## **GSE/CSCE - Dinner Presentation - February 20,** 2002

TOPIC: THE TIBBITT-CONTWOYTO WINTER ROAD - A VITAL SUPPLY ROUTE FOR CANADA'S DIAMOND AND MINING INDUSTRY

PRESENTATION BY: Don Hayley, P.Eng., FEIC Principal Engineer, EBA Engineering Consultants Ltd.

Canada celebrates the 10th anniversary of the discovery of diamonds in the Northwest Territories this year. Diamond mining started with EKATI mine in 1997, there is a second mine in the advanced stages of construction and another two in the permitting stages. All of these working and developing mines are dependent on a single winter road transportation system originally developed some 20 years ago for the Lupin Gold Mine at Contwoyto Lake, 500 Km Northeast of Yellowknife in the very heart of Canada's arctic tundra. Dramatic changes have been necessary to accommodate heavy traffic over 64 lake ice crossings and their associated portages. Traffic frequency has increased exponentially over the past 4 years, peaking at just over 8000 heavy-haul loads during the 2001 winter season. EBA was retained by the Winter Road Joint Venture Operators to carry out an assessment of past and current practices of road development and operations in order to help manage anticipated future traffic and prepare for renewal of Land Use Permits. The evaluation was far ranging, including documentation of current practices in ice road operations to setting up a GIS-based environmental management system. This presentation describes this project with particular emphasis on an examination of current and future guidelines for safe transportation operations over lake ice.

Don Hayley is Principal Engineer for EBA's Arctic Engineering and Environmental Practice. He is a geotechnical engineer with more than 30 years of applied experience in arctic regions. He has directed EBA's activities associated with development of the EKATI mine for BHP Billiton Diamonds Inc. and has been particularly involved in activities related to construction on permafrost and regulatory support for permitting new developments. Don has been Chair of the Canadian National Committee for the International Permafrost Association and Chaired the Organizing Committee for the last International Conference on Permafrost in Yellowknife. He is an early partner in EBA and spent many years in Edmonton before moving to British Columbia in 1997.

Venue: University of Alberta Faculty Club, 11435 Saskatchewan Drive, Parking (Lot V) access through 116 Street, Upstairs at Papaschase Room

Time: Cocktail & Registration at 5:30 pm, Dinner at 6:30 pm, Presentation at 7:30 pm, Closing Remarks at 8:30 pm

Date: Wednesday, February 20, 2002

Cost: GSE Members \$ 20; Students \$ 10, Non Members \$ 30