



*The BRACE CENTRE FOR WATER RESOURCES MANAGEMENT*

## **Prof. Jacob Masliyah**

Distinguished University Professor Emeritus and  
former NSERC Industrial Research Chair in Oil Sands Engineering  
University of Alberta

# **RESEARCH OPPORTUNITIES AND CHALLENGES IN BITUMEN PRODUCTION FROM ATHABASCA OIL SANDS**

Canadian oil sands are unconsolidated sand deposits that are impregnated with heavy, viscous petroleum, referred to as bitumen. The total bitumen in place that can be recovered with today's technology is 170 million barrels and is clearly massive by world standards. Water use, waste products, air emissions and land disturbance impose critical challenges for oil sands sustainability.

Bitumen production using water extraction processes involves bitumen liberation from the sand grains and air-bitumen attachment for subsequent flotation and recovery. A discussion of bitumen production will be given and the role of fundamental science in elucidating bitumen recovery will be discussed in detail.

Dr. Jacob Masliyah obtained his undergraduate degree in Chemical Engineering from University College London and his doctorate from the University of British Columbia. He joined the University of Alberta in 1977. With the support of Syncrude, he established in 1996 an industrial chair in Oil Sands Engineering and in 2008 he stepped down from the chair to focus more on industrial workshops and training in oil sands. He published over 330 refereed journal articles. Presently, he is Distinguished University Professor Emeritus at the University of Alberta. He is a fellow of the Royal Society of Canada and the Canadian Academy of Engineering. In 2008, he was inducted an Officer of the Order of Canada which is the country's highest civilian honour for his work in oil sands.

**Wednesday, November 17<sup>th</sup>, 2010**

McGill Downtown Campus, Macdonald Engineering Building, Room MD497

11:00 am - 12:00 pm

**EVERYONE WELCOME**