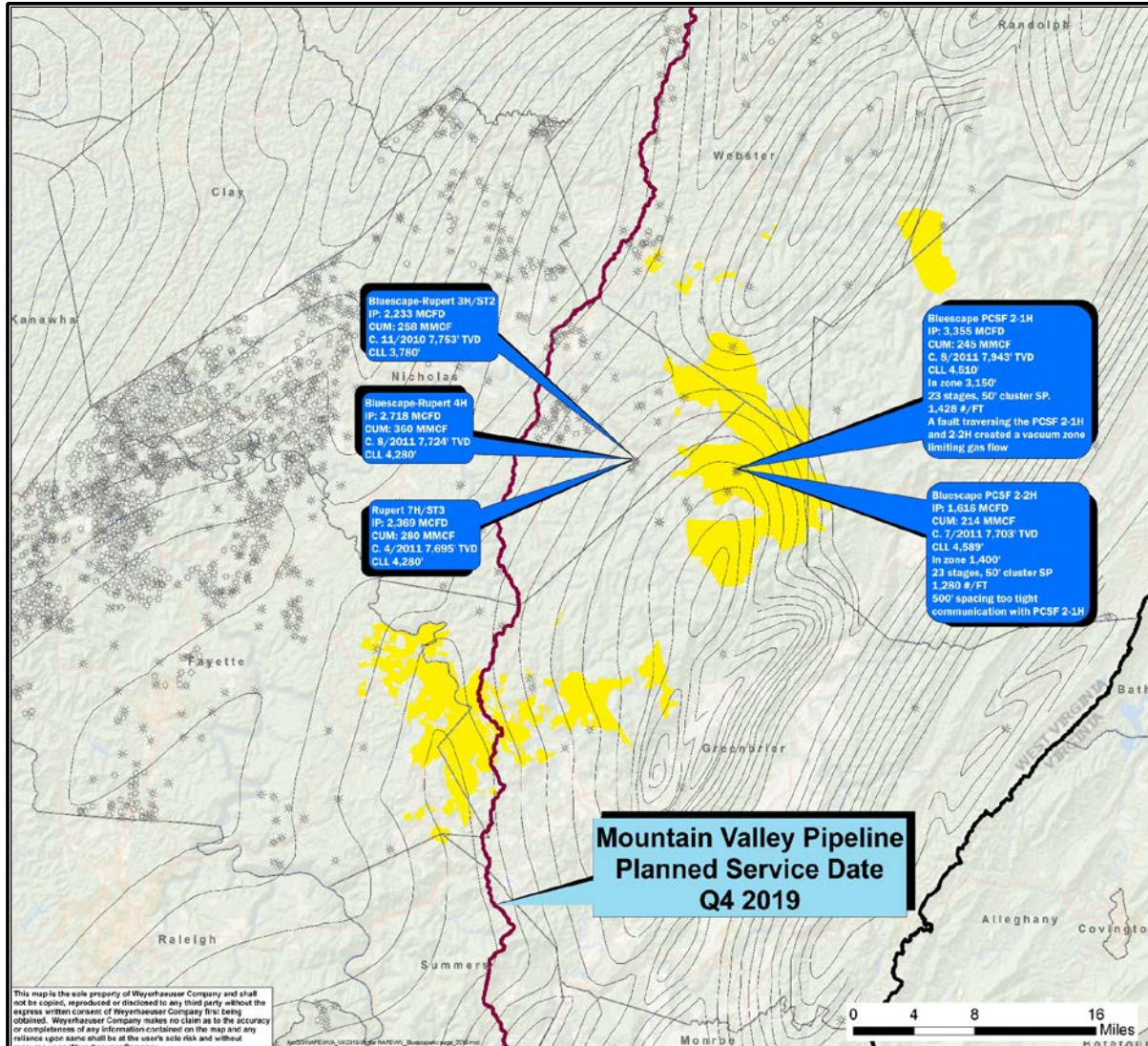


Marcellus Shale Trend Acreage Greenbrier, Fayette, Nicholas & Webster Counties, WV 112,000 gross acres



Soliciting offers at Market Rates

Technical Presentation Available Upon Request



This information is not intended to be and should not be interpreted to be an exclusive offer to your company. Unless and until an Agreement or binding letter of intent has been executed between your company and Weyerhaeuser, neither your company nor Weyerhaeuser will be under any legal obligation whatsoever to conclude a transaction. Weyerhaeuser reserves the right, at its sole discretion, to reject any and all offers and to terminate discussions concerning a potential transaction at any time without liability or obligation of any nature whatsoever.

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Executive Summary: Marcellus Shale Trend Acreage, West Virginia

- Play Concept:** Marcellus Shale
- Drill Depth:** 7,000' – 8,500' MD
- Reservoir:** Normally pressured, organic-rich shale
- Pay Thickness:** Potential productive interval ranges from 50' – 100' thick

Geologic Overview:

The Marcellus Shale was deposited in the central to northeastern portion of the Appalachian Basin as the earliest sediments to be shed from the rising Acadian Orogenic Belt (Catskill Delta System) into the deeper portions of the co-existing foreland basin. There is a broad, foreland basin associated with the convergent plate margin of the Acadian Orogenic Belt; the foredeep ramp extended across Pennsylvania to present day Ohio and the basin trends NE - SW. The Marcellus Shale was deposited in a distal basinal setting; water depths estimated between 150' to > 500' deep. Anoxic conditions prevailed during deposition of much of Marcellus Shale, resulting in preservation of organic material.

Marcellus subsea depth on Weyerhaeuser's acreage ranges from 4,000' to 5,500'; the Marcellus thickness is 50' – 100' with lower Marcellus average thickness of 30' - 70' comparable to core Antero acreage to the north.

Thermal maturity increases from west to east across the West Virginia Marcellus, with some areas having vitrinite reflectance greater than 2.0%. Weyerhaeuser's core acreage has vitrinite reflectance ranging from 1.8% to 2.2% and the dry gas window. XRD and RockEval analysis shows TOC is 20% of bulk volume suggesting a very rich source rock with significant gas generation. Gas in place estimates are 30-40 BCF/section. Average matrix porosity ranges from 7% to 9% with relatively low formation water saturation of 25%. Marcellus clay content is low (15-25%) with 45-65% quartz and carbonates which is favorable for hydraulic fracturing.

Geologic Overview, continued:

Weyerhaeuser has 56,000 net mineral acres available for lease (50% undivided interest in 112,000 gross acres). Based on publicly available well results, expected EURs are 1.4 BCF per 1,000' completed lateral. BRC horizontal well tests of the Marcellus on the Weyerhaeuser mineral block have resulted in IP rates of 2–3 MMCFGD.

In addition to the Marcellus Shale, development of shallow objectives has occurred throughout West Virginia, largely via vertical drilling programs; prospective targets to date include the Big Injun, Berea, Pocono, Big Lime, Upper Devonian (Rhinstreet), Gordon, Fifth Sand, Big Injun, and others.

Transportation Update:

The Mountain Valley Pipeline project is a 303 mile pipeline from Wetzel County, WV that will deliver into the Transcontinental Gas Pipeline compressor station 165 in Pittsylvania County, Virginia. The 42 inch pipeline is expected to have a firm capacity of Two Bcf per day and is currently under construction. The pipeline passes within 5 miles of the available acreage and reduces significant midstream costs in the area. As of year end 2018 the pipeline is 70% completed and expected to be completed for full in-service in 4Q 2019.

