

### **Mount Elbert Gas Hydrate Stratigraphic Test Well Results and Implications, Milne Point Unit, Alaska North Slope**

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The Mount Elbert Gas Hydrate Stratigraphic Test Well was drilled within the Alaska North Slope (ANS) Milne Point Unit (MPU) from February 3 to 19, 2007. The well was conducted as part of a Cooperative Research Agreement project co-sponsored since 2001 by BP Exploration (Alaska), Inc. (BPXA) and the U.S. Department of Energy (DOE) in collaboration with the U.S. Geological Survey (USGS). Reservoir characterization and reservoir production modeling studies indicated that up to 0.34 trillion cubic meters (TCM; 12 trillion cubic feet, TCF) gas may be technically recoverable from up to 0.92 TCM (33 TCF) gas in place within the Alaska North Slope (ANS) Eileen gas hydrate accumulation near oil field development infrastructure. USGS reprocessing and analyses of Milne Point Unit (MPU) 3D seismic data, provided by BPXA, delineated 14 prospects interpreted to contain significant, highly saturated gas hydrate bearing reservoirs. The "Mount Elbert" prospect was selected to drill a stratigraphic test well to obtain wireline log, core, and formation pressure test data. Drilling results and acquired data confirmed predictions and thus increased confidence in ANS gas hydrate resource estimates. Data interpretation provided insight into key gas hydrate-bearing reservoir properties, improved numerical simulation of production potential of gas hydrate resources, and helped determine viability of sites for potential future extended term production testing. Drilling and data acquisition operations demonstrated that gas hydrate scientific research programs can be safely and efficiently conducted within ANS infrastructure. Program success resulted in a technical team recommendation to project management to drill and complete a long term production test. If approved by stakeholders, this long term test would build on prior arctic research efforts to better constrain the potential gas rates and volumes that might be produced from gas hydrate bearing sand reservoirs.