

## **ENI AWARD 2012**

*Environmental Protection Prize*

*Winner*

### **Barbara Sherwood Lollar**

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She obtained her Bachelor's at Harvard University in 1985 and her PhD degree at the University of Waterloo in 1990. After completing a Postdoctoral Fellowship at University of Cambridge, UK, she joined the University of Toronto in 1992.

Professor Sherwood Lollar is a world leader in the innovative use of compound specific stable isotope techniques, aimed to track the source and fate of organic contaminants in groundwater, and to investigate the source and fate of CO<sub>2</sub> in sedimentary basins and natural carbon sequestration analog settings. In this area of her research, the Sherwood Lollar's group collaborates extensively with industrial partners, consultants and regulators in both Canada and the United States. Her work also addresses the identification of subsurface gases, such as methane and hydrogen, in deep (2-3 km) groundwater in the oldest rocks on Earth and biogeochemical cycling by deep subsurface microbial communities. Professor Sherwood Lollar has won many prizes, invited lectures and research grants: among them the Darcy Distinguished Lecture Series, the Natural Sciences and Engineering Council of Canada Steacie Fellowship and Accelerator Award, and the Canada Council Killam Fellowship. The outstanding level of her work was recognized by many industrial partnerships and input on water quality issues, contamination of groundwater resources and carbon capture and storage issues given to regulatory agencies in Canada, the United States (EPA, DOE) and abroad, like the International Atomic Energy Agency. Barbara Sherwood Lollar has published more than 100 peer-reviewed articles, two of which have been featured on the cover of Nature in 2002 and 2009. She has lectured in academic settings, public lectures and policy workshops for regulators and legislators; including Harvard University, Stanford University, Carnegie Institute of Washington, Notre Dame, NASA, UNESCO, the International Atomic Energy

Agency (IAEA) and participated in the Bacon & Eggheads public lecture series for Members of Canadian Parliament and Senators.

Professor Sherwood Lollar is the Editor of one of the most successful volumes (Vol. 9 Environmental Geochemistry) in the award-winning major reference work *Treatise on Geochemistry*, published by Elsevier in 2003; she is also an Editor-in-Chief for Chemical Geology and Vice-President (2012-2014) of the Geochemical Society. She serves as a Council member for the Natural Sciences and Engineering Research Council of Canada (NSERC) from 2003 to 2013, as Chair of the NSERC Research Grants and Scholarships Committee from 2008 to 2010 and on the Executive Committee for the Sloan Foundation – Carnegie Institute of Washington Deep Carbon Observatory. She had been a member of the Governing Council of the University of Toronto, on Executive Board between 2005 and 2007, and of the Board of Directors for the Center for Environmental Science and Technology at Notre Dame University from 2003 to 2006. From 2006 to 2009, she served on advisory committees for the Canadian Space Agency, working for the Canadian Mining Industry Research Organization (CAMIRO) from 2006 to 2010, and for the U. S. National Academy of Sciences Space Studies COEL Committee between 2005 and 2011. She is a member of the Board of Trustees of the Ontario Science Centre (2007-2013).

Based on her research on environmental quality, in 2000 Time Magazine described Barbara Sherwood Lollar as one of 25 “Leaders for the 21<sup>st</sup> Century”.