

Focused on sustainability

by Joy Gregory

With a job that takes her from the oilsands of northern Alberta to the European laboratories of Royal Dutch Shell and the classrooms of the University of Calgary campus, Lorraine Whale's professional career personifies the contemporary realities of the global energy business.



Photo by Shannon Oatway

Factor in a variety of professional board memberships that include chairing a research and technology alliance and a national safety task force and you get an even sharper picture of an engineer whose life's work is focused on the challenges of a single industry. And make no mistake. Whale spends a good deal of time thinking about what she does. But she also knows why she does it – and why her commitment to the future demands so much attention today.

“We are incredibly lucky in this country to have what we have in terms of natural resources. With conventional energy sources running low, everybody is now looking at us because we have non-conventional sources. We have to develop them – and we have to develop them in a sustainable manner.” A fellow of ISEEE and a 24-year veteran of Shell Canada Limited, Whale currently manages that company's In Situ Oilsands Research program. She is justifiably proud of Shell's continuous commitment to research and innovation, including its role as the founding industry member of the Alberta Ingenuity Centre for In Situ Energy, an initiative that includes ISEEE, Alberta Ingenuity and key faculties such as the Schulich School of Engineering and the Faculty of Science.

“I see the challenges related to oilsands as multidisciplinary challenges,” notes Whale. First and foremost, she says, those challenges revolve around the issues related to the sustainable development of the resource, which will have economic, environmental and social impacts. Although there is still much to learn, “I do think we are making progress. Sustainability is not like a hurdle we have to jump, it's a process.”

An Adjunct Professor in the U of C's Department of Chemical and Petroleum Engineering, Whale teaches a sustainable development course to engineers. She sees that course as an example of the industry's growing focus on sustainability. “I am very proud of this university. In our current business environment, projects are rarely delayed because of the technology. They are delayed for social and environmental reasons – reasons the technical people need to learn more about.”

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Looking ahead, Whale anticipates that efforts to increase productivity while reducing the environmental footprint of oilsands development will prove mutually compatible. And that's important. With approximately \$100 billion of oilsands development on the table, “we need to do this right.”