Haynesville Shale Gas—Why is it Better than the Barnett?

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ABSTRACT

The Lower Bossier/Haynesville Formation is arguably the hottest unconventional play in North America. Leasing has been frantic and over the next several years hundreds of wells will be drilled into the “Haynesville Shale.” Recent Haynesville wells have initial production rates in excess of 20 million cubic feet per day, and estimates of 20 trillion cubic feet have been recently attributed to the play.

The tremendous production rates of some early wells are no doubt related to the higher formation pressures observed within the Haynesville section. Typical Barnett downhole pressures are +/- 0.45 psi/ft, while Haynesville sections often exceed 0.9 psi/ft.

Contributing to the increased pressures in the Haynesville are in situ gas cracking and superior seal capacity. Importantly, each can be identified with mud gas isotope geochemistry. Based on these analyses, this presentation will submit evidence documenting the effective seal capacity in both the Barnett and the Haynesville, and present multiple data examples verifying gas cracking in each system. Estimates will be offered concerning the regional importance of these findings to both the Haynesville and Barnett plays.