

Canada

Natural Resources Ressources naturelles Canada

# **Environmental Geoscience** Program

The Environmental Geoscience Program is a federal research program that provides innovative scientific information that makes it possible to distinguish between the environmental effects of natural resource development and those produced by natural processes. As part of this mandate, developing new approaches in geoscience supports the responsible use and development of Canada's natural resources through informed decision making.

## **Current situation**

- Natural resource development contributes to an increased standard of living for Canadians and keeps the economy strong.
- The effects of natural resource development on the environment are the focus of increased government and public attention.
- To develop and manage the extraction of natural resources, proponents and public authorities need reliable, researchbased geoscience information.

## The Environmental Geoscience Program focuses on:

- Developing methods and techniques to assess the baseline conditions of resource-rich natural systems.
- Improving methods and increasing knowledge of geoscience for responsible management of environmental risks. These lead to better detection, understanding and modelling of the impact of natural resource development on the environment.
- Training and mentoring to increase the number of highly skilled personnel in the area of responsible natural resource development in Canada.

#### Approach

The Environmental Geoscience Program conducts research and development in areas that have high potential for economic development. In 2016–2017, four main areas of research are targeted:

- Shale gas
  - Aguifer vulnerability characterization
  - Induced seismicity
- **Oil sands** 
  - Geochemical developments for the identification of contaminant sources in water and air
- Metals Mining: Geoenvironmental parameters
  - Critical metals
  - Baseline conditions in the North
- Carbon capture and storage
  - Geophysical monitoring of storage

Study sites are geographically located based on their potential to evaluate the research questions that have been identified. Using strict guidelines, research projects identify knowledge gaps and work to fill these gaps by focusing on issues that will provide a better understanding of the baseline conditions of natural systems.

#### Contact

For more information on the Environmental Geoscience Program, contact:

Gilles Cotteret, Program Manager Geological Survey of Canada Natural Resources Canada 490 Rue de la Couronne Québec QC G1K 9A9 Tel.: 418-654-2603 Email: gilles.cotteret@canada.ca

For information regarding reproduction rights, contact Natural Resources Canada at nrcan.copyrightdroitdauteur.rncan@canada.ca.

© Her Majesty the Queen in Right of Canada, as represented by the Minister of Natural Resources, 2016

