Explore for more
BRITISH COLUMBIA

# A CAREER IN MINING IS MORE THAN YOU THINK.

**Challenge, Adventure, Travel, Good Pay, Great Opportunity**

# MINING MAKES A REAL DIFFERENCE!

**zinc**
for sunscreen and medical ointments.
**graphite, aluminum, and titanium**
for sports equipment.
**diamonds and gold**
for special gifts.
**phosphate, nitrogen, sulphur and potash**
for fertilizers.
**nickel**
for batteries.
**barite, lead, indium**
for entertainment products.
**iron and calcium**
for daily vitamins.
**clay, gypsum, limestone, sand and gravel**
for our homes.
**cobalt**
for turbine engines.
**steel, copper, zinc, barium and graphite**
for vehicles.
**coal and uranium**
for electricity.
**stainless steel**
for surgical instruments.

There are over 120 different careers in mining. The industry draws people from fields as diverse as engineering, business, geology, science and from a wide variety of trades. Some of the many opportunities are profiled in this kit. Read about the experiences of people in mining in the profile cards to the right.

If you're looking for more from your career choice, choose a career in mining!

# GEOSCIENCE
## in British Columbia

Geoscientists gather and interpret data to understand natural processes on Earth. They provide essential information on our natural resources (mineral, metal, petroleum, soil, water and geothermal), environmental protection, health and safety related to natural hazards, and public policy on resource and land management.

Geoscientists are stewards of Earth's resources and environment.


## Job opportunities:

- geological mappers
- geologists:
  - economic
  - mineral deposit
  - petroleum
  - natural hazards
- geophysicist/seismologist
- mineralogist/gemologist
- hydrogeologist
- geochemist
- paleontologist



## Methods of surveying

Geoscientists are curious about the Earth and the solar system. By applying their knowledge of forces and factors that shape the Earth, geoscientists seek to reconstruct the past and anticipate the future.

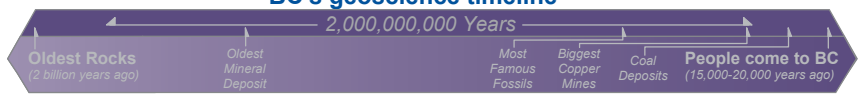
## Geoscience highlights

- BC's oldest mineral deposit formed:
  1,450 million years ago
- BC's biggest copper mines formed:
  200 million years old
- BC coal deposits formed:
  200-70 million years old
- BC's youngest rocks formed:
  Nisga'a lava flows - 300 years old

## Employers:

- exploration companies
- environmental companies
- mining companies
- consulting companies
- provincial government
- federal government
- research institutes
- universities

## BC's geoscience timeline




*Want to know more?*

www.geosciencebc.com

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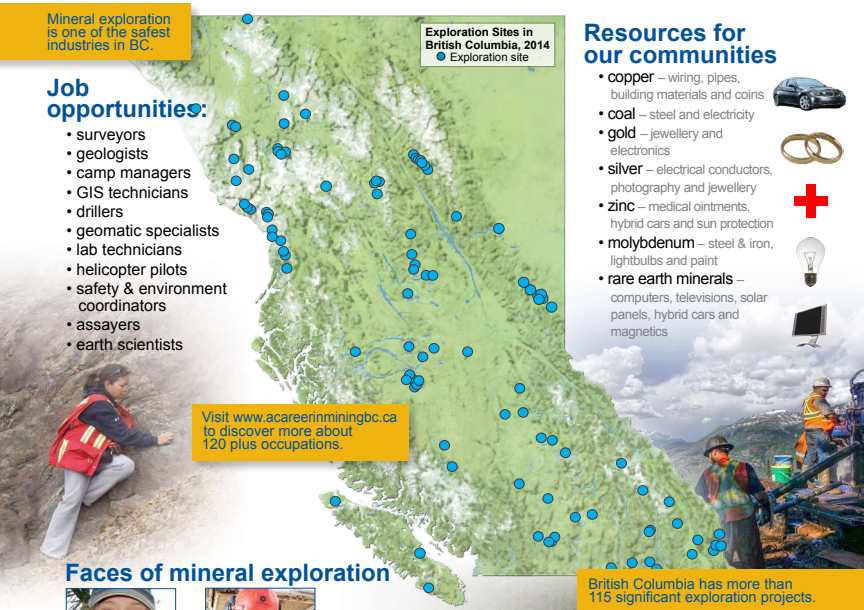
# MINERAL EXPLORATION
## in British Columbia

Mineral exploration is the search for a valuable mineral deposit. It involves discovering a mineral deposit, sampling the deposit and determining if it can be safely and economically mined. Every region in BC has rich mineral occurrences, and yet only a few deposits ever develop into a mine.

Mineral exploration is one of the safest industries in BC.




### Job opportunities:

- surveyors
- geologists
- camp managers
- GIS technicians
- drillers
- geomatic specialists
- lab technicians
- helicopter pilots
- safety & environment coordinators
- assayers
- earth scientists

Visit www.acareerinminingbc.ca to discover more about 120 plus occupations.

### Resources for our communities

- **copper** – wiring, pipes, building materials and coins
- **coal** – steel and electricity
- **gold** – jewellery and electronics
- **silver** – electrical conductors, photography and jewellery
- **zinc** – medical ointments, hybrid cars and sun protection
- **molybdenum** – steel & iron, lightbulbs and paint
- **rare earth minerals** – computers, televisions, solar panels, hybrid cars and magnetics





### Faces of mineral exploration


*PROSPECTOR*


*DIAMOND DRILLER*


*EXPLORATION GEOLOGIST*


*GEOLOGICAL TECHNICIAN*


*GEOLOGICAL MODELER*

British Columbia has more than 115 significant exploration projects.

### Mineral Exploration Timeline

5 - 10 Years

Geology → Prospecting → Sampling → Drilling → Assaying → Deposit Assessment

*This represents a typical flow*

*continued on mining card*

***Want to know more?***

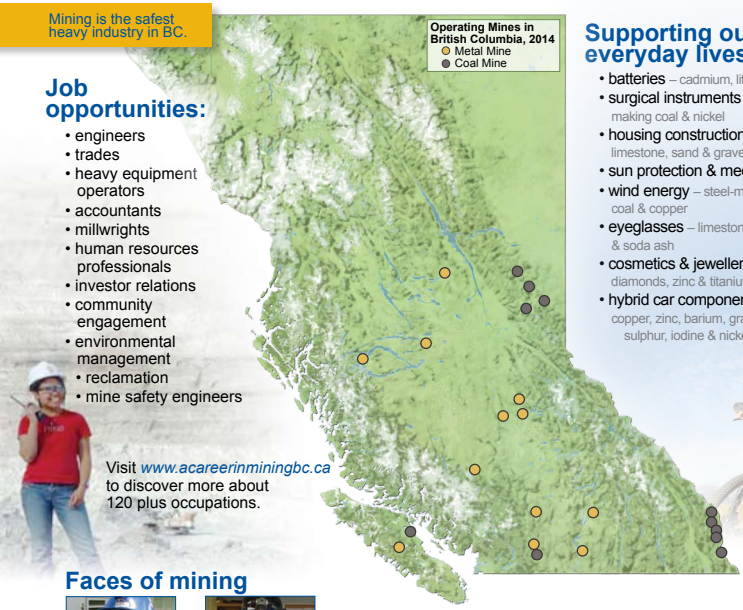
www.amebc.ca

Explore for more BRITISH COLUMBIA

# MINING
## in British Columbia

The BC economy depends on the mining industry. With 23 mines and 2 smelters in BC, there are over 14,000 mining jobs, plus an additional 35,000 jobs in supporting industries. Mining accounts for 50% of rail volumes in BC, and over 40% of the total port traffic in Vancouver.

Mining is the safest heavy industry in BC.




### Job opportunities:

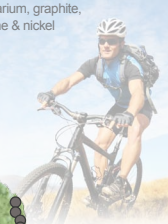
- engineers
- trades
- heavy equipment operators
- accountants
- millwrights
- human resources professionals
- investor relations
- community engagement
- environmental management
- reclamation
- mine safety engineers



Visit *www.acareerinminingbc.ca* to discover more about 120 plus occupations.

### Supporting our everyday lives

- **batteries** – cadmium, lithium & nickel
- **surgical instruments** – steel-making coal & nickel
- **housing construction** – gypsum, limestone, sand & gravel
- **sun protection & medical** – zinc
- **wind energy** – steel-making coal & copper
- **eyeglasses** – limestone, feldspar & soda ash
- **cosmetics & jewellery** – gold, diamonds, zinc & titanium dioxide
- **hybrid car components** – steel, copper, zinc, barium, graphite, sulphur, iodine & nickel



### Faces of mining

*ELECTRICIAN*

*MILLWRIGHT*

Mining provides opportunities for aboriginal people and their communities through training, employment, and direct benefits. Mining is one of the largest employers of Aboriginal People in BC.

*ENVIRONMENTAL BIOLOGIST*

*MINING ENGINEER*

*WELDER*

Mining uses 0.04% of British Columbia's land to provide $8.5 billion in total to the provincial GDP in 2009.

### Mining Timeline

*Environmental Studies & Protection*

| Development | Construction | Operating | Reclamation |
|---|---|---|---|
| *(1 - 5 years)* | *(1 – 2 years)* | *(10 – 30 years)* | *(1 – 10+ years)* |

*continued from exploration card*

***Want to know more?***

**www.mining.bc.ca**

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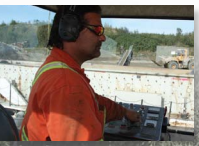
# AGGREGATE
## in British Columbia

Aggregates include crushed stone, sand and gravel, quarried rock and are the most abundant natural resource available. It is used in construction, agriculture, and other chemical and metallurgical industries. Aggregate is produced in or near almost every city and town and is a major contributor to the economy in every region of British Columbia.

British Columbia has aggregate mines varying in size from very large quarries running continuously, to small sand and gravel pits mined infrequently.

### Job opportunities:

- geologists
- engineers
- plant and equipment operators
- mine managers
- haul truck drivers
- heavy duty mechanics
- accountants
- safety officers
- support staff

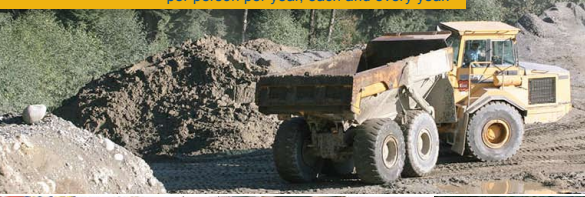


### Resources for our communities

- road construction
- concrete construction: hospitals, schools, housing, public and private buildings
- asphalt pavement
- snow and ice control
- sports fields, playgrounds, golf course construction
- roofing granules
- streambank and riverbank protection (construction of dykes)

Aggregate is continually recycled in the form of asphalt and concrete.

British Columbians consume more than 55 million tonnes of aggregate annually for housing, roads, schools, shopping centres, hospital, public and private business buildings and most recreational construction projects. That's 12 tonnes per person per year, each and every year.



The aggregate industry contributes approximately 3 billion dollars annually to the economic benefit of all British Columbians, and employs over 3,000 people, directly in the aggregate production industry. Spin-off jobs account for another 15,000 jobs in the industry.


***Want to know more?***

www.gravelbc.ca

Explore for more BRITISH COLUMBIA

# DIVERSITY + MINING = CAREER

**in British Columbia**

The mining exploration, aggregate and mining industries are very broad and attract diverse talents and skills. With a wide range of jobs and careers, there is something for everyone. If new challenges, new technologies, new opportunities and travel get you excited….then the mining industry is for you.

Take a look inside **'Living The Mining Dream'** videos. Encounter the lifestyle and career experiences of women who have a variety of skill-sets and some of the featured women are Aboriginal or Skilled Immigrants.

#thinkmining

LIVING THE MINING Dream

@explore4moreBC /Explore-for-More-British-Columbia Living the Mining Dream

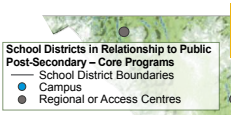
***Want to know more?***

www.acareerinminingbc.ca

Explore for more BRITISH COLUMBIA

# EDUCATION
## in British Columbia

Acquiring experience for a job comes through on-the-job training and through educational facilities. Learning programs can be in the form of degrees, diplomas, certificates and even short courses. BC has 11 public post-secondary institutions that deliver 'CORE programs' for a career in mining. BC also has 36 institution or training organizations that deliver related programs.




Online or remote learning programs are offered throughout the province providing flexibility and accessibility for students.

## Diploma and degree programs

### Universities:

- Capilano Univ.
- Kwantlen Polytechnic Univ.
- Royal Roads Univ.
- Simon Fraser Univ.
- Thompson Rivers Univ.
- Trinity Western Univ.
- Univ. of British Columbia
- Univ. of Northern British Columbia
- Univ. of the Fraser Valley
- Univ. of Victoria
- Vancouver Island Univ.

### Colleges:

- Camosun College
- College of New Caledonia
- College of the Rockies
- Columbia College
- Douglas College
- Langara College
- North Island College
- Northern Lights College
- Northwest Community College
- Okanagan College
- Selkirk College
- Vancouver Community College

### Institutes:

- British Columbia Institute of Technology
- Nicola Valley Institute of Technology

*For a full list of educational institutions and organizations offering mining related programs visit the website below.*

## Trade programs

### Public institutions

- Kwantlen Polytechnic Univ.
- British Columbia Institute of Technology
- Camosun College
- College of New Caledonia
- College of the Rockies
- North Island College
- Northern Lights College
- Northwest Community College
- Okanagan College
- Selkirk College
- Thompson Rivers Univ.
- Univ. of the Fraser Valley
- Vancouver Community College
- Vancouver Island Univ.

For additional information and current accredited trade programs visit *www.itabc.ca*.

## Trade programs cont.

### Private institutions

- CDI College
- Automotive Training Centres
- Centre for Arts and Technology
- Eton College
- MTI Community College
- Pacific Audio Visual Institute
- Southern Skies Aviation School
- Sprott-Shaw Degree College
- University Canada West
- Vancouver Career College
- Vancouver College of Art and Design

Certificate programs are also offered at numerous institutions and cover a broad range of offerings from languages, project management, to mining studies.

***Want to know more?***

www.bc-ctem.ca

Explore for more BRITISH COLUMBIA

# FIND A JOB
## in British Columbia

There are exceptional career opportunities in the mineral exploration, aggregate and mining industries and here are some tips on how to find them. Jobs are found in cities and remote locations and will have different levels of skills required. With an anticipated 16,000+ job openings in British Columbia by 2020, your career awaits you.

### 1. What type of job interests you & do you have the qualifications for the job?

- Visit *www.acareerinminingbc.ca* to discover more about 120+ occupations.

### 2. Need additional training?

- Find a training facility near you (check out the Education Card for more information or see what training is offered in your hometown).

### 3. What companies are hiring?

- Frequently visit job boards or read newspapers in the city you would like to work.
- Find companies that you would like to work for and frequent their careers page for direct postings (to find companies visit the websites listed below).

### 4. Who to contact?

- Contact human resource departments as directed in websites.
- Contact employment service providers in communities of interest.
- Contact recrutment and employment agencies.

### Occupations identified as best opportunities:

- drillers and blasters
- machine operators
- supervisors
- miners
- central control and process operators
- heavy equipment operators
- geological and mineral technologists and technicians
- mechanics
- construction millwrights
- electricians

## Job Boards:

company websites
www.mining.bc.ca
www.infomine.com/careers
www.amebc.ca

***Want to know more?***

www.acareerinminingbc.ca

Explore for more BRITISH COLUMBIA

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# A Career in Mining

# Look at what you can **earn!**

| Career | Salary Range ($CDN / year) |
|---|---|
| Chief Engineer | $91,000 to $125,000 |
| Senior Mine Engineer | $94,000 to $110,000 |
| Mine Engineer | $68,000 to $93,000 |
| Junior Mine Engineer | $55,000 to $81,000 |
| New grad Eng- Mine (undergraduate degree) | $51,000 to $73,000 |
| Chief Mine Geologist | $81,000 to $113,000 |
| Mine Geologist | $65,000 to $88,000 |
| Chief Surveyor | $55,000 to $78,000 |
| Mine Technologist | $51,000 to $72,000 |
| Chief Metallurgist | $78,000 to $111,000 |
| Metallurigcal/Process Engineer | $67,000 to $89,000 |
| Senior Plant Technologist | $59,000 to $81,000 |
| Plant Technologist | $50,000 to $70,000 |
| Laboratory Supervisor | $63,000 to $86,000 |
| Maintenance Foreman (mine or plant) | $69,000 to $94,000 |
| Planning Foreman | $72,000 to $97,000 |
| Maintenance Planner | $62,000 to $86,000 |
| Senior Buyer | $66,000 to $91,000 |
| Buyer | $54,000 to $75,000 |
| Warehouse Foreman | $65,000 to $88,000 |
| Inventory Analyst | $49,000 to $68,000 |
| Human Resources Manager | $91,000 to $127,000 |
| Human Resources Supervisor | $66,000 to $94,000 |
| Chief Accountant | $90,000 to $122,000 |
| Senior Accountant | $72,000 to $100,000 |
| Accountant/Accounting Supervisor | $60,000 to $83,000 |
| Accounts Payable Clerk | $40,000 to $54,000 |

*Continued on reverse...*

*Continued from reverse...*

| | |
|---|---|
| Payroll Supervisor | $57,000 to $78,000 |
| Superintendent of Environmental Services | $86,000 to $121,000 |
| Environmental Officer | $58,000 to $81,000 |
| Health & Safety Coordinator | $60,000 to $84,000 |
| Geomatics Specialist | $100,000 to $110,000 |
| GIS Technician | $65,000 to $80,000 |
| Geological Modeler | $55,000 to $60,000 |
| Geological Technician | $45,000 to $55,000 |
| Environmental Technician | $55,000 to $65,000 |
| Surface Miner | $75,000 to $85,000 |
| Underground Miner | $80,000 to $85,000 |
| Mineral Processing Operator Technician | $57,000 to $65,000 |
| Supervisor | $80,000 to $90,000 |
| Surveyor | $65,000 to $70,000 |
| Trainer | $55,000 to $80,000 |

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*www.acareerinminingbc.ca.*

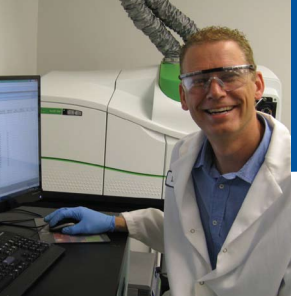
Challenge, Adventure, Travel, Good Pay, Great Opportunity

Canada

British Columbia

Canada Starts Here | BC Jobs Plan

*Funding provided through the Canada–British Columbia Labour Market Development Agreement.*



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BRITISH COLUMBIA

CAREER PROFILE

# ASSAYER

**Name**: David Tye
**Employer**: Met-Solve Analytical Inc.
**Education**: B.Sc. in Chemistry and BCIT Assayer Certification Training

Assayers – also called minerals analysts, chemical laboratory technicians or fire assayers – play an important role in the mining and mineral exploration industry. They analyze ores and minerals in a lab environment using various methods to determine their composition.

David Tye had a degree in chemistry, but after working in the minerals industry for a number of years, he wanted to gain a more practical understanding of the many facets of a geochemical exploration laboratory. He signed up for BCIT 's Assayer Certification Training, which provides students with an in-depth understanding of sample preparation, fire assay, wet chemistry assay and instrumental assay.

In his job as an assayer with Met-Solve Analytical in Langley, B.C., David operates instruments, develops new methods, checks analytical data, troubleshoots issues with the laboratory equipment, and reviews sample problems that can arise from their composition and analysis.

“It is a challenging and ever-changing environment, which makes the job rewarding,” says David. “One day might involve instrument repairs or maintenance, while at the same time ensuring that sample flow meets turnaround expectations. On another day, there might be a sample with a particularly complex matrix that requires additional research to extract the necessary analytical information that the client has requested.”

“I also enjoy interacting with our clients and helping them with their problems when they are looking for answers. In some cases, clients will come to you after reading a report or hearing something and you need to explain the information to help them understand.”

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CAREER PROFILE

# CIVIL ENGINEER

**Name**: Karl Rink
**Employer**: Vale Inco Ltd., Manitoba Operations
**Education**: BSc in Civil Engineering & Management Minor

Excitement, to Karl, is “seeing many people with different skill sets working together to achieve a common goal” which makes his role as project manager perfect for this stage of his career. Each project has Karl working with a project management team that includes the construction crew, plant supervisors and support staff. His role takes him to many different areas of the operation from the underground mines to surface plants to water treatment plant. His time in the field, in meetings and in the office varies daily.

He takes his accountabilities very seriously. “It’s my responsibility to ensure the scope of work is successfully completed. The costs, the scheduling — it all has to be on budget and on time. At the same time, I have to ensure the right resources, including people, supplies and contracts are available at the right time. Projects rarely go without hiccups, but where there’s a will there’s a way. I work well under pressure, so it’s a job that suits me,” he said.

Each day is different, he says, with different challenges, different opportunities and more education. “Education is a constant thing. I am learning a lot from my job, as you have to develop a lot of skills sets not taught directly in university,” he explained. He plans on using his career education to become an operational supervisor while taking his MBA. His ultimate goal is to enter the management stream of the business he finds so intriguing.

His career also affords him some interesting vacations. His next planned trip will include working on a Habitat for Humanity build in Paraguay. “It gives me a chance to use my skills, education and hands to give back to someone less fortunate,” he explained. But it will not be all work, as a white water rafting adventure in Peru is also on the holiday itinerary.

Explore for more BRITISH COLUMBIA

CAREER PROFILE

# COMMUNITY AFFAIRS MANAGER

**Name**: Andy Baribeau
**Employer**: Goldcorp Inc., Opinaca Mines
**Education**: Office Systems Diploma

Andy loves the challenge of bringing people together so that they can work together toward common objectives. His main responsibility as Community Affairs Manager is to establish and maintain relationships between his employer, Cree communities and Jamesiens (the regional population that is not Aboriginal).

His responsibilities also involve working and negotiating with different levels of government through all phases of a mining project. Ensuring that these groups communicate and collaborate is critical to the success of all mining projects in his company.

There is no typical day for Andy. On any given week he might be organizing a pre-consultation group with residents of a town, facilitating business focus groups or negotiating an impact benefit agreement. His work takes him all over northern Québec and he spends three-quarters of his time working away from the office.

The mining industry is an exciting place to work now because it is in the process of positive change. “The new leaders are now more aware of the impact of their actions and they must manage the resources accordingly. They must consider how their actions will affect workers, the environment and the communities. The industry is and must continue reinventing itself for the better,” says Andy.

In addition to his professional skills, Andy brings a personal advantage to his job. His father is Québécois and his mother is Cree. He has an intimate understanding of each group’s needs, which is helpful in his work. Bringing communities together is an objective that is close to his heart.

Explore for more BRITISH COLUMBIA

CAREER PROFILE

# CORPORATE AFFAIRS & SOCIAL RESPONSIBILITY

**Name**: Monica Moretto
**Employer**: Pan American Silver
**Education**: BA in Communications and Broadcasting, Certificate in Social Responsibility, Masters in Environment and Management (on-going)

Born in Argentina, Monica Moretto immigrated to Canada in 2003 and was drawn to the mining industry because she felt that she could contribute to the challenges that the industry currently faces in areas related to communications and social license. She holds a communications' degree and has 18 years of experience as a journalist in radio and TV in Buenos Aires.

Monica's expertise in Latin American affairs created the right platform for her job with Pan American Silver, where she works in Corporate Affairs and Corporate Social Responsibility (CSR ). She designs and publishes the company's Sustainability Report, following Global Reporting Initiative standards.

In her CSR role, Monica travels frequently to the areas where Pan American's operations are located and visits with the communities. She meets with the company's local CSR teams to evaluate each area's needs and the social plans offered to local people. She engages with NGOs and other organizations to maintain and improve the quality of the programs and explore partnerships.

"Working in CSR is a very emotional job and sometimes there are heartaches. It is all about people. Journalism is also a people career, but it doesn't have that direct contact -- the ability to shift and improve things in communities. That's something about CSR that not many careers can give you."

Monica is currently working on a Masters in Environmental Management through Royal Roads University. "There is so much going on in CSR , a lot of people are going back to get additional education so they can better understand the new requirements," she said. "Communities are more aware and are asking more questions. Opportunities in CSR are growing."

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CAREER PROFILE

# DIAMOND DRILLER

**Name**: Mike Brisson
**Employer**: Boart Longyear Inc.
**Education**: Surface Common Core Program

Can you imagine drilling a hole through solid rock that is four times the height of the CN tower? As a diamond driller, that is the challenge that Mike Brisson faces every day. Using special drills made of bits of industrial diamonds, Mike is able to cut through layers of rock to obtain core samples of the mineral wealth deep underground. Mining and exploration companies analyze these core samples before investing hundreds of millions of dollars to develop a mine.

Diamond drilling is very specialized, requiring a high degree of expertise and precision. Mike received his training through a course offered by his employer. He has worked extensively throughout northern Ontario, the Arctic and northern Saskatchewan in his quest for diamonds, uranium and other important resources.
With the mining industry booming, diamond drilling companies are very busy. These specialized companies, located around the globe, operate year-round, 24/7. Mike works 12-hour day or night shifts on a five-day schedule. On weekends though, he takes full advantage of nearby lakes to boat and fish.

A diamond driller is compensated well for hard work. “There’s good money to be made in it,” says Mike. Those who succeed in this career are reasonably strong, mechanically inclined and recognize the importance of working safely.

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CAREER PROFILE

# DRILLER'S HELPER

**Name**: Wesley Keating
**Employer**: Hy-Tech Drilling Ltd.
**Education**: Driller's Helper Course

Wes was tired of the suit and city life and found himself searching for drilling companies online after talking with his brother who works as a helicopter pilot in the Yukon. "I grew up on Vancouver Island where these types of jobs and this type of work isn't as accessible and a lot of young people don't even know it is an option." Wes came across Hy-Tech Drilling and was impressed by how professional they were and applied as a driller's helper in April 2012. He travelled to Smithers BC where he undertook the Driller's Helper Course at Hy-Tech Drilling and has been working with them ever since.

The driller's helper course was two weeks, one week on the drill and one week in the classroom completing various certification such as first aid and propane certification.

"I have travelled to the Tundra and I just returned from Portugal, I have seen a lot of BC and a lot outside of BC. It is a great way to see beautiful remote areas you wouldn't normally visit."

Wes' work shift is 28 days in camp followed by a 14 day break.

On the drill, the helper is responsible for providing support to the driller in obtaining solid core samples. It is hard physical work where the helper must pull rods, empty full core tubes, assist in setting up and taking down the drill and anything else necessary to complete the job. "The helper pretty much does everything except run the drill!"

"I enjoy the dynamic environment working with different drillers on different projects; it is a great way to learn from a variety of people". Wes hopes to work towards becoming a driller, with a longer term goal of being a part of management. "It is a great team environment, Hy-Tech Drilling is very professional and I look forward to my future within this industry."

Explore for more
BRITISH COLUMBIA

CAREER PROFILE
# ENGINEER (IN TRAINING)

**Name**: Carrie Gailey
**Employer**: Teck Resources Limited
**Education**: B.Eng in Mechanical Engineering

Carrie likes being an engineer because her job is always changing and she's always learning. "I have the background knowledge – my degree – but it doesn't cover every specific task. For instance, I worked on water sprays to suppress dust. I had to figure out which ones are best for that application. This was something I'd never done before. That's the job of an engineer – to figure it out."

As a mill engineer, Carrie deals with the processing of copper ore. She helps maintain or replace all the supporting systems – conveyors, crushers, machinery and equipment in the mine's mill. In the office, she does project management, for example, organizing contractors to install equipment. She also performs small structural design work and conducts research to make sure that any device she designs meets the mine's codes.

Carrie also spends time in the field each day, checking, measuring and getting information from the mine.

"I like mining because it's constantly changing and you can see your progress. Even in a month's period you can see that big things have happened. For mechanical engineers there's every type of system here - mobile equipment, pumping and piping, structures, auxiliary systems, rotating machinery such as motors and shafts."

Carrie grew up in British Columbia and has lived and studied in different parts of Canada. She's thrilled to be back. "It's the most beautiful province. The weather is amazing and it has the best skiing. I can't wait till the snow flies!"

Explore for more BRITISH COLUMBIA

CAREER PROFILE

# ENVIRONMENTAL BIOLOGIST (IN TRAINING)

**Name**: Katherine Atherton
**Employer**: Gibraltar Mine Ltd.
**Education**: BSc in Biology/Earth Science

Katherine's position in the BC mining industry has her thinking a lot about water and air quality. As an environmental biologist in training, much of her work is to help make sure that the mine where she works complies with environmental regulations. This means she is outdoors constantly; "I do field work all year round – I'm out there in everything from ATVs to snowmobiles."

In her position, Katherine performs a wide range of tasks. Summers tend to consist of a lot of fieldwork. She uses her scientific training as she monitors water and air quality, performs routine tailings inspections, examines the growth of trees and shrubs, and so forth. In the winter months, she continues to sample, but also spends time planning, managing data and writing reports. She also interacts with people from many departments in the mine, such as maintenance and mill operations. As she notes, "There are so many different jobs up here – you meet a huge variety of people." She loves working in such a beautiful and diverse province such as BC.

To enjoy being an environmental biologist in the mining industry, Katherine believes that a person has to like being in a job that involves working on their own, outside, in the bush. She does a lot of hiking, tree planting, water sampling and various tasks throughout the mine site.

As for the future, Katherine plans to stay in the mining industry, perhaps specializing in reclamation projects.

Explore for more BRITISH COLUMBIA

CAREER PROFILE

# ENVIRONMENTAL MANAGER

**Name**: Marke Wong
**Employer**: Huckleberry Mines Ltd.
**Education**: BSc in Biology, Masters in Environment and Management

When Marke graduated from high school, his mother advised him to choose something that he loved to do but also was practical. He later earned a bachelor of science degree from the University of Victoria. He first became a Registered Professional Biologist; and now practices as an Environmental Professional.

In the 1990s, Marke got his first mining experience permitting and assessing projects for Homestake Canada, Kinross Gold Corporation and Goldcorp. He later attended graduate studies at Royal Roads University (RRU) in the Masters in Management and Environment Program.

Today, Marke works as Environmental Manager for Huckleberry Mines. In addition, to supervising staff in the environment department, Marke also manages consultants and works with communities, First Nations and governments. Together, they work to find ways to minimize the impact of the mine on the surrounding environment and ensure the operation is meeting all of the requirements of its permits and government regulations.

Marke's job involves working a four-day week on site. In addition, he works some weekends as the on-site designated mine manager. His job includes frequent travel to remote areas using helicopters, float planes, boats and 4x4 vehicles.

"I really enjoy the travel and the diverse people I have the privilege to meet and work with," says Marke. "Working with others to identify practical solutions to complex issues related to the mining industry is both challenging and rewarding."

Explore for more
BRITISH COLUMBIA

CAREER PROFILE
# ENVIRONMENTAL TECHNICIAN

**Name**: David Beamer
**Employer**: The Ontario Aggregate Resources Corporation
**Education**: Wildlife Habitat Restoration Ecology Program

David notes that, “My job is sort of new for this industry; there aren’t a lot of people doing it. So there’s a lot of opportunity for people who want to rebuild the ecosystem and help the environment.”

David coordinates rehabilitation projects on abandoned aggregate properties in Ontario. He also coordinates research with universities and other consultants to improve environmental rehabilitation in the aggregate sector. In David’s job, there is no typical day. “Usually, I’ll be visiting sites that have potential for rehabilitation. I am a part of creating a design that may result in the land becoming a site for forest, prairies or wetlands. I may potentially be conversing with other members of academia and the aggregate sector about the work.” David enjoys his work because there is a huge potential for positive environmental impact and an opportunity to create benefits and gains. Because the mining industry has a lot of resources, he is able to be on the cutting edge of ecological research, techniques, and processes. “There’s a lot of cooperation too, so when we make gains everyone shares the knowledge. And there’s a lot of interest in the industry to do things environmentally better, so it’s a great time for me.”

David believes that the mining industry is well-suited for people who are passionate about the environment, realize resources are required, and want to help the industry become greener.

Explore for more
BRITISH COLUMBIA

CAREER PROFILE
# ESTIMATOR

**Name**: Travis Olding
**Employer**: Stantec Consulting Ltd.
**Education**: Mining Technician Diploma

Having a positive attitude and a good work ethic has been important in Travis Olding's mining career. "I enjoy those long days when we're making a big push to get ahead on a project or complete it. I love hunkering down and working hard and fast all day. I feel very accomplished when we've met our goal. At home, at work, even at play, having a good attitude always makes me feel better and work harder."

Travis works as an estimator, determining the capital investment that a company needs to put a mine into production. "I start with basic calculations of consumptions and material quantities and work my way up to bigger numbers while bringing all the small estimates together. Some estimates can end up in the billions of dollars. It's really interesting because I am learning all the methods and roles that take place in many mining situations."

Technology plays an important role for estimators, which makes them a very productive part of the project team. Computers and estimating software allow Travis to make revisions to cost estimates that will calculate changes throughout the entire project. As he says, "Without technology my job would take at least twice as long. I commonly hear from the senior staff, "We used to do all this work with a pencil and paper!"

His Mining Engineering Technician Diploma from Cambrian College has served Travis well. "I use my basic knowledge of mining from the Cambrian program everyday at work and continuously build on it. The mining knowledge and the hands-on experience I gained from my education is extremely valuable."

Explore for more BRITISH COLUMBIA

CAREER PROFILE

# EXPLORATION GEOLOGIST

**Name**: Kendra Johnston
**Employer**: Silver Quest Resources Ltd.
**Education**: BSc in Earth Science and Geography

Kendra sees an exciting and challenging future for her in the mining industry. “My goal is to one day run my own company. I’ve said that since day one.”

Kendra’s role is different from the typical exploration field geologist. “Working for a junior company has allowed me to combine my technical background with my drive to learn the business side of the industry”. Kendra is involved in all aspects of the company’s exploration programs including planning, permitting, fieldwork and writing the assessment reports. In addition, Kendra is involved in the company’s Corporate Development, Investor Relations, Marketing and Financing activities. On any given day, she might examine a technical report, plot drill holes for a new exploration program, create marketing materials, meet with financers or brokers, or edit a news release or legal document.

Someone who can combine geology and business skills would do well in Kendra’s position. She says, “They need a sense of adventure and an inquisitive mind. They’ll get to see amazing places off the beaten track. But they also need to fit into a business suit – they have to like networking, attending meetings and conferences and being in the office.” Making the right contacts is crucial. “The most important thing is to get out there and make connections, ask a lot of questions and be willing to learn.”

Kendra loves working in BC because it has a supportive community of people who love what they do - there are over 850 mining companies in downtown Vancouver. “BC is also a great place to explore… “Hiking some of those mountains is the best trip to the gym one could ever ask for!”


Explore for more
BRITISH COLUMBIA

CAREER PROFILE

# FIELD ASSISTANT

**Name**: Michael LeCouffe
**Employer**: UTM Exploration Services
**Education**: Onsite Training

Michael is a field assistant for UTM Exploration Services based in Smithers, B.C. His job involves working closely with exploration geologists as they conduct field sampling in the mountains of Northwest B.C.

“The most important thing is to be there. Because of the physical demands of climbing mountains all day, you’ve got to make sure when you get home you stay well rested. The next morning comes sooner than you think,” says Michael.

With safety gear, extra clothing and lunch, Michael’s pack is already fairly heavy when he arrives at work. By the end of his 10-hour day, it can weigh over 50 pounds, filled with rock samples collected by the geologists he works with.

UTM provides its field assistants with training to familiarize them with bear safety and working around helicopters. As well, Michael highlights the importance of being conscientious when hiking through rugged mountain terrain.

“We are often walking on snow and on shale. You really have to be aware of your surroundings and recognize what you can walk on and what you should avoid. Even with good footwear, we have to constantly be aware,” says Michael.

Michael has worked in the exploration industry for eight years. Before that he worked in oil and gas exploration, silviculture and logging. “I have a resume that would make Forrest Gump blush,” he jokes.

Explore for more BRITISH COLUMBIA

CAREER PROFILE

# GEOLOGICAL ASSISTANT

**Name**: Phillistine Olson
**Employer**: Eagle Peak Resources Inc.
**Education**: Reclamation and Prospecting Leadership Training

Phillistine Olson completed her two-month long R.A.P. Leadership training in 2007 at the Northwest Community College (NWCC) through the School of Exploration and Mining. “I was always working outdoor physical labour jobs; a friend of mine was tending the booth for the NWCC at the local job fair and asked me if I would be interested in attending the camp based course.” The course at NWCC introduced her to the exploration industry in British Columbia and she has been involved ever since.

Being a geological assistant can lend itself to many different tasks. In a small field based project this may mean helping the geologist obtain surface rock or soil samples, or collect mapping data. On a drilling project the assistant may be responsible for helping with handling or logging the core, setting up the drill or choosing drilling sites.

In an office based job the assistant may be responsible for data entry, assisting with report writing or other general office duties. The geological assistant may have a large variety of tasks and work environments.

Phillistine has done a variety of jobs within the industry since 2007; in her current position she works both in the field and in the office. Trips to the mine site occur once or twice a week to collect water samples and occasionally assist environmental contractors with water and snow surveys. Office duties consist of everything from answering calls to data entry, assisting the project manager with reports and accounts. “I use a lot of the skills that I gained through my training and I work in an environment where we are learning from each other every day.”

Phillistine encourages young people to look to training to open doors towards a diverse industry of employment opportunities.

Explore for more BRITISH COLUMBIA

CAREER PROFILE

# GEOLOGICAL MODELER

**Name**: Michelle Stone
**Employer**: Caracle Creek International Consulting Inc.
**Education**: PhD and Registered Professional Geoscientist

Michelle Stone has been doing geological modeling for 10 years. The purpose of her work is to help companies predict where to find additional or better quality ore and to estimate the quantity of mineral resources at a particular site.

Michelle comments that, “I am never bored, because every project is different.” To do her job, she might visit a mine site (which could be in Canada or in another country) or conduct a field visit to a promising area. Back at the office, she analyzes exploration or mining data using three-dimensional software. She creates solid shapes to represent the geology of an area and the places where minerals and metals can be found. Then she estimates the amount and grade of the mineral resource. As part of her work, Michelle communicates her findings in the technical reports that she writes.

“I really enjoy the dynamic nature of exploration and mining. I’m constantly learning and I have the opportunity to travel. I also get to help advance mining and exploration projects through my analysis and integration of multiple sets of data.” People with an eye for detail, who love travelling, will do well as modelers, according to Michelle.

Explore for more
BRITISH COLUMBIA

CAREER PROFILE

# GEOLOGICAL TECHNICIAN

**Name**: Nathan Lintner
**Employer**: Caracle Creek International Consulting Inc.
**Education**: BSc in Geology (in progress)

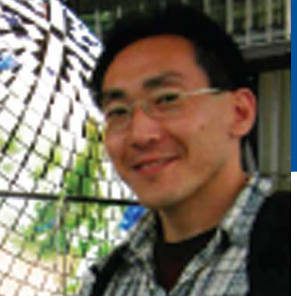
For six weeks in his job as a geological technician, Nathan Lintner took a helicopter to work every day. As he says, "I really like the fact that I rarely do the same thing for an extended period of time. I get to experience a vast portfolio of jobs and get to see a lot of country. I have travelled to BC, Saskatchewan, Nunavut and northern Ontario, as well as seeing places in between while on lay over."

On a typical day in the office, Nathan will assist geologists in preparing a National Instrument (NI) 43-101 report. The NI 43-101 is a strict guideline for how public Canadian companies can disclose scientific and technical information about mineral projects to potential investors. He helps compile the report or also creates figures and maps using a graphical information system (GIS) program. Scanning and printing maps is also a big part of Nathan's job.

If he's in the field, a typical day will start with equipment preparation. Once in the field, Nathan aids the geologist in taking samples, mapping, or just prospecting. He completes data entry at the end of the day during sampling projects, and organizes and packages the samples.

Nathan believes that people who want to be geological technicians should be outgoing and have good physical endurance, with a love of the outdoors.

Nathan is undecided about his future plans, but he plans to stay in the mining sector and is leaning towards exploration geologist or geological consultant. "I enjoy the good wages in the industry and the close knit mining community."



Explore for more BRITISH COLUMBIA

CAREER PROFILE

# GEOMATICS SPECIALIST

**Name**: Jiro Shirota
**Employer**: Caracle Creek International Consulting Inc.
**Education**: Graphical Information Systems Specialist Program

Jiro is a geomatics specialist. He designs, maintains and manipulates geographic data, using specialized software to create maps and 3D models. Jiro manages a simple database which shows the registration status of various mining claims. His company obtains this information from provincial governments' websites. Jiro uses the database to make sure clients' mining claims are still current and haven't expired.

Jiro also helps out with new claims. As he explains, "When a new project comes up the first thing geologists require is a set of map data that provides base information such as roads, lakes and topography. I develop a procedure, which helps generate this dataset quickly no matter where the project is located. We have projects all over the world."

Jiro works primarily with a team of geologists; they collect information in the field, which Jiro uses back at the office. Jiro enjoys his work."I feel satisfied when my map products help people make important decisions."

He also likes the mining industry, since in his view, it involves a certain level of imagination."We're dealing with things that are buried underground. No matter how much data you collect, you need a geologist with a good imagination to interpret the data. Software certainly makes it easier to visualize your data, but at the end of the day, you realize that the most powerful tool you have is not your computer but your own brain. And, using that part of the brain is fun."


Explore for more
BRITISH COLUMBIA

CAREER PROFILE

# HAUL TRUCK DRIVER

**Name**: Amy Johnson
**Employer**: Huckleberry Mines Ltd.
**Education**: Environmental Monitoring Course

Amy was introduced to the exploration and mining industry through a course she took at the Northwest Community College's School of Exploration and Mining. The Environmental Monitoring course was 2 months long and gave her a good introduction to the industry. "The course was amazing to take and I would recommend it to anyone who is looking to get into the mining industry"

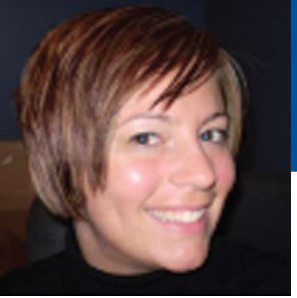
After completing the course Amy applied to Huckleberry Mine with a general application. She got the opportunity to train as a haul truck driver through on-site training.

Haul drivers have a specific and essential role within the mining industry. There are many different types of haul trucks used on mines sites and other construction sites.

The haul truck driver will haul predominantly rock; sometimes ore to stockpiles or the crusher for processing, some waste rock to the dump or to be used in construction projects, some overburden and on some sites dry tailings.

Amy works a rotational shift of 4 days on and 4 days off and stays in camps trailers while on the mine site. Work days begin early around 5:45 am where the crew meets and tasks are delegated by the shift boss. Crew work 12 hour shifts from 6 to 6, with both a day shift and a night shift.

Amy has been driving haul truck for 3 years now and still loves her job. "I get paid to play in the dirt with my friends in the most beautiful part of the valley". Amy says that her favorite part is getting to form a close relationship with the crew, "you spend so much time together that they basically become family; that makes work fun".



Explore for more BRITISH COLUMBIA

CAREER PROFILE

# HEALTH & SAFETY COORDINATOR

**Name**: Shannon Truax
**Employer**: Holcim Ltd., Dufferin Aggregates
**Education**: Environmental Engineering Technology Diploma

Shannon likes the fast-paced environment of her job. As she says, “I like how no two days are the same--I am constantly presented with new challenges that keep me learning!”

Shannon has five sites for which she takes care of the human resources (HR) and safety concerns. For example, on one site she might provide safety talks, on another, explain safe working procedures and on a third, how to recruit new employees. “Most of my days are spent at one or more of my sites. I go for site tours and visit with frontline supervisors and hourly employees. I think it is beneficial to get out there and see what is going on at the sites, to provide the support that they need.”

As well, Shannon monitors any safety incidents or problems and tracks them to see if there are any trends.

In addition to working with employees, she also works closely with Dufferin’s external contractors to ensure they are working safely on company sites.

As for a career in the industry, Shannon believes that the mining industry is well-suited for people who like a fast-paced, constantly changing environment. Even though most of the principles will always remain the same, new programs and procedures are often emerging. Shannon’s employer has provided her with the training she needs to do well in her job, even as the requirements change.

Explore for more
BRITISH COLUMBIA

CAREER PROFILE

# HEAVY DUTY MECHANIC (APPRENTICE)

**Name**: Vince Aubichon
**Employer**: Kemess Mine, Northgate Minerals Corporation
**Education**: Heavy Duty Equipment Apprenticeship Training

Vince works at the Kemess Mine, a remote site one hour by air from Prince George. He works on a two-week in, two-week out rotation. While on the job, he works 12-16 hours in a shift, for 14 straight days. The schedule is intense, but also has benefits. For example, in his two weeks off, Vince is free to pursue hobbies like snowboarding!

Vince is a heavy duty mechanic apprentice and part of the mine's shovel and drill crew. He services and repairs this huge equipment; a specialized mining shovel can be larger than most houses. Maintenance work can be time consuming and quite complex. As Vince notes, "Recently, we finished a large service job. We had taken one of our shovels in half. We lifted the house (the main part of the shovel), walked the car body out from underneath it, then replaced the ring gear, rollers, and roller paths. The whole job took about a month to complete." As well, if a shovel breaks down on the job, Vince's team must get it repaired immediately.

People who like working in the outdoors, are good with their hands and like problem-solving would do well in this career. Vince believes that it also takes individuals with a certain attitude. "You have to be able to give and receive a bit of joking here and there. You come to work, we have some fun."

Vince likes where he lives and wants to stay in BC. He has been able to advance in his career and plans to continue working in the mining industry.


Explore for more
BRITISH COLUMBIA

CAREER PROFILE

# HOIST ENGINEER/COORDINATOR

**Name**: Daniel Ignatow
**Employer**: Vale Inco Ltd.
**Education**: BEng in Mechanical Engineering

Daniel loves diversity, which is why a career in mining is such a good fit for him. He is exposed to diverse equipment, diverse skill sets among co-workers and a challenging environment. His current role is a Hoist Engineer/Coordinator, which makes him responsible for conveyances travelling the mine shaft.

“It is challenging to work in a remote operation that produces 24 hours a day seven days a week,” he said. “But you also get to work alongside maintenance tradespeople, who help you better understand the equipment, and other professionals and technicians with different backgrounds and levels of experience. In addition, there is a hands-on component. You don’t get that coming out of university.”

He used the task of banking conveyances in the shaft as an example of working with different skill sets. “I have worked with the riggers. I know what they’re doing. I’m not able to do their job, but I have an appreciation of their challenges and what they’re going through as I sit in the hoist room working things from my end,” he explained.

Many of these working relationships continue out of the workplace, as well, as Daniel finds there are people interested in the same outdoor activities as he is. Marksmanship, scuba diving, fishing, boating and home renovations are all in the ‘back yard’ in remote locations, which is as much as a bonus to Daniel as the excellent pay and incentive system offered by his mining company.

He says a career in mechanical engineering opens up options in maintenance, support and supervision in a variety of specialties in both mining and ore processing. His specialty is hoisting and Daniel says he will continue to work to the highest quality in an ethical and efficient manner, producing even better results than are expected of him.

Explore for more
BRITISH COLUMBIA

CAREER PROFILE

# HYDROGEOLOGIST

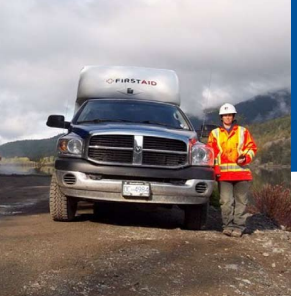
**Name**: Thomas Kolb
**Employer**: Hemmera Envirochem Inc.
**Education**: BSc in Geology

When a summer stint as an exploration geologist searching for the unique nickel-iron alloy awaruite came to an end, Thomas Kolb jumped at a unique opportunity working as a hydrogeologist with Hemmera. Hydrogeologist study the interactions between groundwater and the sub-surface -- particularly the pathways that water follows as it moves underground.

“After graduating, I didn’t have any expectations of getting a hydrogeology job in the industry right away,” said Thomas, who holds a geology degree from UBC. “A friend put me in touch with Hemmera and suddenly I had an opportunity to jump feet first into a hydrogeology role, which is pretty cool.”

Thomas spends a lot of time in office, writing reports and modelling, but also gets out in the field where his work often focuses on hydraulic connectivity – the ease at which groundwater flows through soil and rock. This allows him to model how long it would take contaminants to travel certain distances, which is useful in better understanding the environmental impacts of mining activities. He drills holes in the ground using truckmounted augers, studies changes in the soil profile and installs monitoring wells. At the office, he writes reports and stays up to date on government regulations. Thomas’ work helps mining companies put together applications for environmental certificates and permits. He also helps companies with operating mines deal with wastewater and select remediation options.

“I love the variety. On any given day I’m working on multiple projects that have unique needs. There’s always something surprising going on,” said Thomas.

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BRITISH COLUMBIA

CAREER PROFILE

# MEDIC (FIRST AID)

**Name**: Kendra Syme
**Employer**: Kendra First Aid Services
**Education**: PCP-IV Paramedic

Kendra was working as a paramedic with BC ambulance when she decided to start her own company with just herself and one mobile treatment centre. Kendra now has 3 mobile treatment centres, a retail first aid supply store and is a DOT certified collection sight for drug and alcohol testing.

Kendra has supplied personnel for a variety of industries including small fly-in exploration camps and large operating mine sites which require up to a paramedic plus mobile treatment center. Kendra explains, “Each job is unique so we supply the client with the medic support that is required for their project”.

A medic working for Kendra would require a minimum of a level 3 first aid ticket and a valid driver’s license.

A typical OFA level 3 first aid course takes three weeks to complete. Other tickets like: Workplace Hazardous Material Information System (WHIMIS), Transportation of Dangerous Goods (TDG), Hydrogen Sulfi de Training (H2S) and Bear Aware are an asset.

A two week on two week off rotation is typical in this position. Once on the job the daily duties change from site to site; they may include paper work, light duty jobs around the work site, core handling or kitchen work. The most important role of the medic is safety so they have to be ready to respond to a call at any time.

“There are many opportunities for medics within the exploration and mining industry.” Kendra encourages her medics to excel in current training and acquire additional tickets. “These skills transfer into many other industries and once you have your paramedic ticket you can work with BC Ambulance.”

Explore for more BRITISH COLUMBIA

CAREER PROFILE

# METALLURGICAL ENGINEER

**Name**: Brian Oliver
**Employer**: Vale Inco Ltd.
**Education**: BASc. in Engineering Science

Brian enjoys the variety and challenges that come with being a Project Metallurgist at Vale Inco's Thompson Nickel Refinery, supplier of the world's highest quality electronickel. "It's satisfying to know that I contribute to making a product that is of fundamental usefulness to society—our nickel is used in everything from home appliances to automotive and aerospace components to compact disc production."

As a Professional Engineer, Brian conducts in-plant research and development to optimize the refining process and introduce new technology to the plant. He also participates in process engineering for large capital projects. His time is divided between the desk, the laboratory, and the plant floor. Brian enjoys the contrast between the fast-paced industrial environment he works in and the relaxed pace of life in a small, northern city. He is free to use the time he once spent commuting to work in a large city to pursue his hobbies of cycling, skiing, and music.

Before moving to Manitoba, Brian worked at the company's research and development facility in Mississauga. "There are so many opportunities in this company and in the industry as a whole—in just a few years I've travelled and worked at our company's locations in Ontario and Newfoundland, attended and presented at industry conferences, and travelled in the United States to collaborate with other engineers. I would highly recommend a career in this field."

Explore for more
BRITISH COLUMBIA

CAREER PROFILE

# MINE DESIGNER

**Name**: Tamara Perreault
**Employer**: Stantec Consulting Ltd.
**Education**: Mining Engineering Technology Diploma

Technology is extremely important in Tamara Perreault's work. She uses two-dimensional and three-dimensional programs to design new mines. On other projects, she will work with an existing mine that is developing newly discovered ore. Tamara uses other software to evaluate the ore and to confirm how and where to mine within the overall ore body. These programs also help her calculate the value of the ore based on current market conditions. Tamara comments, "Without some of the computer programs we use we wouldn't be able to do what we do as quickly or as accurately."

Tamara is pleased with her mining education. As she says, "My education is the basis of my knowledge. My courses taught me about various mining methods and some of the programs needed to do the work that I do. The instructors gave me what I needed to begin my career. From here I continue to build on that base and expand my knowledge."

Tamara continues to learn in her career and sees a lot of opportunities in the mining industry. She enjoys the pace as well as the variety in her day to day work. "I enjoy the fast paced environment. When we have work for a client we want to get it done as quickly as possible. I love challenges and working here I have the opportunity to face them regularly. Different projects present different challenges and each project has its own highlights."

As for her future, Tamara would like to move into a leadership position within the mining industry.

Explore for more BRITISH COLUMBIA

CAREER PROFILE

# MINERALS PROCESSING OPERATOR

**Name**: Dawn Hamilton
**Employer**: Iron Ore Company of Canada
**Education**: Mining and Mineral Processing Diploma

Dawn Hamilton has been working in the mining industry for almost six years. She started as a process technician, then worked as a haul-truck operator and now works in the chemical laboratory as a sampler analyst performing quality control.

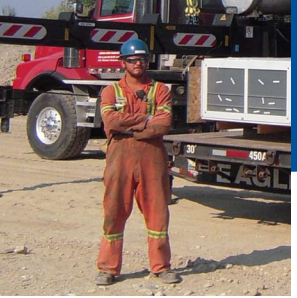
Dawn works with a team leader, chemist and three analysts. It's a close team environment, everyone has to communicate closely with each other since the work of one team member has an impact on the work of others.

"We have many different stations where we perform tasks," says Dawn. "At the "quicks" bench, we dry, split and weigh ore samples, and then use automation to get a chemical read out on the samples. "Inside quicks" is another part of the lab where we measure for magnetic content, for iron, silica and carbon. The third station is where we test the iron pellets. Each station has an important role in the overall process. For example, the results on an hourly basis are used by the Pelletizing and Concentrating Team leaders to make adjustments to the quality output, resulting in a final product that is within conformance of customer requirements."

"I'm learning something new every day and I've benefited from training and mentoring at every stage of my career progression. I had a mentor for several weeks when I first became an analyst."

Dawn believes that to do well as a processing operator technician, a person needs strong inter-personal and communications skills and be disciplined and safety conscious not only in terms of his or her own safety, but that of others, too.

In Dawn's view, the opportunities and options in mining are endless. She also notes that, "Some women believe that it's difficult working with men at a mine. But the fact is, it's an inclusive, respectful environment."



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BRITISH COLUMBIA

CAREER PROFILE
# MILLWRIGHT (APPRENTICE)

**Name**: Clinton Glover
**Employer**: LeHigh Materials
**Education**: Millwright Apprenticeship Training

As a millwright apprentice, Clinton is busy working on multiple projects. Millwrights fix all the machinery on site, install new machinery, fabricate, weld and rebuild equipment. They are also responsible for maintenance. Clinton thoroughly enjoys his work. “I love working with wrenches. I love having the experience to be able rip apart machinery and to be able to rebuild it.”

When he started, Clinton was a labourer with no specific background in mechanics. The maintenance supervisor offered him an apprenticeship and he has progressed from there. He has attended technical school for two months each year, as part of a four-year apprenticeship.

For Clinton, every shift is different. “As a millwright you go through everything that’s involved with that machine and look for any defect that could potentially shut it down.”

Aggregate mines have different plants on the site, with one plant processing materials that then move to another plant. If one stops, this might start a chain reaction that ends up shutting down other plants.

Clinton believes that to enjoy a career as a millwright, you must be comfortable getting greasy and dirty. You need to get along with other people, since you work throughout the site. You read blueprints, look at schematics, come up with your own ideas and actually get a job done. You also have to think about the safety aspects of every job.

Clinton likes BC, for the scenery and the activities he can do on his days off. He plans to qualify as a millwright in BC and get his Red Seal certification, which would enable him to practice his trade across the country.

Explore for more BRITISH COLUMBIA

CAREER PROFILE

# MILLWRIGHT (CERTIFIED)

**Name**: Rodney Pierce
**Employer**: Lehigh Materials
**Education**: Millwright Apprenticeship Training

When Rodney began his career in the mining industry, an apprenticeship was “not part of the plan.” But he knew that getting hired was the start of many possibilities. Being in British Columbia, he also is able to enjoy the scenery and the outdoor life.

Rodney started as general labourer; his company needed a millwright apprentice and Rodney took a test, passed, and began his four-year apprenticeship program. Each year he went to school for seven weeks of training.

Rodney moves throughout the mine site, driving a service truck that is equipped with a portable welder, portable torches and boxes in the back for tools. Rodney’s job is to inspect and maintain all the machinery, make any repairs and make certain that the equipment is up and running before the end of the day.

For example, Rodney might work at the crushing plant with another millwright, checking the screens that separate and filter out the rock. He goes through each screen and changes out ones that are damaged or wearing out. Each day is different.

What Rodney enjoys most about mining are the people. “We’re a close-knit group and everybody gets along together.” To succeed as a millwright, he thinks a person should be comfortable working hands-on and be good with hand tools. Millwrights must be able to work in a team and independently and should also have good leadership skills. They work outdoors a lot and so need to deal with the weather.

With his apprenticeship complete, Rodney plans to continue as a millwright, knowing that his skills are transferable throughout the mining industry.

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BRITISH COLUMBIA

CAREER PROFILE
# MILLWRIGHT (JOURNEYPERSON)

**Name**: Jon Thompson
**Employer**: Quinsam Coal, Hillsborough Resources Limited
**Education**: Millwright Apprenticeship Training

In a typical day, Jon spends part of his time “outside” (above ground in the shop) and the rest working 3 kilometers underground in a coal mine. As a millwright, he repairs and maintains equipment throughout the mine. He might replace a motor on a conveyor or bring a piece of equipment to the surface to fix it there. To move around the mine, he drives in a four wheel drive buggy, called a manrider.

For Jon, working underground is one part of his job that he likes most. “You don’t have to worry about the weather outside. Even though it’s dark, it’s basically dry. I don’t have to worry about the snow or heat. You always know your environment.” Jon works shifts of 2 days of 12 hours, followed by 2 nights of 12 hours, and then 4 days off. He returns home at the end of every shift.

He also enjoys the people he works with. Jon has bosses from Brazil and England and different parts of Canada. “My work partner is an electrician from England – we’ve actually became really good friends. It’s neat meeting people all the time.”

To do their jobs well, millwrights have to be good at Math. Previous mechanical experience wasn’t a requirement for Jon, since everything he needed to know he learned on the job and through his apprenticeship training. Jon believes, “that an average Joe can get into this business and do well– as long as they’re willing to give a try at it.”

Jon sees great career opportunities in the mining industry. His company constantly offers opportunities for employees to improve their skills. Jon loves being in British Columbia, especially on the coast with the water close at hand. He’s lived in the province his whole life and has no plans to move.

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CAREER PROFILE

# PROSPECTOR

**Name**: Jessica Bjorkman
**Employer**: Contract work
**Education**: Introduction to Geology Course and Wilderness First Aid

Jessica's love for the outdoors, exploration and adventure led her into a career as a prospector. She has never looked back: "It's too bad that people don't know about prospecting. People have this image of an old guy in the Yukon panning for gold." Rather than using pans, prospectors research promising grounds through computer databases and the Internet, and carry global positioning systems to pinpoint mineralization.

Braving the wilderness, hiking through the bush and flying over breathtaking landscapes can all be in a day's work for a prospector. "You definitely have to have the personality to put up with harsh conditions and just keep it going. You can't be a quitter."

It also takes time and hard work to build a good reputation in this field. Jessica finds that networking is the best way to sell her services to prospective mining and exploration companies. Now that she is well known, the work is steady and the pay is good. Contract prospecting and claim staking jobs can range from a few days to two or three weeks.

When not working on contracts, Jessica stakes her own claims for exclusive mineral rights. She also hopes to launch an adventure tourism business. At 25, Jessica has carved an exciting career for herself that fits well with her strengths and interests.

Explore for more BRITISH COLUMBIA

CAREER PROFILE

# TRAINING COORDINATOR

**Name**: Guy Bergeron
**Employer**: ArcelorMittal
**Education**: Natural Sciences Diploma

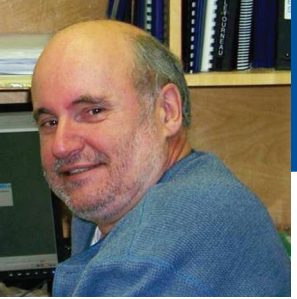
Guy Bergeron has held the position of Training Coordinator at ArcelorMittal for six years now. His work consists of planning and coordinating employee training at the pellet plant. Safety being a priority issue, a large portion of the training activities are centered around safety in the workplace. His responsibilities also include providing training related to new technologies and orientation services for new employees. His duties include conducting training needs analysis, following-up on the employees' training records, planning training schedules and coordinating training with the Union. Guy also acts as a consultant to management.

Guy started his career at ArcelorMittal as a laboratory technician and held several positions before accepting his present job. His employer helped him advance within the company by offering him professional retraining at different moments in his career. He has greatly appreciated the opportunities for professional development that were provided to him.

Indeed, Guy believes that the mining industry offers a great many opportunities. The large variety of jobs available and the career development possibilities make this sector a very attractive one. "Individuals who have both the potential and the interest can look forward to an exceptional career in this industry," says Guy.

"Most people do not know much about the mining industry," declares Guy. "People in the industry do not only work in mines." Human relations are an important part of this industry and it is precisely what Guy loves about his work. "I like having contact with people. I like sharing my knowledge and my values."

What does the future hold in store for Guy? He is currently looking forward to accepting a new challenge within the company, thereby benefiting from yet another opportunity to advance his career.



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CAREER PROFILE

# TRAINING INSTRUCTOR/ GROUP LEADER

**Name**: Denis Parent
**Employer**: ArcelorMittal
**Education**: Secondary School

"I was born in the mines," says Denis Parent. "On rainy days, we could hear the noise from the trucks in the mines." It is therefore not surprising that Mr. Parent, a training instructor and group leader at ArcelorMittal, has made a career in the mining industry. He has been in his current position for two years now, but has worked in the industry for 36 years. He first started as a day labourer and has held different positions throughout his career. It was in 1988 that he began to operate loading equipment.

Loading equipment operators hold key positions in mine production. They are responsible for loading the waste or the mill-feed material in accordance with the controller's specifications and truck load restrictions. Operators use three different types of scoops (excavation machines) and two different types of loaders at the mine. Each operator is responsible for taking great care of this complex and expensive equipment. In order to ensure the safety of everyone at the mine and to contribute to efficient production, operators receive extensive training.

Denis is responsible in his current position for providing this training. His work consists of developing training programs, training operators and teaming up with the training facilitators who are responsible for the field training. The objective is to ensure thorough and safe training for everyone. Denis loves his work mostly because he likes having contact with people. Each new employee who starts training represents a new challenge for him, one that he undertakes with passion.

Denis believes there are a lot of opportunities in the mining industry. "In the past," says Denis, "all a person needed to become a miner was to be tall and strong. Today, things have changed." He emphasizes that, thanks to the new technologies being introduced, the mining industry is now becoming more interesting for young people. "There is also an increasing number of women in the industry who excel as loading equipment operators," states Denis.

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CAREER PROFILE

# UNDERGROUND MINER

**Name**: Francis Bellerose
**Employer**: IAMGOLD Corporation
**Education**: Mining Diploma

Francis Bellerose is a stope miner, also called an underground miner. He studied at the Centre de formation professionnelle in Val-d'Or during a period of eight months to obtain his Vocational School Diploma in mining. However, his training did not end there. During his employment at IAMGOLD, he completed a 120-day field training course under the supervision of a more experienced miner. "The course is an introduction to the groundwork, but it is in the mines that we learn the basics of the trade," he states.

Francis is part of a mining team which initiates the process of extracting the rock and the ore from the earth. Stope miners work underground using sophisticated machines and equipment in order to ensure the ground is secure to drill the rock which contains the minerals and metals sought in preparation for blasting. Other members of the team are in charge of blasting and moving the rock. "To do this type of work, you need good physical endurance, resourcefulness and the ability to work alone for long periods of time. And you definitely cannot be claustrophobic," says Francis.

Francis enjoys his work because he likes to keep moving and to be physically active. According to Francis, "The 10-hour work shift is over quickly. There is always something to do and I am never bored." He also realizes that if there ever came a time when he could no longer do this job, there are other opportunities in the mines for work that is less physically demanding. Because of the diverse employment options it offers, Francis foresees a career in the mining industry.

- **British Columbia's mining industry is one of the safest industrial sectors in the province.**
- **The industry is high tech, providing opportunities to work with state of the art technology, robotics and other advanced tools.**
- **British Columbia's mining industry is the largest private sector employer of Aboriginal peoples.**
- **Mining is continually implementing new, environmentally and socially conscientious business practices.**
- **British Columbia was one of the first areas in Canada to enact mine reclamation laws.**

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