



Chemical Engineering & Applied Chemistry  
UNIVERSITY OF TORONTO



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TORONTO

Civil + Mineral Engineering

## SPECIAL SEMINAR

### Dr. GARY WEALTHALL, MSc, PhD

*Senior Principal, Geosyntec Consultants, Inc., a 1200 person professional services firm specializing in environmental science, and environmental and geotechnical engineering.*

## A Scientific Odyssey

Dr. Wealthall's career reads like an odyssey, as he steps through geologic time, from following in the footsteps of Lawrence of Arabia while surveying lower Paleozoic sandstones in the desert of southern Jordan, traversing the silk routes of Kyrgyzstan to assess the environmental impacts of uranium mineralization and mining, to the assessing environmental impacts of the industrial revolution to the Anthropocene, our most recent geologic epoch. The metronome throughout his career has been applied research in the hydrogeological sciences, with a specific interest in the remediation of contaminated soil and groundwater.

This seminar presents advances in contaminant hydrogeology by reference to case studies of i) petroleum hydrocarbon impacts to the Cretaceous age Chalk aquifer from a MTBE-amended gasoline release southern England, UK, and ii) coal tar NAPL impacts to Quaternary age sediments from a former MGP site in Brooklyn, New York, USA. The case studies examine contrasting contaminants and hydrogeological settings, but share a common theme, which is the application of process-based research and the analysis of multiple lines of evidence to delineate contaminants and guide remedy selection, design and implementation.

The final chapter in Dr. Wealthall's odyssey discusses the transition from academia in the UK to a research-led consulting firm in Canada, and the opportunities this has presented for academic partnerships, delivery of advanced training courses, and publication of peer-reviewed manuscripts and best practice guidance documents.

**Monday, May 15, 2015 at 11:10 AM**

**Room 407, Wallberg Building, 200 College Street**