

# **ANALYSIS OF ENHANCED COALBED METHANE RECOVERY THROUGH CARBON SEQUESTRATION IN THE CENTRAL APPALACHIAN BASIN**

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## **Abstract**

*Unmineable coal seams present an opportunity to sequester carbon dioxide emissions from power plants, while enhancing the recovery of coalbed methane. Injected carbon dioxide is adsorbed and stored on the coal surface while releasing methane that can be commercially recovered. Carbon sequestration, therefore, allows the utilization of unexploited mineral resources while reducing “greenhouse” gas emissions. This paper presents the feasibility, efficiency and enhanced recovery potential of coalbed methane production using carbon dioxide sequestration in the Central Appalachian Basin. The focus of research is on geological characterization of unmineable coal seams in Central Appalachia and the corresponding carbon dioxide storage capacity. Virginia Tech and Marshall Miller & Associates, Inc. conducted this research under the Department of Energy’s Southeast Regional Carbon Sequestration Partnership program.*