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## **Refining the Tactics: Current Approaches to Exploration and Development of Shale Plays in the U.S.**

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This presentation reviews the latest approaches used by operators to determine the extent of prospectivity and producibility of different plays, and it examines techniques used to identify the limits of oil and gas production. Included will be new findings with respect to gas sorption, nano-geomechanics, geochemistry, and more to determine how, when, and why gas is generated and how it travels (effective porosity, reservoir connectivity and conductivity). We will look at fracture typing approaches, as well as porosity typing, as we look at current approaches to reservoir characterization. The presentation looks at drilling in terms of lengths of laterals, approaches used to stay in the zone while geosteering, and other ways to optimize the actually drilling. Case studies involving completions will be evaluated to review the latest approaches to well spacing, fracture cluster spacing, proppant selection, rock-fluid interactions. Finally, we will end with a review of how companies are addressing decline curves and their strategies for optimizing production.

