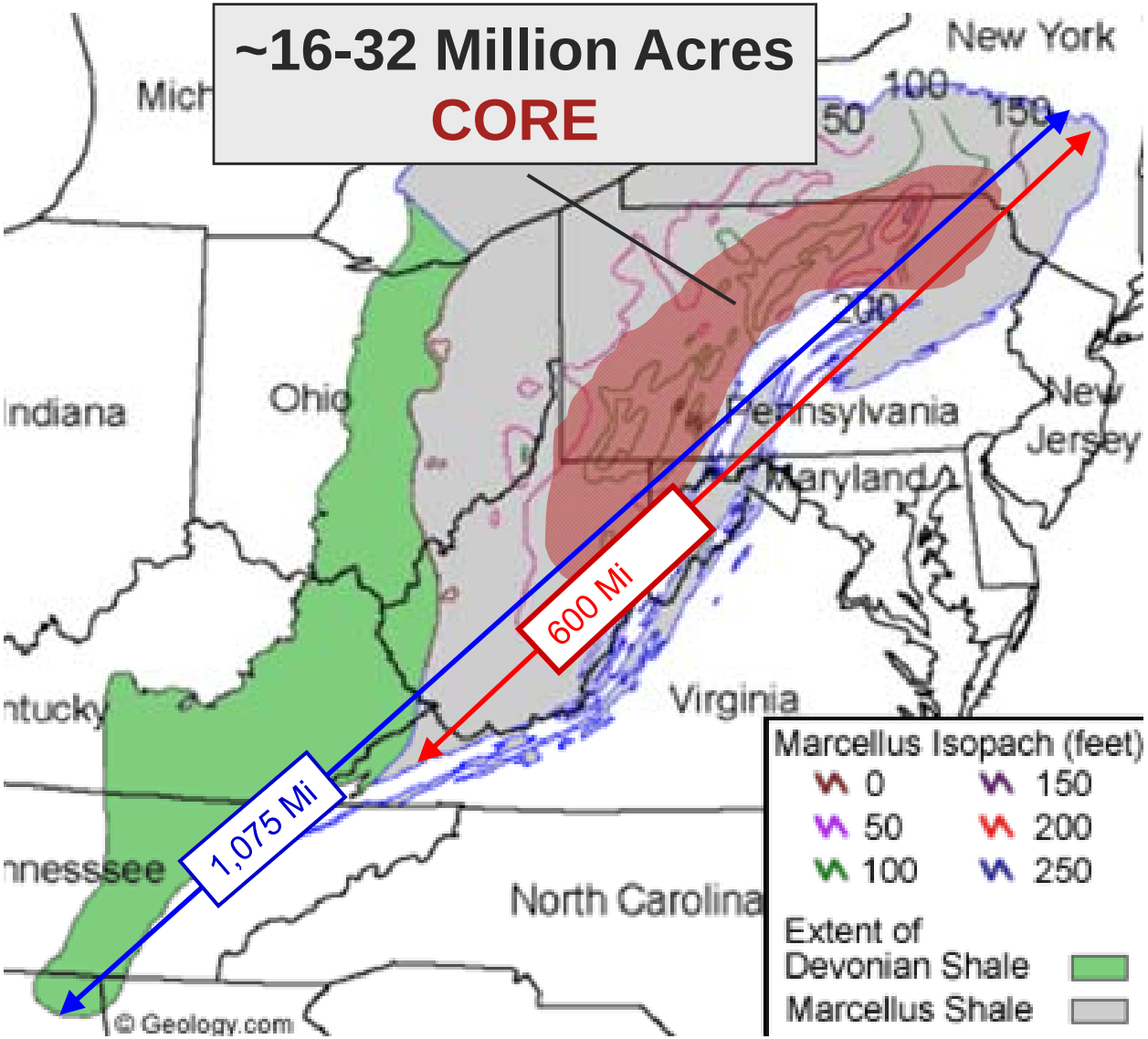
ROUND 1



Fort Worth Basin
~ 34 Million Acres
~ 2 Million Acres CORE

Fort Worth

ROUND 1


~16-32 Million Acres
CORE
New York
Mich
100
50
150
200
Indiana
Ohio
Pennsylvania
New Jersey
Maryland
600 Mi
Virginia
ntucky
1,075 Mi
nnesssee
North Carolina
© Geology.com
Marcellus Isopach (feet)
0
150
50
200
100
250
Extent of
Devonian Shale
Marcellus Shale

ROUND 1

Land
First Round TKO: Marcellus

Sheer size

Core area is actually growing

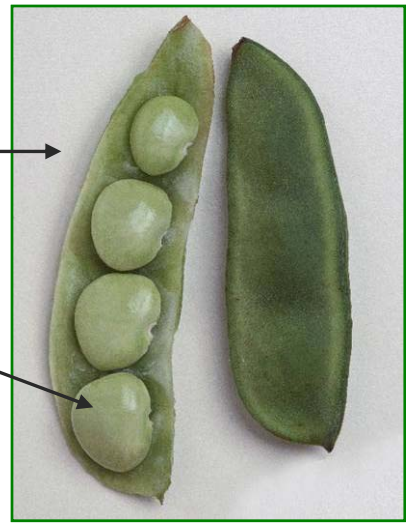
HBP acreage

Unit sizes

Realistic land costs

Larger Tracts

More knowledgeable landowners



***Not counting deals made (and filed) on napkins, at local bars, on golf courses, or fee minerals with no drilling rights*

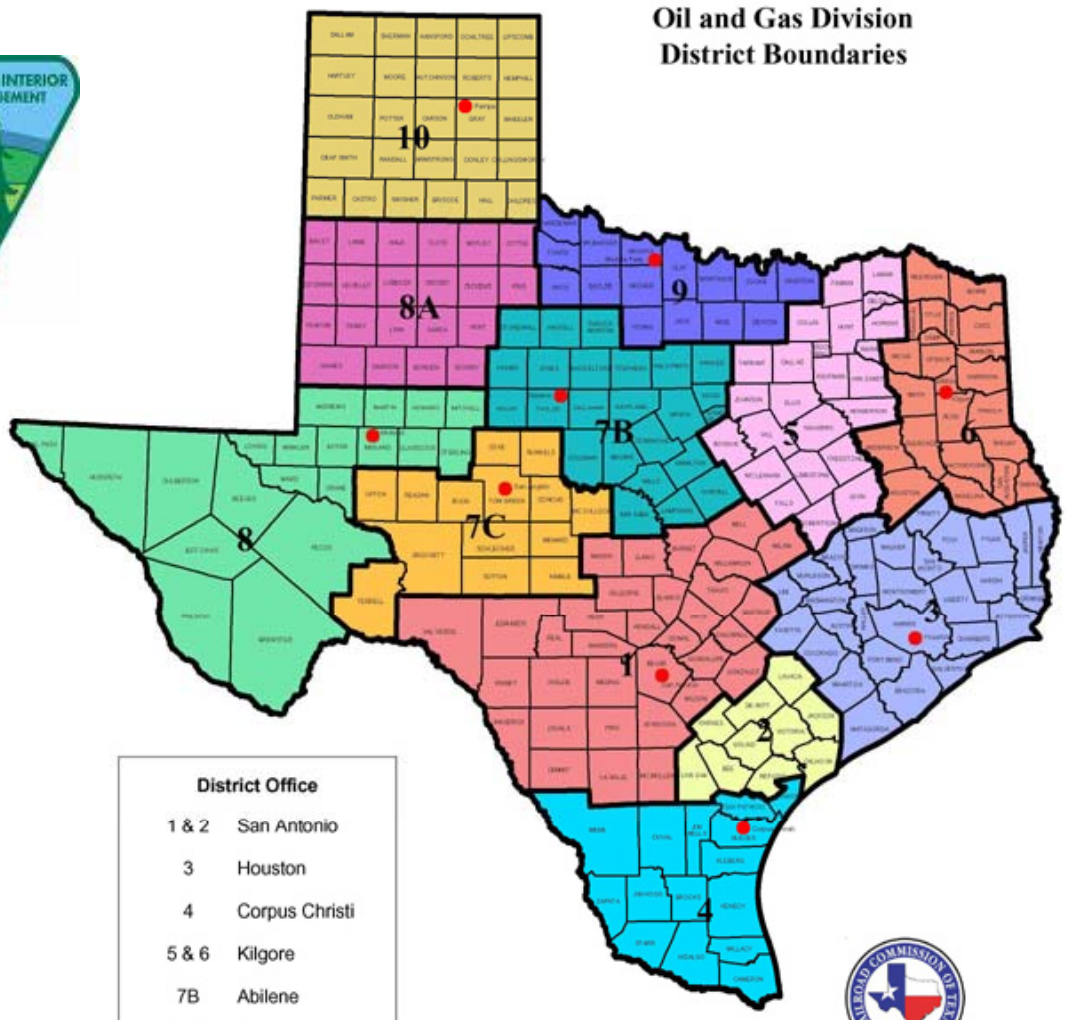
SCOREBOARD	
Barnett	0
Marcellus	1

ROUND 1

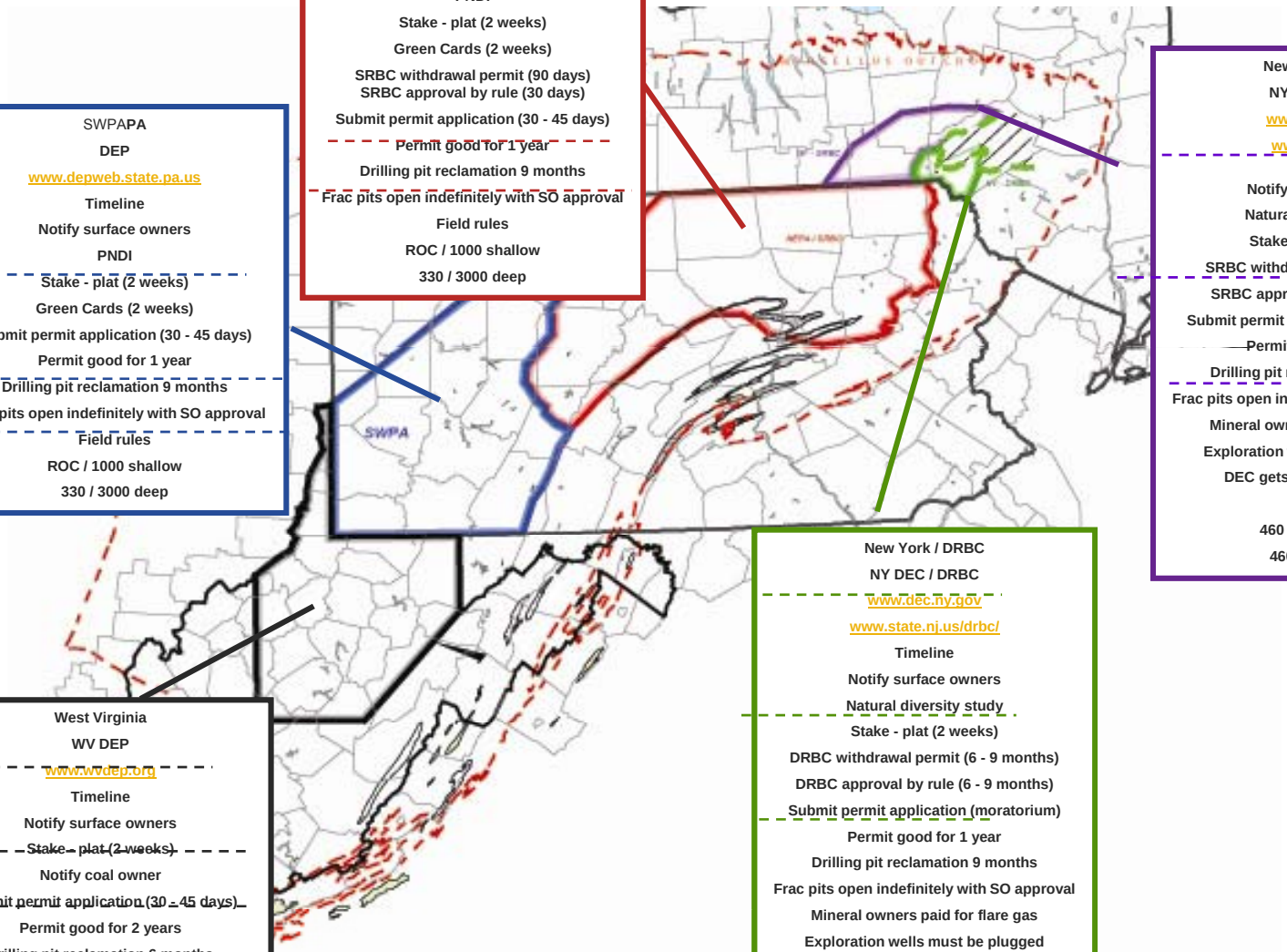
Regulatory Environment

Barnett vs. Marcellus

Permitting Process
Wildlife Protection
Water Management / Ownership
River Basin Commissions
"Other" Power Players
Urban Areas
Rig Moves


Oil and Gas Division
District Boundaries
10
8A
9
7B
6
5
7C
8
3
1
2
4
District Office
1 & 2 San Antonio
3 Houston
4 Corpus Christi
5 & 6 Kilgore
7B Abilene
7C San Angelo
8 & 8A Midland
9 Wichita Falls
10 Pampa
RAILROAD COMMISSION of TEXAS
Oil and Gas Division

Marcellus Shale
Appalachian Basin



NWPA
PA DEP / SRBC
www.depweb.state.pa.us
www.srbc.net
Timeline
Notify surface owners
PNDI
Stake - plat (2 weeks)
Green Cards (2 weeks)
SRBC withdrawal permit (90 days)
SRBC approval by rule (30 days)
Submit permit application (30 - 45 days)
Permit good for 1 year
Drilling pit reclamation 9 months
Frac pits open indefinitely with SO approval
Field rules
ROC / 1000 shallow
330 / 3000 deep

SWPA PA
DEP
www.depweb.state.pa.us
Timeline
Notify surface owners
PNDI
Stake - plat (2 weeks)
Green Cards (2 weeks)
Submit permit application (30 - 45 days)
Permit good for 1 year
Drilling pit reclamation 9 months
Frac pits open indefinitely with SO approval
Field rules
ROC / 1000 shallow
330 / 3000 deep

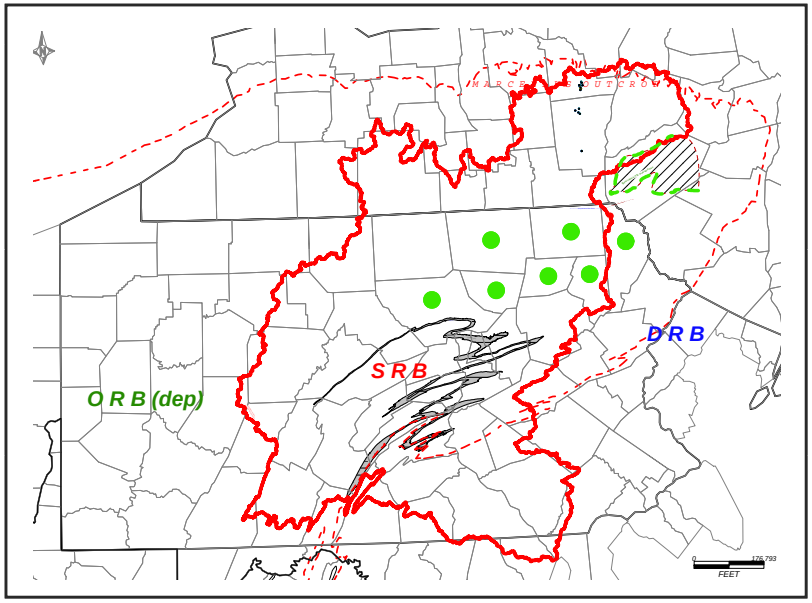
New York / SRBC
NY DEC / SRBC
www.dec.ny.gov
www.srbc.com
Timeline
Notify surface owners
Natural diversity study
Stake - plat (2 weeks)
SRBC withdrawal permit (90 days)
SRBC approval by rule (30 days)
Submit permit application (moratorium)
Permit good for 1 year
Drilling pit reclamation 9 months
Frac pits open indefinitely with SO approval
Mineral owners paid for flare gas
Exploration wells must be plugged
DEC gets one set of cuttings
Field rules
460 / 1000 shallow
460 / 3000 deep

New York / DRBC
NY DEC / DRBC
www.dec.ny.gov
www.state.nj.us/drbc/
Timeline
Notify surface owners
Natural diversity study
Stake - plat (2 weeks)
DRBC withdrawal permit (6 - 9 months)
DRBC approval by rule (6 - 9 months)
Submit permit application (moratorium)
Permit good for 1 year
Drilling pit reclamation 9 months
Frac pits open indefinitely with SO approval
Mineral owners paid for flare gas
Exploration wells must be plugged
DEC gets one set of cuttings
Field rules
460 / 1000 shallow
460 / 3000 deep

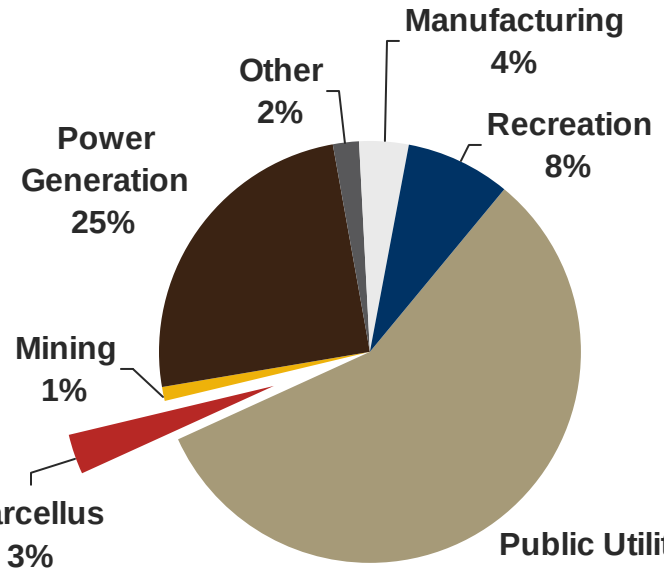
West Virginia
WV DEP
www.wvdep.org
Timeline
Notify surface owners
Stake - plat (2 weeks)
Notify coal owner
Submit permit application (30 - 45 days)
Permit good for 2 years
Drilling pit reclamation 6 months
Frac pits open indefinitely with SO approval
Field rules
ROC / 1000 shallow
330 / 3000 deep

ROUND 2

Using Barnett as an example



SRBC



Full development phase

2000 wells per year (HZ)

3.5 million gallons/well

19 million gallons/day

7 Billion gallons/year

Pogam.com

ROUND 2

Regulatory Environment
Second Round: Barnett

Much more friendly and understanding to operators

Relative comfort to horizontal drilling

Water usage more favorable

In monitoring stage

Inverse landowner / regulatory relationship

SCOREBOARD	
Barnett	1
Marcellus	1

ROUND 2

Geology
Barnett vs. Marcellus

Much like pancakes, shale gas reservoirs need the right ingredients…

Organic Matter for conversion (> ~2.5%)

Thermal Maturity – 1.5 R_o or greater

High conversion of Organic Matter

Btu value of gas

Breakable rock

Thickness

Lateral Continuity

Pressure

Goldilocks permeability / fracture network

Structurally quiet

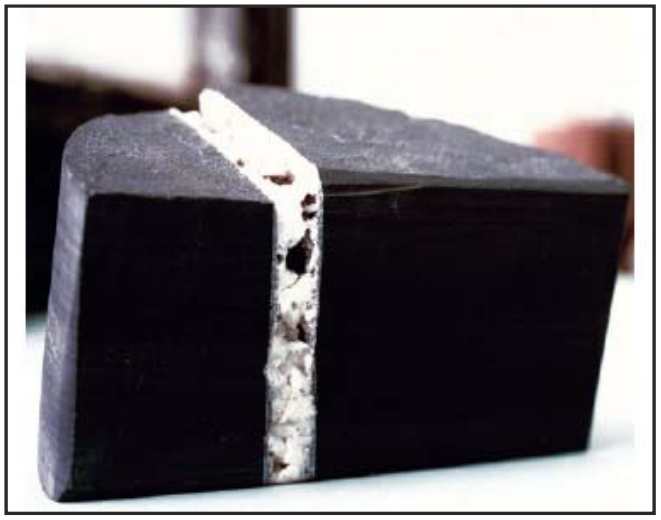
Geologic completion hazards

Storage space (porosity)

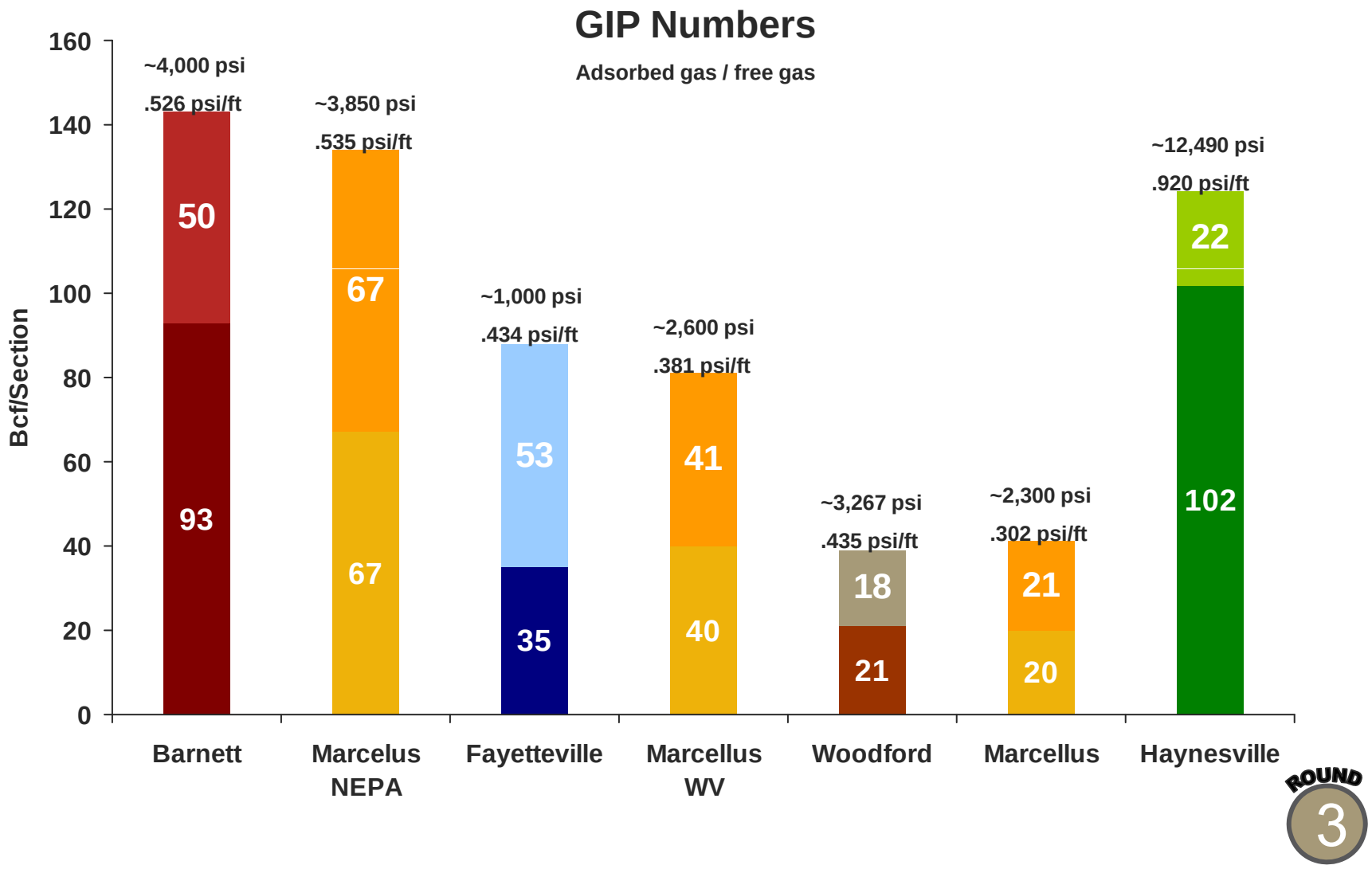
Percent of gas in storage space (S_w)

ROUND 3

The Rock



Barnett Shale - Gas Content



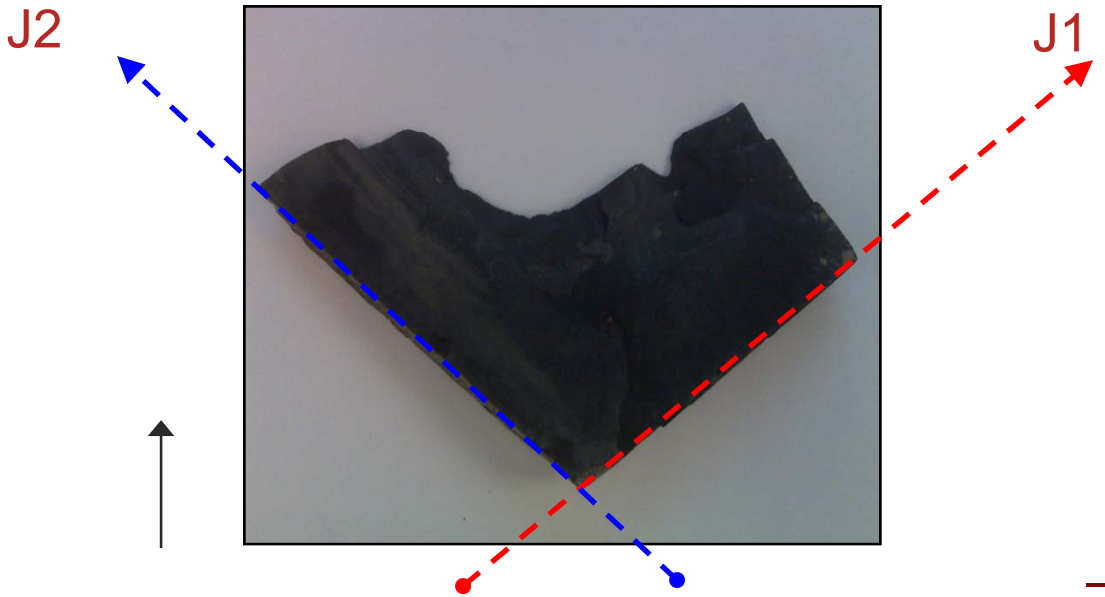
ROUND 3

Geology
Third Round: Marcellus

They're both black shales with almost the same ingredients

Marcellus Regional Fracture Sets

Engelder & Lash



SCOREBOARD	
Barnett	1
Marcellus	2

ROUND 3

Operations

Barnett vs. Marcellus

Fourth Round: Barnett

	Winner
Pad sites	BARNETT
Frac pits	BARNETT
Drilling Mud systems	BARNETT
Completion Fluid / Proppant Amounts	BARNETT
Flowback / produced water	BARNETT
Infrastructure	BARNETT
Seasons	BARNETT
Topo maps	BARNETT
Regulatory	BARNETT
Horizontal Drilling Risk	BARNETT
Urban Drilling	MARCELLUS

"…waking up in West Virginia…"

SCOREBOARD	
Barnett	2
Marcellus	2

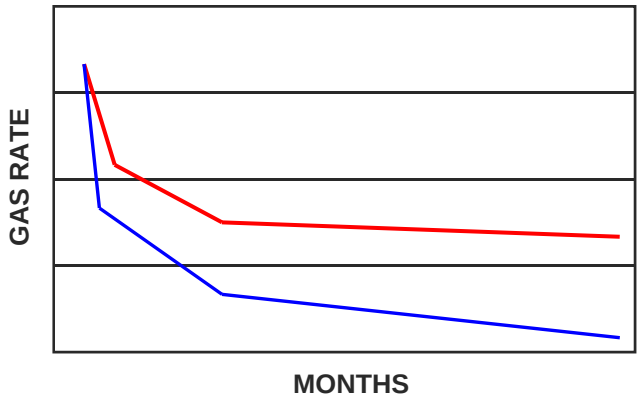
ROUND 4

Engineering / Reserves

Barnett vs. Marcellus

Fifth Round: Barnett

- GIP Numbers: 327 vs. 1,100 Tcf MARCELLUS
- Recovery: 50 vs. 356 Tcf MARCELLUS
- EUR – decline curve analysis
- Gas Marketing
- Lateral length
- Optimum size completion job
  - Chemicals ?
  - Sand #/gallon ?
  - Injection Rate ?
- Flowback after frac jobs – controlled or open flow?
- Processing - any liquids or non-hydrocarbon gasses?



We simply know more about the Barnett

SCOREBOARD	
Barnett	3
Marcellus	2

ROUND 5

Economics

Barnett vs. Marcellus

Sixth Round: Marcellus

Recovery: 50 Vs 356 Tcf	MARCELLUS
EUR – decline curve analysis	?
Gas Marketing / Gas Price	MARCELLUS
Optimum Completion	?
Flowback / produced water – Disposal vs Treatment?	BARNETT
Processing – any liquids or non-hydrocarbon gasses?	BARNETT
Taxes – Currently none in PA / NY	MARCELLUS
Lease burdens	MARCELLUS

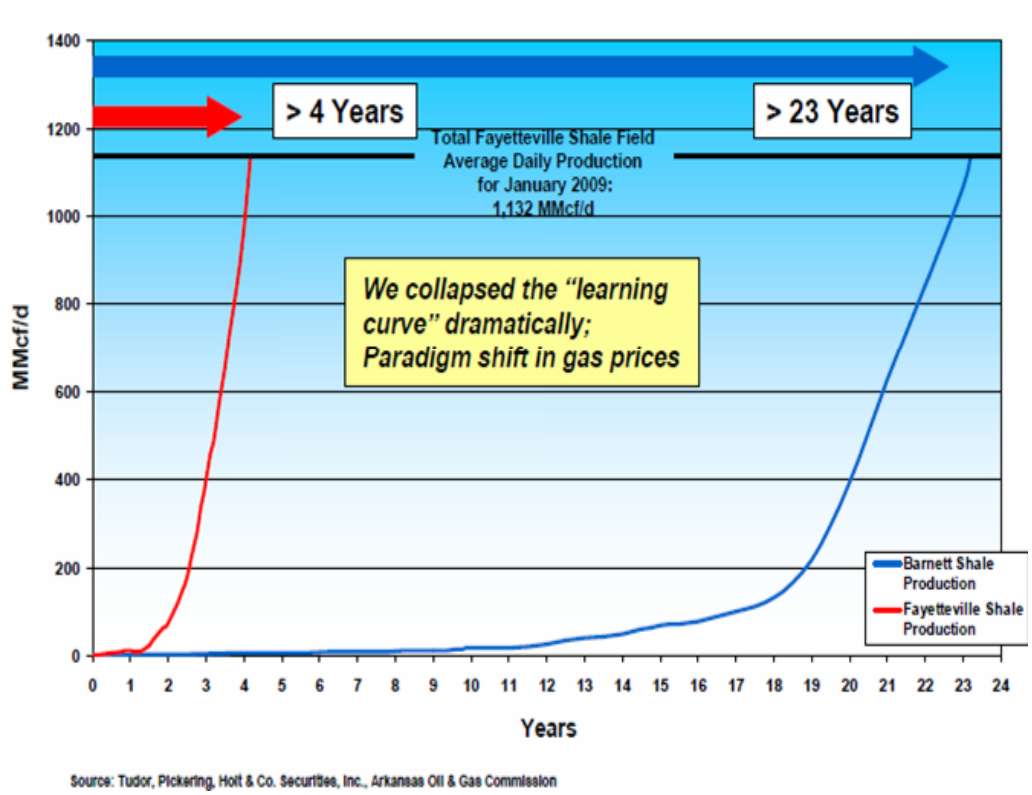
Shale Gas Basin Economics for XTO's Premier Acreage

Play	Well Cost	Gross EUR	F&D Costs	Nat Gas @ $7.50 ROR	Nat Gas @ $5.00* ROR
Barnett Core	$2.8	3.3	$1.13	92%	47%
Fayetteville	$2.7	2.2	$1.46	65%	36%
Woodford	$5.0	3.8	$1.55	53%	32%
Haynesville	$8.0	6.5	$1.58	59%	36%
Marcellus	$3.5	3.0	$1.34	99%	70%

SCOREBOARD	
Barnett	3
Marcellus	3

ROUND 6

Marcellus Wins



Scorecard….

Marcellus is ~ 8X the size
(Knockdown)

NYMEX premium on gas

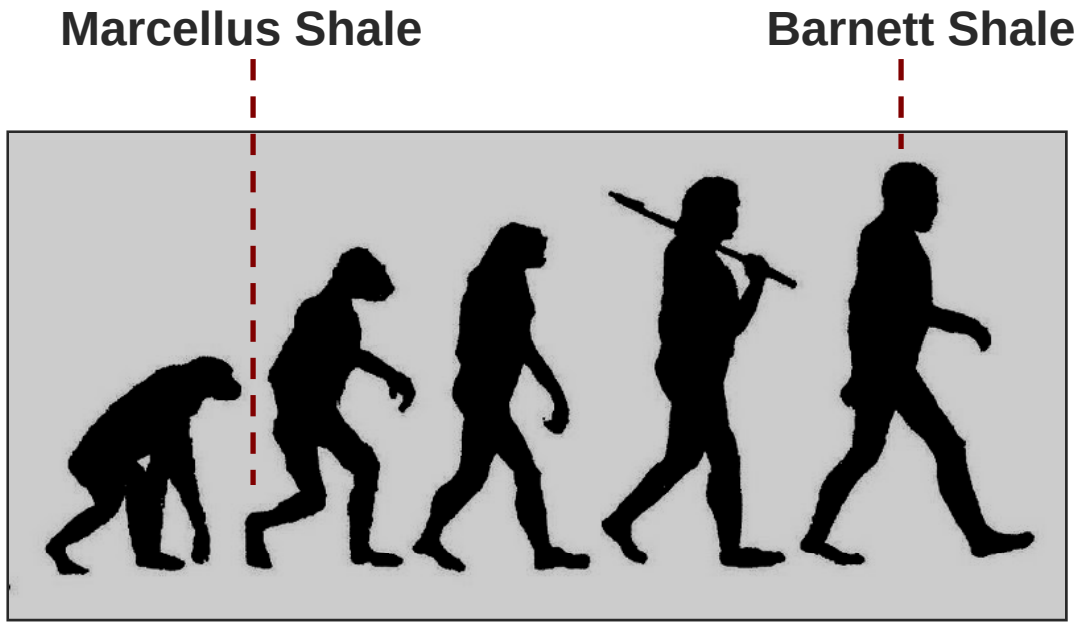
No taxes in PA/NY*

Lots of rural acreage

Benefit of Barnett template

Maybe more favorable reservoir

WINNER


Marcellus Shale
Barnett Shale

Questions?

Statements concerning production growth, cash-flow margins, finding costs, future gas prices, reserve potential and debt levels are forward-looking statements. Financial results are subject to audit by independent auditors. These statements are based on assumptions concerning commodity prices, drilling results, production, administrative costs and interest costs that management believes are reasonable based on currently available information; however, management's assumptions and the Company's future performance are both subject to a wide range of business risks and uncertainties, and there is no assurance that these goals and projections can or will be met. In addition, acquisitions that meet the Company's profitability, size and geographic and other criteria may not be available on economic terms. Further information on risks and uncertainties is available in the Company's filings with the Securities and Exchange Commission, which are incorporated by this reference as though fully set forth herein.

This presentation includes certain non-GAAP financial measures. Reconciliation and calculation schedules for the non-GAAP financial measures can be found on our website at www.xtoenergy.com.

Reserve estimates and estimates of reserve potential or upside with respect to the pending acquisition were made by our internal engineers without review by an independent petroleum engineering firm. Data used to make these estimates were furnished by the seller and may not be as complete as that which is available for our owned properties. We believe our estimates of proved reserves comply with criteria provided under rules of the Securities and Exchange Commission.

The Securities and Exchange Commission has generally permitted oil and gas companies, in their filings made with the SEC, to disclose only proved reserves that a company has demonstrated by actual production or conclusive formation test to be economically and legally producible under existing economic and operating conditions. We use the terms reserve "potential" or "upside" or other descriptions of volumes of reserves potentially recoverable through additional drilling or recovery techniques that the SEC's guidelines may prohibit us from including in filings with the SEC. These estimates are by their nature more speculative than estimates of proved reserves and accordingly are subject to substantially greater risk of being actually realized by the company.