

Utica-Point Pleasant Shale Activity and Performance Update

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Casto Petroleum Engineering

SOOGA Spring Meeting

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CASTO | PETROLEUM ENGINEERING

- Based in Marietta
- Evaluations of reserves and economics for conventional and unconventional assets (Utica & Marcellus)
- Fair Market Value reports
- Acquisition and Divestiture analysis
- Clinton Refracs

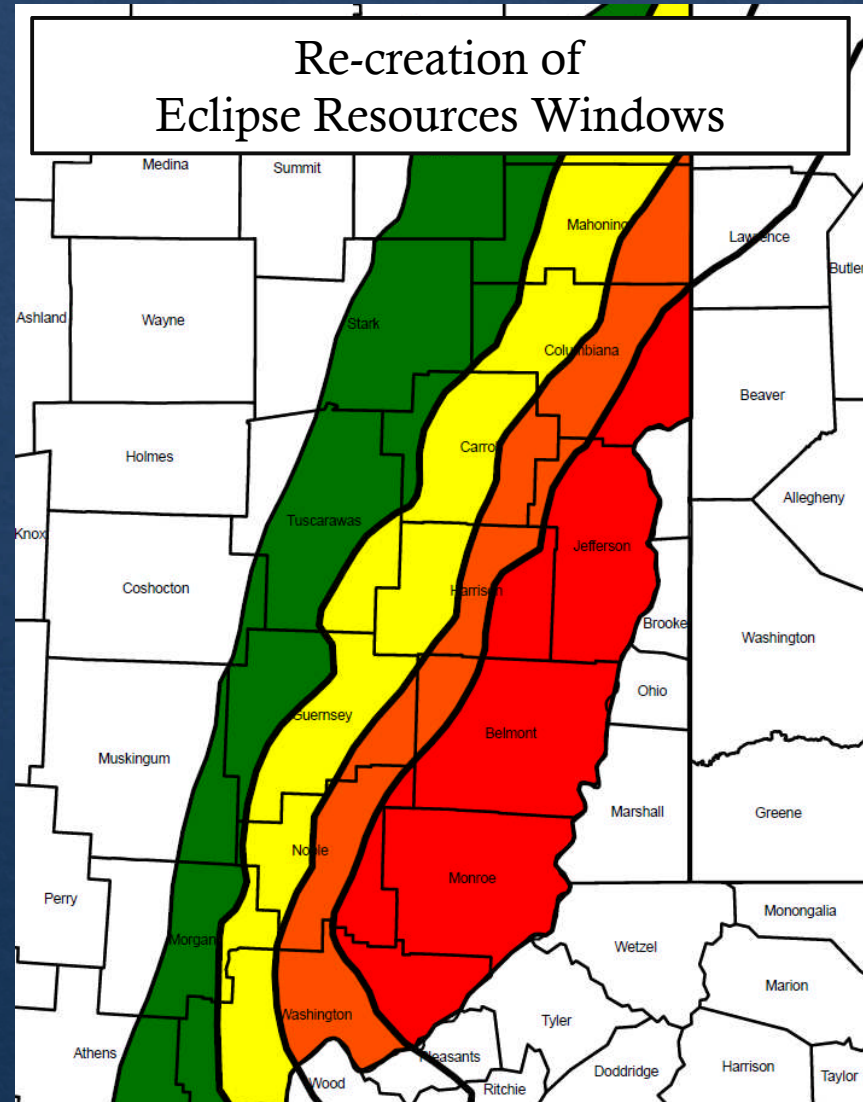
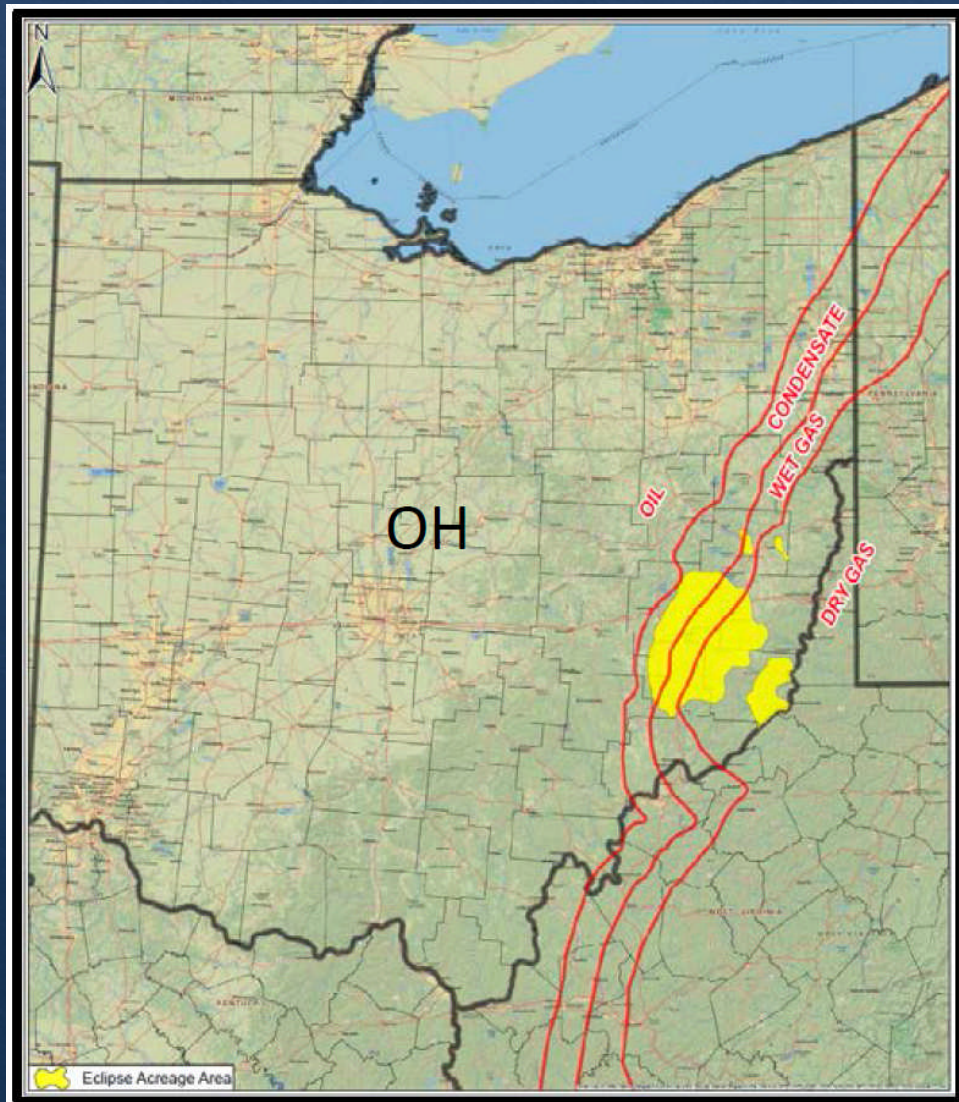
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1. Overview of Thermal Maturity Windows (Eclipse Resources)
2. For Each Window:
 - Activity Update – Well Counts by Status
 - Activity Update – Most Active Operators
 - Well Performance Summary
3. Comparison of Windows – Activity and Performance
4. Questions

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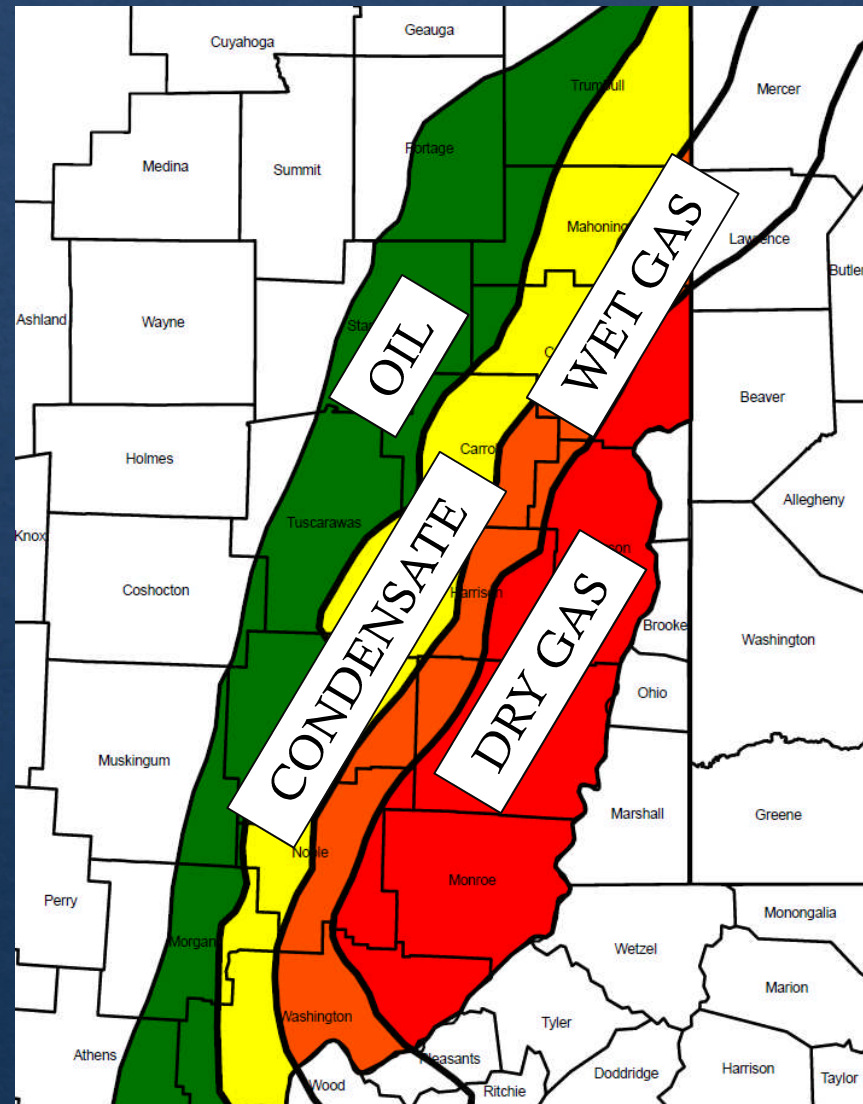
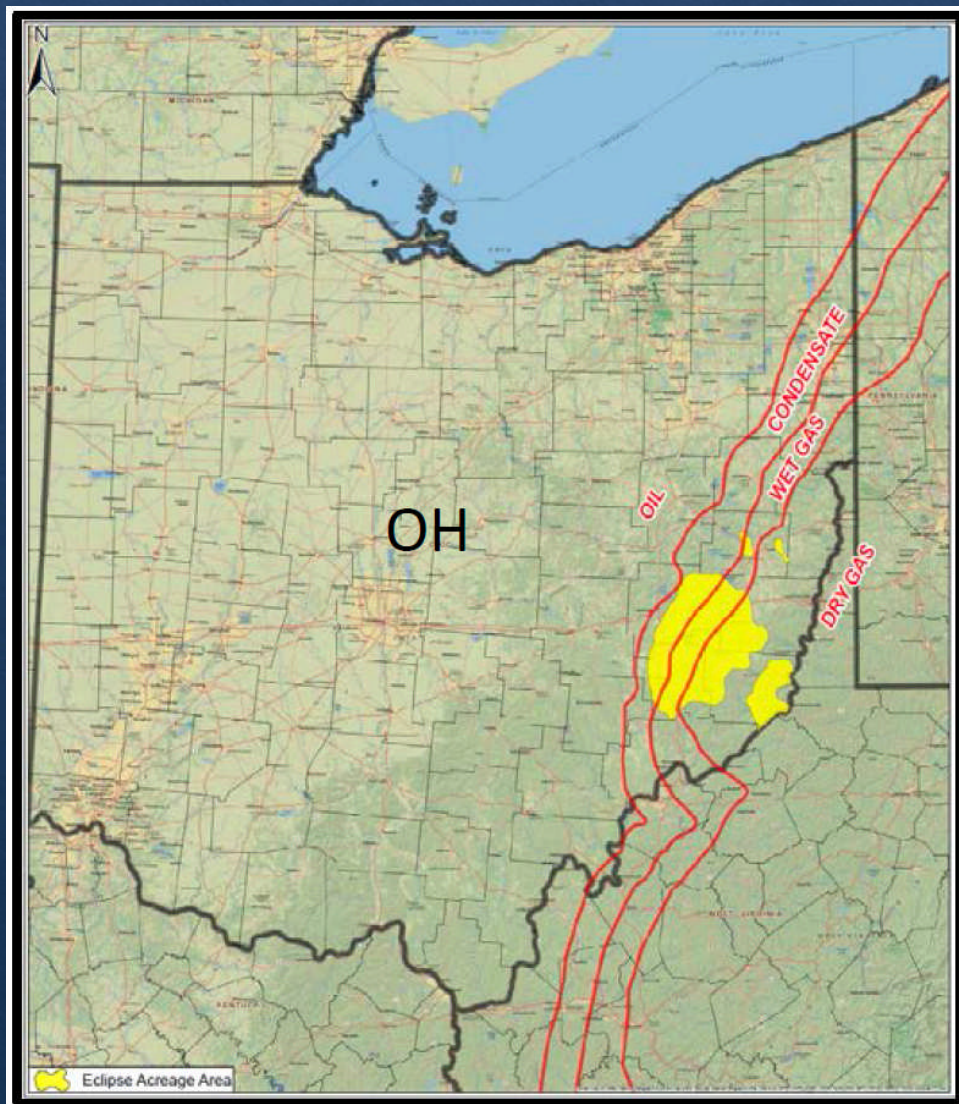
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Thermal Maturity Windows



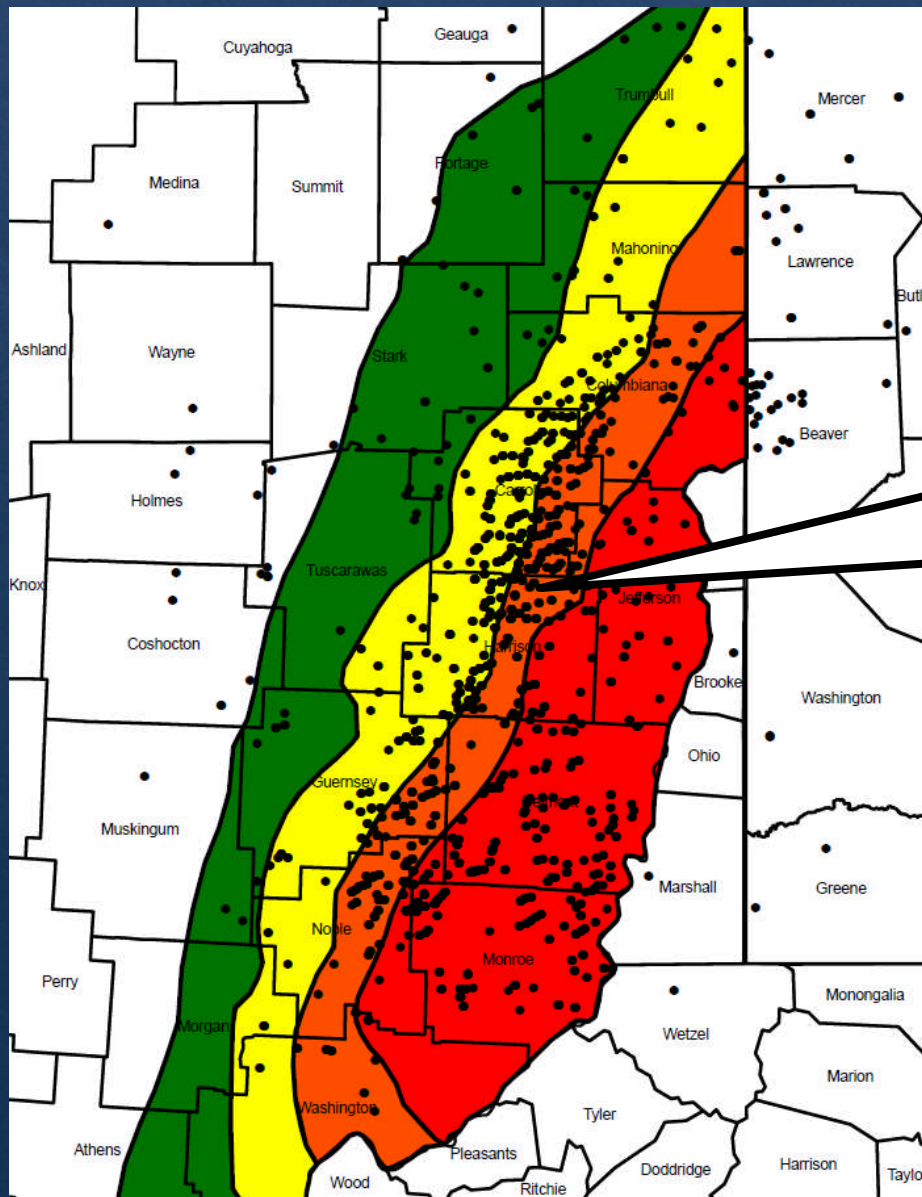
Source: Eclipse Resources Investor Presentation, March 2016

Thermal Maturity Windows



Source: Eclipse Resources Investor Presentation, March 2016

Thermal Maturity Windows



Black Dots = Utica Wells, All Status (ODNR 3-5-16):

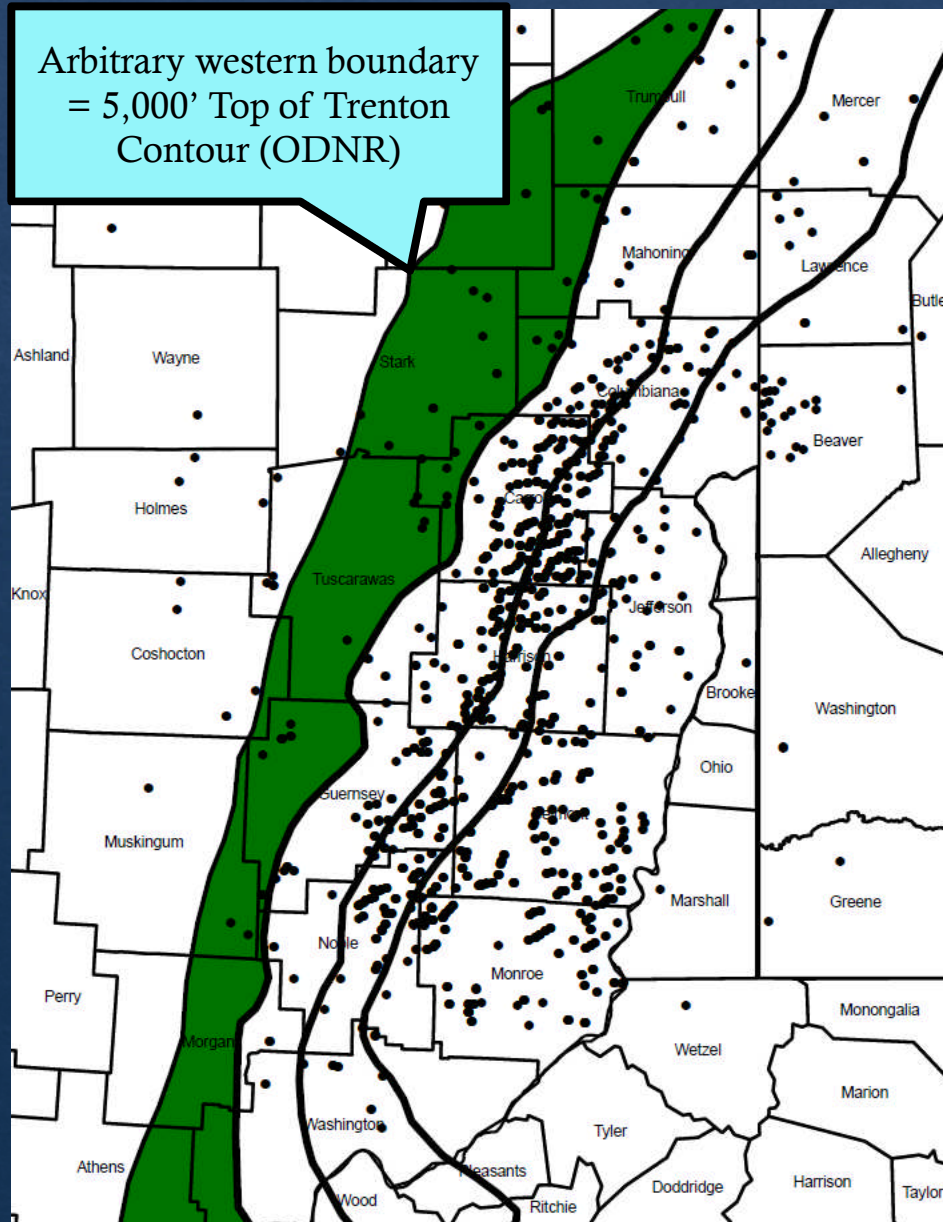
- Permitted
- Drilling
- Drilled
- Producing

Data Sources: ODNR, Drilling Info, Eclipse Resources

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Oil Window

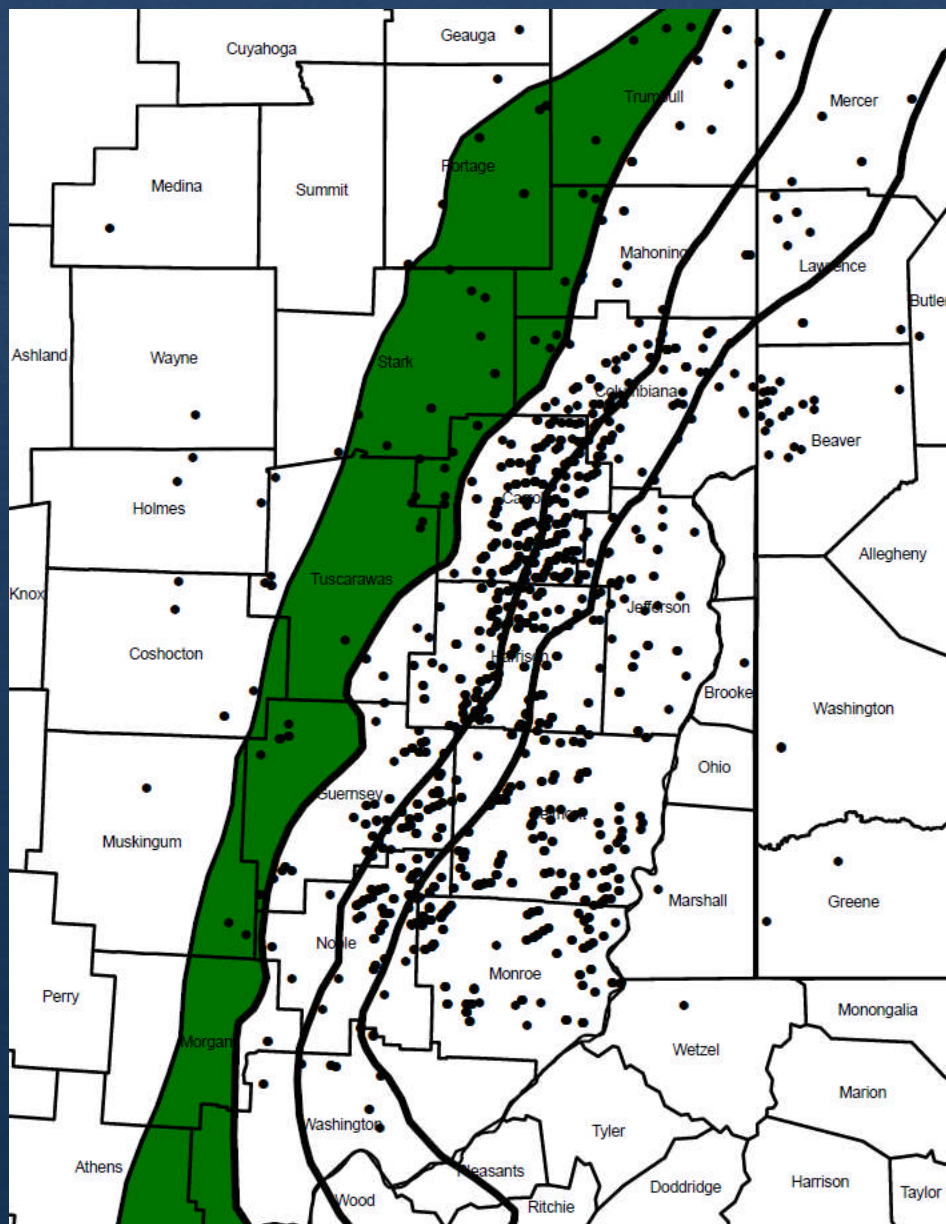


Well Counts by Status:

- Permitted = 30
- Drilling = 2
- Drilled = 11
- Producing = 14
- Total = 57

Data Sources: ODNr, Drilling Info,
Eclipse Resources

Oil Window

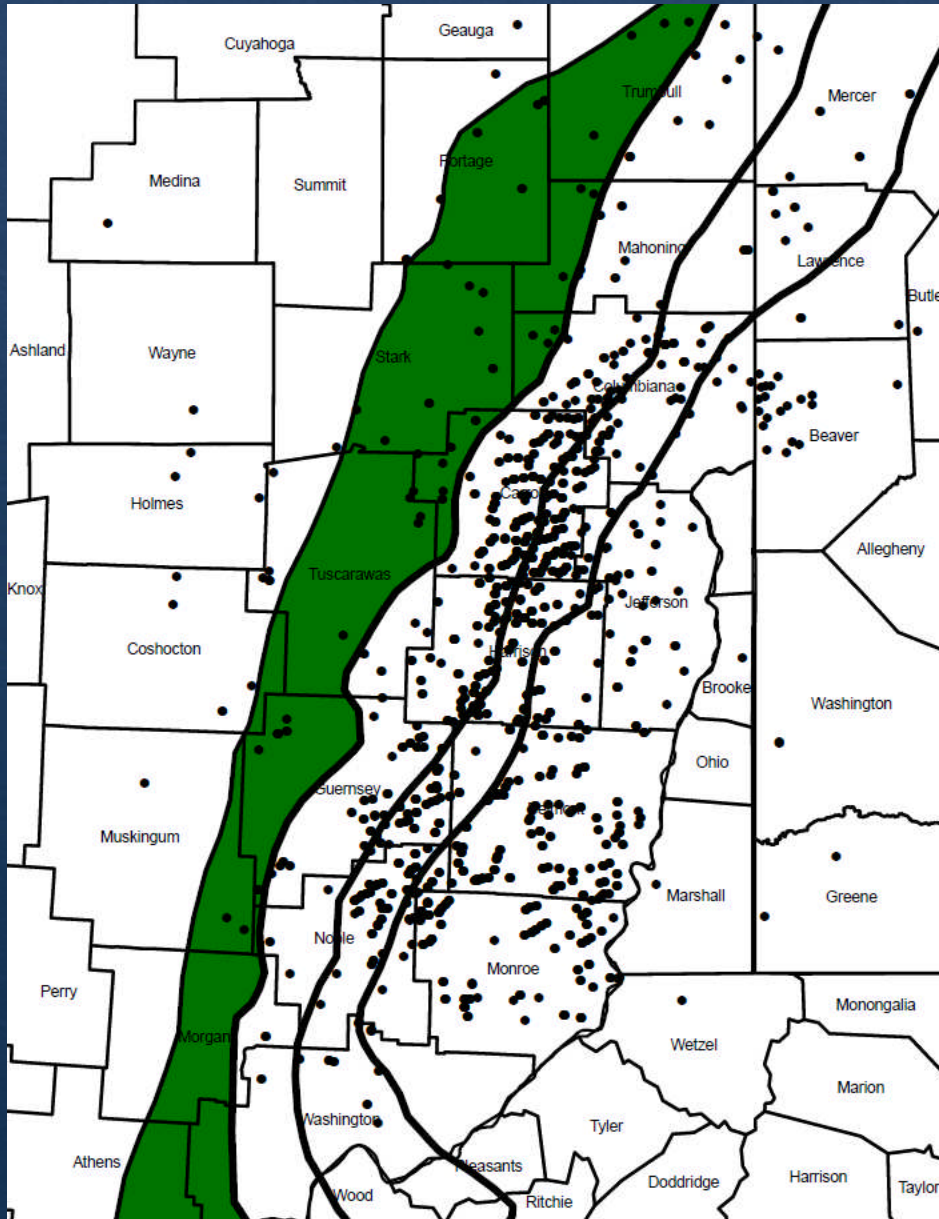


Most Active Operators:

- Permits = Chesapeake (16)
- Drilling = Halcon (1)
- Drilled = Chesapeake (7)
- Producing = Chesapeake (5)
- Total, All Operators = 57

Data Sources: ODNR, Drilling Info, Eclipse Resources

Oil Window



Average Well Performance:

- Gas EUR/1,000' = 0.20 Bcf
- Oil/Cond. Yield = 55 bbl/MMcf
- Lateral Length = 4,316 ft

Average Well Implied EURs:

- 0.86 Bcf Gas
- 47 Mbbbl Oil/Cond.

Decline Curve Parameters:

- b-factor, oil = 1.5
- D_{min} , oil = 6%
- b-factor, gas = 1.5
- D_{min} , gas = 5%
- Life = 50 years
- Public production data
- *Includes wells with very little production!*

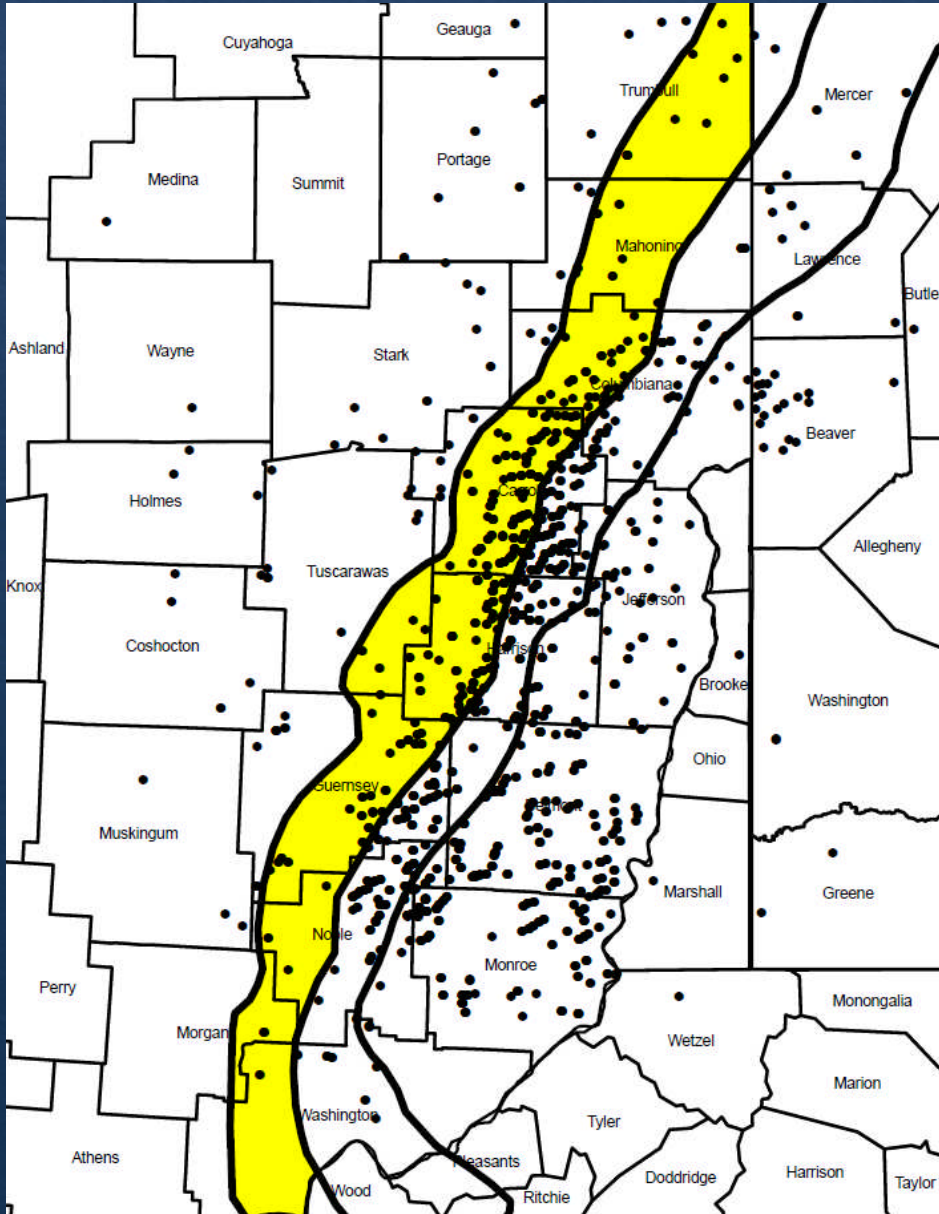
Data Sources: ODNR, Drilling Info, Eclipse Resources

A map of Ohio counties with a yellow highlighted area in the central-eastern part. The highlighted area includes parts of Cuyahoga, Geauga, Trumbull, Mahoning, Columbiana, Stark, Tuscarawas, Holmes, Coshocton, Muskingum, and Noble counties. Numerous black dots are scattered across the map, with a high concentration within the yellow highlighted area, representing sampling locations. Major roads are shown as black lines. County names are labeled throughout the map.

- Permitted = 88
- Drilling = 21
- Drilled = 73
- Producing = 414
- Total = 596

Data Sources: ODNr, Drilling Info, Eclipse Resources

Condensate Window

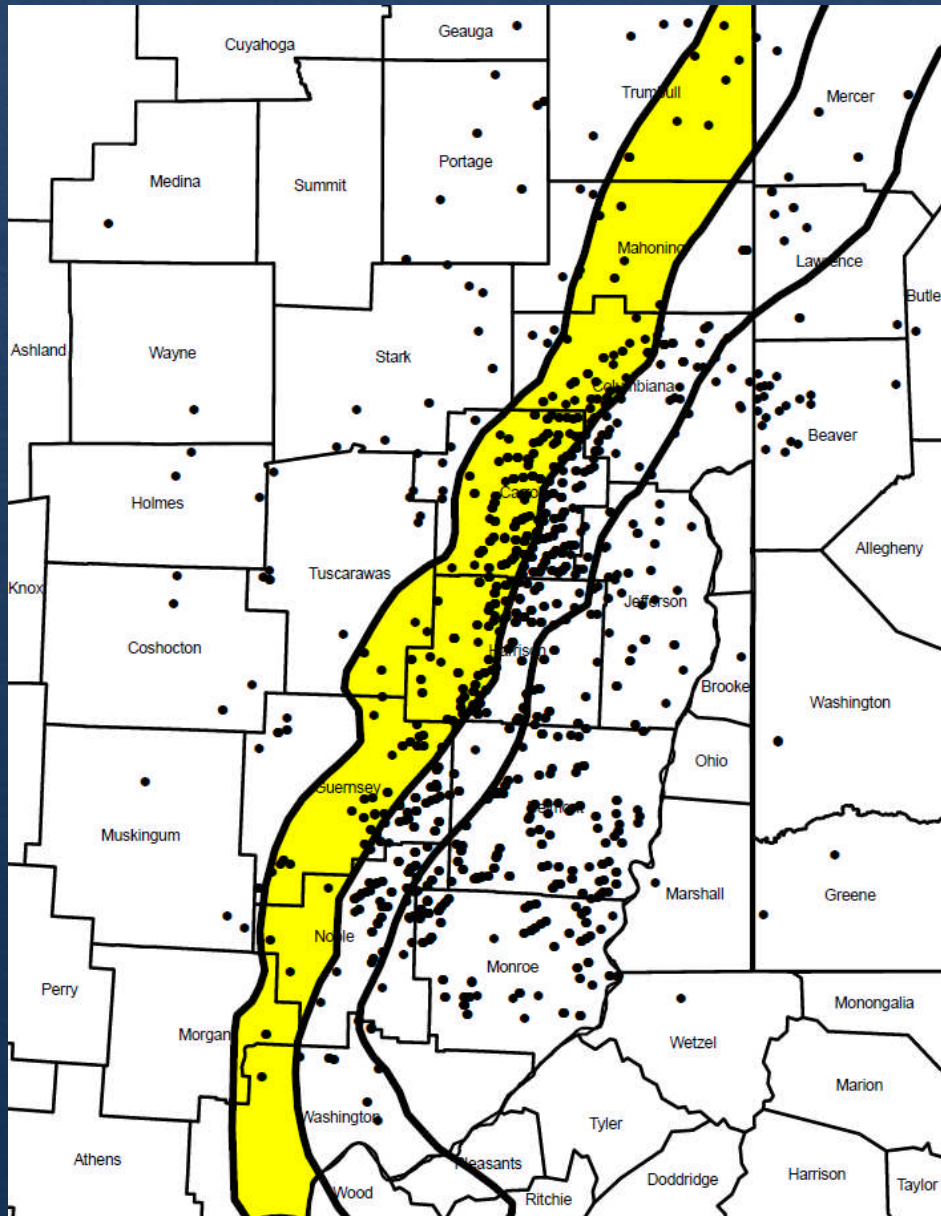


Most Active Operators:

- Permits = Chesapeake (42)
- Drilling = Ascent (12)
- Drilled = Chesapeake (40)
- Producing = Chesapeake (258)
- Total, All Operators = 596

Data Sources: ODNr, Drilling Info,
Eclipse Resources

Condensate Window



Average Well Performance:

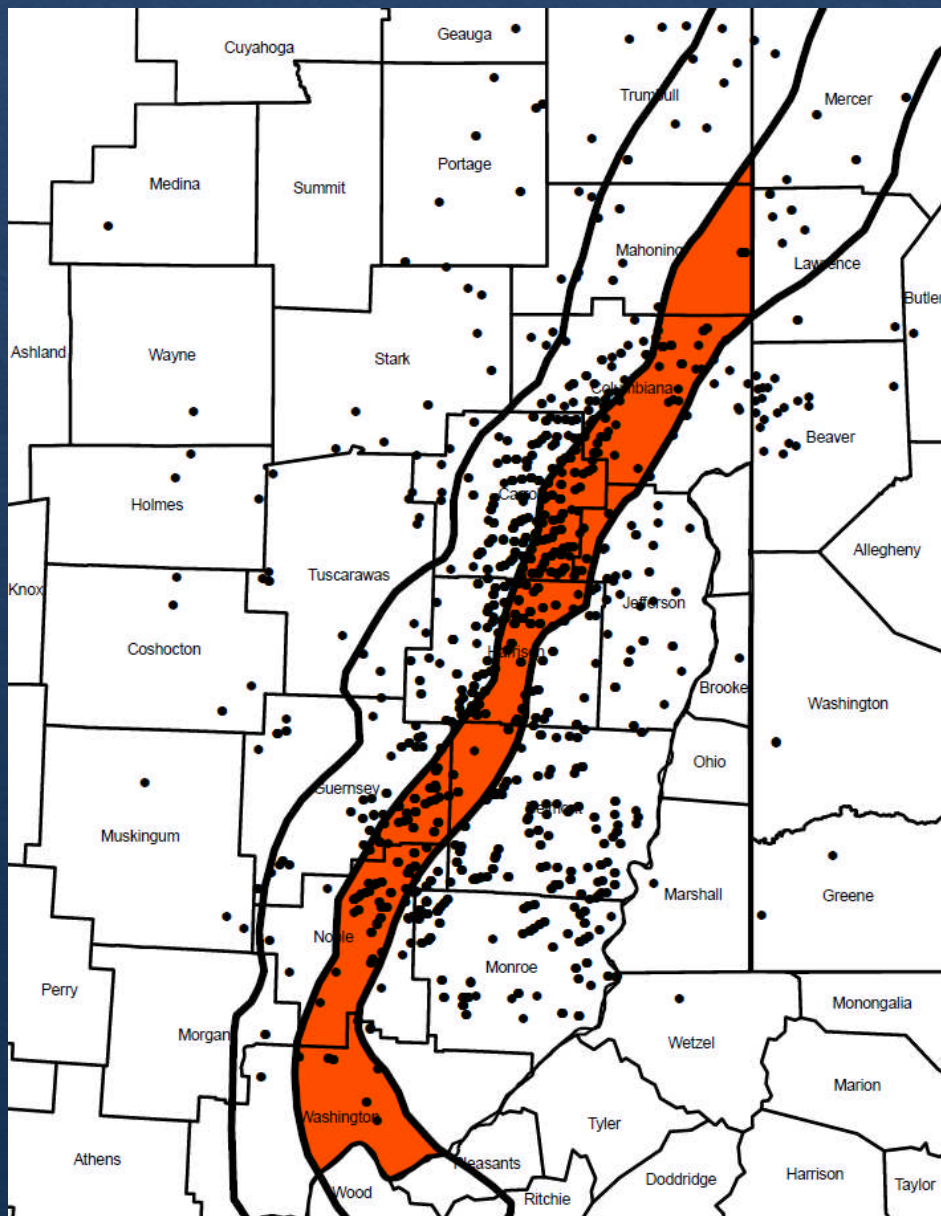
- Gas EUR/1,000' = 0.57 Bcf
- Oil/Cond. Yield = 71 bbl/MMcf
- Lateral Length = 5,807 ft

Average Well Implied EURs:

- 3.31 Bcf Gas
- 235 Mbbbl Oil/Cond.

Data Sources: ODNr, Drilling Info,
Eclipse Resources

Wet Gas Window

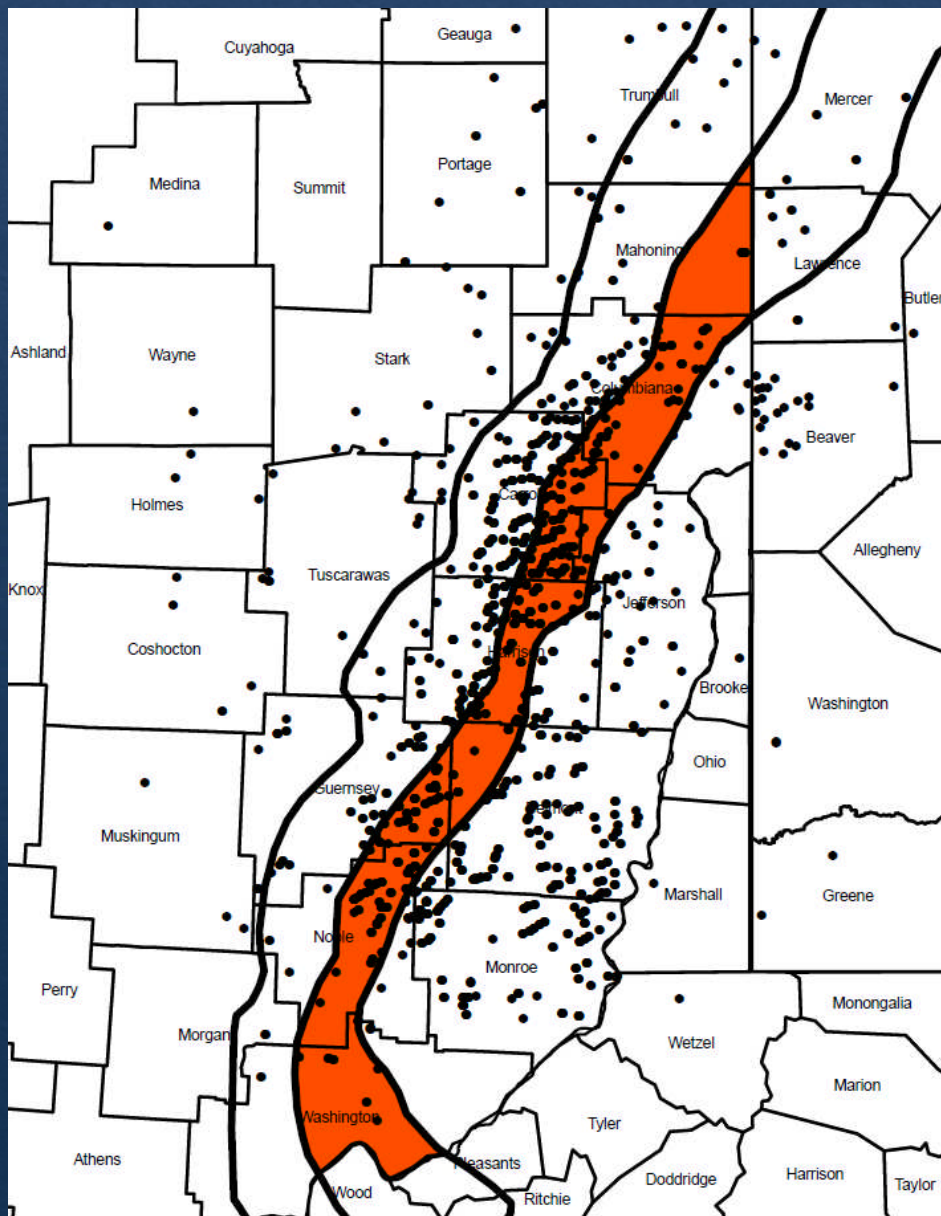


Well Counts by Status:

- Permitted = 119
- Drilling = 26
- Drilled = 61
- Producing = 512
- Total = 718

Data Sources: ODNR, Drilling Info, Eclipse Resources

Wet Gas Window

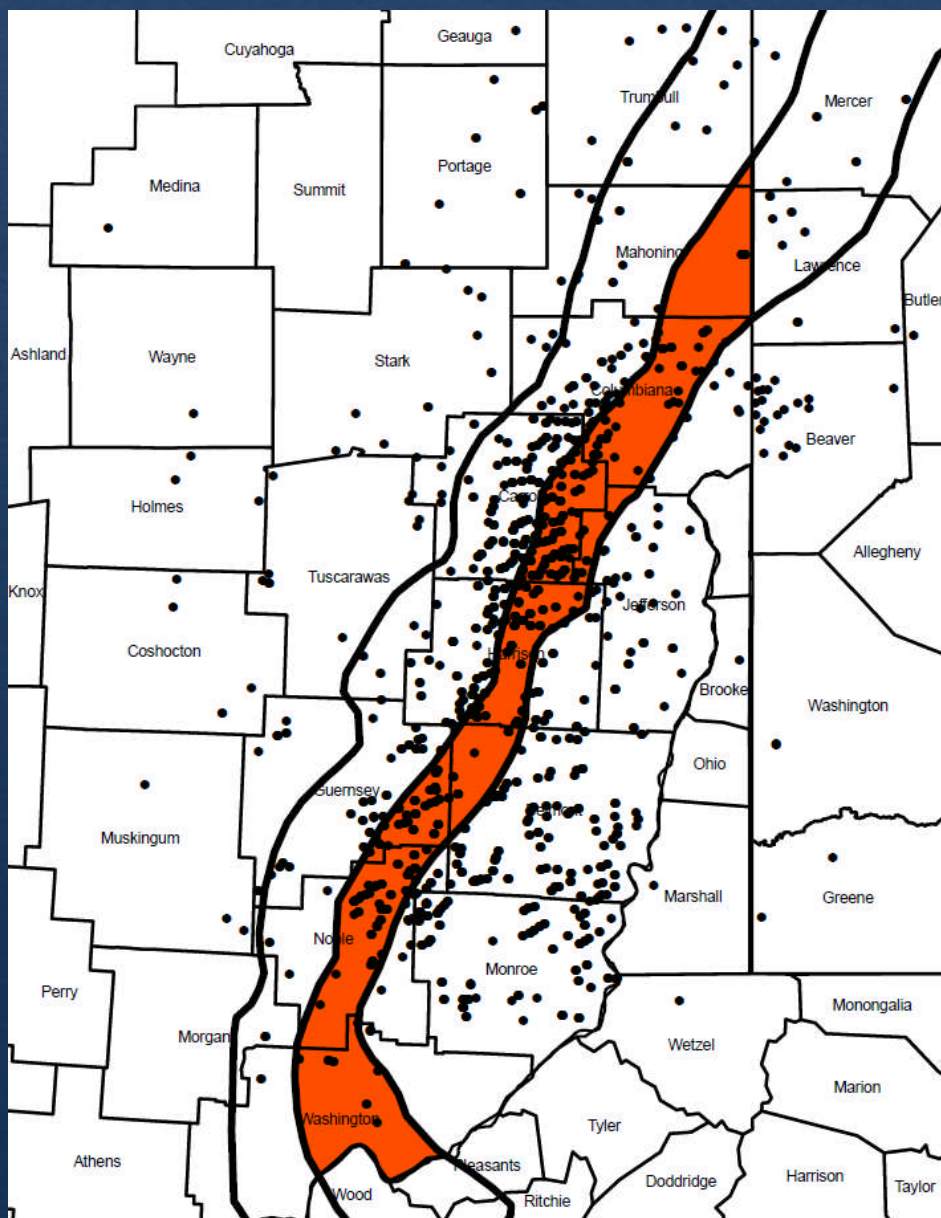


Most Active Operators:

- Permits = Chesapeake (31)
- Drilling = Eclipse (7)
- Drilled = Chesapeake (33)
- Producing = Chesapeake (301)
- Total, All Operators = 718

Data Sources: ODNR, Drilling Info,
Eclipse Resources

Wet Gas Window



Average Well Performance:

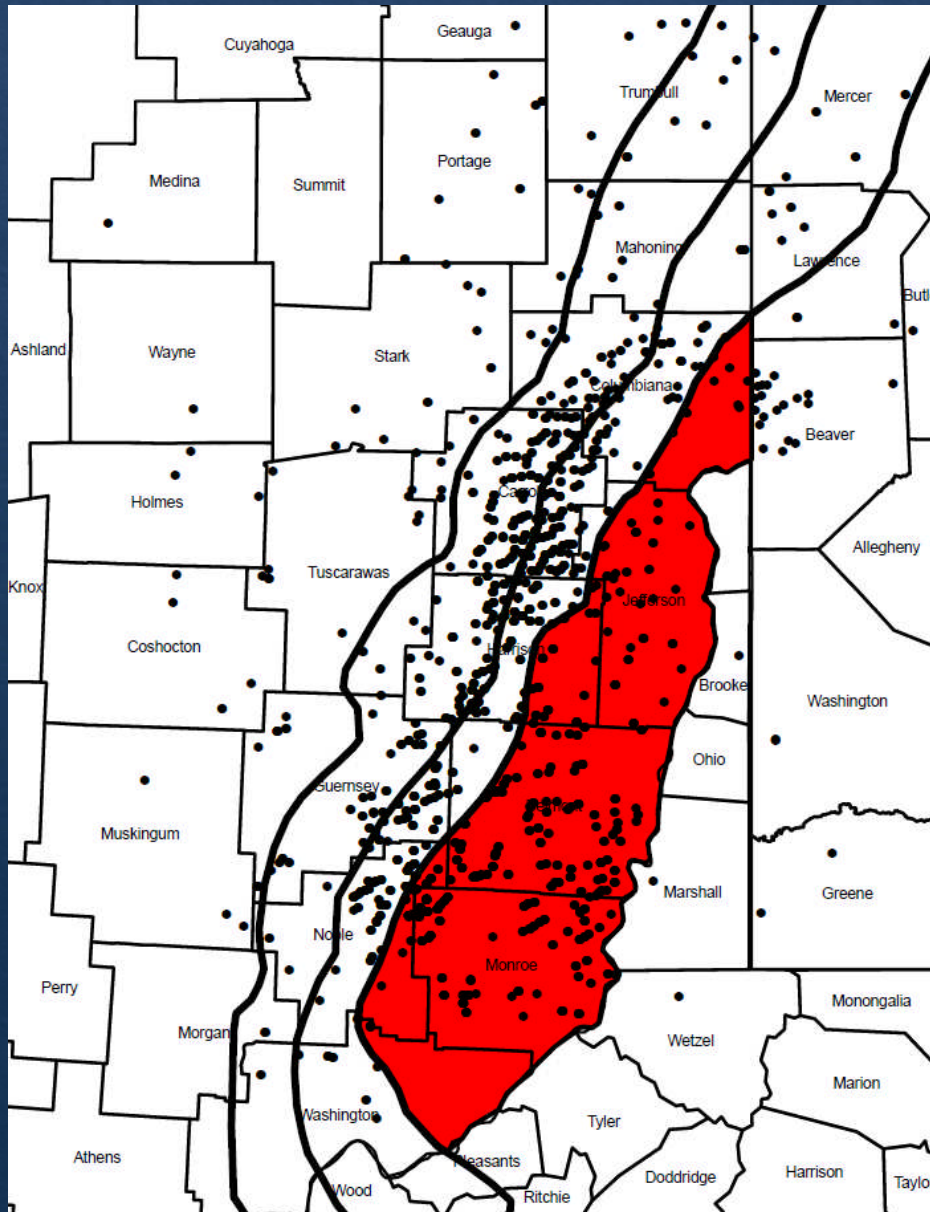
- Gas EUR/1,000' = 1.17 Bcf
- Oil/Cond. Yield = 21 bbl/MMcf
- Lateral Length = 6,047 ft

Average Well Implied EURs:

- 7.07 Bcf Gas
- 149 Mbb1 Oil/Cond.

Data Sources: ODNR, Drilling Info, Eclipse Resources

Dry Gas Window

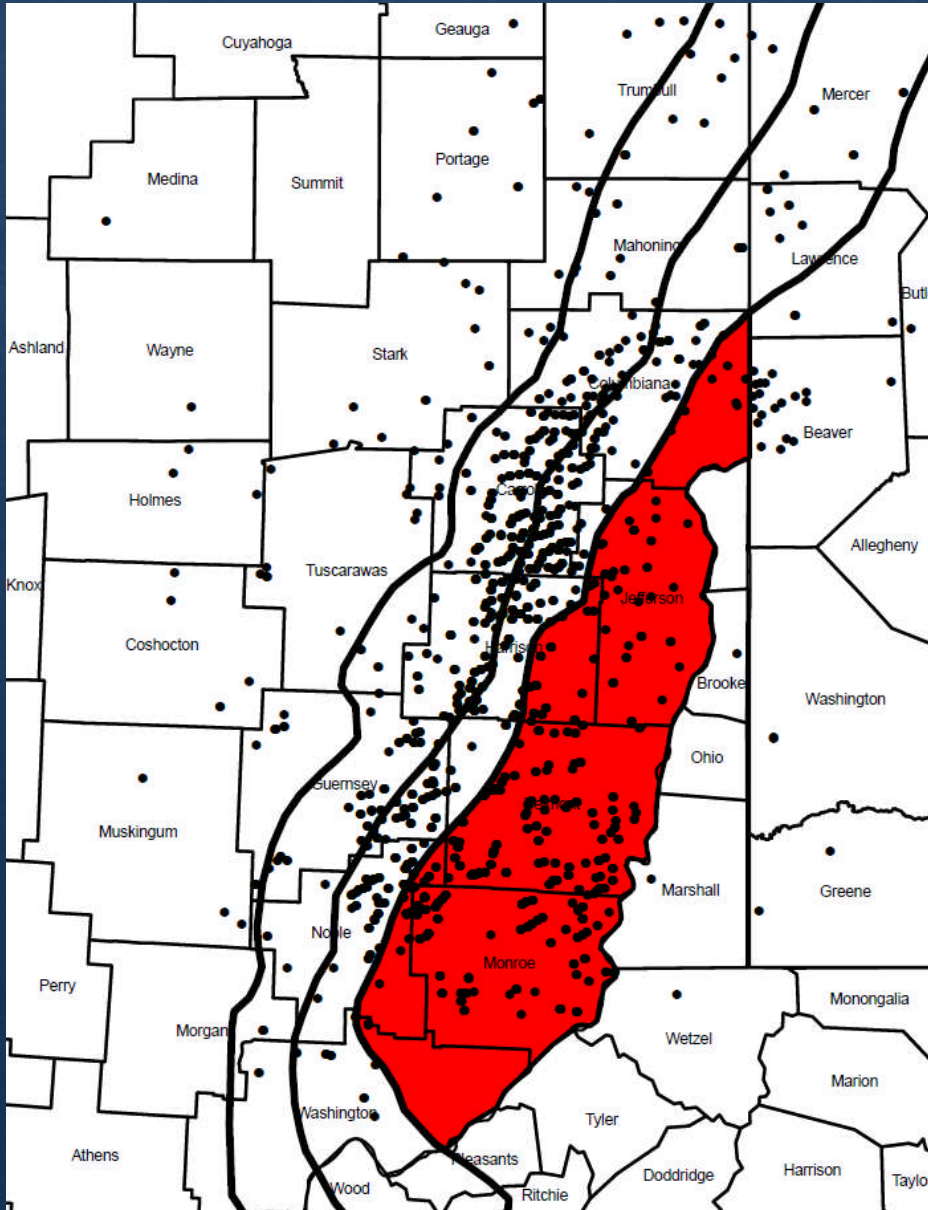


Well Count by Status:

- Permitted = 173
- Drilling = 71
- Drilled = 171
- Producing = 288
- Total = 703

Data Sources: ODNR, Drilling Info, Eclipse Resources

Dry Gas Window

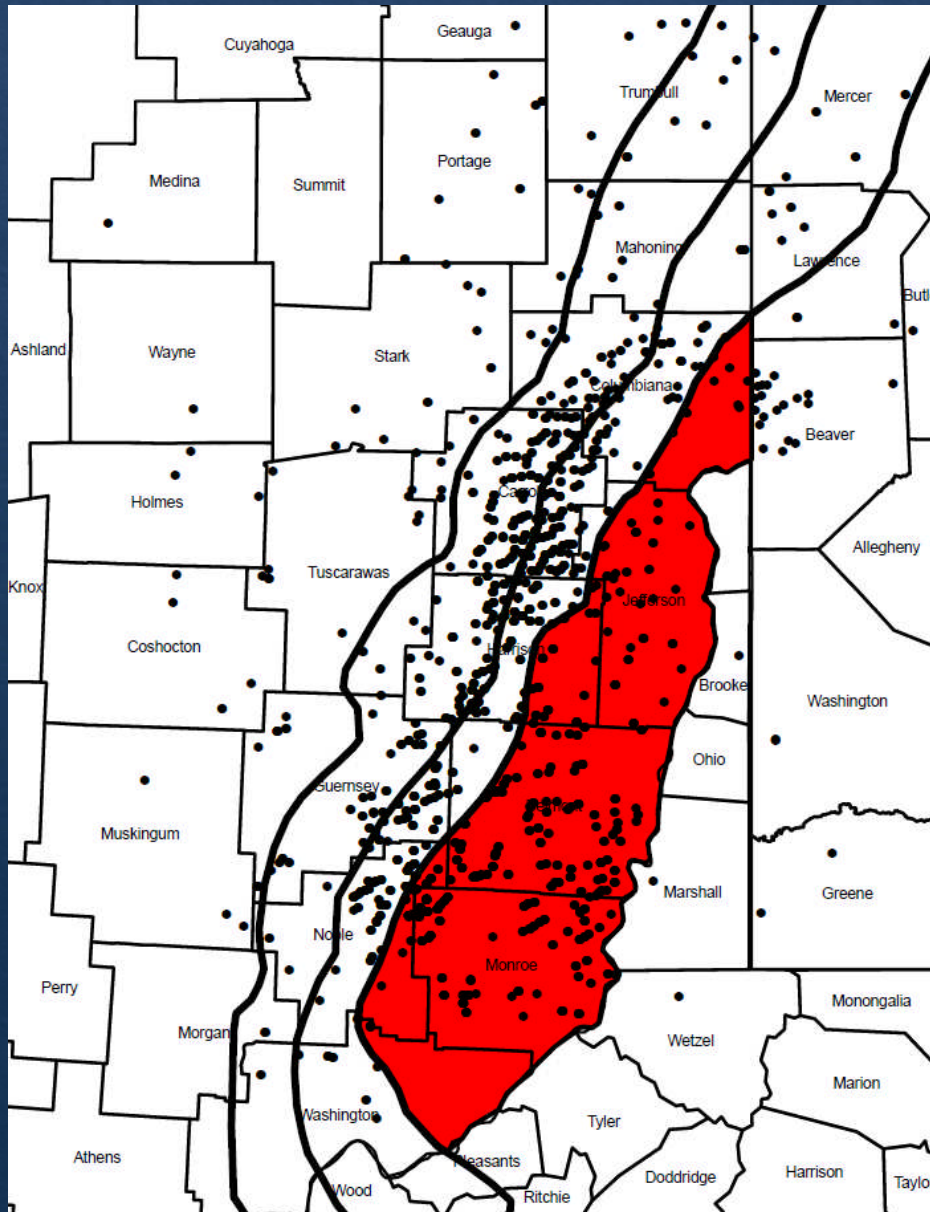


Most Active Operators:

- Permits = Gulfport (35)
- Drilling = Ascent (18)
- Drilled = Gulfport (35)
- Producing = Gulfport (116)
- Total, All Operators = 703

Data Sources: ODNr, Drilling Info, Eclipse Resources

Dry Gas Window



Average Well Performance:

- Gas EUR/1,000' = 2.13 Bcf
- Oil/Cond. Yield = N/A
- Lateral Length = 7,036 ft

Average Well Implied EURs:

- 14.99 Bcf Gas

Data Sources: ODNR, Drilling Info, Eclipse Resources

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Well Count by Window

WELL COUNT BY WINDOW BY STATUS - ODNR MARCH 5, 2016					Total
STATUS	OIL	CONDENSATE	WET GAS	DRY GAS	
Permitted	30	88	119	173	410
Drilling	2	21	26	71	120
Drilled	11	73	61	171	316
Producing	14	414	512	288	1228
Total	57	596	718	703	2074

Data Sources: ODNR, Drilling Info, Eclipse Resources

Well Count by Window

WELL COUNT BY WINDOW BY STATUS - ODNR MARCH 5, 2016					
STATUS	OIL	CONDENSATE	WET GAS	DRY GAS	Total
Permitted	30	88	119	173	410
Drilling	2	21	26	71	120
Drilled	11	73	61	171	316
Producing	14	414	512	288	1228
Total	57	596	718	703	2074

Past Activity

Present/Near-Future
Activity

Data Sources: ODNR, Drilling Info, Eclipse Resources

Most Active Operators by Window

MOST ACTIVE OPERATORS BY WINDOW BY STATUS - ODNR MARCH 5, 2016				
STATUS	OIL	CONDENSATE	WET GAS	DRY GAS
Permitted	Chesapeake (16)	Chesapeake (42)	Chesapeake (31)	Gulfport (35)
Drilling	Halcon (1)	Ascent (12)	Eclipse (7)	Ascent (18)
Drilled	Chesapeake (7)	Chesapeake (40)	Chesapeake (33)	Gulfport (35)
Producing	Chesapeake (5)	Chesapeake (258)	Chesapeake (301)	Gulfport (116)

Data Sources: ODNR, Drilling Info, Eclipse Resources

Average Well Performance by Window

AVERAGE WELL PERFORMANCE SUMMARY BY WINDOW				
STATUS	OIL	CONDENSATE	WET GAS	DRY GAS
Gas EUR/1,000' (Bcf)	0.2	0.57	1.17	2.13
Oil/Cond. Yield (bbl/MMcf)	55	71	21	N/A
Effective Lateral Length (feet)	4,316	5,807	6,047	7,036
Avg. Well Implied Gas EUR (Bcf)	0.86	3.31	7.07	14.99
Avg. Well Implied Oil/Cond. EUR (Mbbl)	47	235	149	N/A
Avg. Well Implied EUR-equiv (Bcfe), Pre-Processing	1.14	4.72	7.96	14.99
Avg. Well Implied Bcfe/1,000', Pre-Processing	0.26	0.81	1.32	2.13
Average Completion Date	5/4/2012	10/5/2013	11/10/2013	6/12/2014

Bigger EURs over time...geology, learning curve, or both?

- Remember: These metrics include certain wells with very little production data
- No discrimination between different well “vintages”
- No discernment of important geological factors

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