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#### **Overview of Scientific Studies Conducted as Part of the 2002 Mallik Gas Hydrate Production Research Well Program**

Beginning in December 2001, and continuing to the middle of March 2002, a gas hydrate production research well program was carried out at the Mallik gas hydrate field in Mackenzie Delta, N.W.T., Canada. The program included drilling of an 1166 m deep main production research well and two nearby science observation wells. The activities were undertaken as collaboration between eight partners from Japan, Germany, USA, India and Canada and the research has been accepted as part of the International Scientific Continental Drilling Program. The Geological Survey of Canada is coordinating the scientific studies for the project and Japex Canada Ltd. acted as the designated operator for the fieldwork. Primary objectives of the research program were to advance fundamental geological, geophysical and geochemical studies of the Mallik gas hydrate field and to undertake advanced production testing of a concentrated gas hydrate reservoir. Full-scale field experiments monitored the physical behavior of the hydrate deposits in response to depressurization and thermal stimulation. The observation wells facilitated cross-hole tomography and vertical seismic profile experiments (before and after production) as well as the measurement of in situ formation conditions. A wide-ranging science and engineering research program included the collection of gas-hydrate-bearing core samples and downhole geophysical logging. Laboratory and modeling studies undertaken during the field program, and subsequently as part of a post-field research program, will document the sedimentology, physical/petrophysical properties, geochemistry, geophysics, reservoir characteristics and production behavior of the Mallik gas hydrate accumulation.