In July 2012, Geoscience BC, the Canadian Association of Petroleum Producers (CAPP), the BC Oil & Gas Commission (BCOGC) and Natural Resources Canada (NRCan) formed a research consortium to improve the accuracy of the Canadian National Seismic Network (CNSN) in Northeast BC. This consortium has a mandate to collect, interpret and make public, the data collected from the installation of six new seismograph stations to complement NRCan’s two pre-existing CNSN stations.

At the recommendation of the BCOGC, the Northeast BC Regional Seismographic Network Project was initiated by the consortium to better track the effects of completions and induced seismicity associated with hydrofracturing operations in Northeast BC. $1,000,000 in funding over 5 years has been committed by Geoscience BC and CAPP (through SCEK funding) to study the relationship between fracking and seismicity.

The six seismographs are state-of-the-art solar powered Trillium 120PH broadband seismographs and were installed by Nanometrics Inc.

Data collected by each station is sent via satellite to NRCan’s Pacific Geoscience Centre in Sidney, BC, where the data are processed and then redirected to the Alberta Geological Survey and the Geological Survey of Canada where it is processed with data from the CNSN. The interpreted seismic events are posted on the Earthquakes Canada (NRCan) webpage:

The project is managed by joint Steering and Technical committees comprised of representatives from each of the project partners. The Steering Committee is responsible for stakeholder communication while the Technical Committee is mandated to oversee operation and maintenance of the seismographs and advise on all technical aspects relating to the project.

The data collected by the network is currently being used by the BCOGC to monitor induced seismicity and develop protocols for responsible hydrofracturing operations.
Map of northeastern British Columbia showing location of the two Canadian National Seismograph Network (CNSN) seismograph stations and locations of the six Geoscience BC-led consortium seismograph stations

Geoscience BC is an industry-led, not-for-profit society with a mandate to collect, interpret and disseminate geoscience data and expertise to promote investment in resource exploration and development in British Columbia.

Geoscience BC is funded by the Provincial Government and works in partnership with industry, academia, government, First Nations and communities to attract mineral and oil & gas investment to BC.

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