



Commission locale
de formation et
d'adaptation de
la main-d'oeuvre



**MUSKOKA
NIPISSING
PARRY SOUND**

Local Training and
Adjustment Board

Careers in Mining

A handbook compiled by the Muskoka Nipissing
Parry Sound Local Training and Adjustment Board



Canada

 Ontario

MINING WEEK
NORTH BAY 

Table of Contents

Mining in the Blue Sky Region	3
Work Local, Work Global	4
Common Core Program	5
Careers within the Mining Sector	
Section 1 - Mining and Trades Occupations	7
Section 2 - Other Professional Occupations	44
What is an Apprentice?	59
What is the Interprovincial Red Seal Program?	60
Ontario Youth Apprenticeship Program	61
Passport to Prosperity	63
Your Health and Safety	64
Postsecondary Education in Ontario	66
More Ways to Obtain Information about the Mining Sector and Jobs	
Section 1 - Sites Specific to the Mining Sector	68
Section 2 - Job Search, Labour Market Information and Career Development Sites	69



Commission locale
de formation et
d'adaptation de
la main-d'oeuvre



**MUSKOKA
NIPISSING
PARRY SOUND**
Local Training and
Adjustment Board

Muskoka, Nipissing, Parry Sound Local Training and Adjustment Board

101 Worthington Street East, Suite 238, North Bay, ON P5A 1G5

Tel. 705.474.0812 or 800.331.0882 • Fax 705.474.2069

Email mnpns@ltab20.on.ca • Web www.ltab20.on.ca

Mining in the Blue Sky Region

– Sounds Impossible Doesn't It?

The mining supply industry within the region comprises of approximately 65 companies, creating 1,300 direct and 2,000 indirect jobs. The current and forecasted need for many of the occupations within the mining equipment and services sector requires new workers for various professions and occupations.

The North Bay Mining Week Committee, representing these 65 companies, realized that it needed to inform and educate the young people about the benefits and opportunities of a career in the mining sector. With funding support by the Government of Canada (Human Resources Development Canada), the Ontario Government's Ministry of Training, Colleges and Universities (MTCU) along with hands on support and project management

provided by the Muskoka, Nipissing, Parry Sound Local Training and Adjustment Board (LTAB), and members of the Mining Week Committee this "Careers in Mining" handbook was created.

The handbook provides you with the key career opportunities within our industry, how to become employed in particular careers, the career paths

to the occupations, how to get training and also where to turn for information such as apprenticeship, and much more.

On behalf of North Bay's Mining Week Committee, I invite you to discover the many career possibilities that await you in the local mining industry and hope that you will join this fascinating world.

Linda B. Malcolm
Chair
North Bay Mining Week Committee



The handbook provides you with the key career opportunities within our industry

Work Local, Work Global

Did you know that North Bay is headquarters to a number of local and international companies responsible for supplying not only Northern Ontario, but Canadian and global mine sites with the services, equipment and tools required to mine, smelt, refine and process minerals?

These companies supply some of the best customized underground mining vehicles, handle the sales and marketing of compressors, generators, construction and mining equipment, pneumatic and electric power tools, manufacture and market diamond core drilling equipment, contract drilling services in the field of mineral exploration, environmental monitoring, provide shaft sinking, mine development, underground construction and contract mining services to the mining and civil construction industries, fabricate steelwork for the mining industry, domestically and internationally.

*Remember...if it isn't
grown, it's MINED!*

What impact would you think that approximately 65 local businesses within the Mining Supply and Service Sector have on the local economy? Consider that the local Mining Supply Industry produces an estimated \$280 million in output annually. According to

a study completed by Suthey Holler Associates entitled "Economic Impact of Mining and Mining Supply in the Nipissing East-Parry Sound Region", about \$142 million of this represents the purchase of goods and services, of which an estimated \$20 million to \$35 million is spent locally.

Would it surprise you to know that the North Bay area Mining Supply and Service Sector directly employs over 1300 people? Workers enjoy the benefits of good paying, oftentimes unionized working environments that offer local and global career opportunities.

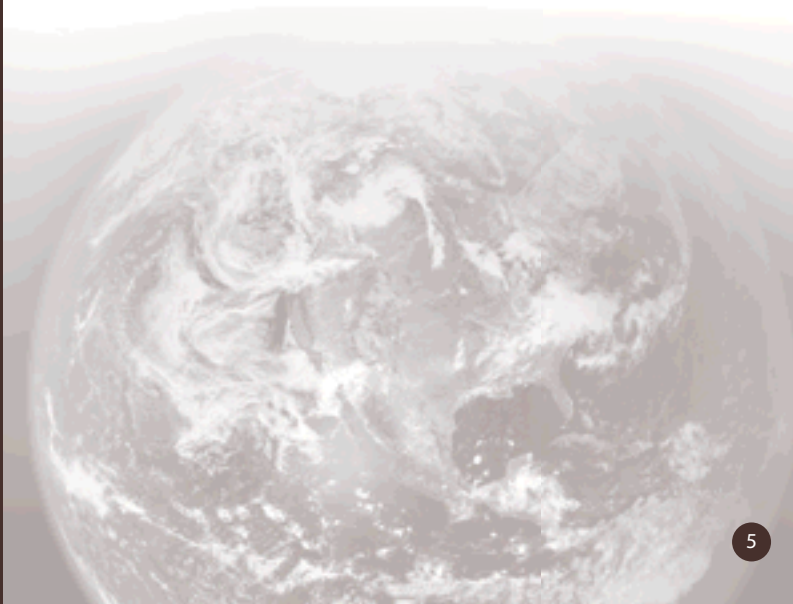
Are you bilingual and do you enjoy world travel? Or have you ever dreamed of working abroad? Your ability to speak more than one language; English, French, Spanish, Mandarin, German for example, coupled with your professional skills, makes you an

ideal candidate for full-time or contract work on the International Mining Sector scene! Whether your passion is sales, project management or mining, there is a place for you, somewhere abroad. And the best part, you continue to be employed by a Canadian firm!

On behalf of the Board of Directors for the Muskoka, Nipissing, Parry Sound Local Training and Adjustment Board, I hope this reference handbook is for you, a useful tool as you peruse the information within it, explore the world of mining, consider the possibilities and discover the lifelong and rewarding career opportunities available to you right here in our region!

Remember...if it isn't grown, it's MINED!

Donna Maitland
Executive Director
LTAB



Common Core Mine Training

The Program Development and Standards Unit of the Ministry of Training, Colleges and Universities developed training Standards for Common Core Mine Training in consultation with representatives from the industry. These Training Standards are to be used by trainees, trainers/instructors and companies as a “blueprint” for training or a prerequisite for government accreditation/certification. The Training Standards developed are intended, as guidelines for training and all issues might not apply in all operations.

The occupation within the industry and the employer, together with the Ministry of Training, Colleges and Universities determines the level of Common Core Mine Training required of the worker.

Most persons employed within the sector will need to have completed some form of Common Core Mine Training. These include personnel who are Estimators, Cage Tenders, Security Guards, Supervisors, Hard Rock Miners and Surface Miners. Common Core Mine Training is not only for Miners!

It should therefore be understood that most mining sector occupations referenced in this handbook would require the successful completion of one or more Common Core Mine

Training Modules. Information about the particular requirements should be obtained from the individual employer and the reader should not rely solely on this Handbook as a source of information for specific training requirements. The training requirements are constantly evolving and changing.

Most mining sector occupations referenced in this handbook would require the successful completion of one or more Common Core Mine Training Modules

There are several levels or areas of specialty within Common Core Mine Training. These include:

- Common Core Basic Underground Hard Rock Miner
- Specialty Modules Program for Underground Hard Rock Mining
- Common Core First Line Production Supervisor – Underground Hard Rock Mining
- Common Core for Basic Mills Process Operations – Mineral Ore
- Specialty Modules Program for Mill Process Operators – Mineral Ore
- Underground Diamond Drilling
- Surface Diamond Drilling
- Common Core Underground Soft Rock Mining Skills
- Specialty Modules Program – Underground Soft Rock Mining.

In addition to the above Modules, Surface and Underground Diamond Drillers need to be certified in Common Core – Runner /Helper developed specifically for them by the Canadian Diamond Drilling Association and the Ministry of Training, Colleges and Universities.

ADVERTISEMENT



G&P *welding and ironworks limited*

Specializing in the design, fabrication and erection of steel products.

1872 Seymour Street, North Bay, ON P1B 8G4
t. 705.472.5454 · f. 472.0610 · e. info@gpwelding.com

www.gpwelding.com



Blaster

NOC - 7372



Job Description

Blasters handle explosives in an underground production environment and load blast holes with explosives to create production ore. They read instructions and lay out drill patterns determining depth and diameter of blast hole. They conduct field tests to determine the type of explosives required, direct other workers to assemble primer charges using selected detonators, fuses and detonating cords. They load explosives in blast hole by hand or by operating a truck or tracked-mounted rotary drill. They connect electrical wires, detonating cords or fuses into series and connect series to blasting machines, press handle or button to detonate charges. They may handle, store and transport explosives and accessories.



Knowledge and Skills

Blasters must have knowledge of underground mining operations, ensure regulations are adhered to, read instructions or diagrams and use explosives safely.



Working Conditions

Underground and surface mining environments.



Education, Training & Certification

Engineering Technician and Technology College Diploma or University Degree in Mining Engineering and completion of associated industry specific Common Core Certification/Accreditation.



Salary Range*

\$60,000 to \$90,000 per year.

**The mining industry consists of, but is not limited to, the careers described in the pages that follow. Many of these trades and occupations benefit from monetary incentives based on performance/production, safety record, project location, etc. The salary ranges provided do not necessarily reflect those incentives.*



Cage Tender

NOC - 8411



Job Description

Cage Tenders operate mineshaft elevators or cages that are used to bring materials and workers to and from the job safely. They operate and maintain chutes or conveyor systems to control flow of minerals in underground mines. They are responsible to attach and extend ventilation and water pipes. They assist miners in setting up and operating various drills and other mining machinery. They supply and maintain backfill distribution of sand, rock or other materials. They operate diesel or electric track haulage equipment such as trains to distribute personnel and supplies and to convey materials to primary crusher or skip. They maintain supply storage areas, equipment and supplies such as explosives, drill bits, fire extinguishers, lamps and batteries.



Knowledge and Skills

Cage Tenders must have knowledge understanding of all the level signals to arrive at the proper destination and demonstrate the ability to operate shaft conveyances and to load and unload materials from the cage in a safe and efficient manner. They must have knowledge of the system used for hoisting materials and waste from the loading pocket locations, and a knowledge of the mine's regulations for the transportation of workers and materials.



Working Conditions

Underground and surface mining environments.



Education, Training & Certification

Ontario Secondary School Diploma and completion of associated industry specific Common Core Certification/Accreditation.



Salary Range

\$17.50 to \$22.00 per hour.



Construction Miner

NOC - 2170



Job Description

Construction Miners construct, erect, install, maintain and repair structures and components made of wood and other materials. They perform various tasks such as inspecting equipment, scaling, drilling with plugger, jackleg and stopper drills, erecting work platforms and constructing safety bulkheads. Construction Miners read and interpret blueprints, drawings and sketches to determine specifications and calculate requirements in order to build, maintain, repair, and renovate structures.



Knowledge and Skills

Construction Miners must have good knowledge on how to construct forms and complete underground installations. They must be able to read and understand construction plans for various installations.



Working Conditions

Underground and surface mining environments.



Education, Training & Certification

Ontario Secondary School Diploma, an Apprenticeship Program and completion of associated industry specific Common Core Certification/Accreditation.



Salary Range

\$ 16.00 to \$ 18.00 per hour.

“The mining sector is comprised of highly skilled and educated workers, capable of operating robotics and computers as well as the most high-tech equipment.”

MITAC



Construction Supervisor

NOC - 8221



Job Description

Construction Supervisors lead and supervise a unit group in surface and underground mining construction projects and coordinate the activities of the workers. The Construction Supervisors are responsible for the health and safety of the workers. They establish effective methods to meet work schedules. They discuss problems or concerns with management and help resolve disagreements while recommending measures to improve productivity, hiring and promotion of employees and preparing production reports.



Knowledge and Skills

Construction Supervisors must have knowledge of, and adhere to all working procedures. They must ensure the work is completed in a safe and efficient manner and demonstrate team leadership by guiding and directing employees. They should be able to communicate effectively and have time management and organizational skills.



Working Conditions

Underground and surface mining environments.



Education, Training & Certification

Construction College Diploma, an Apprenticeship Program and completion of associated industry specific Common Core Certification/Accreditation.



Salary Range

\$60,000 to \$85,000 per year.



Deck Operator

NOC - 8411



Job Description

Deck Operators in shaft sinking operations perform such varied tasks as ringing signal bells for the operation of shaft conveyance and galloway platform, operating shaft doors, conveyor belts or chutes that control the flow of material at the collar location, and exercising all emergency procedures, slings, gear baskets and other various equipment. Deck Operators handle explosives, operate heavy equipment and shaft winches and maintain supply storage such as explosives, drill bits, fire extinguishers, lamps and batteries.



Knowledge and Skills

Deck Operators must be experienced persons with knowledge and understanding of shaft sinking operations, and all warning lights at the collar location. They must be able to handle explosives in a safe manner and have a great knowledge of all safety procedures and practices.



Working Conditions

Underground and surface mining environments.



Education, Training & Certification

Ontario Secondary School Diploma and completion of associated industry specific Common Core Certification/Accreditation.



Salary Range

\$18.00 to \$22.50 per hour.

"In October 1998, Canada's first diamond mine opened in the Northwest Territories. Once full capacity is reached, this mine alone will account for about 5% of world diamond production."

MITAC



Diamond Driller Helper

NOC - 8411



Job Description

Diamond Driller Helpers service drills and pumps and maintain a clean and safe work area. They coordinate and inform Driller Operators of the required supplies at the beginning and end of each shift, maintain toolboxes, and ensure that the placement, marking, and handling of core is done according to specifications.



Knowledge and Skills

Diamond Driller Helpers must possess strong communication skills, a knowledge of the safety rules and regulations and the ability to be team players.



Working Conditions

Underground and surface mining environments.



Education, Training & Certification

Ontario Secondary School Diploma, completion of associated industry specific Common Core Certification/Accreditation and a Provincial Blasting License may be required.



Salary Range

\$15.00 to \$20.00 per hour.

"In 2001, average weekly earnings in the metal mining industry were \$1169 compared to \$831 in forestry, \$801 in construction and \$600 in the Canadian economy."

MITAC



Diamond Drill Operator

NOC - 8231



Job Description

Diamond Drill Operators are responsible for the operation and maintenance of the assigned drills. They prepare daily reports on the footages and diamonds, coordinate the assigned work to meet deadlines, maintain and repair related equipment and prepare for the next shift. They are responsible for the safety of all personnel.



Knowledge and Skills

Diamond Drill Operators must have leadership, supervisory skills, and knowledge of safety procedures and job hazards.



Working Conditions

Underground and surface mining environments.



Education, Training & Certification

Ontario Secondary School Diploma, completion of associated industry specific Common Core Certification/Accreditation and a Provincial Blasting License may be required.



Salary Range

\$17.00 to \$22.00 per hour.

Canadian Diamond Drilling Association

Represents and deals with governmental departments and agencies to keep the industry abreast of the latest regulatory changes affecting the industry. Links are available to publications, research and industry.
www.canadiandrilling.com



Draftsperson/Designer

NOC - 2253

OYAP
&
APPRENTICESHIP



Job Description

Draftspersons/Designers develop and prepare engineering designs, drawings and layouts of surface mine plans, shaft sinking elevation plans, equipment design, structural drawings, plate work development and details and field drawings of various equipment or machinery. They reproduce field sketches on computer, write technical reports and prepare contracts and tender documents. Specialization available in the following areas: Drafting Technologist or Technician, Engineering Designer and Electrical or Mechanical Draftsperson.



Knowledge and Skills

Draftspersons/Designers must have the ability to work on computer animated drawings of surface or underground plans and the skills to operate a Computer-Assisted Design (CAD) and drafting workstation.



Working Conditions

Office, shop, underground and surface mining environments.



Education, Training & Certification

Engineering Design or Drafting Technologist College Diploma, an Apprenticeship Program and completion of associated industry specific Common Core Certification/Accreditation.



Salary Range

\$16.00 to \$20.00 per hour.

“80% of Canadian mineral and metal production is destined for export.”

MITAC

Electrical Supervisor

NOC - 7212



Job Description

Electrical Supervisors are responsible for supervising the electrical crew who maintain, repair, and install all electrical systems in the mine. Electrical Supervisors coordinate and schedule the activities of workers, establish methods to meet work schedules and coordinate the work activities with subcontractors and other departments. Electrical Supervisors resolve work problems and recommend work measures to improve productivity. They train and ensure that standards for safe working conditions are observed.



Knowledge and Skills

Electrical Supervisors require good communication, organization and presentation skills. They must have current computer knowledge.



Working Conditions

Shop, underground and surface mining environments.



Education, Training & Certification

University Degree in Electrical Engineering, Electrical Engineering Certificate and completion of associated industry specific Common Core Certification/Accreditation.



Salary Range

\$17.00 to \$22.00 per hour.

Electrical and Utilities Safety Association of Ontario

Suite 1-115 Torbarrie Road, Toronto, ON M3L 1G8
416.640.0100 • www.eusa.on.ca



Environmental Engineer

NOC - 2131



Job Description

Environmental Engineers lead and assure facility compliance and implementation of environmental programs. Duties include obtaining environmental permit, preparing reports, managing environmental program. They plan, design programs to monitor air, water and soil quality and develop procedures to clean contaminated sites. Specialization available in the following areas: Civil, Mechanical and Chemical Engineer and Construction Manager.



Knowledge and Skills

Environmental Engineers must maintain and constantly update their knowledge. They must possess interpersonal skills to work with others and be able to set standards and guidelines for safe operations.



Working Conditions

Office, shop, underground and surface mining environments.



Education, Training & Certification

Bachelor of Science or a Masters Degree in Environmental Engineering, license from a provincial/territorial Association of Professional Engineers and completion of associated industry specific Common Core Certification/Accreditation.



Salary Range

\$60,000 to \$80,000 per year.

Ontario Society of Professional Engineers

4950 Yonge Street, Toronto, ON M2N 6K1

866.763.1654 • www.ospe.on.ca



Geologist

NOC - 2113



Job Description

Geologists carry out research and exploration of mines. They conduct theoretical and applied research to extend knowledge of surface and subsurface features of the earth, its history and the operation of physical, chemical and biological systems that control its evolution. Geologists plan, direct and participate in geological field studies, analysis of core samples, drilling and geological testing programs. Geologists identify deposits of construction materials and determine their characteristics and suitability for use. Specialization available in the following areas: Development or Environmental Geologist and Exploration Geologist.



Knowledge and Skills

Geologists must be able to identify potential problems and find appropriate solutions. They must demonstrate sound judgement and have the ability to make recommendations. They must be able to write extensive reports.



Working Conditions

Office, laboratory, underground and surface mining environments.



Education, Training & Certification

University Degree in Geology, Geochemistry or Geophysics and completion of associated industry specific Common Core Certification/Accreditation.



Salary Range

Sr. Geologist \$55,000 to \$85,000 per year.
Jr. Geologist \$45,000 to \$55,000 per year.

Geological Association of Canada

Department of Earth Sciences, Room ER4063, Alexander Murray Building
Memorial University of Newfoundland, St. John's, NL A1B 3X5
709.737.7660 • www.gac.ca



Geological Technician

NOC - 2231



Job Description

Geological Technicians assist and participate in geological surveys, prospecting field trips, exploratory drilling and underground mine survey programs. They operate and maintain geophysical surveys, instruments and equipment and prepare notes, sketches, geological maps and cross-sections. They assist in preparing, transcribing and analyzing survey data and in preparing rock, mineral or metal samples and conducting laboratory tests. Specialization available in the following areas: Assayer, Prospector, Engineering Technician and Rock Mechanic Technician.



Knowledge and Skills

Geological Technicians must be able to identify potential problems, find appropriate solutions, demonstrate sound judgement and be able to make recommendations. They must be able to write extensive reports.



Working Conditions

Office, laboratory, underground and surface mining environments.



Education, Training & Certification

Geological and Mineral Technician College Diploma, certification through the Provincial Associations of Engineering/Applied Science Technologists and Technicians and completion of associated industry specific Common Core Certification/Accreditation.



Salary Range

\$28,000 to \$52,000 per year.

Canadian Council of Technicians and Technologists

285 McLeod Street, Ottawa, ON K2O 1A1
613.328.8123 • www.cctt.ca

Canadian Council of Professional Engineers

100-180 Elgin Street, Ottawa, ON KEP 2K3
613.241.3600 • www.ccpe.ca

Heavy-Duty Equipment Mechanic

NOC - 7312



Job Description

Heavy-Duty Mechanics repair, service and maintain heavy equipment by troubleshooting, adjusting and overhauling mining equipment. They inspect bulldozers, cranes, graders and other equipment for proper performance and check equipment to detect faults and malfunctions. They diagnose faults and malfunctions by utilizing computerized equipment to determine the extent of repairs required. They test repaired equipment to ensure performance. They are responsible for cleaning and lubricating equipment. Specialization available in the following areas: Mining Equipment Mechanic, Diesel Mechanic, Heavy-duty Equipment Technician.



Knowledge and Skills

They must be motivated and have good knowledge of all equipment types relevant to the project.



Working Conditions

Shop, underground and surface mining environments.



Education, Training & Certification

Ontario Secondary School Diploma, an Apprenticeship Program and completion of associated industry specific Common Core Certification/Accreditation.



Salary Range

\$17.00 to \$20.00 per hour.

"Canada is the world's fifth leading producer of gold."

MITAC



Hoist Mechanic

NOC - 7312



Job Description

Hoist Mechanics repair and maintain the hoisting equipment including the cages that travel up and down the mineshafts. They are responsible for the maintenance of other components that are part of the hoist structure and connected to the hoist by wire ropes. They ensure safe operations, inspect all components on a weekly basis for irregularities and malfunctions and record and log all inspection reports. Specialization available in the following areas: Heavy-Duty Equipment Mechanic and Heavy Mobile Mining Equipment Mechanic.



Knowledge and Skills

Hoist Mechanics must be motivated individuals who work independently and as team players and who demonstrate precision and accuracy skills. They must be safety conscious and alert at all times, with excellent writing skills.



Working Conditions

Shop, underground and surface mining environments.



Education, Training & Certification

Heavy-Duty Equipment Mechanic College Diploma, an Apprenticeship Program and completion of associated industry specific Common Core Certification/Accreditation.



Salary Range

\$17.00 to \$21.00 per hour.



Hoist Operator

NOC - 8231



Job Description

Hoist Operators are in charge of the safe operation of a Sinking Hoist for shaft sinking operations. They ensure the safe operation of the hoist at all times and test and record all entries in the hoist logbook on a daily basis. They perform routine maintenance of mining machinery.



Knowledge and Skills

Hoist Operators must know and understand the entire shaft sinking signals as required on the project. They must have knowledge of and adhere to all safety procedures. They must be team players.



Working Conditions

Shop, underground and surface mining environments.



Education, Training & Certification

Ontario Secondary School Diploma, a valid Hoist Operators Certificate and completion of associated industry specific Common Core Certification/Accreditation.



Salary Range

\$17.60 to \$22.00 per hour.

Crane & Hoist Service Association

118 Primrose Crescent, Brampton, ON L6V 1E3

905.840.8152 • www.chsa.com

Industrial Electrician

NOC - 7241



Job Description

Industrial Electricians lay out, assemble, install, test, troubleshoot and repair electrical wiring, fixtures, control devices and other related equipment. They read and interpret drawings, circuit diagrams and electrical code specifications to determine layouts for new and existing installations and to troubleshoot and isolate faults in electrical and electronic systems. Industrial Electricians conduct preventative maintenance programs and keep efficient and up-to-date records.



Knowledge and Skills

Industrial Electricians must be self-starters, ambitious, energetic and safety conscious team players with good oral and written communication skills.



Working Conditions

Shop, underground and surface mining environments.



Education, Training & Certification

Electrician College Diploma, an Apprenticeship Program, Certified Electrician and completion of associated industry specific Common Core Certification/Accreditation. Interprovincial Red Seal Certificate is available.



Salary Range

\$18.00 to \$24.00 per hour.

Canadian Electrical Contractors Association

460-170 Attwell Drive Toronto, ON M9W 5Z5
416.675.3226 • www.ceca.org



Instrumentation Mechanic

NOC - 7333



Job Description

Instrumentation Mechanics test, observe, troubleshoot and repair electro-mechanical equipment in a mining environment. They will wind, assemble and install various types of coils and perform static or dynamic balancing on armatures or rotors. Specialization available in the following areas: Electric Motor Mechanic, Machinery Maintenance Mechanic and Equipment Mechanic.



Knowledge and Skills

Instrumentation Mechanics must demonstrate the ability to read blueprints and use machining tools to fabricate or recondition parts. They must be safety conscious self-starters and team players that are capable of effective oral and written communications. They must have extensive computer knowledge.



Working Conditions

Shop, underground and surface mining environments.



Education, Training & Certification

Instrumentation College Diploma, an Apprenticeship Program, Electrical Mechanic Trade Certification and completion of associated industry specific Common Core Certification/ Accreditation. Interprovincial Red Seal Certification is available.



Salary Range

\$20.00 to \$25.00 per hour.



Material Keeper

NOC - 1472



Job Description

Material Keepers are responsible for supplying materials and equipment to the shaft collar location for delivery to underground operations. They control the rolling stock inventory required for mining operations and are responsible for the unloading, in a safe manner, of all material and equipment that is delivered to the mine site. They store materials properly for easy access, load and deliver materials to underground operations.



Knowledge and Skills

Material Keepers must be able to operate regular and heavy equipment to load and unload materials. They must be organized, able to work at a fast pace, meet deadlines and possess the ability to prioritize relevant tasks. They must have rigging and slinging knowledge and experience.



Working Conditions

Office, underground and surface mining environments.



Education, Training & Certification

Ontario Secondary School Diploma, a valid "G" driver's license, a Heavy-Duty Equipment Operator Certificate may be required and completion of associated industry specific Common Core Certification/Accreditation.



Salary Range

\$17.50 to \$21.00 per hour.



Mechanical Engineer

NOC - 2132



Job Description

Mechanical Engineers provide technical support to all projects. They are responsible for the selection, operation, maintenance, troubleshooting, optimization and long-term reliability of hoists, shaft sinking, conveyors, crushers, pumps and mining equipment and will be expected to research, design and develop related products. Specialization available in the following areas: Tool or Robotics Engineer and Mechanical Maintenance Engineer.



Knowledge and Skills

Mechanical Engineers must possess strong communication and leadership skills and the ability to work with others in a team environment. Must be able to write reports, have knowledge of computer programs and demonstrate problem-solving skills.



Working Conditions

Office, shop, underground and surface mining environments.



Education, Training & Certification

University Degree in Mechanical Engineering and Management, completion of associated industry specific Common Core Certification/Accreditation.



Salary Range

\$50,000 to 80,000 per year.

“To maintain its prominent competitive position, the mining industry invested \$323 million in 2000 in new technologies to make operations – from exploration to the production of metal products more efficient.”

MITAC



Millwright

NOC - 8614



Job Description

Millwrights maintain, troubleshoot and repair stationary industrial machinery and mechanical equipment. They must read blueprints, diagrams and schematic drawings to determine work procedures and install, align, dismantle and move stationary industrial machinery and mechanical equipment such as pumps, fans, tanks, conveyors, furnaces and generators according to layout plans. They operate machine tools such as lathes and grinders to fabricate parts, clean, lubricate and perform routine maintenance and construct and assemble foundations for machinery. Specialization available in the following areas: Construction and Maintenance Millwright and Industrial Mechanic.



Knowledge and Skills

Millwrights are certified and possess extensive maintenance experience in heavy machinery and equipment. Welding experience could be required on various installations and they must have knowledge of safe lifting and placing of equipment for installations. Millwrights must be alert self-starters, ambitious and energetic team players skilled in using blueprints, schematics, engineering drawings, test equipment, technical manuals and publications.



Working Conditions

Shop, underground and surface mining environments.



Education, Training & Certification

Ontario Secondary School Diploma, an Apprenticeship Program and completion of associated industry specific Common Core Certification/Accreditation.



Salary Range

\$18.00 to \$24.00 per hour.

Millwright District Council of Ontario

79 Sunrise Ave., Toronto, ON M4A 1A9
416.757.4996 • www.millwrightsontario.com



Mine Inspector

NOC - 2264



Job Description

Mine Inspectors inspect the construction and maintenance of new and existing buildings or constructions to ensure that specifications and building codes are observed. They monitor work site safety, examine plans, drawings and site layouts for new and proposed construction, inspect and test all installations to ensure compliance with regulations and report and ensure corrections of defects, fire hazards and other threats to safety. They inspect sites to ensure that safe working conditions are maintained.



Knowledge and Skills

Mine Inspectors must be skilled at multi-tasking and meeting deadlines while demonstrating sound judgment in decision-making processes. They must be capable of effective oral and written communications to complete accurate reports.



Working Conditions

Office, underground and surface mining environments.



Education, Training & Certification

Construction or Civil Engineering College Diploma, Provincial Certification in Construction Trades and completion of associated industry specific Common Core Certification/Accreditation.



Salary Range

\$18.00 to \$25.00 per hour.



Mine Labourer

NOC - 8614



Job Description

Mine Labourers carry out a variety of general labour duties to assist the miners with the extraction of materials and the maintenance and construction of underground installations. They clean underground rooms, roadways, working areas, mining equipment and conveyances; load, move, sort and pile materials and supplies and clear spills using hand and power tools.



Knowledge and Skills

Mine Labourers must be able to displace materials in a safe and efficient manner. They must have good communication and organizational skills.



Working Conditions

Underground and surface mining environments.



Education, Training & Certification

Ontario Secondary School Diploma and completion of associated industry specific Common Core Certification/Accreditation.



Salary Range

\$12.50 to \$16.90 per hour.

"In 2001, the mining and mining processing industries directly employed 375,533 Canadians. Approximately 46,500 were employed in mining, 54,000 in smelting and refining, and 276,000 in the manufacturing of mineral and metal products."

MITAC



Mine Surveyor

NOC - 2154



Job Description

Mine Surveyors plan, direct and conduct surveys to update or create mining plans. They provide other mine departments with intricate and accurate drawings of all drift, raise and shaft advancement. They review drawings with crews for proper line, offset and grade of the various headings and analyze, manage and display data using distance measuring equipment and Global Positioning Systems (GPS). Mine Surveyors certify and assume liability for surveys.



Knowledge and Skills

Mine Surveyors must have excellent knowledge of the various survey instruments and equipment and the ability to be 100% accurate in the work to be completed on a daily basis.



Working Conditions

Office, underground and surface mining environments.



Education, Training & Certification

University Degree in Geomatics Engineering or a College Diploma in Mining Engineering Technology and completion of associated industry specific Common Core Certification/Accreditation.



Salary Range

\$17.50 to \$24.00 per hour.



Mine Technician

NOC - 2212



Job Description

Mine Technicians ensure material management, project planning, quality control, inspection and surveying. They evaluate drawings to establish material take off lists for pricing, scheduling and ordering, calculate cost summaries for materials, equipment and human resources on a weekly basis and inspect and coordinate underground construction projects, reporting their findings to the project manager. They are responsible for the completion and verification of all paperwork in the office including shift reports and correspondences to and from clients.



Knowledge and Skills

Mine Technicians must be skilled at multi-tasking, meeting deadlines, communicating effectively and completing accurate reports.



Working Conditions

Office, underground and surface mining environments.



Education, Training & Certification

Mine Technician College Diploma and completion of associated industry specific Common Core Certification/Accreditation.



Salary Range

\$18.00 to \$25.00 per hour.

“Mining employs one of every forty employed Canadians, and in the goods producing sector, mining accounts for one in every ten jobs.”

MITAC



Mining Engineer

NOC - 2143



Job Description

Mining Engineers are accountable for all mining projects and obtain all certifications required for projects. They are responsible for the delivery of technical services for projects and maintain short and long term schedules. They recommend appropriate drilling and blasting methods and supervise the technical group consisting of mine planning, ventilation systems, surveying, designing shafts and ground control. Specialization available in the following areas: Mine Safety Engineer, Mine Development Engineer and Mine Layout Engineer.



Knowledge and Skills

Mining Engineers must have strong practical and computer skills in mine design, scheduling, budgeting, ground control and industrial engineering. They must be leaders working well with people and able to give direction to reporting employees. They must be able to design or select mining equipment and prepare reports.



Working Conditions

Office, underground and surface mining environments.



Education, Training & Certification

University Degree in Engineering, a Registered Professional Engineer and completion of associated industry specific Common Core Certification/Accreditation.



Salary Range

\$55,000 to \$75,000 per year.

Canadian Council of Professional Engineers

180 Elgin Street, Suite 100, Ottawa, ON K2P 2K3
613.241.3600 • www.ccpe.ca



Pneumatic Mechanic

NOC - 7311



Job Description

Pneumatic Mechanics install, maintain, troubleshoot and repair pneumatic equipment such as compressors, rock drills, muck machines, Alimak climbers and air tools. They must inspect and examine machinery to detect and investigate irregularities and malfunctions and install, troubleshoot and maintain power transmission, vacuum, hydraulic and pneumatic systems. Specialization available in the following areas: Construction Millwright, Plan Equipment Mechanic and Industrial Mechanic.



Knowledge and Skills

Pneumatic Mechanics must be ambitious, energetic self-starters who are team players requiring little supervision. They must be alert and safety conscious at all times.



Working Conditions

Shop, underground and surface mining environments.



Education, Training & Certification

Heavy-Duty Mechanic College Diploma, an Apprenticeship Program and completion of associated industry specific Common Core Certification/Accreditation. Interprovincial Red Seal Certification is available.



Salary Range

\$17.50 to \$22.00 per hour.

Prospector

NOC - 2212



Job Description

Prospectors conduct or direct geological surveys, prospecting field trips, exploratory drilling and underground mine survey programs. They operate and maintain geophysical surveys and equipment, prepare notes, sketches, geological maps and cross sections. They transcribe and analyze survey data. Prospectors assist in conducting environmental audits to design measures to minimize undesirable environmental effects of new or expanded mining explorations, prepare rock, mineral or metal samples and perform laboratory tests. Specialization available in the following areas: Geological Technologist and Mining Engineering Technologist.



Knowledge and Skills

Prospectors must be able to identify potential problems, find appropriate solutions, demonstrate sound judgement and be able to make recommendations. They must be able to write detailed reports.



Working Conditions

Office, laboratory, underground and surface mining environments.



Education, Training & Certification

Geological and Mineral Technician College Diploma, Provincial Associations of Engineering/Applied Science Technologists and Technicians Certification and completion of associated industry specific Common Core Certification/Accreditation.



Salary Range

\$24,000 to \$45,000 per year.

Prospectors and Developers Association of Canada

900-34 King Street East, Toronto, ON M5C 2X8

416.362.1969 • www.pdac.ca



Raise Miner

NOC - 8614



Job Description

Raise Miners carry out a variety of general duties such as maintaining and constructing underground installations, performing various tasks such as erecting work platforms, scaling loose rock, drilling, installing timber or aluminium sets, loading and blasting rock and ensuring that the drilling patterns follow the mining plans. They read and interpret mine plans.



Knowledge and Skills

Raise Miners must understand the work environment, be alert and safety conscious at all times, and be able to understand mine plans. They must have knowledge of Alimak, Timber, and Aria raising methods. They must work with a partner and be team players.



Working Conditions

Underground and surface mining environments.



Education, Training & Certification

Ontario Secondary School Diploma and completion of associated industry specific Common Core Certification/Accreditation.



Salary Range

\$17.00 to \$21.00 per hour.

“The resource industries, and mining in particular lead all other industry sectors in productivity growth, ranking among the top ten in GDP per worker.”

MITAC



Raise Boring Machine Operator

NOC - 8614



Job Description

Raise Boring Machine Operators perform the day-to-day tasks associated with setting up and operating a Raise boring drill rig. They utilize heavy equipment to handle machine parts, read engineering plans to set up the machine and connect the various components of the machine together and they use the machine controls to adjust operating parameters while boring shafts through solid rock.



Knowledge and Skills

Raise Boring Machine Operators must work with precision and accuracy and be able to read and interpret engineering plans. They must work closely with a partner to form a work crew and must have the knowledge and ability required to operate a Computer Numerical Control (CNC) machine.



Working Conditions

Underground and surface mining environments.



Education, Training & Certification

Machining College Diploma and completion of associated industry specific Common Core Certification/Accreditation.



Salary Range

\$45,000 to \$90,000 per year.



Refiner

NOC – 9231



Job Description

Refiners coordinate and monitor the operation of a particular aspect of mineral processing production through control panels, computer terminals or other control systems, usually from a central control room. They operate multi-function central process control machinery to grind, separate, filter and refine minerals. They observe computer printouts, video monitors and gauges to verify specified processing conditions and to make necessary adjustments as well as start-up and shut-down of the production system in cases of emergency or as required by schedule.



Knowledge and Skills

Refiners must have current computer knowledge and be able to provide and organize training for members of production crew and have the ability to maintain shift log of production and prepare production and other reports.



Working Conditions

Underground and surface mining environments.



Education, Training & Certification

Chemical or Mechanical Engineering Technologies College Diploma and completion of associated industry specific Common Core Certification/Accreditation.



Salary Range

\$16.90 to \$22.55 per hour.



Shaft Electrician

NOC - 7242



Job Description

Shaft Electricians work on shaft-sinking projects and are responsible for all electrical installations and the maintenance of all electrical components during sinking operations. They read and interpret drawings, blueprints, schematics and electrical code specifications. They install, examine, replace and repair electrical wiring, receptacles and switches, conduct preventative maintenance programs, and keep maintenance records. Specialization available in the following areas: Mine Electrician and Industrial Electrician.



Knowledge and Skills

Shaft Electricians must be alert and safety conscious at all times. They must have excellent communication skills and demonstrate their ability to work with precision.



Working Conditions

Underground and surface mining environments.



Education, Training & Certification

Ontario Secondary School Diploma, an Apprenticeship Program, an Electrical Trade Certification and completion of associated industry specific Common Core Certification/Accreditation. Interprovincial Red Seal Certification is available.



Salary Range

\$17.50 to \$22.00 per hour.



Shaft Miner

NOC - 8231



Job Description

Shaft Miners perform various tasks such as scaling, drilling, installing timber sets and steel forms, mucking with a clam into a bucket, pouring concrete into steel forms, installing ground support and signalling to the hoist operator for instructions on hoist movement in the shaft.



Knowledge and Skills

Shaft Miners must be team players and understand the working environment. They must be safety conscious at all times and have good communication skills.



Working Conditions

Underground and surface mining environments.



Education, Training & Certification

Ontario Secondary School Diploma and completion of associated industry specific Common Core Certification/Accreditation.



Salary Range

\$17.00 to \$21.00 per hour.

“For every job created in the mining industry, more than one other job is indirectly created in the Canadian economy.”

MITAC



Underground Mine Support Worker

NOC - 8231



Job Description

Underground Mine Support Workers assist Miners in the operation and maintenance of chutes or conveyor systems to control the flow of materials. They operate construction equipment such as bulldozers, graders, or backhoes to build and maintain underground passages and haulage ways. They construct and repair wood or metal supports and structures such as bulkheads, platforms, drifts doors and chutes. Underground Mine Support Workers assist Miners with the set-up and operation of various drills and supplies and maintains backfill distribution of sand, rock and other materials.



Knowledge and Skills

Underground Mine Support Workers have a good understanding of the work environment. They must be alert and safety conscious at all times and maintain a neat and orderly workplace. They correct any safety deficiencies and operate heavy-duty machinery.



Working Conditions

Underground environment.



Education, Training & Certification

Ontario Secondary School Diploma, Licensed Heavy-Duty Equipment Operator and completion of associated industry specific Common Core Certification/Accreditation.



Salary Range

\$17.00 to \$20.00 per hour.



Underground Production and Development Miner

NOC -8411



Job Description

Underground Production and Development Miners set up and operate drills and drilling machines to produce a designed pattern of blasting holes. They operate diamond drills and other specialized equipment, load explosives, set fuses and detonate explosives to produce desired blasting patterns. They conduct workplace inspections, equipment inspections, scale loose rock, install ground support and rock bolts, transport explosives safely and mark line and grades as per plans and specifications.



Knowledge and Skills

Underground Production and Development Miners have a good understanding of the work environment. They must be alert and safety conscious at all times. They must maintain a neat, orderly workplace and correct any safety deficiencies. They must be motivated to meet production and development quotas.



Working Conditions

Underground environment.



Education, Training & Certification

Ontario Secondary School Diploma and completion of associated industry specific Common Core Certification/Accreditation.



Salary Range

\$17.00 to \$21.00 per hour.



Underground Mining Supervisor

NOC - 8221



Job Description

Underground Supervisors coordinate and supervise all work personnel and related activities. They oversee and ensure that production and development quotas are met within required timelines and are responsible for the health and safety of all workers. They conduct safety meetings with their crews on a regular basis, investigate accidents and complete appropriate reports and resolve work problems by recommending measures to improve productivity. They provide training on the job and ensure safety procedures and company policies are adhered to.



Knowledge and Skills

Underground Supervisors, experienced miners, must be motivators to ensure that all the workers work in a safe manner and that job procedures are followed. They must have a good knowledge of various types of work tasks and operating equipment.



Working Conditions

Underground environment.



Education, Training & Certification

Mining Technology College Diploma and completion of associated industry specific Common Core Certification/ Accreditation.



Salary Range

\$60,000 to \$85,000 per year.



Warehouse Shipper and Receiver

NOC - 1471



Job Description

Warehouse Shippers and Receivers work on a team in charge of shipping and receiving all mine-related parts, materials and equipment. Their duties include picking, packing, and preparing materials and equipment for shipment, performing inventory counts as per schedule and maintaining a clean and presentable work area.



Knowledge and Skills

Warehouse Shippers and Receivers must enjoy working independently or as part of a team dynamic. They must have excellent knowledge for the transportation of dangerous goods and all government regulations.



Working Conditions

Shop, warehouse and outdoor environments.



Education, Training & Certification

Business College Diploma, accreditation required for customs, transportation of dangerous goods and international freight rules and regulations



Salary Range

\$12.00 to \$20.00 per hour.



Welder

NOC - 7265



Job Description

Welders read and interpret blueprints or welding process specifications and operate manual or semi-automatic welding equipment to fuse metal segments using processes such as gas, gas metal arc or flux-cored arc. They operate brazing and soldering equipment and metal shaping equipment such as brakes, shears, bending and straightening machines. They perform various tasks such as cutting, welding, installing plates and steel beams, and inspecting equipment. Specialization available in the following areas: Welder-Fitter, Production Welder, Spot Welder and Electric Arc Welder.



Knowledge and Skills

Welders must be able to read blueprints accurately and perform precise welds.



Working Conditions

Shop, underground and surface mining environments.



Education, Training & Certification

Ontario Secondary School Diploma, an Apprenticeship Program, Underwater Welding Ticket may be required and completion of associated industry specific Common Core Certification/Accreditation. Interprovincial Red Seal Certificate is available.



Salary Range

\$18.00 to \$22.00 per hour.

Canadian Welding Bureau (CWB)

7250 West Credit Avenue, Mississauga, ON L5N 5N1
905.542.1312 • www.cwbgroup.com



Accountant

NOC - 1111



Job Description

Accountants plan, set up and administer accounting systems and prepare financial information. It is the accountant's job to examine accounting records, prepare financial statements and reports, develop and maintain cost finding, reporting and internal control procedures, examine financial accounts and records, prepare Income Tax returns, analyze financial statements and reports and provide financial advice. Specializations available in the following areas: Certified General Accountant (CGA), Chartered Accountant (CA) and Certified Management Accountant (CMA), Cost Accountant, Income Tax Expert and Chief Accountant.



Knowledge and Skills

Accountants must have advanced Microsoft Office, Excel and other computer skills, work with accuracy and make sound decisions. They must have extensive knowledge of accounting practices, principles and procedures.



Working Conditions

Office environment.



Education, Training & Certification

Business University Degree, a Chartered Accountant (CA), Certified General Accountant (CGA) or Certified Management Accountant (CMA) Designation and Certification by the Certified General Accountants Association (CGAA).



Salary Range

\$50,000 to \$75,000 per year.

Certified General Accountants Association of Canada

700-1188 West Georgia Street
Vancouver, BC V6E 4A2
800.663.1529 • www.cga-canada.org

The Society of Management Accountants of Canada

1 Robert Speck Parkway, Suite 1400
Mississauga, ON L4Z 3M3
800.263.7622 • www.cma-canada.org

Canadian Institute of Chartered Accountants

277 Wellington Street West
Toronto, ON M5V 3H2
416.977.3222 • www.cica.ca



Administrative Assistant

NOC - 1222



Job Description

Administrative Assistants coordinate administrative procedures and policies and public relations activities with members of the executive group. They analyze incoming and outgoing memoranda, submissions and reports, prepare and coordinate submissions of summary briefs, conduct research, compile data and prepare reports. Administrative Assistants prepare agendas, make arrangements for reserving meeting rooms, all travel arrangements, catering, accommodations, car rentals, flights and meetings. They are responsible for various office duties including: writing, creating and typing correspondence, answering telephones, sending faxes, opening and distributing mail and filing.



Knowledge and Skills

Administrative Assistants must always maintain confidentiality. They should possess excellent telephone etiquette, exceptional organization skills and the ability to deal with clients, co-workers, employees and companies worldwide. They must have in-depth knowledge of word processing and spreadsheet programs and demonstrate a high level of keyboarding and Internet research skills.



Working Conditions

Office environment.



Education, Training & Certification

Office Administration or Executive Assistant College Diploma and be a Certified Administration Professional (CAP) or a Certified Professional Secretary (CPS).



Salary Range

From \$25,000 to \$50,000 per year.

The Association of Administrative Assistants

52 Kinnard Road, Brantford, ON N3T 1P9

www.info.aaa.ca



Computer Service Technician

NOC - 2242



Job Description

Computer Service Technicians service and repair computers. They install and maintain new equipment, inspect and test components and assemblies using a variety of instruments, diagnose and locate equipment faults and adjust, align and replace components using instructions provided by manuals and schematics. Specialization available in the following areas: Office Equipment Service Technician and Field Service Technician.



Knowledge and Skills

Computer Service Technicians must have a strong practical knowledge of computers and the ability to demonstrate problem-solving skills.



Working Conditions

Office environment.



Education, Training & Certification

Computer Service Technician College Diploma.



Salary Range

\$35,000 to \$48,000 per year.

“In 2001, the mining and mineral processing industry contributed \$35 billion to the Canadian economy.”

MITAC



Computer Systems Engineer

NOC - 2147



Job Description

Computer Systems Engineers research, plan, design, develop, modify, evaluate and integrate computer and telecommunications hardware as well as the related equipment and information for the communication system networks. It is their job to analyze user requirements, design and develop systems architecture and specifications, research, design, develop and integrate computer and telecommunications hardware and conduct design verification simulations and prototype bench test of components while establishing and maintaining relationships with suppliers and clients. Specialization available in the following areas: Hardware Engineer, Network Systems Engineer and Systems Designer – Hardware.



Knowledge and Skills

Computer Systems Engineers must have current knowledge of computer operating systems and good communication and organizational skills.



Working Conditions

Office environment.



Education, Training & Certification

University Degree in Computer Engineering and Registered Professional Engineer.



Salary Range

\$45,000 to \$65,000 per year.



Contract Manager

NOC - 0811



Job Description

Contract Managers have total responsibility to maintain, develop, implement and supervise employees of the Contract Drilling Division. They ensure that deadlines are met and that all problems relating to the completion of contracts are resolved. They must work within the budget restraints and ensure safety of all personnel.



Knowledge and Skills

Contract Managers must possess leadership and management skills. They must have excellent oral and written communication skills and demonstrate the ability to understand and interpret contract stipulations. They must be able to problem solve within limited time constraints.



Working Conditions

Office, underground and surface mining environments.



Education, Training & Certification

Construction College Diploma or a University Degree in Civil Engineering and completion of associated industry specific Common Core Certification/Accreditation.



Salary Range

\$34,000 to \$54,000 per year.



Estimator

NOC - 2234

Job Description

Engineer Estimators analyze the costs of and prepare estimates for construction projects. They provide realistic and precise proposals for future projects and prepare estimates of probable costs for materials, labour and equipment for projects based on the contract bids, quotations, schematic drawings and specifications. Engineer Estimators advise on tendering procedures, examine and analyze tenders, recommend tender awards, conduct negotiations and prepare cost and expenditure statements and forecasts at regular intervals during the project.

Knowledge and Skills

Engineer Estimators must demonstrate good written and verbal communications skills in dealing with field personnel and clients. They must be motivated and ready to accept challenges. They must have current computer skills.

Working Conditions

Office, underground and surface mining environments.

Education, Training & Certification

Civil or Construction Engineering Technology College Diploma, Registered Professional Engineer of Ontario and completion of associated industry specific Common Core Certification/ Accreditation.

Salary Range

\$45,000 to \$65,000 per year.



Field Manager

NOC - 0711



Job Description

Field Managers assist the Job Superintendent in commencing new contracts and remain on the job site until drilling operations are proceeding according to plan. They ensure that the equipment is in working condition and that personnel work in a safe environment and are trained accordingly. They scout prospective contracts and obtain all pertinent information to prepare preliminary estimates. Field Managers review all incoming and outgoing requisitions, field costs and invoices, investigate any unreasonable charges and prepare and submit written reports.



Knowledge and Skills

Field Managers must possess leadership and managing skills, excellent oral and written communication skills and have the ability to solve problems within limited time constraints.



Working Conditions

Underground and surface mining environments.



Education, Training & Certification

Construction College Diploma or a University Degree in Civil Engineering and completion of associated industry specific Common Core Certification/Accreditation.



Salary Range

\$34,000 to \$54,000 per year.



Financial Accounting Administrator

NOC - 1431



Job Description

Financial Accounting Administrators calculate, prepare and compile all financial data, and produce financial statements for management. They are responsible for processing the accounts receivable, cash receipts and invoicing, and maintaining, adding and disposing of fixed assets ledger. Financial Accounting Administrators prepare all government reports and remittances. Specialization available in the following areas: Accounting or Costing Clerk, Tax Clerk and Finance Clerk.



Knowledge and Skills

Financial Accounting Administrators must be organized, accurate and precise with knowledge of accounting computer programs, keyboarding and office administration skills.



Working Conditions

Office environment.



Education, Training & Certification

Business Administration or Accounting College Diploma and working towards a Chartered General Accountant (CGA) Designation.



Salary Range

\$25,000 to \$40,000 per year.



Human Resource Manager

NOC - 1121



Job Description

Human Resource Managers develop, implement and evaluate human resources and labour relation policies, programs and procedures and advise managers on personnel matters. They are accountable for the overall Human Resources functions within the company including providing leadership for staff as well as the management team. They are involved in the planning, developing, and implementing strategies, policies and compensation. They interpret employment laws. Specialization available in the following areas: Job or Wage Analyst, Compensation Research Analyst, Mediator and Human Resources Research Officer.



Knowledge and Skills

Human Resources Managers must demonstrate the ability to apply human resources theories to different situational environments. Human Resource Managers must demonstrate excellent verbal, written and presentation skills and have extensive knowledge of Human Resources Computerized Programs and all related labour acts and regulations.



Working Conditions

Office environment.



Education, Training & Certification

University Degree in Bachelor of Art, Business or Human Resources, Certified Human Resources Professional or Human Resources Professionals Association of Ontario program.



Salary Range

\$75,000 to \$100,000 per year.

Canadian Council of Human Resources Associations (CCHRA)
www.cchra-ccarh.ca

Human Resources Professionals Association of Ontario (HRPAO)
1902-2 Bloor St. W., Toronto, ON M4W 3E2
1.800.387-1311 • www.hrpaoo.org



Project Manager

NOC - 0711



Job Description

Project Managers oversee projects to successful delivery. They plan, execute, organize and control the budget and the project through their various stages. Project Managers coordinate the work of various contractors and suppliers. They are responsible for the plan of execution, the project schedule budget, and the project team.



Knowledge and Skills

Project Managers must possess multi-discipline management experience combined with strong communication abilities and leadership skills.



Working Conditions

Office, underground and surface mining environments.



Education, Training & Certification

University Degree in Engineering and Management and completion of associated industry specific Common Core Certification/Accreditation.



Salary Range

\$100,000 or more, depending on project's budget.

"Canada is the leading producer of silver, a major component in developing and printing pictures."

MITAC

Purchasing Agent

NOC - 1225



Job Description

Purchasing Agents are responsible for the procurement of all materials, equipment and leasing arrangements required for the realization of all mining projects. They develop and ensure correct stock levels to maximize profitability and reduce costs of all mining related products. They invite tenders, determine contract terms and conditions, review quotations, recommend and/or award contracts, establish delivery schedules and ensure the completion of all orders in their product category.



Knowledge and Skills

Purchasing Agents must have good verbal and written communication skills and excellent computer skills including spreadsheets, electronic mail, database, word processing and specialized software. Math skills, planning, organizational and problem solving skills are required.



Working Conditions

Office and warehouse environments.



Education, Training & Certification

Merchandising or Purchasing College Diploma.



Salary Range

\$45,000 to \$60,000 per year.



Receptionist

NOC - 1414



Job Description

Receptionists greet people arriving at the office and direct visitors to the appropriate person or service. They answer and forward telephone calls, take messages, schedule appointments, and perform other clerical duties including banking, filing documents, typing, faxing documents, receiving and processing incoming and outgoing mail and providing general information to the customers.



Knowledge and Skills

Receptionists must have computer knowledge including, word processing, spreadsheets, the Internet and possess accurate keyboarding skills. They must have excellent oral and written communication skills and the ability to demonstrate organizational and time management skills.



Working Conditions

Office environment.



Education, Training & Certification

Business Office Administration College Diploma.



Salary Range

\$20,000 to \$25,000 per year.



Safety and Training Coordinator

NOC - 4131



Job Description

Safety and Training Coordinators are responsible for developing, facilitating, and coordinating safety programs. They must develop and write work procedures, conduct safety meetings, and train workers in Common Core Modules.



Knowledge and Skills

Safety and Training Coordinators must possess knowledge of the Occupational Health and Safety Act, regulations for mines and mining plants, standards, and related legislation. They must demonstrate excellent computer skills in a variety of related programs, possess excellent written and verbal skills and have the ability to teach others. They must be motivated and able to work with minimal supervision.



Working Conditions

Office, underground and surface mining environments.



Education, Training & Certification

Mining Technologist College Diploma, Train the Trainer Certification and completion of associated industry specific Common Core Certification/Accreditation.



Salary Range

\$45,000 to \$60,000 per year.

Technical Standards and Safety Authority (TSSA)

4th Floor, West Tower, 3300 Bloor Street West, Toronto, ON M8X 2X4
877.682.8772 • www.tssa.org



Sales/Marketing Manager

NOC - 0611



Job Description

Sales/Marketing Managers sell and market the company's products and services, maintain contact with existing customers and initiate and pursue potential customers. They plan and develop marketing strategies to meet set targets, objectives and forecasted budgets. They prepare, negotiate, and submit sales and services proposals.



Knowledge and Skills

Sales/Marketing Managers possess negotiating and sale closing skills. They must have excellent oral and written communication skills and knowledge of the industry's markets, trends, forecasts and any new products improvements and developments. They must have current computer knowledge.



Working Conditions

Office environment.



Education, Training & Certification

Business and Marketing College Diploma.



Salary Range

\$35,300 to \$58,200 per year.

"Canada's mining industry is committed to continuously improving its record of safe production. Statistics show that it is twice as safe to be working in an Ontario underground mine as being a government employee."

**Natural Resources Canada, Minerals and Mining
Statistics On-Line**



Security Guard

NOC - 6651



Job Description

Security Guards control access to the establishments, issue passes and direct visitors to appropriate area. They patrol assigned areas, on foot or in vehicles, to guard against theft, vandalism and fire. They enforce regulations to maintain order. They operate security control-room equipment to monitor activities and perform security checks. They ensure that safety and emergency procedures are followed and respond to all emergencies.



Knowledge and Skills

Computer knowledge required to operate security system, able to handle firearms, excellent verbal communication and able to write reports.



Working Conditions

Office, building, warehouse, underground and surface mining environments.



Education, Training & Certification

Ontario Secondary School Diploma, valid driver's license and Firearms License.



Salary Range

\$11.60 to \$16.90 per hour.

What is an Apprenticeship?

Apprentice/n.1 (*often attrib.*) a person who is learning a trade from an experienced “mentor” and by being employed in it for a period of time learning by doing!

Apprenticeship training is a way that a person gains skills for a specific type of occupation in the skilled trades. This can lead to them becoming a certified journey person in a specific trade. A certified journey person trains the apprentices about their trade, and at the same time the apprentices go to school for classroom theory. Most exciting is the fact that apprentices are working and earning wages while they are learning the skills.

- 75-90% of apprenticeship training takes place on-the-job.
- 10-25% of the apprenticeship training is in the classroom.
- There are over 200 apprenticeship trades in Ontario.

To become an apprentice, a person must find an employer who is willing to register and train them.

How do I register?

All trainees must be registered with the Ministry of Training, Colleges and Universities (MTCU).

Who pays?

- Employers cover about 85% of the cost of training for the apprentice, through wages and time invested into training.
- The Ontario government invests \$40 Million a year to cover the cost of administering the apprenticeship training system – including

registering employers and apprentices, developing standards, delivering the in-class training component and working the industry.

Contact your Local
Apprenticeship Office

Ministry of Training of
Colleges and Universities-
Apprenticeship Office
2nd Floor, 1500 Fisher St.
North Bay, ON P1B 2H3
705.495.8515
1.800.236.0744
www.edu.gov.on.ca

Canadian Apprenticeship
Forum
701-116 Albert Street
Ottawa, ON K1P 5G3
613.235.4004
www.caf-fca.org

What's next?

- To be employed in certain skilled trades, workers must have a Certificate of Qualification. This certificate shows that you are qualified and have acquired all the necessary skills in a specific trade.
- To write a provincial qualification exam, applicants must have demonstrated their experience in the trade.

How long is an apprenticeship?

Most apprenticeships take between two and five years. When you have completed all of your on-the-job requirements and in-school training, you will be eligible to complete your apprenticeship and, in most cases, you are eligible to write the necessary examination.



Check out this site! www.explorethetrades.ca

ADVERTISEMENT

Looking for a job in the
Canadian Mining Industry? Check out...

www.core-percer.ca



Interprovincial Standards Red Seal Program



Red Seal Program
Human Resources
Partnership Directorate
Human Resources
Development Canada
5th Floor, 140 Promenade
du Portage, Phase IV
Hull, QC K1A 0J9
www.red-seal.ca

What is the Interprovincial Standards Red Seal Program?

The Red Seal Program was established to provide greater mobility across Canada for skilled workers. Through the program, apprentices who have completed their training and certified journeymen, are able to obtain a “Red Seal” endorsement on their Certificates of Qualification and Apprenticeship by successfully completing an Interprovincial Standards Examination.

The program encourages standardization of provincial and territorial apprenticeship training and certification programs. The “Red Seal” allows qualified trades persons to practice the trade in any province or territory in Canada where the trade is designated without having to write further examinations. To date, there are forty-five trades included in the Red Seal Program on a national basis.

Who administers the Interprovincial Standards Red Seal Program and how does it work?

The program is administered in each province and territory under the guidance of the Canadian Council of Directors of Apprenticeship (CCDA). Each province and territory has an appointed Director of Apprenticeship for this purpose.

How to obtain an Interprovincial Red Seal Certificate?

In certain trades, holders of provincial and territorial Certificates of Qualification can apply to write an Interprovincial Examination; if successful, they receive a distinctive “Red Seal” which is affixed to their Certificate of Qualification.

An Interprovincial Standards Red Seal can be obtained in the trades designated as Red Seal by:

1. a) either graduating from a recognized provincial or territorial apprenticeship training program; or
b) obtaining a Journeyman level certificate from a province or territory; and
2. passing the Interprovincial Standards Examination for that trade.

The Interprovincial Standards Red Seal Examinations are administered through the provincial and territorial certification and apprenticeship offices.

ADVERTISEMENT



www.iapa.on.ca

INDUSTRIAL ACCIDENT PREVENTION ASSOCIATION


IAPA, Canada's leading health and safety organization, works with businesses to help identify hazards and reduce risk.

TRAINING Over 40 courses, including WSIB-required Certification Parts I & II. Choose from on-site courses, Train-the-Trainer, Web-based training and more.

PRODUCTS Over 100 print materials, training videos and Web-based products on key health and safety topics.

Contact our office at 1-800-669-4939


ADVERTISEMENT



REDPATH

J S REDPATH LIMITED
P.O. Box 180
710 McKEOWN AVENUE
NORTH BAY, ON P1B 8K1

TEL: 705 474-2461
FAX: 705 474-9109
E-MAIL: JSRL@JSRL.COM
WWW.JSREDPATH.COM



THE REDPATH GROUP
MINE CONTRACTORS
AND ENGINEERS

Ontario Youth Apprenticeship Program

Would you like to start training for a trade while at the same time getting credits for it? Then OYAP is the perfect program for you! It gives high school students the opportunity to complete the requirements for a high school diploma and at the same time receive apprenticeship training. The student can earn registered apprenticeship hours and use those hours towards the credits required for an OSSD.

How does it benefit you?

Students earn credits towards an OSSD – Ontario Secondary School Diploma – while hours worked on the job are applied to journeyperson certification. Doors are kept open. Students who find they are not suited to the trades can return to a regular school program after one semester with no penalty. In some instances, students may earn a wage during the on-the-job portion of the program. Students may participate in some of the regular apprenticeship training courses through OYAP.

How to apply?

Contact your school's guidance department or your school's OYAP program coordinator at any one of the following secondary schools.

Almaguin Secondary School South River 705.472.5563	École secondaire Northern Secondary School Sturgeon Falls 705.472.5322
Chippewa Secondary School North Bay 705.472.4010	Nbisiing Education Centre North Bay 705.497.9938
École secondaire catholique Algonquin North Bay 705.472.8240	Parry Sound High School Parry Sound 705.746.5888
École secondaire FJ McElligott High School Mattawa 705.472.5398	St-Joseph Scollard Hall North Bay 705.494.8600
École secondaire Franco-Cité Sturgeon Falls 705.753.1510	West Ferris Secondary School North Bay 705.497.0730

Widdifield Secondary School
North Bay
705.472.5711

Who is eligible?

Full-time high school students who are at least 16 years old and have completed Grade 10 can apply.

What are the education requirements?

Students must complete a minimum of 3 in-school credits per year. To receive an OSSD, students must still complete all compulsory credits. Students who receive co-operative education credits may be eligible to have these hours applied towards their apprenticeship.

How does it work?

The program is available to any student who has fulfilled all the requirements. Students will begin a planned, flexible program after Grade 10. You might want to participate in a 2-credit Co-op placement in an apprenticeable trade, to see if you are suitable for the trade. At the end of the placement, if your boss appreciates the work you've been doing, they might decide to keep you on. In Grade 12, if you are employed as a registered apprentice, you might spend half of your time in school and the other half in the workplace as a paid apprentice. The time spent in the workplace as an apprentice can count as credits towards your OSSD.

What are the apprenticeship requirements?

Students must be placed with a qualified employer and follow an on-the-job training program based on specific trade standards. They may also receive related theoretical instruction.

Passport to Prosperity

PASSPORT

to Prosperity campaign

For more information about the Passport to Prosperity Program in this region:

**Muskoka, Nipissing,
Parry Sound**

**Local Training and
Adjustment Board**

238-101 Worthington St. E.

North Bay, ON P1B 1G5

Tel: 705.474.0812

1.800.331.0882

www.ltab20.on.ca

mnpjs@ltab20.on.ca

A program to link employers and students through real work experiences

The Passport to Prosperity program is a province-wide initiative that encourages partnerships between businesses and local high schools for the purpose of providing career and work experience opportunities to students.

The program is coordinated by Local Training Boards or Industry/Education Councils across the province and is supported by the Ministry of Education and Ministry of Training, Colleges & Universities.

For high school students, choosing a postsecondary destination is a critical decision point. Various kinds of work experiences can help prepare students to make the transition from high school to work, apprenticeship, college and university.

Through Passport to Prosperity, employers can provide a range of opportunities for students, such as co-operative education, job shadowing, industry tours or get involved in an Ontario Youth Apprenticeship Program. Some local employers also participate in career days, classroom visits, Take Your Kids To Work, and various career fairs. The bottom line is that you can take advantage of a variety of work and career related experiences to help you make a successful transition from school to work.

“Canada is the world’s second largest producer of zinc, an essential ingredient in sunscreen.”

MITAC

Your Health and Safety

Your Rights

When it comes to health and safety, you have three basic rights:

The Right to Know

If there are unsafe materials used in your workplace, you have the right to know about them. The same goes for dangerous machinery or anything else that can make you ill or hurt you on the job. Don't be afraid to ask questions – even when you're just being interviewed for a job.

The Right to Participate

You have the right to participate in health and safety inspections and recommendations in your workplace, either through your worker health and safety representative or your joint health and safety committee. You also have the right to participate in health and safety training.

The Right to Refuse

If you think the work you do or the equipment you use is not safe, you can stop doing it. And no one can suspend you, fire you or dock your pay. You have the right to refuse unsafe work. It's the law.

Your Responsibilities

Work Smart, Work Safe

Always think safety first. Don't fool around on the job. For one thing, it might be against the law; and you could injure yourself or another worker.

Report Unsafe Condition

If you see anything that looks wrong, tell your boss – immediately! Don't wait until somebody trips over a loose cord, slips on some grease or is hit by a box that comes loose.

You can obtain more information by contacting the following:

Industrial Accident
Prevention Association
505-207 Queens Quay W.
Toronto ON M5J 2Y3
800.669.4939
www.iapa.on.ca and
www.yworker.com

Mines and Aggregates
Safety and Health
Association (MASHA)
690 McKeown Avenue
North Bay, ON P1B 9P1
705.474.7233
www.masha.on.ca

Workers Health and Safety
Centre 888.869.7950

Workplace Safety &
Insurance Board (WSIB)
200 Front Street West
Toronto, ON M5V 3J1
800-387-0750
www.wsib.on.ca

Dress for the Job

If your job requires you to use protective equipment or clothing, then wear it. Make sure it's the proper fit and get trained in using and maintaining it. Maybe it's not comfortable or cool looking, but it could save your life or your health.

Get to Know the Emergency Procedures

Find out where the fire alarms, extinguishers and exits are located. Make sure that they're accessible and not blocked. Ask your employer if there are any other emergency procedures that apply to your particular workplace.

Report all Injuries

If you are injured, get immediate First Aid and then report the injury to your supervisor or boss. Make sure your employer files a Form 7 Report with the Workplace Safety & Insurance Board (WSIB).

"Since the 1970s, Ontario's mining industry has improved its lost-time injury rate by more than 80%. Mining now has an injury frequency rate lower than the average of all other industries in Ontario."

**Natural Resources Canada, Minerals and Mining
Statistics On-Line**

Postsecondary Education in Ontario

The following postsecondary education centres serve the local area.

CTS Canadian Career College

1495 Seymour Street
North Bay, ON P1B 8G4
705.495.1200
1.800.331.5581
www.cts.on.ca

Cambrian College of Applied Arts and Technology

1400 Barrydowne Road
Sudbury, ON P3A 3V8
705.566.8101
1.800.461.7145
www.cambrianc.on.ca

Canadore College of Applied Arts and Technology

100 College Drive
PO Box 5001
North Bay, ON P1B 8K9
705.474.7600
www.canadorec.on.ca

Collège Boréal au Nipissing

96 Main Street
Sturgeon Falls, ON P2B 1N3
705.753.5420
1.800.361.6673
www.borealc.on.ca

Collège Boréal Nipissing/ North Bay Office

60 Commerce Crescent
North Bay, ON P1B 8G4
705.497.0962
1.800.361.6673
www.borealc.on.ca

Georgian College of Applied Arts and Technology

201-60 James Street
Parry Sound, ON P2A 1T5
705.746.9222
www.georgianc.on.ca

Laurentian University

935 Ramsey Lake Road
Sudbury, ON P3C 2C6
705.675.1151
1.800.461.4030
www.laurentianu.ca

Nipissing University

100 College Drive
Box 5002
North Bay, ON P1B 8L7
705.474.3450
www.nipissingu.ca

Northern Centre for Advanced Technology Inc. (NORCAT)

1400 Barrydown Road
Sudbury, ON P3A 3V8
705.521.8324
www.norcat.org

Northern College's School of Mines

640 Latchford Street
Haileybury, ON P0J 1K0
705.672.3376
www.northernc.on.ca

The following ministries, agencies, and associations are an essential part of the education of our population and offer valuable information.

Association of Ontario Colleges of Applied Arts and Technology

Contact information for Colleges of Applied Arts and Technology across Ontario.

1010-655 Bay Street, Toronto, ON M5G 2K4
416.596.0744 • www.acaato.on.ca

Association of Universities and Colleges of Canada

Contact information for Canadian Universities.

600-350 Albert Street, Ottawa, ON K1R 1B1
613.563.1236 • www.aucc.ca

Council of Ontario Universities

Contact information for Ontario Universities.

1100-180 Dundas Street West, Toronto, ON M5G 1Z8
416.979.2165 • www.cou.on.ca

Ontario Association of Career Colleges

Contact information for Career Colleges across Ontario.

274 Colborne Street East, Brantford, ON N3T 5N3
519.752.2124 • www.oacc.on.ca

Ontario Ministry of Education and Ministry of Training, Colleges and Universities

Information about postsecondary, secondary and elementary education in Ontario, as well as links to educational institutions at all levels in Ontario.

900 Bay Street, Toronto, ON M7A 1L2
800.387.5514 • www.edu.gov.on.ca

Ontario Student Assistance Program

Information about loans, grants, scholarships and bursaries for Ontario postsecondary students, including on-line applications. For further assistance you can communicate with your local College's Financial Aid Office.

osap.gov.on.ca

More Ways to Obtain Information about the Sector and Jobs

Section 1 Sites Specific to the Mining Sector

Canadian Institute of Mining, Metallurgy and Petroleum (CIM)

The leading technical society of professionals in the Canadian minerals, metals, materials and energy industries.

705-8 King Street East, Toronto, ON M5C 1B5

416.955.4756 • www.cim.org

You can visit this website for more information www.on.hrhc-drhc.gc.ca or reach your local **Human Resources Development Canada (HRDC)** at the following offices in your community.

North Bay
Canada Place
107 Shirreff Avenue
North Bay, ON P1B 7K8
705.472.3700

New Liskeard (Satellite Office)
209 Armstrong Street North
New Liskeard, ON P0J 1P0
705.647.6741

Parry Sound (Satellite Office)
74 James Street
Parry Sound, ON P2A 1T8
705.476.9374

Sturgeon Falls (Satellite Office)
186 Main Street
Sturgeon Falls, ON P0H 2G0
705.753.0800

Canadian Mining News

Canadian mining news, industry events, links and careers.

1450 Don Mills Road, Don Mills, ON M3B 2X7
800.268.7742

www.canadianminingjournal.com

CLAIMaps

Free access to large database of mining land information, including the location of over 185,000 active mining claim units across the province. Provides continuous online access to province-wide digitized maps.

888.415.9845

www.claimaps.mndm.gov.on.ca

Elliot Lake Nuclear and Mining Museum

Once known as the mining capital of the world, Elliot Lake plays host to the Northern Home of the Canadian Mining Hall of Fame. www.citycourt.com/nuclearmuseum

Mining Sudbury

Learn about Sudbury's mining history dating back to 1883.

www.miningsudbury.ca

Mining Industry Training and Adjustment Council – Canada

A sector council established to address the common human resource development and training needs of the Canadian mining industry and its workers. A comprehensive site listing industry overview, other links and career information.

470 Somerset Street West, Ottawa, ON K1R 5J8
613.230.1413 • www.mitac.ca

Ontario Mining Association

Information about the economy, environment and safety in mining.

320-40 Dundas Street West, Toronto, ON M5G 2C2
416.364.9301 • www.oma.on.ca

Ontario Ministry of Northern Development and Mines

This Ministry supports the mineral industry by providing it with valuable information about the province's geology.

Willet Green Miller Centre Level B-6
933 Ramsey Lake Road, Sudbury, ON P3E 6B5
888.415.9845 • www.mndm.gov.on.ca

Science North

Enter the fascinating world of science! Learn about the fun world of minerals and take some tests and quizzes with "Rocky." Offered by the Geological Society of the CIM and Science North.

100 Ramsey Lake Road, Sudbury, ON P3E 5S9
800.461.4898 • www.sciencenorth.on.ca

The Mining Technology Website

International coverage of mines extracting Energy Minerals, Ferrous, Base and Precious Metals, Industrial Minerals and Gemstones as well as a list of international career opportunities.
www.mining-technology.com

The Northern Miner Online

Coverage of exploration and mining news, for the diamonds precious and base metals industries, and much more!

1450 Don Mills Road • Don Mills, ON M3B 2X7
800.268.7742 • www.northernminer.com

Job Connect

If you are out of school and looking for work, Job Connect can help you. Services are free. You can call the toll free line 800.387.5656 to find out who delivers this program in your area.

Section 2 Job Search, Labour Market Information and Career Development Sites

Canada Career Prospects

A valuable resource for those of all ages who are seeking rewarding careers tailored to their skills and abilities. • www.careerccc.org

Government of Canada

Your source for federal, provincial and territorial information and services such as jobs, culture, business start-up, taxes, financing. • www.gc.ca

Government of Ontario

Locate information about learning, finding a job, working, business and the economy. www.gov.on.ca

Human Resources Development Canada

Find information about the Canadian labour market, jobs, workers, training and careers. • www.hrdc.gc.ca

Inventory of Programs and Services

Contacts and information about programs and services that lead to employment delivered in communities across Ontario. www.ips.win.ca

Job Futures

This site is a career tool to help you plan for your future. It provides useful information about occupations. • www.jobfutures.ca

Muskoka, Nipissing, Parry Sound Local Training and Adjustment Board

Labour market trends & opportunities and Census data reports specific to the districts of Muskoka, Nipissing and Parry Sound. www.ltab20.on.ca

Opportunity Knocks

A site about Canadian trades careers and apprenticeships. www.realm.net/opportunityknocks