Project Name:	Northeast BC Seismic Array Network
Project Number:	ER-Seismic-2021-01 (continued from EI-2016-06)
Proponent:	BC Seismic Research Consortium
BC OGRIS Funding Envelope:	Environmental Research--Seismicity
Timeframe:	July 1, 2012, to March 31, 2026

Project objectives

The objectives of this project are to maintain a state-of-the-art seismic array network and collect and analyze data on seismic activity in Northeast BC.

Project description

The project is a multi-year phased collaborative initiative between the BC Energy Regulator (formerly the BC Oil and Gas Commission), the Canadian Association of Petroleum Producers, Geoscience BC, and the BC Oil and Gas Research and Innovation Society (BC OGRIS). The project is led by Geoscience BC and jointly funded by Geoscience BC and BC OGRIS. The consortium includes the following governance structure:

- Steering Committee—providing operational direction to achieve the project's objectives. The Steering Committee comprises representatives of the project partners; and
- Technical Committee—providing advice to the Steering Committee on technical matters. The Technical Committee comprises representatives of federal and provincial governments, industry and academic institutions.

The project was initially established with a five-year timeframe from July 1, 2012, to June 30, 2017. Since then, the project has been extended several times by agreement from all Consortium partners. The current agreement expires on September 30, 2024.

Project background

Over the past several years, geologists have been evaluating whether natural gas development may result in seismic activity. Government, industry, communities and First Nations have a common interest in learning more about this issue to support the responsible development of natural gas resources in BC.

Project approach

The project is a multi-phased project covering a 14-year timeframe.

Phase 1 activities covered the initial installation and testing of the six seismometers comprising the network. This phase took place between July 1, 2012, and March 31, 2013.

The network is now fully integrated into the Canadian National Seismic Network (CNSN) and provides real-time data to the Geological Survey of Canada's earthquake location operation. The results from analysis are posted on the Earthquakes Canada website: http://www.earthquakescanada.nrcan.gc.ca/stndon/index-en.php.

Subsequent phases cover the maintenance of the network and the interpretation of the data. A dedicated seismologist has been engaged to undertake real-time analysis of events within the project area, recommend improvements to the enhanced network and perform project-specific research.

Project deliverables

The deliverables from this project include the following:

1. Network of seismometers in Northeast BC;
2. Information from the Network available on the Natural Resources Canada website; and
3. Annual report on seismic activity in Northeast BC.