



Ge-o-sci-ence: n. Study of the earth; involves the collection of scientific data, which may be used to identify and assess mineral, petroleum, geothermal and water resources, while also aiding other land use, natural hazard, and environment decisions.



Photo by G. Pignotta



Photo courtesy of Sander Geophysics Ltd.

Data for Discovery

British Columbia has a rich endowment of energy resources and high mineral potential, together with a vibrant exploration sector. For decades, mineral exploration, mining, and oil and gas production have been key drivers of the provincial economy.

In 2009, BC's mining industry generated approximately \$6 billion¹ in total sales value. This activity creates high-paying jobs for more than 13,000^{2,3} people in mineral exploration and mining and provides \$292 million⁴ in payments to the provincial government. Mineral exploration alone creates more than 2,700³ jobs annually in areas surrounding more than 30 communities across the Province. In those same communities, exploration companies spent more than \$154 million³ looking for minerals suitable for production.

The province's oil and gas sector generated approximately \$4 billion³ in total sales value in 2009, providing \$1.4 billion³ in revenue to the Province of BC, accounting for over 50 per cent of BC's total resource revenue. BC's natural gas and petroleum industry provides direct employment for more than 20,000⁵ people in northern BC communities. Workers in natural gas and petroleum extraction and mining earn some of the highest wages in the province.

¹ Natural Resources Canada

² PricewaterhouseCoopers

³ BC Ministry of Energy, Mines and Petroleum Resources

⁴ BC Ministry of Finance

⁵ WorkSafe BC



“Geoscience maps and data continue to underpin mineral exploration, just as basic infrastructure supports mine development and the economy as a whole. BC is and should remain a global leader in modern geoscience – geology, geophysics and geochemistry, the tools that explorationists use to make new discoveries to sustain our industry and our Province.”

DR. NORMAN KEEVIL,
CHAIRMAN, TECK RESOURCES LTD.



Photo Courtesy of Shell Canada



Photo courtesy of Geotech Ltd.



Photo courtesy of Northwest Community College

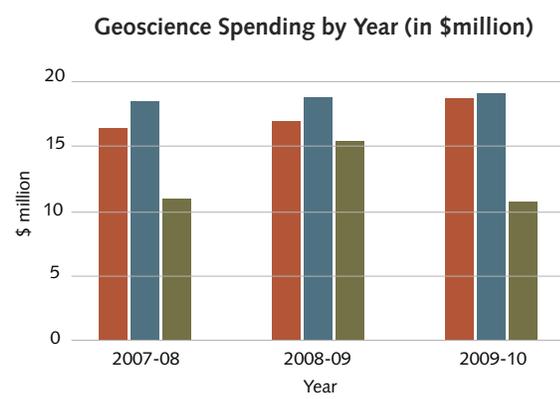
“It is very important to be able to identify potential minerals in everyone’s Traditional Territory. Knowing your own backyard and what might be in it and building a sustainable, environmentally friendly economy is the future for all of us.”

RICHARD LEBOURDAIS, HEREDITARY CHIEF,
WHISPERING PINES / CLINTON INDIAN BAND

Geoscience: The Roadmap to Economic Strength

The foundation of a healthy resource industry is exploration, which ultimately leads to discovery, new mines, oil and gas production, jobs and a robust economy. To ensure high levels of investment in grassroots mineral exploration and responsible development of energy resources over an extended period of time, BC needs high quality, readily accessible, new geoscience information to be competitive in a global marketplace.

Geoscience opens up new areas for development. A continually expanding knowledge base of geoscience data helps develop clusters of economic activity in support of exploration, mining and oil and gas extraction, attracting talent and helping government make more informed decisions on public investment in infrastructure. In addition, high quality, readily accessible geoscience information strongly influences international companies’ decisions to invest in BC. Funding geoscience is a sustainable investment in BC’s future.



Provincial spending on geoscience in Ontario, Quebec and British Columbia. British Columbia figures include Geoscience BC spending. Data from Geoscience BC and Duke, J.M. (2010): Government geoscience to support mineral exploration: public policy rationale and impact; Report prepared for the Prospectors and Developers Association of Canada, 64p.

Quick Facts:

A 2010 independent review of four of GBC’s past projects confirmed significant benefits including:

- Over one million hectares of new mineral claim staking for exploration;
- Over \$8 million in exploration expenditures related directly to GBC work;
- Identification of new resources at the Huckleberry Mine (which could mean an estimated 220 jobs and more than \$3 million annually in income to BC if the mine life is extended).

“As we hunt for new exploration opportunities, our principal reviews start with those regions that have committed to capturing geological information through easily accessible, multidisciplinary databases.”

JASON WEBER, PRESIDENT,
KISKA METALS CORPORATION



Photo by W. Jackaman



Photo by T. Bissig

Photo courtesy of Sander Geophysics Ltd.

Geoscience BC: An Investment in BC's Sustainable Future

As part of its commitment to the resource sector, the BC government created Geoscience BC (GBC), a non-profit organization, in 2005 through a \$25 million provincial investment to aggressively encourage mineral and oil and gas exploration investment in BC. To date, the BC government has invested \$48.7 million with the most recent investment of \$12 million for GBC's 2012-2014 programs.

GBC's collection, interpretation and marketing of geoscience data and expertise in partnership with industry, academia, government, First Nations, and communities has been a key component of encouraging resource exploration investment and activity throughout the province.

In the last five years, GBC has undertaken a number of major regional projects including:

- **The QUEST series of projects**, which combine geophysical and geochemical surveys over large areas of central BC (over 40,000 square kilometres each), to better understand the geology and mineral potential of the region.

- **The Nechako Seismic Project**, which is increasing the understanding of the oil and gas potential in central BC's Nechako Basin.
- **The Horn River Basin Water Study**, a partnership between GBC and industry. The project focuses on identifying and understanding surface and subsurface water sources in BC's Horn River Basin.
- **The Montney Water Project**, a partnership with industry and government, is creating a comprehensive understanding of subsurface and surface water in the Montney area in northeast BC.

GBC has also supported over 88 partnership projects and provided support through scholarships and project funding to over 50 geoscience students.



“Geoscience BC has provided an invaluable service and has created increased interest from the mining industry in what Smithers has to offer as a base for mineral exploration and development.”

CRESS FARROW, MAYOR,
TOWN OF SMITHERS



Photo by A. Calvert



Photo by C. Pignotta

“Up-to-date geoscience data is the foundation for a strong, vibrant mining and oil and gas industry that delivers high-paying jobs, and supports a healthy and sustainable economy in British Columbia.”

DAN MILLER, FORMER PREMIER OF BRITISH COLUMBIA

Data for Discovery 2012-2014

GBC's Data for Discovery initiative will stimulate mineral and energy exploration and development investment in BC and continue to help position the Province as a preferred global destination for resource exploration and development capital.

Over the next two years, GBC will continue to build on its successful track record and focus on five key areas:

- **Mineral Exploration Geoscience:** continue to provide new, high quality mineral geoscience information throughout the Province including under-explored areas and areas negatively affected by the Mountain Pine Beetle.
- **Oil & Gas Geoscience:** activities continue to support collaborative studies on water resources in northeast BC.
- **First Nations Engagement:** promote engagement of First Nations in geoscience projects, as well as provide information to the public interested in resource developments in their region.
- **Community Outreach and Awareness:** GBC works to engage with communities to inform them about project activities and results, and the value of geoscience data to stimulating exploration and development activity.
- **Marketing BC's Resource Potential and Exploration Advantage:** GBC will publish and market the results of all project activities and actively market BC's resource potential and exploration advantage locally, nationally and internationally.

Investing in geoscience provides an important strategic edge in a competitive global market for mineral and energy investment. GBC contributes to solidifying BC's position as one of the world's preeminent jurisdictions for mineral and oil and gas investment, helping our industries remain healthy, innovative and competitive.

“Geoscience BC's public data sets and information will be of value to the exploration sector for the next 15 to 20 years.”

HENRY AWMACK, P.ENG.
PRINCIPAL, EQUITY ENGINEERING



FOR MORE INFORMATION

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