



# Assayer

DO YOU LIKE TO WORK IN A LAB AND ANALYZE SAMPLES?

ARE YOU PRECISE, PATIENT AND DIPLOMATIC?

DO YOU FIND SOLUTIONS TO PROBLEMS THROUGH EXPERIMENTATION?

Assayers provide information that is critical for mine performance. They set their own priorities and activities. If you enjoy being in charge, have an eye for detail and work best when following established procedures and routines, a career as an Assayer could be the one for you.

## Job Description

- Inspect, grade, sample, test or refine raw and processed materials, analyzing for substances such as metals, non-metallic materials, concentrates, and waste and air samples
- Use spectrographic analysis, chemical solutions, and specialized equipment
- Adjust methods of analysis
- Receive samples of raw and processed materials from the mine or mill
- Advise Supervisor or colleagues of issues and communicate with Engineers, Metallurgists, Hydrologists, skilled tradespeople and Mill Management
- Complete inspection and test reports
- May assist in environmental audits and the development of waste management and related environmental protection procedures
- Maintain analysis equipment

## Compensation

Assayers are paid on an annual basis. Depending on factors such as the location of the mine and the type of mineral or metal produced, annual salaries range from \$76,000 - \$147,000 (CostMine, 2014). In addition, Assayers often receive other benefits.

## Why are People Attracted to this Career?

In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

Someone who works as an Assayer makes a meaningful contribution to mine performance. Working in a laboratory, an Assayer enjoys a clean and predictable environment with many opportunities to collaborate and interact with a variety of professionals.

## Job Prospects

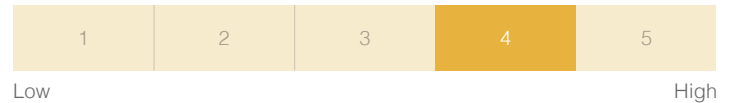
Each year, MiHR researches the needs of the mining industry to hire Assayers. Based on 2015's forecast, we are providing the following assessment of the Job Prospects in mining as well as an evaluation applicability of these skills in other sectors. Together, these measures will help future job seekers to make informed decisions about potential careers, based on the opportunities in the mining industry.

## Job Prospects in Mining



## Transferability

*Demand for these skills in other industries*



## What is it like to work as an Assayer in Mining?

*Note: conditions vary according to employer and region.*

As an Assayer, you will work in a laboratory near the mine or mill. You will spend the majority of your time analyzing samples. In a laboratory, you will stand up for the majority of your shift and you have to follow strict safety regulations because of hazardous materials that are sometimes used. As an Assayer you may have to work under pressure to produce results promptly to support the efforts of mine crews to maximize output. Handling supplies and substances involves light duty lifting.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Overtime is generally not required but you may have opportunities to work overtime in return for extra compensation.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

Many mines are situated in remote areas and require most employees to live in a mining camp. In these mines, employees

usually work on a “fly-in, fly-out” schedule. When on-site, all of your living expenses would be covered, including meals. Trained chefs and kitchen staff generally prepare meals and some camps provide accommodations for dietary restrictions and preferences.

Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

### Success Profile

Common traits that successful Assayers share are:

- Ability to share opinions and findings with others, even when they are unfavourable
- Ability to stay focused
- Accountable for decisions and actions
- Analytical
- Aptitude for scientific inquiry
- Embraces new technology
- Fine motor skills
- Methodical, consistent and neat
- Patient

### Job Entry Requirements

*Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
High school diploma or equivalent	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to work in a diverse environment	●			
Proficiency in language of operation	●			
Assayer Certification		●		
Demonstrated prior proficiency in a scientific discipline			●	
Formal qualification or training in a scientific subject such as chemistry, geology, assaying			●	
Work experience in a laboratory environment or in minerals processing				●
Willingness to relocate				●
Other languages				●

- Precise and accurate
- Willing to engage in continuous learning and skills development
- Works well with others

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, housing incentives, or flexible schedules
- Provide professional development programs to support you and to develop career progression options



# Blaster

*ARE YOU RELIABLE AND COMMITTED TO FOLLOWING STRICT SECURITY PROCEDURES?  
DO YOU HAVE GOOD PLANNING SKILLS AND PAY CLOSE ATTENTION TO DETAIL?*

If you want to load and detonate explosives while following health, safety and security regulations, then a career as a Blaster could be the one for you.

## Job Description

- Read instructions or diagrams in order to lay out drill patterns, determine depth and diameter of blast holes
- Conduct field tests to determine type and quantity of explosives required
- Design the blast timings
- Assemble primer charges using selected detonators, fuses, detonating cords and other materials
- Manually load explosives in blast holes or direct bulk explosives trucks to load holes
- Connect electrical wires, detonating cords or fuses into series and connect series to blasting machines; press handle or button to detonate charges
- Manage, store and transport explosives and accessories according to regulations and ensure that safety procedures are observed at all times
- Report on and maintain accurate inventory of explosives
- May operate air-track, rotary, in-the-hole or other drilling machines to drill blast holes

## Compensation

Blasters are paid on an hourly basis. Depending on factors such as the location of the mine and the type of mineral or metal produced, pay ranges from \$26 - \$46 per hour (CostMine, 2014). In addition, Blasters often receive other benefits.

## Why are People Attracted to this Career?

In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

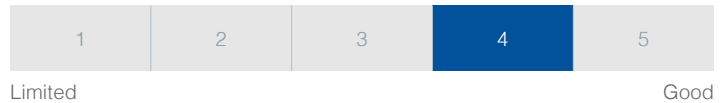
Being a Blaster is ideal for people in excellent physical condition who work well under pressure, and enjoy teamwork and working outdoors. Every day is different and there is always a lot of action on the job.

## Job Prospects

Each year, MiHR researches the needs of the mining industry to hire Blasters. Based on 2015's forecast, we are providing the following assessment of the Job Prospects in mining as well as an evaluation applicability of these skills in other sectors. Together, these measures will help future job seekers to make informed

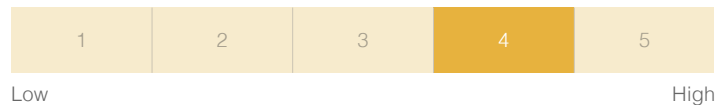
decisions about potential careers, based on the opportunities in the mining industry.

## Job Prospects in Mining



## Transferability

*Demand for these skills in other industries*



## What is it like to work as a Blaster in Mining?

*Note: conditions vary according to employer and region.*

As a Blaster, you will have opportunities to work at both underground and surface mine sites. Wherever you are working, you may be exposed to severe environmental conditions. You must be able to transport loads of explosives on site. You will have to follow strict procedures around potentially hazardous materials and interpret federal and provincial regulations and legislation thoroughly. You will work with Production Drillers and other operation and production crews to ensure safety and minimize risks.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Overtime is generally not required but you may have opportunities to work overtime in return for extra compensation.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor

activities such as hunting, fishing, snowmobiling and hiking.

Many mines are situated in remote areas and require most employees to live in a mining camp. In these mines, employees usually work on a “fly-in, fly-out” schedule. When on-site, all of your living expenses would be covered, including meals. Trained chefs and kitchen staff generally prepare meals and some camps provide accommodations for dietary restrictions and preferences.

Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

### Success Profile

Common traits that successful Blaster share are:

- Ability to follow procedures (especially around hazardous material, equipment and machinery)
- Ability to follow verbal directions and hand signals
- Ability to stay focused
- Calm
- Detail-oriented
- Organized

### Job Entry Requirements

*Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
Valid Blaster certificate		●		
Up to one year of experience as a Blaster’s Helper or Shooter’s Helper	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to work in a diverse environment	●			
Proficiency in the language of operation	●			
Undergo a criminal record check			●	
High school diploma or equivalent			●	
Blaster or Driller vocational certificate			●	
Willingness to relocate				●
Other languages				●

- Precise and accurate
- Strong risk management skills
- Values safety, health and a positive working environment
- Works well under pressure

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, housing incentives, or flexible schedules
- Provide professional development programs to support you and to develop career progression options



# Construction Miner

*DO YOU LIKE WORKING WITH WOOD OR OTHER MATERIALS?*

*HAVE YOU ALWAYS ENJOYED USING TOOLS AND WORKING WITH YOUR HANDS?*

*DO YOU WORK WELL INDEPENDENTLY AND WITHIN A TEAM?*

If you want to put your practical skills to use and construct, install, maintain and repair structures and fixtures within a mining environment, a career as a Construction Miner could be the one for you.

## Job Description

- Construct, erect, install, maintain and repair structures and fixtures made of wood, wood substitutes, lightweight steels and other materials such as plastic, fiberglass and drywall; may build tunnel bracing, brattices and underground passageways
- Read and interpret blueprints, drawings and sketches to determine specifications and calculate requirements
- Prepare layouts that comply with building codes, using measuring tools
- Measure, cut, shape, assemble and join materials made of wood, wood substitutes and other materials
- Build foundations, install floor beams, lay subflooring and erect walls and roof systems
- Fit and install trim items, such as doors, stairs, moulding and hardware
- Supervise apprentices and other construction workers
- Work in compliance with federal and provincial building codes, as well as related regulatory and safety requirements and legislation
- Operate woodworking machinery
- Set, brace and strip wood and steel forms
- Prepare cost estimates; prepare and maintain records for construction materials, complete work orders
- Care for and maintain equipment

## Compensation

Construction Miners are paid on an hourly basis. Depending on factors such as the location of the mine and the type of mineral or metal produced, pay ranges from \$17 to \$58 per hour (CostMine, 2014). Construction Miner Apprentices are typically paid a percentage of the full wage beginning at 75% and increasing with experience. In addition, Construction Miners often receive other benefits.

## Why are People Attracted to this Career?

In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

Carpentry is a skilled trade that requires attention to detail, accuracy and continual learning. Construction Miners take

pride in their work and enjoy working with their hands to create useful structures. No two projects are ever the same, but for a Construction Miner, it is always rewarding to see the finished product at the end of the project.

## Job Prospects

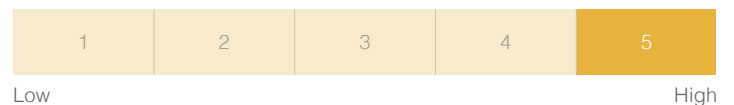
Each year, MiHR researches the needs of the mining industry to hire Construction Miners. Based on 2015's forecast, we are providing the following assessment of the Job Prospects in mining as well as an evaluation applicability of these skills in other sectors. Together, these measures will help future job seekers to make informed decisions about potential careers, based on the opportunities in the mining industry.

## Job Prospects in Mining



## Transferability

*Demand for these skills in other industries*



## What is it Like to Work as a Construction Miner in Mining?

*Note: conditions vary according to employer and region.*

As a Construction Miner, you may be working inside, underground and outside in all seasons, and all environmental conditions. The work requires a keen mathematical mind, good hand-eye coordination and manual dexterity. Construction Miners spend most of the day lifting heavy tools and materials and you will be required to lift up to 18 kg (40 lbs) (based on 2014 job research). You can expect to work in cramped spaces as well as having to climb, and work from, ladders and spend prolonged periods standing or kneeling.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Overtime is generally not required but you may have opportunities to work overtime in return for extra compensation.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

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Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

### Success Profile

Common traits that successful Construction Miners share are:

- Ability to build and maintain a positive relationship with supervisors
- Ability to visualize how things work, go together and come apart
- Ability to work within budget and time constraints
- Committed to safe work habits
- Dependable
- Detail-oriented and able to follow technical drawings and plans

### Job Entry Requirements

*Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
High school diploma or equivalent	●			
Completion of a three-to-four year apprenticeship program, or equivalent work experience	●			
Three to five years of experience as a Construction Miner, with experience in new construction, renovation and other areas	●			
Good eyesight; sharp vision and the ability to see details	●			
Ability to use computer-assisted design programs	●			
Valid driver's licence (or eligible for a driver's licence) with few or no current infractions	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to work in a diverse environment	●			
Proficiency in language of operation	●			
Trade certification is mandatory in Quebec; it's considered an asset in other provinces and territories		●		
Red Seal certification				●
Additional qualifications, such as Confined Space Certificate, Forklift Certification, Working at Heights training				●
Willingness to relocate				●
Other languages				●

- Embraces new technology
- Excellent manual dexterity and hand-eye coordination
- Organized
- Proficient multi-tasker
- Strong communication skills (verbal)
- Strong listening skills
- Strong math and computer skills
- Strong problem-solving and decision-making skills
- Strong sense of balance
- Takes initiative
- Thorough and methodical
- Works well in a team and independently

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, on-site housing for couples, gender-inclusive work environments or flexible schedules
- Provide professional development programs to support you and to develop career progression options



# Civil Engineering Technician / Technologist

ARE YOU GOOD AT MATH, MEASURING AND TESTING?

DO YOU LIKE WORKING OUTSIDE THE OFFICE WITH YOUR FEET ON THE GROUND?

DO YOU WANT TO BE PART OF A TEAM THAT CREATES THINGS THAT LAST?

Civil Engineering Technicians are vital members of the Engineering Department in a mine. If you want to work with the team that designs and builds new infrastructure for the mine and keeps the mine operating safely and efficiently, then you might like a career as a Civil Engineering Technician.

## Job Description

- Perform scheduled mine-wide surveys (e.g. face advance and drilling surveys, ventilation) and collection of data
- Conduct surveys and mapping of planned new excavations in an operating mine
- Inspect concrete, shotcrete, steel and timber to ensure surface and new areas undergoing underground construction is completed as per specifications
- Collect samples and carry out tests on materials samples
- Write regular reports, diagnose issues, develop and communicate corrective actions
- Assist with preparation, review and updating of civil and mechanical construction drawings using AutoCAD or other software
- Work with the Mine Planning and Mine Projects teams
- File and maintain engineering drawings and documents
- Install ground control instrumentation and read the electronic instrumentation
- Make arrangements with Mine Operations personnel for equipment requirements, and physical installation of the instrumentation station
- Maintain and repair instrumentation stations

## Compensation

Civil Engineering Technicians are paid on an annual basis. Depending on factors such as the location of the mine and the type of mineral or metal produced, annual salaries range from \$74,000 - \$92,000 (CostMine, 2014). In addition, Civil Engineering Technicians often receive other benefits.

## Why are People Attracted to this Career?

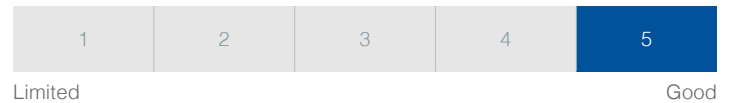
In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

The people who are attracted to working as a Civil Engineering Technician tend to be responsible people who enjoy a challenging variety of routine and new tasks. They appreciate the chance to work with new technologies.

## Job Prospects

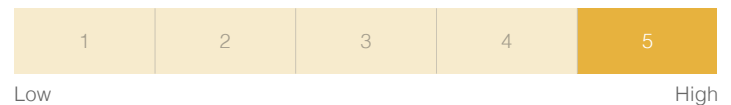
Each year, MiHR researches the needs of the mining industry to hire Civil Engineering Technicians. Based on 2015's forecast, we are providing the following assessment of the Job Prospects in mining as well as an evaluation applicability of these skills in other sectors. Together, these measures will help future job seekers to make informed decisions about potential careers, based on the opportunities in the mining industry.

### Job Prospects in Mining



### Transferability

*Demand for these skills in other industries*



## What is it Like to Work as a Civil Engineering Technician in Mining?

*Note: conditions vary according to employer and region.*

As a Civil Engineering Technician you will probably be based in an office or laboratory on (or near) the mine site, but spend most of your time in the mine. You will often be required to work safely in confined spaces, at heights and near open holes. You must be willing and able to climb ladders and steel ramps on the surface and underground.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

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### Success Profile

Common traits that successful Civil Engineering Technicians share are:

- A strong interest in math, technology, Information Technology and science
- Ability to identify issues and solve problems with a positive attitude
- Committed to precise and accurate data collection
- Have a deep level of respect for, and understanding of, safety procedures, regulations and legislation

### Job Entry Requirements

*Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
Post-secondary diploma or degree (2 – 3 years) in a relevant engineering subject, or a suitable combination of education with experience in quality assurance / control for field and laboratory testing	●			
Proficiency with word processing, spreadsheet and email software	●			
Computer-based drafting and design experience in AutoCAD or mining specific software	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to work in a diverse environment	●			
Proficiency in language of operation	●			
Willingness to relocate				●
Other languages				●

- Learns quickly, especially detailed legislative, technical and production information
- Organized and a critical thinker
- Strong communication skills (verbal and written)
- Strong computer skills
- Strong interpersonal and trouble-shooting skills

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
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# Construction Estimator

*DO YOU HAVE EXPERIENCE IN CONSTRUCTION OR DESIGN OR HAVE YOU TRAINED AS A TECHNICIAN, TECHNOLOGIST OR ENGINEER AND WANT TO WORK IN AN OFFICE ENVIRONMENT? DO YOU TAKE PRIDE IN PRECISE ESTIMATION AND COST CONTROL? ARE YOU LOOKING TO TAKE THE NEXT STEP IN YOUR CAREER?*

Construction Estimators are vital members of a mine's Engineering Department, helping to prepare budgets and monitor project progress. If you want to help design and build new infrastructure and contribute to the efficient and profitable operation of a mine, then a career as a Construction Estimator could be for you.

## Job Description

- Estimate detailed quantities of inputs and prices for new works, feasibility studies and formal tenders, and suggest innovative cost-effective construction solutions
- Analyze construction documents and drawings to prepare cost estimates, budgets and programs for construction projects
- Assist with preparing tendering competitions, evaluating bids, negotiating variations and remedial works
- Prepare construction progress schedules, budgets and cash-flow forecasts
- Write brief reports, attend meetings, exchange information with other professionals, record and store information
- Facilitate the handover of information to the operations team and set up appropriate cost codes and data collection for controlling budgets
- Analyze records of past construction work, the materials and equipment used and the outcomes produced and store in a database for future reference
- Develop a personal network of practitioners who can provide advice when required
- Play a leading role in controlling future construction costs at all stages of the mine life cycle
- May negotiate with contractors, subcontractors and suppliers to reduce costs, improve quality and finalize contracts

## Compensation

Construction Estimators are paid on an annual basis. Depending on factors such as the location of the mine and the type of mineral or metal produced, annual salaries range from \$80,000 to \$150,000 (CostMine 2014). In addition, Construction Estimators often receive other benefits.

## Why are People Attracted to this Career?

In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

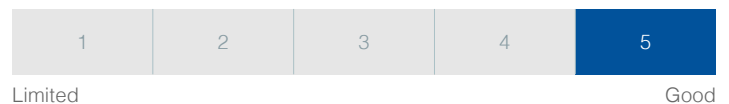
The people who are attracted to work as a Construction Estimator are motivated to advance their careers in construction. They are

responsible people who enjoy developing innovative solutions with careful calculation and estimation. They appreciate the opportunity to work as a member of a multidisciplinary team and to use the latest techniques and technology.

## Job Prospects

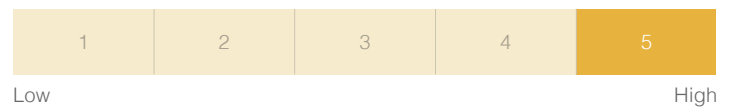
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## Job Prospects in Mining



## Transferability

*Demand for these skills in other industries*



## What is it Like to Work as a Construction Estimator in Mining?

*Note: conditions vary according to employer and region.*

As a Construction Estimator, you will likely be employed by a construction company serving the mining industry. You will use your significant experience in construction or base your estimates on analysis of past projects to plan and price new works. Based in an office, you will not spend much time at construction sites.

You will have standard weekday working hours and occasional overtime that involves evening and/or weekend work.

## Success Profile

Common traits that successful Construction Estimators share are:

- Ability to develop innovative solutions in a fast-paced, changing environment
- Ability to identify issues and priorities, and solve problems with a positive attitude
- Ability to visualize, quantify and plan a wide variety of construction projects

- Able to build trust and maintain positive relationships with a wide variety of personnel
- Committed to accuracy, improved production and reduced costs
- Committed to safety and environmental protection
- Learns quickly, especially detailed legal, technical and production information.
- Organized and careful with good time management skills
- Strong communication skills (verbal and written)
- Strong interest in calculation, technology, Information Technology and data
- Strong numerical, math, computer and planning skills
- Thorough understanding of, and compliance with, legislation and regulations concerning safety, employment and environmental protection
- Works well under pressure

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, on-site housing for couples, gender-inclusive work environments or flexible schedules
- Provide professional development programs to support you and to develop career progression options

### Job Entry Requirements

*Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
High school diploma or equivalent	●			
Post-secondary diploma in civil or construction engineering technology (or mechanical or electrical engineering, or architectural technology) or experience as a qualified tradesperson in a construction trade (e.g. plumbing, carpentry, electrical)	●			
Proficiency with word processing, spreadsheet, email and presentation software	●			
Proficiency with scheduling software	●			
Use of computer-based databases and estimation programs using engineering, construction and mining software	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to work in a diverse environment	●			
Proficiency in language of operation	●			
Five to ten years of experience in construction		●		
Professional Certification as a technician, technologist or engineer			●	
Willingness to relocate				●
Other languages				●



# Construction Helper

*DO YOU WANT TO START YOUR CAREER IN MINING?  
ARE YOU PHYSICALLY FIT, CAPABLE AND WILLING TO WORK HELPING OTHERS?  
DO YOU LIKE HANDS-ON WORK AND SUPPORTING A TEAM?*

Construction Helpers provide valuable assistance and support in a team. If you want first-hand experience working in the mining industry, a job as a Construction Helper could open the door to a long and satisfying career.

## Job Description

- Assist Construction Miners and other skilled tradespeople with a variety of tasks
- Select tools, equipment, or materials from storage, then load, transport and unload at job site
- Clean work areas, machines, or equipment, to maintain a tidy and safe job site
- Work with timber; for example, cut, glue, clamp, screw, drill, position or hold; erect scaffolding, shoring, or braces
- Mix, pour and spread materials such as concrete and asphalt
- Use hand and pneumatic tools, prying bars, rakes, shovels, wheelbarrows and other equipment
- Cut and install insulation and floor materials
- Oil and grease hoists and similar equipment
- Maintain, repair and paint as needed
- Carry out other duties as needed; for example, direct traffic at or near construction sites

## Compensation

Construction Helpers are paid on an hourly basis. Depending on factors such as the location of the mine and their skill level, pay ranges from \$16 - \$33 per hour (CostMine, 2014). In addition, Construction Helpers often receive other benefits.

## Why are People Attracted to this Career?

In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development

People who want to work as a Construction Helper want to gain practical experience while earning a competitive wage. This entry level position gives candidates the chance to prove that they are capable, while providing opportunities to train for jobs that require more experience or specific skills.

## Job Prospects

Each year, MiHR researches the needs of the mining industry to hire Construction Helpers. Based on 2015's forecast, we are providing the following assessment of the Job Prospects in mining as well as an evaluation applicability of these skills in other sectors. Together, these measures will help future job seekers to

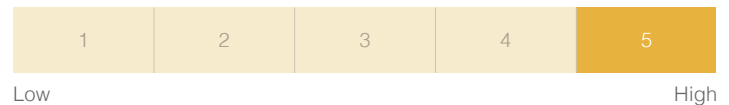
make informed decisions about potential careers, based on the opportunities in the mining industry.

## Job Prospects in Mining



## Transferability

*Demand for these skills in other industries*



## What is it Like to Work as a Construction Helper in Mining?

*Note: conditions vary according to employer and region.*

As a Construction Helper, you will be asked to help with a variety of tasks, which provides valuable experience and the opportunity to learn many new skills. Many tasks will be physically demanding with prolonged periods of standing, bending, crouching or kneeling, and you will have to lift up to 23 kg (50 lbs) (based on job research, 2014).

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Overtime is generally not required but you may have opportunities to work overtime in return for extra compensation.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

Many mines are situated in remote areas and require most employees to live in a mining camp. In these mines, employees usually work on a "fly-in, fly-out" schedule. When on-site, all of your

living expenses would be covered, including meals. Trained chefs and kitchen staff generally prepare meals and some camps provide accommodations for dietary restrictions and preferences.

Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

### Success Profile

Common traits that successful Construction Helpers share are:

- Ability to follow clear policies and processes
- Comfortable working at heights
- Committed to safe work habits
- Enjoys hands-on work
- Good listening skills
- Mechanically inclined
- Positive attitude
- Willing to learn
- Willing to perform repetitive or routine tasks
- Works well with others

### Job Entry Requirements

*Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
Physically fit and mobile	●			
Willingness to work in a diverse workplace	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Proficiency in language of operation	●			
Valid Construction Safety Training Systems (CSTS) certification		●		
Provide own safety equipment (e.g. approved steel-toed boots, hard hat)			●	
High school diploma or equivalent			●	
Demonstrated ability to work under minimal supervision			●	
Valid driver's licence (or eligible for a driver's licence) with few or no current infractions			●	
Undergo a criminal record check			●	
Some apprenticeship training or other experience				●
Knowledge of safe operation of hand tools				●
Red Seal certification				●
Willingness to relocate				●
Other languages				●

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, on-site housing for couples, gender-inclusive work environments or flexible schedules
- Provide professional development programs to support you and to develop career progression options



# Construction Superintendent

ARE YOU EXPERIENCED IN MINING AND CONSTRUCTION?

CAN YOU LEAD AND MOTIVATE A TEAM?

ARE YOU SEEKING A PATH TO A SENIOR MINE MANAGEMENT POSITION?

If you want to lead the daily operation of mining construction projects, ensure that they progress on time and on budget, and mentor your team, the role of Construction Superintendent could be the one for you.

## Job Description

- Plan, organize, direct and control the daily operations of mining construction projects to make sure they are completed safely, on time, within budget and according to desired quality
- Read and interpret blueprints, drawings and sketches to determine specifications and calculate requirements
- Hire employees and ensure that new and current employees have all training required to perform their work in an efficient, effective and safe manner
- Ensure adequate resources and equipment are available so that employees can safely perform their jobs
- Maintain quality control
- Coordinate and work with subcontractors, Construction Supervisors and specialist engineers
- Conduct safety audits, risk assessments and housekeeping inspections to ensure regulatory, corporate, site and environmental standards are being followed
- Mentor and advise team members
- Maintain detailed progress reports of construction activities and report project performance to mine management and stakeholders
- May inspect work performed by employees, contractors and subcontractors
- Participate in project meetings to monitor and support project progress
- Work with trade union(s), supervisors and HR department to avoid and resolve personnel issues and grievances

## Compensation

Construction Superintendents are paid on an annual basis. Depending on factors such as the location of the mine and the type of mineral or metal produced, annual salaries range from \$100,000 - \$150,000 (Based on job research, 2014). In addition, Construction Superintendents often receive other benefits.

## Why are People Attracted to this Career?

In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

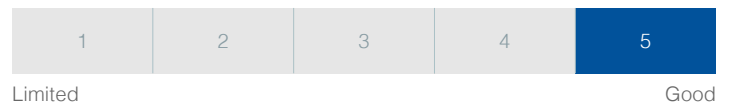
The people who want to work as a Construction Superintendent are drawn to the challenge of leading the construction and implementation of new mine projects. They want to make sure that

projects progress on time and on budget, orchestrating activities so they proceed smoothly. Many find great satisfaction in mentoring their staff.

## Job Prospects

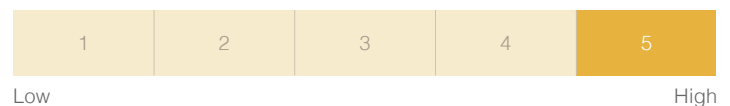
Each year, MiHR researches the needs of the mining industry to hire Construction Superintendents. Based on 2015's forecast, we are providing the following assessment of the Job Prospects in mining as well as an evaluation applicability of these skills in other sectors. Together, these measures will help future job seekers to make informed decisions about potential careers, based on the opportunities in the mining industry.

## Job Prospects in Mining



## Transferability

*Demand for these skills in other industries*



## What is it Like to Work as a Construction Miner in Mining?

*Note: conditions vary according to employer and region.*

As a Construction Superintendent, you will work out of a field office at the construction site where you will monitor the project and make daily decisions about construction activities. During this time, you will report to the Site Project Manager. The job involves significant personal interaction and, as a leader, you will be responsible for team building and conflict resolution. You will be working outside in all seasons and in a variety of environmental conditions, including snow, mud and ice.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Unpaid overtime may be required.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

Many mines are situated in remote areas and require most employees to live in a mining camp. In these mines, employees usually work on a “fly-in, fly-out” schedule. When on-site, all of your living expenses would be covered, including meals. Trained chefs and kitchen staff generally prepare meals and some camps provide accommodations for dietary restrictions and preferences.

Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

### Success Profile

Common traits that successful Construction Superintendents share are:

- Ability to build a culture of cooperation and collaboration
- Ability to develop positive relationships with team and contractors
- Ability to earn and maintain respect by demonstrating credibility and integrity
- Ability to identify issues and solve problems
- Ability to motivate a team
- Ability to read and follow blueprints, technical drawings and plans
- Ability to stay focused
- Ability to work within budget and time constraints
- Analytical
- Committed to staying up-to-date with safety processes and regulations

### Job Entry Requirements

Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.

	Fixed Requirement	Regional Requirement	May be Required	Asset
Post-secondary diploma or degree	●			
Five to 15 years of related experience	●			
Good understanding of blueprint reading	●			
Experience and knowledge of construction planning, productivity analysis, Quality Assurance (QA) processes and Health, Safety and Environment procedures and regulations	●			
Proficiency with word processing, spreadsheet, email and presentation software	●			
Understanding of AutoCAD	●			
In-depth knowledge of construction methods, project management scheduling and cost control	●			
Valid driver's licence (or eligible for a driver's licence) with few or no current infractions	●			
Proven experience in coordinating work efforts of different groups, including direct and indirect construction contractors and internal groups like field engineers, safety and quality professionals	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to lead in a diverse environment	●			
Proficiency in language of operation	●			
Bilingual French and English (Quebec and NB)		●		
Undergo a criminal record check			●	
Work experience in a construction trade			●	
Red Seal certification				●
Work experience as a foreman				●
Training in business administration and leadership				●
Post-secondary degree in Construction Science or Construction Management				●
Willingness to relocate				●
Other languages				●

- Detail-oriented
- Embraces new technology
- Highly self-motivated
- Strong active listening skills
- Strong communication skills (verbal, written)
- Strong delegation skills
- Strong leadership and mentoring skills
- Strong organizational and planning skills
- Thorough
- Values safety, health and a positive working environment
- Works well under pressure

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, on-site housing for couples, gender-inclusive work environments or flexible schedules
- Provide professional development programs and ongoing training to support you and to develop career progression options, including paying your professional association fees



# Crane Operator

MOBILE CRANE OPERATOR, BOOM TRUCK CRANE OPERATOR

*DO YOU LIKE TO WORK INDEPENDENTLY? ARE YOU A RESPONSIBLE AND SAFETY-CONSCIOUS WORKER? ARE YOU INTERESTED IN LEARNING A SKILLED TRADE INVOLVING LARGE EQUIPMENT AND MACHINERY?*

If you are good with numbers, want to work while you pursue your qualifications and approach heavy equipment and machinery with confidence and respect, a career as a Crane Operator could be the one for you.

## Job Description

- Use cranes to lift, move, position or place equipment, machinery, materials and other large objects
- Transport, set up and take down crane
- Communicate with assigned crews to determine the best placement of the mobile crane for planned lifts
- Operate the pedals and levers of cranes to rotate the crane, raise and lower its boom and one or more load lines in a safe and efficient manner to minimize risk of injury or damage
- Apply and verify rigging, stay alert to identify and correct rigging hazards, lower loads to adjust rigging
- Perform a walk-around inspection before, during, and after every shift, record results in log book and report issues to supervisor
- Conduct test lifts, read, interpret and calculate crane capacities and weight (by reading load charts and load sensors) to prepare for rigging and hoisting

## Compensation

Crane Operators are paid on an hourly basis. Depending on factors such as the location of the mine and the type of equipment operated, pay ranges from \$31 - \$50 per hour (CostMine, 2014). In addition, Crane Operators often receive other benefits.

## Why are People Attracted to this Career?

In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

The people who are attracted to working as Crane Operator take pride in using their skills and training to provide a challenging and important service. They like to work on their own and also work well within a team to achieve common goals.

## Job Prospects

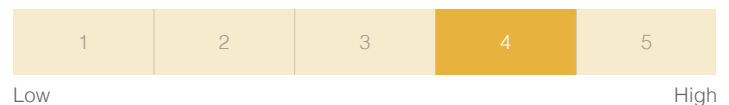
Each year, MiHR researches the needs of the mining industry to hire Crane Operators. Based on 2015's forecast, we are providing the following assessment of the Job Prospects in mining as well as an evaluation applicability of these skills in other sectors. Together, these measures will help future job seekers to make informed decisions about potential careers, based on the opportunities in the mining industry.

## Job Prospects in Mining



## Transferability

*Demand for these skills in other industries*



## What is it Like to Work as a Crane Operator in Mining?

*Note: conditions vary according to employer and region.*

As a Crane Operator, you will work inside a temperature-controlled equipment cab in hot and cold environments. Working on your own in a cab for the majority of your shift, you will communicate with colleagues mostly over two-way radios or by using hand signals. Occasionally you may be required to lift up to 23 kg (50 lbs) (based on 2014 job research). For safety reasons, most crane work is done during daylight hours.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Overtime is generally not required but you may have opportunities to work overtime in return for extra compensation.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

Many mines are situated in remote areas and require most employees to live in a mining camp. In these mines, employees

usually work on a “fly-in, fly-out” schedule. When on-site, all of your living expenses would be covered, including meals. Trained chefs and kitchen staff generally prepare meals and some camps provide accommodations for dietary restrictions and preferences.

Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

### Success Profile

Common traits that successful Crane Operators share are:

- Ability to follow verbal directions and hand signals
- Ability to stay focused
- Comfortable working at heights
- Fast reflexes
- Good hand-eye and eye-foot coordination
- Good troubleshooting skills
- Good vision and depth perception
- Have a deep level of respect for, and understanding of, safety procedures and regulations
- Organized and alert

### Job Entry Requirements

*Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
Completion of a three to four year apprenticeship program or relevant work experience	●			
One to three years of experience working under minimal supervision	●			
Willingness to work in a diverse workplace	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Proficiency in language of operation	●			
Journeyman Trade Certificate as Mobile Crane Operator (check the requirements for your province or territory)		●		
Red Seal certification as Mobile Crane Operator				●
Willingness to relocate				●
Other languages				●

- Some understanding of mechanical systems
- Works well with minimal supervision
- Works well with others

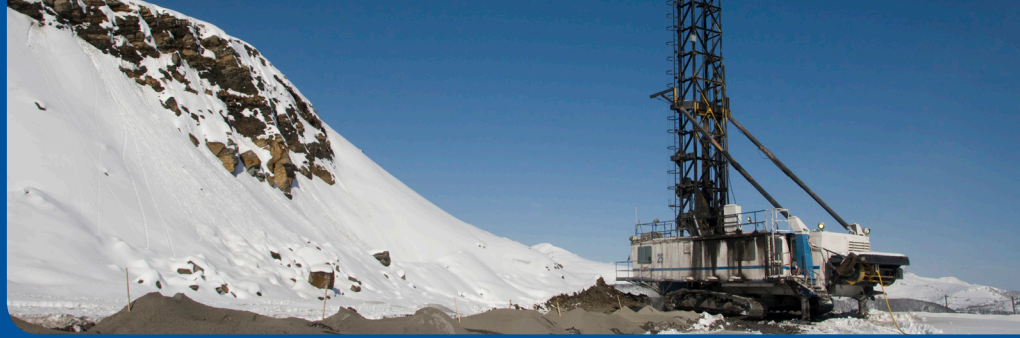
Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, housing incentives, or flexible schedules
- Provide professional development programs to support you and to develop career progression options





# Production Driller

*DO YOU APPROACH MECHANICAL EQUIPMENT WITH CONFIDENCE?*

*DO YOU LIKE PLANNING YOUR MOVES CAREFULLY IN ADVANCE?*

*ARE YOU PRECISE AND RESPONSIBLE?*

Production Drillers are critical to mining production. They are mechanically inclined and follow protocol and procedure. If you like to work independently within a team, are physically fit and welcome the challenge of figuring out the best way to complete a drill pattern, a career as Production Driller could be the one for you.

## Job Description

- Move, set up and operate drilling rigs and related equipment above or underground to drill holes for blasting and mineral excavation
- Use a variety of drills and hammers including hydraulic drills, rotary, in-the-hole, and top hammer, diamond drills and other drilling machines, which can be as small as a backpack or large and mounted on a crawler or truck
- Prepare the drill site, move and set up drill following site plans and layouts, position drills and set angles and depths
- Start and stop drills, and coordinate with other workers on the site
- Conduct pre-operational checks and monitor conditions by checking water flow, components, fluid levels, fittings, safety equipment, as well as depths and alignments of boring positions
- Regulate air pressure, rotary speed, and downward pressure, according to the type of rock being drilled
- Operate secondary equipment, such as pumps and equipment used to prevent and correct problems or make minor repairs and refuel, inspect, lubricate and replace components to maintain drill
- Meet all drill production targets without damaging the drill
- Read and maintain daily drill report and drilling logbook and report issues to Supervisor
- Collaborate closely with mechanics, the production team and supervise Driller Helpers and Mine Helpers

## Compensation

Production Drillers are paid on an hourly basis. Depending on factors such as the location of the mine and the type of equipment operated, pay ranges from \$21 - \$46 per hour (CostMine, 2014). In addition, Production Drillers often receive other benefits.

## Why are People Attracted to this Career?

In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

The people who tend to be drawn to the role of Production Driller have physical stamina and like to work outside. They work

well under pressure and with minimal supervision. They enjoy challenging work that requires them to plan their actions carefully.

## Job Prospects

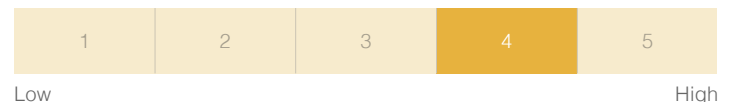
Each year, MiHR researches the needs of the mining industry to hire Production Drillers. Based on 2015's forecast, we are providing the following assessment of the Job Prospects in mining as well as an evaluation applicability of these skills in other sectors. Together, these measures will help future job seekers to make informed decisions about potential careers, based on the opportunities in the mining industry.

### Job Prospects in Mining



### Transferability

*Demand for these skills in other industries*



## What is it Like to Work as a Production Driller in Mining?

*Note: conditions vary according to employer and region.*

As a Production Driller, you will work alone for hours at a time and team up with Blasters and other Operation and Production crews in order to meet production targets, ensure safety and minimize risks. You will work underground or outside, sometimes in severe environmental conditions. You will be required to lift up to 25 kg (55 lbs) (based on job research, 2014). You will be responsible for looking after valuable drill equipment while meeting production targets. In mines with a short production phase, Production Drillers may work for contractors, and may travel to work at different mining locations.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Overtime is generally not required but you may have opportunities to work overtime in return for extra compensation.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

Many mines are situated in remote areas and require most employees to live in a mining camp. In these mines, employees usually work on a “fly-in, fly-out” schedule. When on-site, all of your living expenses would be covered, including meals. Trained chefs and kitchen staff generally prepare meals and some camps provide accommodations for dietary restrictions and preferences.

Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

### Success Profile

Common traits that successful Production Drillers share are:

- Ability to communicate using signals
- Ability to follow and implement safety policies in daily work
- Ability to follow procedures (especially around hazardous materials and equipment)

### Job Entry Requirements

*Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
Must be able to read and understand manuals and written instructions in language of operation	●			
Two to five years of experience in production mining such as Driller Helper, Heavy Equipment Operator or Underground Miner	●			
Physically fit and mobile	●			
Physical stamina			●	
Willingness to work in a diverse workplace	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Proficiency in language of operation	●			
High school diploma or equivalent			●	
Training and certification in mining production modules			●	
Drill specific training (often on-the-job)			●	
Undergo a criminal record check			●	
Willingness to relocate				●
Other languages				●

- Ability to stay focused
- Ability to visualize three-dimensional layouts
- Adaptable
- Dependable, reliable, responsible
- Detail-oriented
- Embraces new techniques and technologies
- Good vision and manual dexterity
- Strong risk management skills
- Strong trouble-shooting skills
- Strong understanding of mechanical systems
- Works well with minimal supervision
- Works well with others

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, housing incentives, or flexible schedules
- Provide professional development programs to support you and to develop career progression options



# Haul Truck Driver

*DO YOU WANT TO START YOUR CAREER IN MINING?  
ARE YOU A HARD WORKER WHO IS RESPONSIBLE AND WELL-ORGANIZED?  
DO YOU LIKE WORKING WITH MACHINES AND HEAVY EQUIPMENT?*

If you want to make a big contribution to mining or minerals processing by transporting raw materials in electric or diesel haul trucks, then you may enjoy working as a Haul Truck Driver.

## Job Description

- Operate and drive heavy haul trucks to transport tons of materials over short distances either in a surface environment or underground
- Perform inspections of vehicle systems, equipment and accessories such as tires, lights, turn signals and brakes
- Ensure cargo is properly loaded according to safety requirements
- Follow all safety policies, procedures and legislation
- Maintain paper or electronic log book
- Communicate with Dispatcher and other Haul Truck Drivers using communication devices such as a two-ways radio or on-board computers
- May drive special purpose vehicles, including: end dump trucks, centre dump truck units, shuttle cars, remix trucks and water trucks

## Compensation

Haul Truck Drivers are paid on an hourly basis. Depending on factors such as the location of the mine and the type of mineral or metal produced, pay ranges from \$18 – \$42 per hour (CostMine, 2014). In addition, Haul Truck Drivers often receive other benefits.

## Why are People Attracted to this Career?

In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

The people who are attracted to being a Haul Truck Driver tend to be seeking challenging entry-level work in the mining industry. With a positive attitude, the right qualities and willingness to learn, candidates have the opportunity to be considered without needing industry experience or formal qualifications.

## Job Prospects

Each year, MiHR researches the needs of the mining industry to hire Haul Truck Drivers. Based on 2015's forecast, we are providing the following assessment of the Job Prospects in mining as well as an evaluation applicability of these skills in other sectors. Together, these measures will help future job seekers to make informed decisions about potential careers, based on the opportunities in the mining industry.

## Job Prospects in Mining



## Transferability

*Demand for these skills in other industries*



## What is it Like to Work as a Haul Truck Driver in Mining?

*Note: conditions vary according to employer and region.*

As a Haul Truck Driver, you will work inside a temperature-controlled cab in hot and cold environments, communicating with colleagues mostly over two-way radios or by using hand and/or other signals. You must be able to concentrate and stay alert while performing repeated tasks in a dynamic environment and sometimes in severe environmental conditions.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Overtime is generally not required but you may have opportunities to work overtime in return for extra compensation.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

Many mines are situated in remote areas and require most employees to live in a mining camp. In these mines, employees usually work on a "fly-in, fly-out" schedule. When on-site, all of your

living expenses would be covered, including meals. Trained chefs and kitchen staff generally prepare meals and some camps provide accommodations for dietary restrictions and preferences. Many employees find they build strong bonds with their coworkers when living and working on-site.

Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

### Success Profile

Common traits that successful Haul Truck Drivers share are:

- Ability to follow procedures
- Ability to follow verbal directions and hand signals
- Committed to safe work habits
- Enjoys operating large equipment
- Excellent spatial orientation and sense of space/direction/elevation
- Good vision and depth perception
- Responsible

### Job Entry Requirements

*Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
Appropriate Class or driver's permit, if required to drive outside of the mine site	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to work in a diverse environment	●			
Proficiency in language of operation	●			
High school diploma or equivalent			●	
Completion of accredited driver's training course through a vocational school or community college			●	
Certification for transporting dangerous goods			●	
Willingness to relocate				●
Other languages				●

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, skills training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, housing incentives, gender-inclusive work environments or flexible schedules
- Provide professional development programs to support you and to develop career progression options



# Electrical Engineer

*DO YOU WANT TO USE SCIENCE, TECHNOLOGY AND PROBLEM-SOLVING SKILLS IN YOUR EVERYDAY WORK? ARE YOU FASCINATED BY CUTTING-EDGE TECHNOLOGY AND PROCESSES? DO YOU EXCEL AT IMPROVING OPERATIONAL EFFICIENCY?*

Electrical Engineers design and support construction and maintenance of a variety of products, services and information systems. If you want to plan, analyze, troubleshoot and work with a team of engineers, then you might enjoy a career as an Electrical Engineer.

## Job Description

- Conceive and plan the electrical equipment and systems to operate in demanding conditions at the mine site
- Research, specify, recommend, install and commission the electrical equipment and systems
- Provide trouble-shooting support to improve operational efficiencies
- Provide technical leadership for maintenance departments through the use of computerized planning, modeling and predictive maintenance systems
- Lead the implementation of cutting-edge processes and safety practices
- Prepare tendering competitions, evaluate technical aspects of bids, supervise contractors, negotiate variations and remedial works, assure and control quality, measure work done, approve and accept works
- Lead or work on a team to ensure projects are completed to time and budget, and to high quality standards
- Write reports, attend meetings, exchange information with other professionals, record and store information in compliance with legislation, regulations and company policies
- Play a leading role in ensuring safety, improving operational efficiency and quality, controlling production costs and protection of the environment at all stages of a mine life cycle
- Work cooperatively with other departments, project managers, supply chain and mine management to optimize production, reduce costs, solve problems and meet deadlines
- Supervise Junior Engineers and Technicians and assist Supervisors in building an efficient work force
- Only licensed engineers are accountable on behalf of their employers; they review and certify that electrical work has been built following established standards and regulations

## Compensation

Electrical Engineers are paid on an annual basis. Depending on factors such as the location of the mine and the type of mineral or metal produced, annual salaries range from \$60,000 - \$140,000<sup>1</sup>. In addition, Electrical Engineers often receive other benefits.

## Why are People Attracted to this Career?

In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in

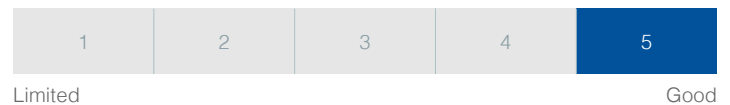
the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

People drawn to the role of Electrical Engineer tend to be seeking challenging and rewarding technical work. They like the idea of working both independently and with a team, as well as the opportunity to work with new technologies.

## Job Prospects

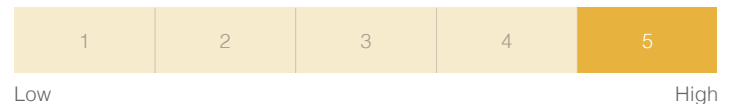
Each year, MiHR researches the needs of the mining industry to hire Electrical Engineers. Based on 2015's forecast, we are providing the following assessment of the Job Prospects in mining as well as an evaluation applicability of these skills in other sectors. Together, these measures will help future job seekers to make informed decisions about potential careers, based on the opportunities in the mining industry.

## Job Prospects in Mining



## Transferability

*Demand for these skills in other industries*



## What is it Like to Work as an Electrical Engineer in Mining?

*Note: conditions vary according to employer and region.*

As an Electrical Engineer, you will probably be based in an office in the engineering department on the mine site. You may be exposed to challenging working conditions and may be required to work safely in confined spaces, at heights and near open holes. You must be willing and able to climb ladders and steel ramps on the surface or underground. As you gain more experience, you will spend less time in the field and more in an office environment.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

<sup>1</sup> 2014 APEGS Salary Survey Summary Results, Association of Professional Engineers and Geoscientists of Saskatchewan

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Overtime is generally not required but you may have opportunities to work overtime in return for extra compensation.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

Many mines are situated in remote areas and require most employees to live in a mining camp. In these mines, employees usually work on a “fly-in, fly-out” schedule. When on-site, all of your living expenses would be covered, including meals. Trained chefs and kitchen staff generally prepare meals and some camps provide accommodations for dietary restrictions and preferences.

Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

### Success Profile

Common traits that successful Electrical Engineers share are:

- Ability to build trust and maintain positive relationships with a wide variety of personnel
- Ability to plan and work in a fast-paced, dynamic environment
- Embraces new techniques and technologies
- Enjoys working with math, science, computers and all things electrical
- Have a deep level of understanding and respect for established safety procedures, legislation and regulations

### Job Entry Requirements

Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.

	Fixed Requirement	Regional Requirement	May be Required	Asset
Bachelor's degree in Electrical Engineering	●			
Eligible for Registration as Engineer in Training	●			
Proficiency with word processing, spreadsheet and email software	●			
Specialized software skills	●			
Willingness to work in a diverse workplace	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Proficiency in language of operation	●			
Professional registration			P.Eng	
High power distribution training (or training on electronic computer control process)			●	
Three or more years of experience in mining			●	
Experience using 3D drawing software			●	
Master's degree in Electrical Engineering, or related field				●
Willingness to relocate				●
Other languages				●

- Intelligent, creative and goal-oriented
- Open-minded
- Organized and a critical thinker
- Patient, flexible, adaptable and resilient
- Strong active listening skills
- Strong analytical, computer and planning skills
- Strong communication skills (verbal and written)
- Strong time management skills
- Works well in a team
- Works well under pressure

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, on-site housing for couples, gender-inclusive work environments or flexible schedules
- Provide professional development programs to support you and to develop career progression options
- Provide co-op student programs to allow engineering students to get familiar with engineering work even before completing their university studies



# Electrician

*DO YOU WANT A JOB THAT IS CHALLENGING AND TECHNICAL?  
ARE YOU A NATURAL PROBLEM SOLVER WHO WORKS WELL WITH OTHERS?*

Electricians excel at engaging in a variety of challenging tasks that require precision and safe work practices. If installing, testing, repairing and maintaining electrical systems and equipment sounds interesting and challenging, you may enjoy working as an Electrician.

## Job Description

- Maintain and upgrade existing electrical systems as well as new installations, including (but not limited to) control equipment, motors, pumps, and more
- Interpret drawings, blueprints, schematics and electrical code specifications
- Install and maintain automated systems
- Consult with other specialists when working with complex electronic devices and systems and require additional expertise
- Attend to breakdowns and emergencies such as power outages, cable replacement, ventilation issues and power to emergency pumps
- Follow preventative maintenance programs, including routine equipment inspections
- Maintain maintenance records
- Lock out equipment that presents any type of hazard and meet with supervisor to review process to make it safe and operable
- Replace items such as circuit breakers, fuses, switches, electrical and electronic components
- Change fuses and insulators on main power lines, and repair and/or replace lighting
- Reroute power (ground switching) as required to complete work safely
- Provide electrical service for underground mining equipment and surface operating equipment
- In underground mines, install power sleds, maintain hoists (electrically and electronically)
- Operate generator stations during power outages

## Compensation

Electricians are paid on an hourly basis. Depending on factors such as the location of the mine and the type of mineral or metal produced, pay ranges from \$17 to \$58 per hour (CostMine, 2014). In addition, Electricians often receive other benefits. Electrical Apprentices are typically paid a percentage of the full wage beginning at 75% and increasing with experience.

## Why are People Attracted to this Career?

In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured

work schedule which allows for personal pursuits and professional development.

People who are drawn to work as an Electrician enjoy exciting work where every day presents a variety of challenges. Electricians are well-respected within the mining industry because it takes expert knowledge and skill to harness the power of electricity in a safe and responsible manner.

## Job Prospects

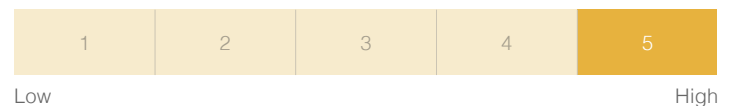
Each year, MiHR researches the needs of the mining industry to hire Electricians. Based on 2015's forecast, we are providing the following assessment of the Job Prospects in mining as well as an evaluation applicability of these skills in other sectors. Together, these measures will help future job seekers to make informed decisions about potential careers, based on the opportunities in the mining industry.

### Job Prospects in Mining



### Transferability

*Demand for these skills in other industries*



## What is it Like to Work as an Electrician in Mining?

*Note: conditions vary according to employer and region.*

Working as an Electrician, you can expect to interpret electrical drawings to determine wiring layouts this will work best in new installations. You will work with a variety of hand tools and meters and troubleshooting will make up a big part of your workday. You may have to work in small confined spaces or high up on ladders and platforms, including bucket trucks.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Overtime is generally not required but you may have opportunities to work overtime in return for extra compensation.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

Many mines are situated in remote areas and require most employees to live in a mining camp. In these mines, employees usually work on a “fly-in, fly-out” schedule. When on-site, all of your living expenses would be covered, including meals. Trained chefs and kitchen staff generally prepare meals and some camps provide accommodations for dietary restrictions and preferences.

Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

### Success Profile

Common traits that successful Electricians share are:

- Ability to read and interpret technical drawings
- Committed to safe work habits

- Detail-oriented and precise
- Embraces new technology
- Excellent manual dexterity
- Flexible and versatile
- Patient
- Strong communication skills
- Strong listening skills
- Works well in a team and independently
- Works well under pressure

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, on-site housing for couples, gender-inclusive work environments or flexible schedules
- Provide professional development programs to support you and to develop career progression options

### Job Entry Requirements

*Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
Completion of a four-year apprenticeship program that combines classroom instruction with on-the-job training	●			
Journeyman Trade Certificate in Electrical trade	●			
Good eyesight and colour vision (required to identify colour-coded wires)	●			
Ability to conduct complex tests	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to work in a diverse environment	●			
Proficiency in language of operation	●			
Willingness to relocate				●
Other languages				●





# Engineering Superintendent

*ARE YOU A SUCCESSFUL ENGINEER OR ENGINEERING TEAM LEADER WITH EXPERIENCE IN MINING? ARE YOU READY FOR A NEW CHALLENGE? DO YOU WANT MORE RESPONSIBILITIES AND MORE RESOURCES?*

Engineering Superintendents are part of the mine management team. They lead new developments and keep the mine and mill running smoothly and safely. If you are ready to manage a team of engineers and want to be responsible for new developments, safety and equipment, then becoming an Engineering Superintendent could be right for you.

## Job Description

- Work with Senior Managers, other Superintendents, and their Engineers, Technologists and Technicians to provide engineering services and support to mining and processing activities
- Oversee many aspects of mine engineering, with specialist teams of engineers, technologists and technicians in mining, civil, mechanical, electrical, environmental, chemical or biological engineering
- Select and install new facilities or equipment, and design new processes
- Work on projects such as the development of new shafts, tunnels or mining areas, closing old areas, and site restoration
- Prepare and approve designs, specifications and plans
- Assign work to teams, oversee progress, solve problems, and take corrective action when required
- Prepare and negotiate budgets and monitor spending
- Prepare technical reports and briefs on equipment, safety, project progress and other matters
- Lead and participate in meetings and briefings, both formal and informal
- Recruit, train and develop employees, with support from HR specialists
- Oversee the development of Engineers, Technologists and Technicians, providing support, encouragement, advice and guidance

## Compensation

Engineering Superintendents are paid on an annual basis. Depending on factors such as the location of the mine and the type of mineral or metal produced, annual salaries range from \$110,000 - \$160,000 (CostMine, 2014). In addition, Engineering Superintendents often receive other benefits.

## Why are People Attracted to this Career?

In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

The people who are attracted to this job are highly motivated to take on a senior position with increased responsibilities and challenging work. They are ambitious and appreciate the opportunity to work with new technologies and new processes, and to manage and develop their people. They like working on projects and solving problems. They also like to work with other senior managers and the broader perspective on the industry that comes with that collaboration.

## Job Prospects

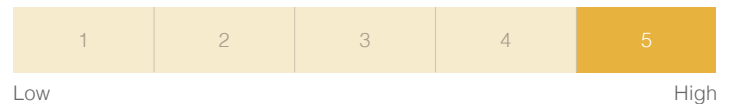
Each year, MiHR researches the needs of the mining industry to hire Engineering Superintendents. Based on 2015's forecast, we are providing the following assessment of the Job Prospects in mining as well as an evaluation applicability of these skills in other sectors. Together, these measures will help future job seekers to make informed decisions about potential careers, based on the opportunities in the mining industry.

### Job Prospects in Mining



### Transferability

*Demand for these skills in other industries*



## What is it Like to Work as an Engineering Superintendent in Mining?

*Note: conditions vary according to employer and region.*

As an Engineering Superintendent you will probably be based in an office in (or near) the mine site and you will spend some of your time in the mine and the processing mill. You will also attend and sometimes chair mine management meetings.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Unpaid overtime may be required on occasion.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

Many mines are situated in remote areas and require most employees to live in a mining camp. In these mines, employees usually work on a “fly-in, fly-out” schedule. When on-site, all of your living expenses would be covered, including meals. Trained chefs and kitchen staff generally prepare meals and some camps provide accommodations for dietary restrictions and preferences.

Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

### Success Profile

Common traits that successful Engineering Superintendents share are:

- Ability to delegate work to achieve results
- Ability to earn and maintain respect by demonstrating credibility and integrity
- Ability to influence people at all levels
- Ability to make and implement difficult decisions, and communicate the reasons for them
- Ability to overcome difficulties and solve problems with a positive attitude

### Job Entry Requirements

*Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
Post-secondary degree in mining or engineering	●			
Minimum of eight years of relevant experience including several years as an Engineer in mining or in heavy industry (e.g. oil and gas, petro-chemicals, steel, electricity generation)	●			
Knowledge of the mining industry	●			
Proficiency with word processing, spreadsheet and presentation software	●			
Proficiency with AutoCAD	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to lead in a diverse environment	●			
Proficiency in language of operation	●			
Bilingual French and English (Quebec and NB)		●		
10 – 12 years of relevant experience				●
Specialist mine planning and scheduling software, including 3D and visualization				●
Willingness to relocate				●
Other languages				●

- Accountable for decisions and actions
- Have a deep level of understanding and respect for legislation, regulations and procedures concerning safety, employment and environmental protection
- Innovative and enjoys working on new projects
- Organized and a critical thinker
- Responsible and accountable
- Strong communication skills (verbal and written)
- Strong computer skills, including engineering software
- Strong troubleshooting and problem solving skills
- Team player, cooperative and strong interpersonal skills
- Works well under pressure

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, on-site housing for couples, gender-inclusive work environments or flexible schedules
- Provide professional development programs to support you and to develop career progression options



# Environmental Biologist

*ARE YOU PASSIONATE ABOUT SCIENCE AND THE ENVIRONMENT? DO YOU WANT TO HELP MINING REDUCE ANY NEGATIVE IMPACT OF MINING ON OUR PLANET AND FIND A BALANCE WITH THE SURROUNDING ECOSYSTEM? ARE YOU COMMITTED TO ENVIRONMENTAL SUSTAINABILITY AND RESPONSIBLE MINING?*

If you enjoy technical research, want to create a positive environmental impact and aspire to advise companies on how to protect the environment during mining operations, a career as an Environmental Biologist could be the one for you.

## Job Description

- Plan, conduct, and monitor environmental projects to ensure that the mine is operating responsibly in compliance with federal and provincial regulatory requirements and environmental protection acts and guidelines
- Develop new technologies and innovative processes and procedures to ensure that mining is conducted in a sustainable and environmentally-friendly manner
- Lead and manage environmental assessments to protect groundwater, fisheries, wildlife, and other natural and aquatic resources from the effects of mining
- Conduct investigation, field studies and environmental monitoring of mining operations on water, plant and animal life, and overall ecosystems in accordance with accepted inventory collection guidelines (RIC)
- Plan, organize and conduct field surveys including wetland delineation, habitat assessment, native plants, and other ecological studies
- Collect, prepare and analyze samples of water, soil, and plant and animal population including field water, benthos and soil sampling at contaminated sites
- Apply scientific tools, statistical techniques and computer technologies to collect, analyze and research data
- Prepare environmental and compliance assessment reports and technical correspondence for internal stakeholders and regulatory authorities
- Supervise technicians, field crews and other biologists and work with other inter-disciplinary project teams
- Provide technical support to Project Managers for the Contaminated Site Management practice on natural resources damages, ecological and human health risk assessment tasks

## Compensation

Environmental Biologists are paid on an annual basis. Depending on factors such as the location of the mine and the type of mineral or metal produced, annual salaries range from \$72,000 - \$88,000 (CostMine, 2014). In addition, Environmental Biologists often receive other benefits.

## Why are People Attracted to this Career?

In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in

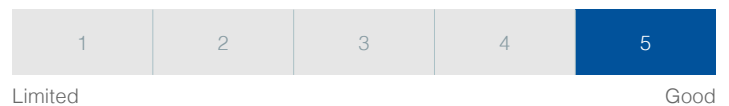
the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

People who are attracted to working as an Environmental Biologist share a deep concern for the environment and sustainability. They like scientific investigation and are interested in field assignments and being outdoors. They also enjoy conducting desk research, analyzing data and creating technical reports. They are committed to environmental protection and like to support mining companies in environmental stewardship.

## Job Prospects

Each year, MiHR researches the needs of the mining industry to hire Environmental Biologists. Based on 2015's forecast, we are providing the following assessment of the Job Prospects in mining as well as an evaluation applicability of these skills in other sectors. Together, these measures will help future job seekers to make informed decisions about potential careers, based on the opportunities in the mining industry.

## Job Prospects in Mining



## Transferability

*Demand for these skills in other industries*



## What is it like to work as an Environmental Biologist in Mining?

*Note: conditions vary according to employer and region.*

As an Environmental Biologist, you will be based in an office or laboratory on or near the mine site. You will spend a considerable amount of time conducting surveys and fieldwork in, and around, the mine site. You may conduct on-site assessments and travel long distances to collect samples. When conducting fieldwork, you may need to drive on radio-controlled resource roads. Fieldwork is conducted in all types of environmental conditions, within bodies of water (including rivers, and streams) and you may handle toxic or dangerous substances and/or organisms.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Overtime is generally not required but you may have opportunities to work overtime in return for extra compensation.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

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Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

### Success Profile

Common traits that successful Environmental Biologist share are:

- Ability to conduct statistical analysis
- Ability to visualize completed projects

### Job Entry Requirements

*Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
Bachelor's degree in Environmental Science	●			
Six to eight years of experience in environmental assessment projects and consulting experience in mining or in similar industries such as oil and gas (pipeline and transmission lines) and power/utility sector and small/large hydroelectric projects	●			
Hands-on experience with environmental assessment, impact surveys, field studies of endangered species and/or wetland delineation projects	●			
Working knowledge of industry-specific statistical and analytical computer software	●			
Working knowledge of, and experience with, federal, provincial and local workplace health and safety and environmental legislations, rules, regulations and reporting processes and procedures as they apply to mining	●			
Valid Class 5 driver's licence	●			
Ability and willingness to conduct fieldwork in all types of environmental conditions and harsh terrain as well as periodic overnight travel	●			
Physical stamina for fieldwork	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to work in a diverse environment	●			
Proficiency in language of operation	●			
Eligible for registration as Biologist in Training		●		
Professional Registration		●		
Master's degree in environmental science, preferable biological sciences or a closely related field such as environmental science, natural science, hydrology, ecology or botany			●	
Specific experience with environmental assessment				●
Willingness to relocate				●
Other languages				●

- Ability to work independently and as part of a multi-disciplinary team
- Adaptable
- Analytical
- Behaves in professional manner
- Conscientious
- Critical thinker
- Demonstrates strong work ethics
- Detailed-oriented
- Have a deep level of respect for, and understanding of, safety procedures, environmental legislation and regulations
- Organized
- Strong communication skills (verbal and written)
- Strong computer skills
- Technical writing skills
- Values safety, health and a positive working environment
- Works well with minimal supervision

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, housing incentives, or flexible schedules
- Provide professional development programs to support you and to develop career progression options



# Environmental Technician / Technologist

ARE YOU COMMITTED TO ENVIRONMENTAL PROTECTION?  
DO YOU HAVE INVESTIGATIVE SKILLS AND ENJOY FIELD WORK?  
WOULD YOU LIKE TO BE PART OF A MULTI-DISCIPLINARY SCIENTIFIC TEAM?  
DO YOU WANT TO CONTRIBUTE TO SOCIALLY RESPONSIBLE PROJECTS?

If you are interested in working with Environmental Engineers and Scientists to identify, evaluate, prevent and control environmental contamination, then a career as an Environmental Technician could be the one for you.

## Job Description

- Enter and analyze data, write reports and help ensure compliance with environmental regulations and legislation
- Participate in multi-disciplinary projects, including hazardous materials survey, abatement and remediation activities, air monitoring, flora and fauna protection, waste audits, and environmental compliance audits
- Measure resources, including water, soil and air to monitor pollution levels
- Collect and analyze samples from the environment by conducting physical and chemical tests
- Control and manage hazardous materials and ensure the proper cleanup of polluted sites
- Support implementation of resource deposits and planning of new infrastructure and construction
- Manage laboratory equipment and materiel
- May conduct information or training sessions on environmental issues within the community or the mine

## Compensation

Environmental Technicians are paid on an annual basis. Depending on factors such as the location of the mine and the type of mineral or metal produced, annual salaries range from \$51,000 - \$143,000 (CostMine, 2014). In addition, Environmental Technicians often receive other benefits.

## Why are People Attracted to this Career?

In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

Individuals who are attracted to this job tend to be responsible people who enjoy working with a challenging variety of routine and new tasks. Strongly committed to environmental protection, they like the outdoors and appreciate the opportunity to learn and work with new technologies.

## Job Prospects

Each year, MiHR researches the needs of the mining industry to hire Environmental Technicians. Based on 2015's forecast, we are providing the following assessment of the Job Prospects in

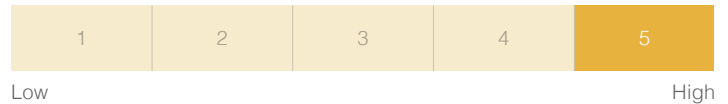
mining as well as an evaluation applicability of these skills in other sectors. Together, these measures will help future job seekers to make informed decisions about potential careers, based on the opportunities in the mining industry.

## Job Prospects in Mining



## Transferability

*Demand for these skills in other industries*



## What is it like to work as an Environmental Technician in Mining?

*Note: conditions vary according to employer and region.*

As an Environmental Technician you will inspect, maintain, control and manage hazardous waste and waste operations, collect samples, and assist with regulatory compliance and other duties. You will perform laboratory and field tests in order to monitor the environment and investigate any sources of pollution. Your work will involve travelling between multiple sites and you may have to investigate a chemical spill or perform water analysis in lakes or rivers. You will have to prepare information sessions and help to deliver training on environmental issues

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Overtime is generally not required but you may have opportunities to work overtime in return for extra compensation.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-

workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

Many mines are situated in remote areas and require most employees to live in a mining camp. In these mines, employees usually work on a “fly-in, fly-out” schedule. When on-site, all of your living expenses would be covered, including meals. Trained chefs and kitchen staff generally prepare meals and some camps provide accommodations for dietary restrictions and preferences. Many employees find they build strong bonds with their coworkers when living and working on-site.

Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

### Success Profile

Common traits that successful Environmental Technicians share are:

- Ability to identify issues and solve problems
- Ability to visualize completed projects
- Computer literacy
- Enjoys hands-on work
- Have a deep level of respect for, and understanding of, safety procedures, regulations and legislation

### Job Entry Requirements

*Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
Post-secondary diploma (2 – 3 years) related to the environment (e.g. natural resources sciences, wastewater treatment, pollution control, hydrology, ecology, toxicology, mineralogy, geology, land scape management and civil engineering)	●			
Proficiency with word processing, spreadsheet and email software	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to work in a diverse environment	●			
Proficiency in language of operation	●			
Membership in the regulatory body to use the title "Professional Technologist"		●		
International Organization for Standardization (ISO) ISO-14000 Environmental Standards certification			●	
Computer-based drafting and design experience in AutoCAD or mining specific software			●	
Workplace Hazardous Materials Information System (WHMIS) certification			●	
Willingness to relocate				●
Other languages				●

- Risk management skills
- Strong communication skills (verbal and written)
- Strong interest in natural sciences
- Strong interpersonal skills
- Works well in a team

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, on-site housing for couples, gender-inclusive work environments or flexible schedules
- Provide professional development programs to support you and to develop career progression options



# Frontline Supervisor

*DO YOU LIKE SOLVING PROBLEMS AND MEETING TARGETS?*

*DO YOU COMMUNICATE AND WORK WELL WITH OTHERS?*

*ARE YOU READY TO TAKE RESPONSIBILITY FOR THE SAFETY OF AN ENTIRE TEAM?*

Frontline Supervisors play a critical role in the mining industry. If you are decisive, want more responsibility, work well under pressure, embrace change and enjoy leading a team of people, then a career as a Supervisor could be the one for you.

## Job Description

- Take responsibility for the safety of their team by close observation of the work environment and taking action when needed to prevent incidents
- Lead by example, and promote a culture of safety and environmental protection in the workplace
- Work in mine operational areas, supervising the extraction of minerals from underground or surface mines
- Plan and organize work, distribute tasks to their team, oversee work progress and achieve production targets
- Build teams, motivate individuals and solve problems to achieve results
- Work with senior managers and other supervisors to promote and achieve overall mine objectives
- Play a crucial role in keeping the lines of communication open between mine management and the team
- Develop their employees by providing advice, encouragement and coaching
- Ensure that both new and experienced workers are well-trained and have the skills and knowledge they need to do their jobs safely and effectively
- Comply with legislation and regulations concerning safety, employment and protection of the environment
- Work with trade unions, if the mine is unionized

## Compensation

Compensation information not currently available.

## Why are People Attracted to this Career?

In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

People who want to work as a Frontline Supervisor tend to enjoy challenging and responsible work that involves large mining equipment and machinery and offers the opportunity to learn and work with new technologies. They enjoy contributing to the development of others as well as prospects for their own professional development and career advancement.

## Job Prospects

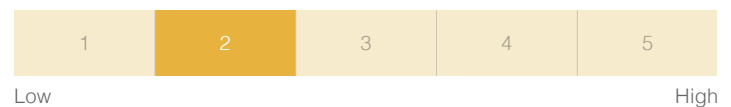
Each year, MiHR researches the needs of the mining industry to hire Frontline Supervisors. Based on 2015's forecast, we are providing the following assessment of the Job Prospects in mining as well as an evaluation applicability of these skills in other sectors. Together, these measures will help future job seekers to make informed decisions about potential careers, based on the opportunities in the mining industry.

### Job Prospects in Mining



### Transferability

*Demand for these skills in other industries*



## What is it Like to Work as a Frontline Supervisor in Mining?

*Note: conditions vary according to employer and region.*

As a Frontline Supervisor, you will probably be based in an office in the mine and will spend much of your time overseeing activities on-site. You may have to work in confined spaces, at heights, or in difficult environments. You will also participate in meetings with mine management and other stakeholders.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Unpaid overtime may be required on occasion.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-

workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

Many mines are situated in remote areas and require most employees to live in a mining camp. In these mines, employees usually work on a “fly-in, fly-out” schedule. When on-site, all of your living expenses would be covered, including meals. Trained chefs and kitchen staff generally prepare meals and some camps provide accommodations for dietary restrictions and preferences. Many employees find they build strong bonds with their coworkers when living and working on-site.

Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

### Success Profile

Common traits that successful Frontline Supervisors share are:

- Ability to earn and maintain respect by demonstrating credibility and integrity
- Ability to lead and influence people at all levels
- Ability to make and implement difficult decisions, and communicate the reasons for them
- Ability to overcome difficulties and solve problems with a positive attitude
- Ability to use a computer for administrative tasks
- Critical thinker
- Have a deep level of understanding and respect for legislation, regulations and procedures concerning safety and environmental protection
- Organized

### Job Entry Requirements

*Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
High school diploma or equivalent	●			
At least two years relevant operations experience in a mining environment	●			
Proficiency with word processing, spreadsheet and email software	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to lead in a diverse environment	●			
Proficiency in language of operation	●			
Bilingual French and English (Quebec and NB)		●		
Valid driver's licence (or eligible for a driver's licence) with few or no current infractions			●	
A journeyperson trade certificate, post-secondary technical diploma, or Engineering degree				●
Willingness to relocate				●
Other languages				●

- Reliable, responsible and works well under pressure
- Strong communication skills (written, verbal)
- Works well with others

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, skills training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, on-site housing for couples, gender-inclusive work environments or flexible schedules
- Provide professional development programs and ongoing training to support you and to develop career progression options





# General Labourer

*DO YOU WANT TO START YOUR CAREER IN MINERALS PROCESSING?*

*ARE YOU FIT, CAPABLE AND WILLING TO WORK WHERE NEEDED?*

*DO YOU LIKE HANDS-ON WORK AND HELPING OUT IN A TEAM?*

General Labourers provide valuable assistance and support in a team of Minerals Processing Operators and other mill employees. If you want first-hand experience working in the mining industry or are interested in learning how to operate a variety of mill equipment, a job as a General Labourer could open the door to a long and satisfying career.

## Job Description

- Assist Process and Machine Operators in mineral ore and metal processing
- Help Mineral Processing Operators and other mill workers to move ore and metal by using bins, conveyors, chutes, weigh scales, railcar movers and front-end loaders
- Assist Mineral Processing Operators in processing ore and metal by monitoring, operating or maintaining pumps, valves, crushers, flotation cells, cyclones, thickeners and screens
- Clean work areas and equipment
- Transport scrap materials through the plant
- Follow checklists and complete log books
- Report any hazards or safety concerns to a Frontline Supervisor

## Compensation

General Labourers are paid on an hourly basis. Depending on factors such as the location of the mine and their skill level, pay ranges from \$19 - \$45 per hour (CostMine, 2014). In addition, General Labourers often receive other benefits.

## Why are People Attracted to this Career?

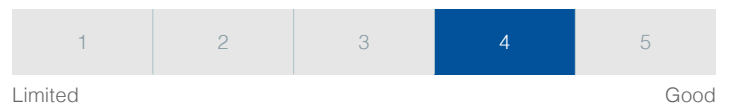
In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

People who want to work as a General Labourer want to gain practical experience while earning a competitive wage. This entry-level position gives candidates the chance to prove that they are capable, while also providing opportunities to train for jobs that require more experience or specific skills.

## Job Prospects

Each year, MiHR researches the needs of the mining industry to hire General Labourers. Based on 2015's forecast, we are providing the following assessment of the Job Prospects in mining as well as an evaluation applicability of these skills in other sectors. Together, these measures will help future job seekers to make informed decisions about potential careers, based on the opportunities in the mining industry.

## Job Prospects in Mining



## Transferability

*Demand for these skills in other industries*



## What is it Like to Work as a General Labourer in Mining?

*Note: conditions vary according to employer and region.*

As a General Labourer, you will be asked to help with a variety of tasks, which provides valuable experience and the opportunity to learn many new skills. As with any hands-on learning activity, your work will involve performing the same tasks repeatedly. Many tasks will be physically demanding with prolonged periods of walking, standing, bending, crouching or kneeling, and you will have to lift up to 23 kg (50 lbs) (based on job research, 2014).

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Overtime is generally not required but you may have opportunities to work overtime in return for extra compensation.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

Many mines are situated in remote areas and require most employees to live in a mining camp. In these mines, employees

usually work on a “fly-in, fly-out” schedule. When on-site, all of your living expenses would be covered, including meals. Trained chefs and kitchen staff generally prepare meals and some camps provide accommodations for dietary restrictions and preferences.

Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

### Success Profile

Common traits that successful General Labourers share are:

- Ability to follow clear policies and processes
- Comfortable working at heights
- Committed to safe work habits
- Enjoys hands-on work
- Good listening skills
- Mechanically inclined
- Positive attitude
- Strong problem-solving skills
- Willing to learn

### Job Entry Requirements

*Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
Physically fit and mobile	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to work in a diverse workplace	●			
Proficiency in language of operation	●			
High school diploma or equivalent			●	
Provide own safety equipment (e.g. approved steel-toed boots)			●	
Demonstrated ability to work under minimal supervision			●	
Undergo a criminal record check			●	
Valid driver's licence (or eligible for a driver's licence) with few or no current infractions			●	
Knowledge of safe operation of hand tools				●
Experience operating light or heavy duty equipment				●
Experience cleaning complex mechanical equipment				●
Basic understanding of how machines work				●
Willingness to relocate				●
Other languages				●

- Willing to perform repetitive or routine tasks
- Works well with others

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, on-site housing for couples, gender-inclusive work environments or flexible schedules
- Provide professional development programs to support you and to develop career progression options



# Geological and Mineral Technician / Technologist

*DO YOU HAVE GOOD PHYSICAL ENDURANCE AND ENJOY WORKING OUTDOORS?*

*ARE YOU ADAPTABLE AND DETAIL-ORIENTED?*

*DO YOU WANT TO CONTRIBUTE TO SUSTAINABLE MINING PRACTICES?*

If you want to work with operators, scientists and engineers and provide technical services related to production, then a career as a Geological and Mineral Technologist could be for you.

## Job Description

- Conduct or direct geological, geophysical, geochemical, hydrographic or oceanographic surveys, drilling, well logging or underground mine survey programs
- Configure, operate and maintain survey instruments and equipment
- Prepare notes, sketches, geological maps and cross-sections
- Prepare, transcribe or analyze seismic, gravimetric, well log or other geophysical and survey data
- Assist Engineers and Geologists in the evaluation and analysis of petroleum and mineral reservoirs
- Prepare or supervise the preparation of rock, mineral or metal samples and may perform physical and chemical laboratory tests
- Conduct or assist in environmental audits
- Carry out various other technical functions in support of geology, geophysics and petroleum and mining engineering
- Support modeling of resource deposits and planning of new infrastructure and construction

## Compensation

Geological and Mineral Technologists are paid on an annual basis. Depending on factors such as the location of the mine and the type of mineral or metal produced, annual salaries range from \$60,000 - \$100,000<sup>1</sup>. In addition, Geological and Mining Technicians often receive other benefits.

Short-term employment contracts are also common and in those cases, Geological and Mineral Technologists are paid for days worked at a rate of approximately \$200 - \$260 per diem.

## Why are People Attracted to this Career?

In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

The people who are attracted to this work tend to enjoy a challenging variety of routine and new tasks. They like the outdoors and appreciate the opportunity to learn and work with new technology. The balance of laboratory work and field work suits them.

## Job Prospects

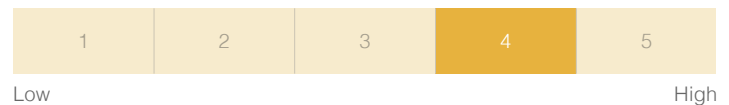
Each year, MiHR researches the needs of the mining industry to hire Geological and Mineral Technologists. Based on 2015's forecast, we are providing the following assessment of the Job Prospects in mining as well as an evaluation applicability of these skills in other sectors. Together, these measures will help future job seekers to make informed decisions about potential careers, based on the opportunities in the mining industry.

### Job Prospects in Mining



### Transferability

*Demand for these skills in other industries*



## What is it Like to Work as a Geological and Mineral Technologist in Mining?

*Note: conditions vary according to employer and region.*

As a Geological and Mineral Technologist you will work at the mine site with Engineers and Geologists or in a laboratory. In the mine, you will prepare equipment, take samples, support mapping and drilling, enter data and package samples. As you gain experience, you will spend more time coordinating and compiling reports in an office.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.) This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Overtime is generally not required but you may have opportunities to work overtime in return for extra compensation.

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### Success Profile

Common traits that successful Geological and Mineral Technologists share are:

- Ability to identify issues and solve problems with a positive attitude
- Committed to precise and accurate data collection
- Critical thinker
- Have a deep level of respect for, and understanding of, safety procedures, regulations and legislation

### Job Entry Requirements

*Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
Post-secondary diploma (two-three years) in mineralogy, geology or a related program	●			
Proficiency with word processing, spreadsheet, and email software	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to work in a diverse environment	●			
Proficiency in language of operation	●			
Membership in the regulatory body to use the title "Professional Technologist"		●		
Certification in geological and mineral technology or in a related field (available through provincial associations of engineering/applied science technologists and technicians)			●	
Computer-based drafting and design experience in AutoCAD or mining specific software			●	
Wilderness Survival Training			●	
Willingness to relocate				●
Other languages				●

- Learns quickly, especially detailed legislative, technical and production information
- Organized
- Strong communication skills (verbal and written)
- Strong computer skills
- Strong interest in math, technology, Information Technology and science
- Strong interpersonal and troubleshooting skills

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, on-site housing for couples, gender-inclusive work environments or flexible schedules
- Provide professional development programs to support you and to develop career progression options



# Geological Engineer

*ARE YOU PASSIONATE ABOUT GEOLOGY AND ENGINEERING? DOES CONDUCTING TECHNICAL AND SCIENTIFIC ANALYSIS ON ROCK, SOIL, AND GROUNDWATER SOUND INTERESTING TO YOU? DO YOU ENJOY SOLVING ENGINEERING PROBLEMS AND DESIGNING SOLUTIONS THAT ENSURE SAFE AND ECONOMICAL OPERATION OF MINES?*

If you want to combine your knowledge of the earth's structure and composition with your expertise in engineering and technology, a career as a Geological Engineer could be the one for you.

## Job Description

- Plan and coordinate geotechnical, geological, geophysical or geohydrological data acquisition, analysis and mapping
- Design and conduct feasibility studies in mining exploration, operation and evaluation
- Analyze and interpret geological and geophysical information from various sources including geological maps, survey data, well logs, bore holes, aerial photos and radar images
- Design and recommend solutions to protect the environment from mining operations such as strategies for proper subsurface waste disposal, protection of groundwater resources, erosion control, and restoration of polluted sites
- Plan, organize and conduct field surveys and site investigations including analysis of rock, bedrock and near-surface deposits, environmental hazards, safety risk assessments and quality assurance of mining projects
- Conduct studies of groundwater flow and contamination and develop recommendations for site selection, treatment and construction
- Design open pit walls, mine waste dumps and earth-fill fluid-retaining dam structures and conduct detailed technical analyses on these designs including slope stability, seepage and hydraulic separation
- Apply scientific tools, computer technologies and instrumentation related to geology and engineering to collect, analyze and research data
- Prepare assessment reports, feasibility studies, recommendation reports and technical correspondence for internal stakeholders and regulatory authorities
- Work closely with Mining Engineers and Project Managers and other inter-disciplinary project teams including Technicians, Technologists and Scientists
- Only licensed engineers authorize designs, calculations and drawings and are accountable on behalf of their employers

## Compensation

Geological Engineers are paid on an annual basis. Depending on factors such as the location of the mine and the type of mineral or metal produced, annual salaries range from \$68,000 - \$123,000 (CostMine, 2014). In addition, Geological Engineers often receive other benefits.

## Why are People Attracted to this Career?

In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in

the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

People who are attracted to working as a Geological Engineer are interested in earth sciences and natural formations, applied mathematics and the basic laws of physics and chemistry. They are good with numbers, enjoy engineering challenges and traveling to various locations. Geological Engineers typically like working with other Technologists, Scientists, and Engineers both in a lab and outdoor environment. They like to apply their knowledge of geology and engineering to build or improve designs that help mines operate in a safe and efficient manner while taking into consideration the laws and regulations on environmental sustainability and responsibility. They also enjoy conducting desk research, analyzing data and creating technical reports.

## Job Prospects

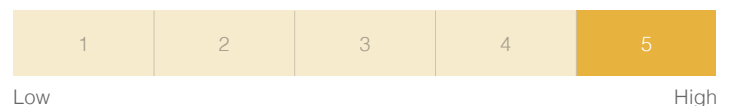
Each year, MiHR researches the needs of the mining industry to hire Geological Engineers. Based on 2015's forecast, we are providing the following assessment of the Job Prospects in mining as well as an evaluation applicability of these skills in other sectors. Together, these measures will help future job seekers to make informed decisions about potential careers, based on the opportunities in the mining industry.

## Job Prospects in Mining



## Transferability

*Demand for these skills in other industries*



## What is it Like to Work as a Geological Engineer in Mining?

*Note: conditions vary according to employer and region.*

As a Geological Engineer, most of your work will be handled in an office, but you will also be required to visit sites for temporary or long stays. Working hours may be irregular when conducting fieldwork and you may be required to drive on radio-controlled resource roads. Fieldwork can consist of travelling long distances to collect samples and conduct on-site assessments. Fieldwork is conducted in all types of environmental conditions, within bodies

of water (including rivers and streams) and you may handle toxic or dangerous substances and/or organisms. When the fieldwork is complete, you will return to the lab and test samples for content and composition and then develop reports and recommendations.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Overtime is generally not required but you may have opportunities to work overtime in return for extra compensation.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

Many mines are situated in remote areas and require most employees to live in a mining camp. In these mines, employees usually work on a “fly-in, fly-out” schedule. When on-site, all of your living expenses would be covered, including meals. Trained chefs and kitchen staff generally prepare meals and some camps provide accommodations for dietary restrictions and preferences.

Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

## Job Entry Requirements

*Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
Bachelor's degree in geological or environmental engineering or in an associated technical field such as mining engineering or civil engineering	●			
Eligible for Registration as Engineer in Training	●			
Up to 10 years of work experience in geology, mining engineering or operations experience with specific experience in environmental assessment projects in mining or similar industries such as oil and gas (pipeline and transmission lines) and power/utility sector and small/large hydroelectric projects	●			
Ability to plan and execute field programs with knowledge of proper sampling techniques	●			
Working knowledge of industry-specific statistical and analytical computer software	●			
Valid Class 5 driver's licence	●			
Ability and willingness to conduct fieldwork in all types of environmental conditions and harsh terrain as well as periodic overnight travel	●			
Physical stamina for fieldwork	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to work in a diverse environment	●			
Proficiency in language of operation	●			
Master's degree in geological or environmental engineering or related field			●	
Professional Registration			P.Eng	
Hands-on experience with geological assessment, feasibility surveys, subsurface investigation, contaminated site investigation and remediation				●
Specific experience with geological assessment in Canada				●
Willingness to relocate				●
Other languages				●

## Success Profile

Common traits that successful Geological Engineers share are:

- Ability to act with authority and make independent decisions
- Ability to visualize completed projects
- Ability to work with and/or manage a multi-disciplinary team
- Analytical
- Critical thinker
- Detailed-oriented
- Have a deep level of respect for, and understanding of, safety procedures, environmental legislation and regulations
- Organized
- Strong communication skills (verbal and written)
- Strong computer skills including scientific software databases, mapping and queries
- Strong interest in math, technology, Information Technology and science
- Values safety, health and positive working environment

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

## Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, on-site housing for couples, gender-inclusive work environments or flexible schedules
- Provide professional development programs to support you and to develop career progression options



# Geologist

*DO YOU LIKE SOLVING COMPLEX PUZZLES? ARE YOU FASCINATED BY ROCKS, ROCK FORMATIONS, MOUNTAIN BUILDING, PLATE TECTONICS, FAULTS AND EARTHQUAKES? DO YOU HAVE GOOD PHYSICAL ENDURANCE AND ENJOY WORKING OUTDOORS?*

If you would like to play a pivotal role in daily mining output, support infrastructure planning and ensure that existing resources are developed in a sustainable manner, then a career as a Geologist could be the one for you.

### Job Description

- Assist the in-pit/underground ore production, stockpiling and ore reporting
- Plan the grade control drilling program
- Responsible for an accurate sampling of various drills
- Evaluate assay data quality
- Update grade control database, block model and design of the ore blocks
- Interact closely with mill operations, mine planning and mine operations
- Ensure all mine geology department activities are in compliance with health and safety policies and laws
- Supervise and develop Graduate Geologists and Mineral and Geological Technicians
- Conduct in-pit/underground geological mapping and data analysis for grade control modeling, acid rock drainage and geotechnical evaluation
- Participate with end of month grades and tonnes reconciliation
- Participate in daily safety meetings

### Compensation

Geologists are paid on an annual basis. Depending on factors such as the location of the mine and the type of mineral or metal produced, annual salaries range from \$67,000 - \$123,000 (CostMine, 2014). In addition, Geologists often receive other benefits.

### Why are People Attracted to this Career?

In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

People who are drawn to the role of Geologist like the range of working environments, including fieldwork, office work and/or lab work. They enjoy opportunities to learn and apply new techniques and technologies. People who work as Geologists are attracted by earth science, traveling, adventure and outdoor activities that keep them physically fit.

### Job Prospects

Each year, MiHR researches the needs of the mining industry to hire Geologists. Based on 2015's forecast, we are providing the

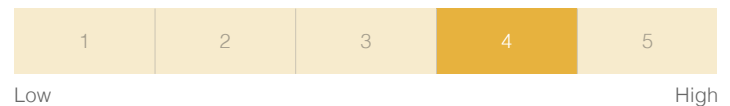
following assessment of the Job Prospects in mining as well as an evaluation applicability of these skills in other sectors. Together, these measures will help future job seekers to make informed decisions about potential careers, based on the opportunities in the mining industry.

### Job Prospects in Mining



### Transferability

*Demand for these skills in other industries*



### What is it Like to Work as a Geologist in Mining?

*Note: conditions vary according to employer and region.*

As a Geologist you will probably be based in an office, laboratory or a core-shack on (or near) the mine site, but will often be required to work and travel in remote locations. You may be required to work in challenging physical environments and seasonal environmental conditions. You may have to be on-call and available to respond to a call on short notice. This career is centred around communication and teamwork. The work is fast-paced with daily opportunities to make decisions and to learn. Every day you will be required to work safely while contributing to production targets.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Overtime is generally not required but you may have opportunities to work overtime in return for extra compensation.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities

tend to be close-knit, with strong friendships forming among co-workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

Many mines are situated in remote areas and require most employees to live in a mining camp. In these mines, employees usually work on a “fly-in, fly-out” schedule. When on-site, all of your living expenses would be covered, including meals. Trained chefs and kitchen staff generally prepare meals and some camps provide accommodations for dietary restrictions and preferences.

Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

### Success Profile

Common traits that successful Geologists share are:

- Ability to share knowledge with colleagues
- Ability to visualize three-dimensional layouts
- Analytical
- Curious
- Embraces new techniques and technologies
- Have a deep level of understanding and respect for established safety procedures, regulations and legislation
- Open-minded
- Patient, flexible, adaptable and resilient

- Positive attitude
- Problem-solving skills
- Respectful
- Strong communication skills (verbal)
- Strong computer skills
- Strong interest in earth sciences and math
- Willing to learn
- Works well in a team

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, on-site housing for couples, gender-inclusive work environments or flexible schedules
- Provide professional development programs to support you and to develop career progression options

### Job Entry Requirements

*Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
Bachelor's degree in geology or earth sciences	●			
Eligible for registration as Geoscientist in Training	●			
Must be willing to pass a medical test	●			
Must be willing to pass a drug test	●			
Willingness to work in a diverse workplace	●			
Physically fit and mobile	●			
Proficiency in language of operation	●			
Professional Registration			P. Geo	
Wilderness survival training			●	
Master's degree in geology or earth sciences				●
Willingness to relocate				●
Other languages				●





# Health and Safety Coordinator

*IS SAFETY YOUR TOP PRIORITY?*

*DO YOU COMMUNICATE WELL WITH OTHERS AND EXCEL AT MANAGING CONFLICT?*

*DO YOU WANT TO CONTRIBUTE TO ONE OF THE SAFEST HEAVY INDUSTRIES IN CANADA?*

If you want to build, implement, and oversee health and safety programs that help your co-workers go home safely every day, you might enjoy working as a Health and Safety Coordinator.

## Job Description

- Develop and review health and safety rules, policies and procedures in accordance with site, company and government regulations and legislation
- Conduct inspections to ensure that health and safety requirements and governmental legislation is being followed at all times
- Ensure that workers are up-to-date in training (e.g. First Aid, mine rescue, surface fire-fighting, and confined space entry)
- Research, plan, organize and conduct training programs. If certified in a specific area, a Health and Safety Coordinator may deliver the training; if not certified, they hire a trainer to conduct the training program
- Conduct health and safety audits, risk assessments, reviews and inspections
- Maintain, and report on, safety and health records and statistics
- Monitor machine or equipment changes, ensuring that health and safety precautions are being taken into account
- Identify potentially hazardous situations and take proactive measures to correct them
- Work with mine management to design programs and strategies that protect employees from workplace hazards
- Integrate health and safety activities into production efforts
- Develop and promote the adoption of new safety training programs and practices
- Periodically, act as a team leader for task forces and teams (e.g. leading a number of supervisors on an audit)
- Review internal and external health and safety reports to determine areas that need improvement; implement measures to minimize occurrence of incidents
- In the event of emergency (e.g. fire or an explosion), help direct rescue and firefighting operations
- Conduct investigations, including complaints, serious harm incidents and accidents; write reports that document findings
- Manage non-compliance violations
- Conduct sampling air for dust levels and determine the composition of the dust
- Conduct ergonomics assessments in offices and in the field
- Partner with mine managers, workers, health and safety committee members, union representatives and government inspectors to optimize the safety systems in the mine
- Ensure all employees are adequately trained and coached to perform their roles

- Assist mine management in responding to inquiries from customers, regulatory agencies and the public regarding health and safety issues

## Compensation

Health and Safety Coordinators are paid on an annual basis. Depending on factors such as the location of the mine and the type of mineral or metal produced, annual salaries range from \$75,000 - \$125,000 (CostMine, 2014). In addition, Health and Safety Coordinators often receive other benefits.

## Why are People Attracted to this Career?

In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

The people who are attracted to this career have a strong interest in occupational health and safety. Assertive and self-confident, they thrive in a dynamic working environment. They are natural problem solvers who are comfortable handling conflict and can manage violations of health and safety rules efficiently and effectively. With a keen eye for detail, they identify potentially dangerous situations and take decisive action to prevent them.

## Job Prospects

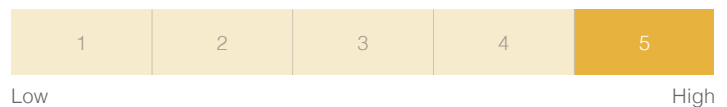
Each year, MiHR researches the needs of the mining industry to hire Health and Safety Coordinators. Based on 2015's forecast, we are providing the following assessment of the Job Prospects in mining as well as an evaluation applicability of these skills in other sectors. Together, these measures will help future job seekers to make informed decisions about potential careers, based on the opportunities in the mining industry.

### Job Prospects in Mining



### Transferability

*Demand for these skills in other industries*



## What is it Like to Work as a Health and Safety Coordinator in Mining?

*Note: conditions vary according to employer and region.*

As a Health and Safety Coordinator, you will probably have an office on the mine site but will spend most of your time in the mine and/or mill, both indoors and outdoors. You must be willing to climb ladders and steep ramps on the surface and underground. You will often be required to enter areas with physical hazards, such as noise, dust, heat and cold.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Overtime is generally not required but you may have opportunities to work overtime in return for extra compensation.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

Many mines are situated in remote areas and require most employees to live in a mining camp. In these mines, employees usually work on a "fly-in, fly-out" schedule. When on-site, all of your living expenses would be covered, including meals. Trained chefs and kitchen staff generally prepare meals and some camps provide accommodations for dietary restrictions and preferences.

Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

## Job Entry Requirements

*Note 1: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

*Note 2: Many employers encourage or require certification as a Health and Safety Coordinator even though there is no legislation in place to regulate this occupation and certification is voluntary. Voluntary certification for safety coordinators typically requires completion of an educational program and/or a specified amount of work experience, combined with the successful completion of an exam.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
High school diploma or equivalent and a degree or equivalent work experience in health and safety (often a minimum of 3 to 4 years of recent related safety experience in the mining industry)	●			
Working knowledge of and experience with federal, provincial and local workplace health & safety legislation, rules, regulations and reporting processes and procedures as they apply to mining	●			
Valid driver's licence (or eligible for a driver's licence) with few or no current infractions	●			
Valid first aid attendant certificate	●			
Proficiency with word processing, spreadsheet and email software	●			
Ability to work with complex testing equipment	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to work in a diverse environment	●			
Proficiency in language of operation	●			
Professional designation				●
Willingness to relocate				●
Other languages				●

## Success Profile

Common traits that successful Health and Safety Coordinators share are:

- Ability to develop and follow clear policies and processes
- Ability to manage conflicting priorities and deadlines
- Assertive, confident and willing to act as an advocate for workers
- Calm, resilient, adaptable and embraces challenges
- Firm, fair and objective
- Learns quickly, especially detailed legislative, technical and production information
- Organized and results-oriented
- Strong communication skills (verbal and written)
- Strong conflict management skills
- Strong supervisory skills
- Thorough knowledge and understanding of workers' compensation legislation and government regulations
- Works well with limited supervision
- Works well with others

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

## Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, housing incentives, gender-inclusive work environments or flexible schedules
- Provide professional development programs to facilitate your success as a Health and Safety Coordinator and to develop career progression options



# Health and Safety Professional

*IS WORKPLACE HEALTH AND SAFETY YOUR TOP PRIORITY? CAN YOU TRANSLATE COMPLEX REGULATIONS INTO PRACTICAL ACTIONS AND BEHAVIOURS? ARE YOU A PROACTIVE LEADER WHO SEEKS TO PROMOTE AND IMPROVE OCCUPATIONAL HEALTH AND SAFETY?*

The mining industry is one of the safest heavy industries in Canada. If you are committed to upholding health and safety standards by inspecting, investigating and ensuring compliance with regulatory requirements, then a career as a Health and Safety Professional could be the one for you.

## Job Description

- Explain, interpret and apply the Occupational Health and Safety Act and its regulations and other federal and provincial legislation related to health and safety
- Conduct risk and exposure assessment and recommend controls to eliminate or mitigate health and safety hazards in a variety of mining operations including equipment operation, personal protective equipment, pre-shift inspections, underground transportation, ventilation systems, living conditions and the use of natural resource roads
- Assess workplaces to ensure that equipment, materials and production processes do not present a safety or health hazard to employees or to the general public
- Conduct job hazard analysis, advise mine or mill managers and supervisors when an equipment or process is not in compliance and make recommendations for corrections
- Investigate health and safety related complaints, hazardous chemical spills, harmful exposures and occupational disease and workplace accidents
- Develop and maintain occupational health and safety strategies, audit management systems and policies, procedures and manuals
- Coordinate emergency response procedures, mine rescues, firefighting and first aid crews
- Write accident/incident reports, notices of violations to mine or mill managers and supervisors and complete compliance and conformance checklist
- Communicate and work with health and safety committees, workers, unions, mine management, government representatives and the public to promote safe work practices and working conditions through the Internal Responsibility System
- Select, calibrate and use a wide variety of technical equipment, instruments and computer applications to test work environment and retrieve information

## Compensation

Health and Safety Professionals are paid on an annual basis. Depending on factors such as the location of the mine and the type of mineral or metal produced, the average annual salary for Health and Safety Professionals with Canadian Registered Safety Professional (CRSP) designation is \$80,000 (Based on job research, 2014). In addition, Health and Safety Professionals often receive other benefits.

## Why are People Attracted to this Career?

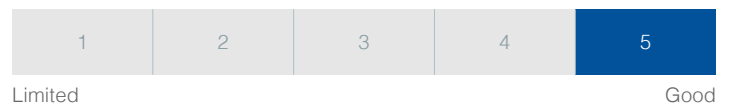
In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

People who are attracted to working as a Health and Safety Professional are committed to the health and safety of mine workers and protection of the public. They enjoy working in a variety of workplaces and inspecting different operations and processes. As passionate advocates of safety and compliance, they like sharing their expertise with employees in all areas of a mine, including operators and senior mine or mill management. Assertive and self-confident, they thrive in a dynamic work environment. They are able to remain objective and tactful when conflict occurs. They recognize and respect confidentiality and are able to compile information and communicate findings and recommendations in an impartial manner.

## Job Prospects

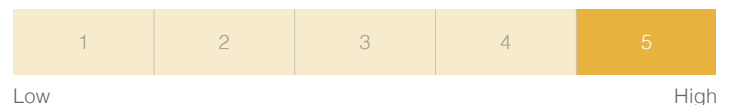
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### Job Prospects in Mining



### Transferability

*Demand for these skills in other industries*



## What is it like to work as a Health and Safety Professional in Mining?

*Note: conditions vary according to employer and region.*

As a Health and Safety Professional, you will have opportunities to visit a wide variety of workplaces within underground and open-pit sites, including the processing plant, mobile maintenance shop,

offices and laboratories. While some inspections are conducted in an office environment, you will often be required to work in rough terrain, as well as obstructed or confined spaces. You must be willing to climb ladders and work at heights. While on-site, you may be exposed to seasonal environmental conditions, extreme heat and dust, smells, noise and mechanical vibrations. You may encounter interpersonal conflict when you handle violations on site and enforce company and government safety policies and regulations.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Overtime is generally not required but you may have opportunities to work overtime in return for extra compensation.

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## Job Entry Requirements

*Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
Certificate in Occupational Health and Safety with 8-10 years of industry experience in health and safety, preferably in a mining, natural resource or related environment	●			
Working knowledge of, and experience with, mining equipment and operations (or similar industry like Oil and Gas or Petrochemical Construction)	●			
Working knowledge of, and experience with, federal, provincial and local workplace health & safety and environmental legislations, acts, rules, regulations and reporting processes and procedures as they apply to mining	●			
Valid Class 5 driver's license	●			
Proficiency with word processing, spreadsheet, email, presentation and database software	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to work in a diverse environment	●			
Proficiency in language of operation	●			
Certification with the Association for Canadian Registered Safety Professionals			●	
Diploma in the Occupational Health and Safety or relevant work experience and in-house training			●	
General or enhanced screening check, which includes a criminal record check and, if applicable, fingerprint verification			●	
Canadian Registered Safety Professional Designation				●
Willingness to relocate				●
Other languages				●

## Success Profile

Common traits that successful Health and Safety Professionals share are:

- Ability to interpret federal and provincial regulations
- Ability to make and implement difficult decisions, and communicate the reasons for them
- Analytical
- Assertive, confident and willing to act as an advocate for a safe workplace
- Detail-oriented
- Have a deep level of respect for, and understanding of, safety and environmental procedures, regulations and legislation
- Organized
- Precise and accurate
- Strong communication skills (verbal and written)
- Values safety, health and a positive working environment
- Willing to engage in continuous learning and skills development
- Works well with minimal supervision
- Works well with others

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

## Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, on-site housing for couples, gender-inclusive work environments or flexible schedules
- Provide professional development programs to support you and to develop career progression options



# Heavy Equipment Operator\*

ARE YOU A HANDS-ON PERSON?

DO YOU LIKE TO SEE THE RESULTS OF YOUR HARD WORK EVERY DAY?

ARE YOU RESPONSIBLE AND SAFETY CONSCIOUS?

If working outdoors or underground interests you and you approach equipment and machinery with respect and confidence, then a career as a Heavy Equipment Operator may be for you.

## Job Description

- Use one or more types of heavy equipment:
  - Equipment used in open pit mines includes: graders, scrapers, track and wheel dozers and loaders, excavators, draglines, backhoes and shovels.
  - Equipment used in underground mines includes: locomotives, scoop trams, water trucks and remote-controlled equipment
- Use heavy equipment according to operating practices to excavate and move minerals and metals, earth, sand, gravel, rock, muck, coal and snow
- Safely drive and maneuver heavy equipment around the mine
- May select, fit and remove attachments
- Safely operate the controls of heavy equipment to minimize the risk of damage and injury
- Monitor gauges, dials and other indicators to make sure the heavy equipment is working properly; report discrepancies to dispatch
- Adjust controls to regulate pressure, control speed and flow of operation
- Perform a walk-around inspection before, during, and after every shift (includes set-up and inspection of equipment to ensure safe operation)
- May clean, maintain and secure equipment
- Troubleshoot in accordance with regulations and approved procedures; may perform minor repairs as required or report issues to dispatch
- Complete log books and daily reports on delays, production and safety issues
- Use two-way radio, visual, audio and light signals to communicate with other operators and ensure safety

## Compensation

Heavy Equipment Operators are paid on an hourly or annual basis. Depending on factors such as the location of the mine and the type of equipment operated, pay ranges from \$17 - \$58 per hour (CostMine, 2014). In addition, Heavy Equipment Operators often receive other benefits.

## Why are People Attracted to this Career?

In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

\*(Note: The scope of this profile does not include Haul Truck Driver, Driller, Crane and Hoisting Equipment Operator)

People who are attracted to working as Heavy Equipment Operators often specialize in more than one type of equipment. Many take advantage of opportunities to train on different types of heavy equipment or use their experience to train others.

## Job Prospects

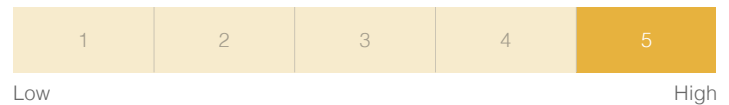
Each year, MiHR researches the needs of the mining industry to hire Heavy Equipment Operators. Based on 2015's forecast, we are providing the following assessment of the Job Prospects in mining as well as an evaluation applicability of these skills in other sectors. Together, these measures will help future job seekers to make informed decisions about potential careers, based on the opportunities in the mining industry.

## Job Prospects in Mining



## Transferability

*Demand for these skills in other industries*



## What is it Like to Work as Heavy Equipment Operator in Mining?

*Note: conditions vary according to employer and region.*

As a Heavy Equipment Operator, you will work inside temperature-controlled equipment cabs. Working on your own in a cab for the majority of your shift, you will communicate with colleagues mostly over two-way radios or by using signals. As a new operator, you will likely be trained by your employer and begin by operating a blade machine, such as a grader, dozer or wheeled excavator. You will also be required to lift heavy objects up to 23 kg (50 lbs) (based on 2014 job research).

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Overtime is generally not required but you may have opportunities to work overtime in return for extra compensation.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

Many mines are situated in remote areas and require most employees to live in a mining camp. In these mines, employees usually work on a “fly-in, fly-out” schedule. When on-site, all of your living expenses would be covered, including meals. Trained chefs and kitchen staff generally prepare meals and some camps provide accommodations for dietary restrictions and preferences.

Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

### Success Profile

Common traits that successful Heavy Equipment Operators share are:

- Ability to follow verbal directions and hand signals
- Ability to stay focused
- Fast reflexes

### Job Entry Requirements

Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.

	Fixed Requirement	Regional Requirement	May be Required	Asset
Physically fit and mobile	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to work in a diverse environment	●			
Proficiency in language of operation	●			
Technical training and a valid certificate for specific equipment		●**	●	
High school diploma or equivalent			●	
Valid driver's licence and good driving record			●	
Previous experience operating heavy equipment (i.e.: .in trucking, logging or construction)***				●
Willingness to relocate				●
Other languages				●

\*\**(in some cases apprenticeship training)*

\*\*\**(operator training may be offered by employer with no prior experience required)*

- Good hand-eye and eye-foot coordination
- Good interpersonal skills
- Good troubleshooting skills
- Good vision and depth perception
- Have a deep level of respect for, and understanding of, safety procedures and regulations
- Independent
- Organized and alert
- Works well with others

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, on-site housing for couples, gender-inclusive work environments or flexible schedules
- Provide professional development programs to support you and to develop career progression options



# Hoist Operator

*ARE YOU WILLING TO TAKE RESPONSIBILITY FOR THE LIVES OF OTHER PEOPLE?*

*DO YOU VALUE A SAFE AND HEALTHY WORKING ENVIRONMENT?*

*DO YOU COMMUNICATE WELL WITH OTHERS?*

If you are practical and steady, engage in continuous learning and can adapt and think on your feet, you may find that you enjoy working as a Hoist Operator.

## Job Description

- Transport people, equipment and materials up and down mine shafts
- Safety is the top priority. Hoist operators inspect equipment to ensure safe operation
- Troubleshoot in accordance with regulations and approved procedures
- May train new Hoist Operators
- May support the installation of new hoists in the mine
- Monitor hoist activity and conditions from a control room

## Compensation

Hoist Operators are paid on an hourly basis. Depending on factors such as the location of the mine and the type of mineral or metal produced, pay ranges from \$32 to \$44 per hour (CostMine, 2014). In addition, Hoist Operators often receive other benefits.

## Why are People Attracted to this Career?

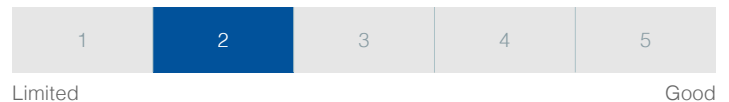
In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

The people who tend to want to work as Hoist Operators enjoy working independently and taking initiative within a structured environment. They appreciate the opportunity to train and mentor new Hoist Operators.

## Job Prospects

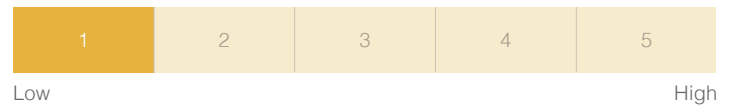
Each year, MiHR researches the needs of the mining industry to hire Hoist Operators. Based on 2015's forecast, we are providing the following assessment of the Job Prospects in mining as well as an evaluation applicability of these skills in other sectors. Together, these measures will help future job seekers to make informed decisions about potential careers, based on the opportunities in the mining industry.

## Job Prospects in Mining



## Transferability

*Demand for these skills in other industries*



## What is it Like to Work as a Hoist Operator in Mining?

*Note: conditions vary according to employer and region.*

As a Hoist Operator, you will spend the majority of your shift working in a control room on the mine site.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Overtime is generally not required but you may have opportunities to work overtime in return for extra compensation.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

Many mines are situated in remote areas and require most employees to live in a mining camp. In these mines, employees usually work on a "fly-in, fly-out" schedule. When on-site, all of your

living expenses would be covered, including meals. Trained chefs and kitchen staff generally prepare meals and some camps provide accommodations for dietary restrictions and preferences.

Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

### Success Profile

Common traits that successful Hoist Operators share are:

- Ability to communicate with people at all levels
- Ability to stay focused
- Ability to visualize hoist movements
- Adaptable, organized and alert
- Computer literacy
- Detail-oriented
- Enjoys coaching and mentoring others
- Have a deep level of respect for, and understanding of, safety procedures, regulations and legislation
- Mechanically-inclined
- Responsible and productive
- Strong communication skills (verbal, written)
- Strong math skills

- Trouble-shooting skills
- Values safety, health and a positive working environment
- Willing to engage in continuous learning and skills development
- Works well with others

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, on-site housing for couples, gender-inclusive work environments or flexible schedules
- Provide professional development programs to support you and to develop career progression options

### Job Entry Requirements

*Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
High school diploma or equivalent	●			
Knowledge of occupational health and safety rules, and provincial hoisting regulations	●			
Medical certificate attesting to the ability to operate the hoist (renewed annually)	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to work in a diverse environment	●			
Emergency preparedness training	●			
Proficiency in language of operation	●			
Valid provincial hoisting certification		●		
10 or more years of experience working in or around mining shafts, including shaft inspections, cage tending, skip tending, chairing, sling and maintenance		●		
Successful completion of a mine-specific Hoist Operator exam			●	
Two years of experience working underground			●	
Experience in other areas of the mine (e.g. blasting or drilling)				●
Willingness to relocate				●
Other languages				●





# Industry Trainer

*DO YOU LIKE TO TEACH, COACH, AND MENTOR PEOPLE?  
ARE YOU WILLING TO SHARE YOUR KNOWLEDGE TO HELP  
NEW AND EXISTING EMPLOYEES REACH THEIR POTENTIAL?*

An effective, safe and productive mine needs well-trained employees. If you want to help others develop their skills and knowledge, then you might enjoy working as an Industry Trainer.

## Job Description

- Prepare teaching materials and job aids, and deliver training
- Help colleagues perform their jobs safely and effectively by sharing information, skills and knowledge
- Design and develop training programs in area of expertise (e.g. operations, health and safety, staff training, new technologies and new employee orientation) that comply with national and provincial regulations
- Evaluate training materials after delivery and revise or update materials as required
- Collaborate with team leaders, superintendents and mine or mill managers to identify and prioritize training needs
- Collaborate with technical personnel to observe and analyze jobs, and validate operating procedures and processes to be used for training
- Deliver training to individuals and groups on work sites, in equipment cabs, using simulators, or in a classroom
- May develop (or help to develop) and deliver computer-based training
- Plan and optimize training schedules within operational deadlines and track and document employee progress
- Support strategic planning, budgeting and scheduling
- Support operational goals by modeling corporate values and best practices to colleagues

## Compensation

Industry Trainers are most often paid on an hourly basis. Depending on factors such as the location of the mine and the type of mineral or metal produced, pay ranges from \$30 to \$41 per hour (CostMine, 2014). In addition, Industry Trainers often receive other benefits.

## Why are People Attracted to this Career?

In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

Those who want to work as Industry Trainers like the balance of teamwork and individual work. They are attracted to the challenge, opportunities to work with new technology and the application of existing skills from other sectors (e.g. sectors that use similar equipment as the mining sector). This career offers extensive

interaction with a broad range of people and has frequent opportunities to network with internal and external stakeholders.

## Job Prospects

Each year, MiHR researches the needs of the mining industry to hire Hoist Operators. Based on 2015's forecast, we are providing the following assessment of the Job Prospects in mining as well as an evaluation applicability of these skills in other sectors. Together, these measures will help future job seekers to make informed decisions about potential careers, based on the opportunities in the mining industry.

## What is it Like to Work as an Industry Trainer in Mining?

*Note: conditions vary according to employer and region.*

As an Industry Trainer, you will spend some time working in an office on (or near) the mine site. You will also conduct training sessions in the classroom and at various areas in the worksite, on the surface, underground, or both.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Overtime is generally not required but you may have opportunities to work overtime in return for extra compensation.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

Many mines are situated in remote areas and require most employees to live in a mining camp. In these mines, employees usually work on a "fly-in, fly-out" schedule. When on-site, all of your living expenses would be covered, including meals. Trained chefs and kitchen staff generally prepare meals and some camps provide accommodations for dietary restrictions and preferences.

Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a

variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

### Success Profile

Common traits that successful Industry Trainers share are:

- Ability to communicate with people at all levels
- Ability to provide feedback effectively
- Ability to stay focused
- Embraces new techniques and technologies
- Enjoys coaching and mentoring others
- Has a deep level of respect for, and understanding of, safety procedures, regulations and legislation
- Organized and alert
- Responsible
- Strong communication skills (verbal, written)
- Strong research skills
- Willing to engage in continuous learning and skills development

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Job Entry Requirements

*Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
High school diploma or equivalent	●			
Five to seven years of relevant operations experience in a mining environment or earth sciences operation	●			
Training or experience in one or more fields or processes related to mining or mineral processing	●			
Knowledge of relevant occupational health and safety rules and regulations as well as legislative training requirements	●			
Proficiency with word processing, spreadsheet, email, presentation and database software	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to work in a diverse environment	●			
Proficiency in language of operation	●			
Post-secondary training certificate or diploma in Adult Education, Vocational Education, or Instructional Design				●
Training and/or certification in WHMIS 2015, Health and Safety, Equipment Operation (Tickets) and 'Train the Trainer'				●
Mine Rescue certification				●
Willingness to relocate				●
Other languages				●

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, on-site housing for couples, gender-inclusive work environments or flexible schedules
- Provide professional development programs to support you and to develop career progression options



# Survey Technician

ARE YOU GOOD WITH NUMBERS, CAREFUL AND PRECISE?  
DO YOU ENJOY CAMPING AND THE GREAT OUTDOORS?  
WOULD YOU ENJOY TAKING THE MEASUREMENTS THAT MAKE MINING POSSIBLE?  
WOULD YOU LIKE TO USE THE LATEST EQUIPMENT TO MEASURE DEEP UNDERGROUND?

If you want to conduct or participate in field surveys to determine the exact location and relative position of rivers, ridges and other natural features and structures on the earth's surface, underground and underwater, then a career as a Survey Technician could be the one for you.

### Job Description

- Plan and conduct field surveys for the mine (underground or outdoors), mark the location of new works, and set up reference points as benchmarks
- Plot the survey results, prepare detailed drawings, charts, plans, and write survey notes and reports
- Analyze and edit spatial data to verify the integrity and accuracy of data for quality assurance
- Inspect, adjust, test and monitor the performance of the survey equipment, Satellite Positional Systems (SPS) and other systems, plan their routine maintenance and deal with any issues, ensuring they are productive, efficient and safe, in compliance with company policies and legislation
- Coordinate and direct more junior field and office staff, providing mentorship and training as required
- Work closely with Surveyors, Geologists and Mining Engineers to ensure that data is accurately collected, presented and used
- Plan and conduct field work to assist with other company programs
- Compile data from various sources to generate maps
- Prepare topographic maps, aerial photo mosaics, and other custom land survey products as required
- Analyze and conduct quality assurance on surveys, providing recommendations and making decisions regarding any technical problems encountered
- Help to ensure safety, protect the environment, improve operational efficiency and quality control, control production costs, solve problems and meet deadlines

### Compensation

Survey Technicians are paid on an annual basis. Depending on factors such as the location of the mine and the type of mineral or metal produced, annual salaries range from \$54,000 - \$130,000 (CostMine, 2014). In addition, Survey Technicians often receive other benefits.

### Why are People Attracted to this Career?

In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

The people who are attracted to working as a Survey Technician excel at mathematics and conduct precision work with the utmost care. Explorers at heart, they enjoy working outdoors, experiencing remote parts of the country and using the latest technology and equipment in their work.

### Job Prospects

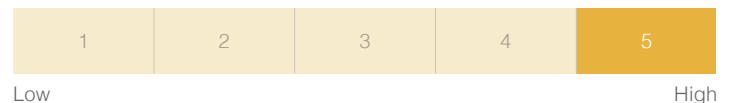
Each year, MiHR researches the needs of the mining industry to hire Survey Technicians. Based on 2015's forecast, we are providing the following assessment of the Job Prospects in mining as well as an evaluation applicability of these skills in other sectors. Together, these measures will help future job seekers to make informed decisions about potential careers, based on the opportunities in the mining industry.

### Job Prospects in Mining



### Transferability

*Demand for these skills in other industries*



### What is it Like to Work as a Survey Technician in Mining?

*Note: conditions vary according to employer and region.*

As a Survey Technician you will probably be based in an office on (or near) the mine site, but spend most of your time at the production and exploration sites, often in uncomfortable conditions. You may be required to work safely in confined spaces, at heights and near open holes. You must be willing and able to climb ladders and steel ramps on the surface and underground. You will frequently be required to stoop, bend, squat and kneel.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Overtime is generally not required but you may have opportunities to work overtime in return for extra compensation.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

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Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

### Success Profile

Common traits that successful Survey Technicians share are:

- A strong interest in Information Technology and instrumentation
- Ability to build trust and maintain positive relationships with a wide variety of personnel
- Ability to identify issues and solve problems
- Ability to work in a fast-paced, dynamic environment
- Calm, organized and careful
- Committed to precise and accurate measurement
- Committed to safety and environmental protection

### Job Entry Requirements

Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.

	Fixed Requirement	Regional Requirement	May be Required	Asset
Post-secondary diploma (2-3 years) in geomatics or land survey technology, or a combination of high school education with experience as a member of a survey party (Note: To use the titles <i>Technician</i> or <i>Technologist</i> a diploma is required)	●			
Proficiency with AutoCAD and other digital Land Survey	●			
Proficiency with graphic workstations, colour plotters, digitizers and related equipment	●			
Maintain technical competence in related software platforms and field technologies (including GPS, total stations and data collectors) and be able to use them efficiently	●			
Proficiency in survey calculations, relevant engineering and drafting practices, uploading/ downloading survey data and using related software platforms	●			
Excellent understanding of the coordination between field survey, office computations and drafting and the value of accurate and correct information	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to work in a diverse environment	●			
Proficiency in language of operation	●			
Certification through provincial associations of applied science technologists and technicians		●		
Two years of supervised work experience			●	
Valid driver's licence (or eligible for a driver's licence) with few or no current infractions			●	
Willingness to relocate				●
Other languages				●

- Embraces new techniques and technology
- Flexible
- Learns quickly, especially detailed function and technical information
- Strong communication skills (verbal and written)
- Strong computer skills
- Strong drafting skills
- Takes initiative
- Thorough understanding of, and compliance with, legislation and regulations concerning safety, employment and environmental protection
- with a positive attitude
- Works well in a team and independently
- Works well under pressure

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, on-site housing for couples, gender-inclusive work environments or flexible schedules
- Provide professional development programs to support you and to develop career progression options



# Maintenance Helper

DO YOU WANT TO START YOUR CAREER IN MINING?  
ARE YOU PHYSICALLY FIT, CAPABLE AND WILLING TO ASSIST OTHERS?  
DO YOU LIKE HANDS-ON WORK AND HELPING OUT IN A TEAM?

Maintenance Helpers provide valuable assistance and support to the tradespeople who work in a mine. If you want first-hand experience working in the mining industry, a job as a Maintenance Helper could open the door to a long and satisfying career.

## Job Description

- Assist Mechanics, Electricians, Welders, Millwrights and other tradespeople with a variety of tasks
- Provide tradespeople with tools and parts they need for their work
- Help to keep equipment clean
- Keep the shop clean, including garbage disposal and wash bays
- General routine maintenance, including sweeping floors, emptying garbage bins and cleaning spills
- Wash equipment
- Move tools and materials to and from work areas
- Track cleaning supply levels and provide list to Supervisor

## Compensation

Maintenance Helpers are paid on an hourly basis. Depending on factors such as the location of the mine and their skill level, pay ranges from \$24 - \$33 per hour (CostMine, 2014). In addition, Maintenance Helpers often receive other benefits.

## Why are People Attracted to this Career?

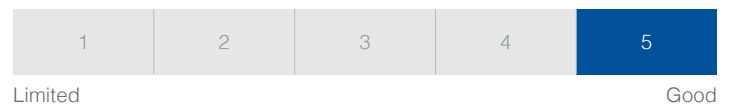
In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

People who want to work as a Maintenance Helper want to gain practical experience and exposure to the trades while earning a competitive wage. This entry-level position gives candidates the chance to prove that they are capable, while also providing opportunities to train for jobs that require more experience or specific skills.

## Job Prospects

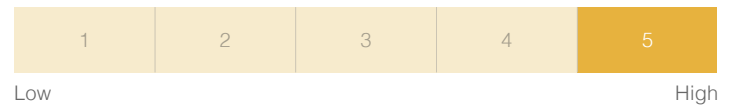
Each year, MiHR researches the needs of the mining industry to hire Maintenance Helpers. Based on 2015's forecast, we are providing the following assessment of the Job Prospects in mining as well as an evaluation applicability of these skills in other sectors. Together, these measures will help future job seekers to make informed decisions about potential careers, based on the opportunities in the mining industry.

## Job Prospects in Mining



## Transferability

*Demand for these skills in other industries*



## What is it Like to Work as a Maintenance Helper in Mining?

*Note: conditions vary according to employer and region.*

As a Maintenance Helper, you will be asked to help with a variety of tasks, which provides valuable experience and the opportunity to learn many new skills. As with any hands-on learning activity, your work will involve performing the same tasks repeatedly to the same standard. Many tasks will be physically demanding with prolonged periods of standing, bending, crouching or kneeling, and you will have to handle heavy loads.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and other hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Overtime is generally not required but you may have opportunities to work overtime in return for extra compensation.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

Many mines are situated in remote areas and require most employees to live in a mining camp. In these mines, employees

usually work on a “fly-in, fly-out” schedule. When on-site, all of your living expenses would be covered, including meals. Trained chefs and kitchen staff generally prepare meals and some camps provide accommodations for dietary restrictions and preferences.

Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

### Success Profile

Common traits that successful Maintenance Helpers share are:

- Committed to safe work habits
- Enjoys hands-on work
- Mechanically inclined
- Multi-tasking skills
- Positive attitude
- Willing to learn
- Willing to perform repetitive or routine tasks
- Works well with minimal supervision
- Works well with others

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, on-site housing for couples, gender-inclusive work environments or flexible schedules
- Provide professional development programs to support you and to develop career progression options

### Job Entry Requirements

*Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
Physically fit and mobile	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to work in a diverse environment	●			
Proficiency in language of operation	●			
High school diploma or equivalent			●	
Demonstrated ability to work under minimal supervision		NO BULLET IN WORD FILE		
Undergo a criminal record check			●	
Valid driver's licence (or eligible for a driver's licence) with few or no current infractions			●	
Willingness to relocate				●
Other languages				●



# Maintenance Superintendent

*ARE YOU A SUCCESSFUL, EXPERIENCED, MAINTENANCE SUPERVISOR OR TEAM LEADER?*

*ARE YOU READY TO TAKE ON A NEW CHALLENGE?*

*DO YOU WANT MORE RESPONSIBILITIES AND MORE RESOURCES?*

Maintenance Superintendents are part of the mine management team that keeps the mine and mill running smoothly and safely. If you are ready to manage several teams of people and want to be responsible for safety, equipment reliability and take control of maintenance costs, then becoming a Maintenance Superintendent could be right for you.

## Job Description

- Oversee all aspects of site maintenance, possibly with specialist teams (mechanical, electrical/electronic, hydraulic, etc.), covering the mine itself, the associated processing mill, and related conveyor systems
- Work with Senior Managers, other Superintendents and their Maintenance Supervisors to ensure safe equipment operations and maximize reliability and minimize costs
- Responsible for all the people (including contractors), equipment, tools, spare parts and materials in area of responsibility
- Prepare and approve preventative maintenance and other plans, allocate work to their teams, oversee progress, solve problems and take corrective action when required
- Prepare and negotiate large budgets, and monitor spending
- Prepare reports and briefs on equipment, safety, progress on projects and other matters
- Lead and participate in meetings and briefings, both formal and informal
- Work with Engineering department on equipment performance and operations
- Recruit, train and develop their employees, with support from Maintenance Supervisors and Human Resource (HR) specialists
- Oversee the development of Maintenance Supervisors, providing support, encouragement, advice and guidance
- Work with trade union(s), supervisors and HR department to avoid and resolve personnel issues and grievances
- Liaise with suppliers and consultants

## Compensation

Maintenance Superintendents are paid on an annual basis. Depending on factors such as the location of the mine and the type of mineral or metal produced, annual salaries range from \$86,000 - \$162,000 (CostMine, 2014). In addition, Maintenance Superintendents often receive other benefits.

## Why are People Attracted to this Career?

In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in

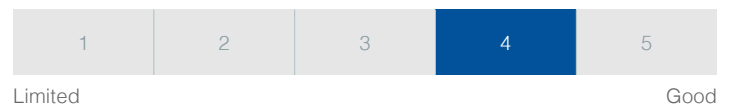
the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

The people who are attracted to this job are highly motivated to take on a senior position with increased responsibilities and challenging work. They are ambitious and appreciate the opportunity to work with new technologies, new processes and new challenges. They like working with people, and to develop their teams. They also like working with other Senior Managers and the broader perspective on the industry that comes with that collaboration.

## Job Prospects

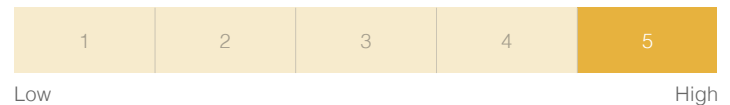
Each year, MiHR researches the needs of the mining industry to hire Maintenance Superintendents. Based on 2015's forecast, we are providing the following assessment of the Job Prospects in mining as well as an evaluation applicability of these skills in other sectors. Together, these measures will help future job seekers to make informed decisions about potential careers, based on the opportunities in the mining industry.

### Job Prospects in Mining



### Transferability

*Demand for these skills in other industries*



## What is it Like to Work as a Maintenance Superintendent in Mining?

*Note: conditions vary according to employer and region.*

As a Maintenance Helper, you will be asked to help with a variety of As a Maintenance Superintendent you will probably be based in an office in (or near) the mine site and you will spend some of your time in the mine and the processing mill. You will also attend and chair mine or mill management meetings.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective

equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Unpaid overtime may be required on occasion.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

Many mines are situated in remote areas and require most employees to live in a mining camp. In these mines, employees usually work on a “fly-in, fly-out” schedule. When on-site, all of your living expenses would be covered, including meals. Trained chefs and kitchen staff generally prepare meals and some camps provide accommodations for dietary restrictions and preferences.

Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

### Success Profile

Common traits that successful Maintenance Superintendents share are:

- Ability to delegate work to achieve results
- Ability to earn and maintain respect by demonstrating credibility and integrity
- Ability to influence people at all levels
- Ability to make and implement difficult decisions, and communicate the reasons for them

### Job Entry Requirements

*Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
Post-secondary degree or diploma in engineering or mining	●			
Knowledge of the mining industry	●			
Minimum of five years of relevant experience including several years as a Maintenance Supervisor in mining or in heavy industry (e.g. oil and gas, petro-chemicals, steel, electricity generation)	●			
Proficiency with word processing, spreadsheet, email and presentation software	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to lead in a diverse environment	●			
Proficiency in language of operation	●			
Bilingual French and English (Quebec and NB)		●		
Master's degree in engineering, mining or other relevant degrees				●
Willingness to relocate				●
Other languages				●

- Ability to overcome difficulties and solve problems with a positive attitude
- Cooperative
- Enjoys working with large equipment and machinery
- Have a deep level of understanding and respect for legislation, regulations and procedures concerning safety, employment and environmental protection
- Organized and a critical thinker
- Responsible and accountable
- Strong communication skills (verbal and written)
- Strong computer skills
- Strong interpersonal skills
- Strong problem-solving skills
- Strong troubleshooting skills
- Works well in a team
- Works well under pressure

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, on-site housing for couples, gender-inclusive work environments or flexible schedules
- Provide professional development programs to support you and to develop career progression options





# Maintenance Supervisor

*DO YOU WANT TO TAKE RESPONSIBILITY FOR LARGE AND SMALL, FIXED AND MOBILE EQUIPMENT AND MACHINERY? DO YOU LIKE FIXING PROBLEMS AND ENSURING SAFE OPERATIONS? ARE YOU READY TO LEAD A MAINTENANCE TEAM?*

Maintenance Supervisors play a critical role in the mining industry. Do you have the right experience, are you safety-conscious, able to take decisions, and want increased responsibility? If you work well under pressure, embrace change, and enjoy leading a team, then a career as a Maintenance Supervisor could be right for you.

## Job Description

- Lead by example, and promote a culture of safety and environmental protection in the workplace
- Ensure the safe and efficient maintenance of a range of equipment and machinery
- May lead a mixed trades or specialist team (e.g. electrical, mechanical, welding, environmental, etc.)
- Work with equipment and machinery in a mine, or with processing equipment in an associated plant or mill, or on vehicles or conveyor systems that transport material
- Manage preventative maintenance schedules and planned shutdowns
- Ensure planned and ad hoc repairs are executed to keep all equipment running smoothly and safely
- Ensure that equipment is maintained as per vendor specifications
- Responsible for planning and organizing work, distributing tasks to the team, overseeing work progress and performance
- Advise mining and processing teams about correct operation of equipment
- Build teams, motivate individuals and solve problems to achieve results
- Work with senior managers and other supervisors to promote and achieve the overall objectives of the mine
- Communicate well with senior management, other supervisors, and the team
- Develop employees by providing advice, training, encouragement and coaching
- Ensure that workers are well-trained and have the skills and knowledge they need to do their jobs safely and effectively
- Comply with legislation and regulations concerning safety, employment and protection of the environment
- Work with trade unions, if the mine is unionized

## Compensation

Maintenance Supervisors are paid on an annual basis. Depending on factors such as the location of the mine and the type of mineral or metal produced, annual salaries range from \$86,000 - \$93,000 (CostMine, 2014). In addition, Maintenance Supervisors often receive other benefits.

## Why are People Attracted to this Career?

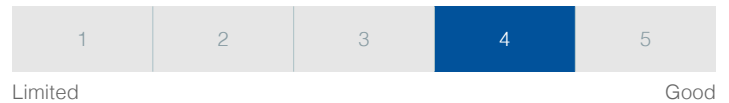
In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

The role of Maintenance Supervisor provides challenging and responsible work involving major mining and process equipment and machinery and there are many opportunities to work with new technologies. The people who are attracted to this career enjoy project work and get great satisfaction from seeing the results of their efforts. They also enjoy developing others.

## Job Prospects

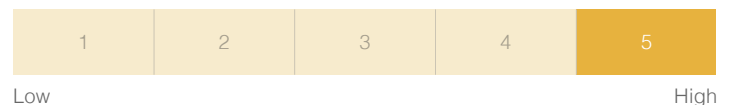
Each year, MiHR researches the needs of the mining industry to hire Maintenance Supervisors. Based on 2015's forecast, we are providing the following assessment of the Job Prospects in mining as well as an evaluation applicability of these skills in other sectors. Together, these measures will help future job seekers to make informed decisions about potential careers, based on the opportunities in the mining industry.

## Job Prospects in Mining



## Transferability

*Demand for these skills in other industries*



## What is it Like to Work as a Maintenance Supervisor in Mining?

*Note: conditions vary according to employer and region.*

As a Maintenance Supervisor, you will be based in an office or maintenance shop in the mine or adjacent mill, but spend most of your time overseeing activities on-site. You may have to work in confined spaces, at heights, or in difficult environments and environmental conditions. You will wear protective clothing and equipment most of the time and you will also be expected to participate in meetings with mine or mill management and other stakeholders.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Unpaid overtime may be required on occasion.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

Many mines are situated in remote areas and require most employees to live in a mining camp. In these mines, employees usually work on a “fly-in, fly-out” schedule. When on-site, all of your living expenses would be covered, including meals. Trained chefs and kitchen staff generally prepare meals and some camps provide accommodations for dietary restrictions and preferences.

Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

### Success Profile

Common traits that successful Maintenance Supervisors share are:

- Ability to earn and maintain respect by demonstrating credibility and integrity
- Ability to identify issues and solve problems with a positive attitude
- Ability to lead and influence people with different personalities
- Ability to make and implement difficult decisions, and communicate the reasons for them

### Job Entry Requirements

Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.

	Fixed Requirement	Regional Requirement	May be Required	Asset
High school diploma or equivalent	●			
A Journeyperson Trade Certificate in a related trade or technical diploma	●			
At least two years relevant experience in a mining environment or in heavy industry (e.g. oil and gas, petrochemicals, steel, electricity generation)	●			
Knowledge of the mining industry	●			
Proficiency with word processing, spreadsheet and email software	●			
Valid driver's licence (or eligible for a driver's licence) with few or no current infractions	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to lead in a diverse environment	●			
Proficiency in language of operation	●			
Bilingual French and English (Quebec and NB)		●		
Red Seal certification in a related trade	NO DOT IN WORD FILE			
Proficiency with AutoCAD or similar software, and computer diagnostic tools				●
Post-secondary degree in engineering or mining				●
Willingness to relocate				●
Other languages				●

- Ability to use a computer for administrative tasks
- An understanding that plant operating time is critical to the company success
- Enjoy working with and fixing a wide variety of large and small machinery
- Have a deep level of understanding and respect for legislation, regulations and procedures concerning safety and environmental protection,
- Mechanically inclined
- Reliable and responsible
- Strong communication skills (verbal and written)
- Well-organized and a critical thinker
- Willingness to learn and keep up with new technology and new maintenance techniques
- Works well under pressure
- Works well with others

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, on-site housing for couples, gender-inclusive work environments or flexible schedules
- Provide professional development programs to support you and to develop career progression options



# Mapping Technician / Technologist

ARE YOU GOOD WITH NUMBERS, PROGRAMMING AND VISUALIZING DATA?  
DO YOU ENJOY USING INFORMATION IN INNOVATIVE WAYS IN A RAPIDLY DEVELOPING FIELD? DO YOU WANT TO BE PART OF THE GEOGRAPHIC INFORMATION SYSTEMS (GIS) MOVEMENT TO SHOW LINKS BETWEEN DIVERSE DATA?

If you want to help bring together information in novel and exciting ways, creating and using GIS databases and computer programs to replace paper maps and drawings, then you might like to work as a Mapping Technician.

## Job Description

- Procure and install GIS software for the mine, and the data collection, as well as the equipment (including scanners, plotters, smartphones) that interfaces with Satellite Positional Systems (SPS)
- Build, design output reports, operate, maintain and develop the GIS and spatial databases and systems for the mine
- Analyze and edit spatial data to verify its integrity and accuracy
- Work closely with Surveyors, and Engineers to ensure that data is accurately collected, presented, interpreted and used
- Integrate data from various sources to generate digital graphics and maps
- Prepare topographic maps, aerial photo mosaics, and other custom mapping products as required
- Help to ensure safety, protect the environment, improve operational efficiency and quality control, control production costs, solve everyday problems and meet deadlines
- Contribute to reports and instruction manuals, attend meetings, record and store information
- Coach and assist Surveyors, Engineers and Operators use of GIS databases

## Compensation

Mapping Technicians are paid on an annual basis. Depending on factors such as the location of the mine and the type of mineral or metal produced, annual salaries range from \$74,000 - \$92,000 (CostMine, 2014). In addition, Mapping Technicians often receive other benefits.

## Why are People Attracted to this Career?

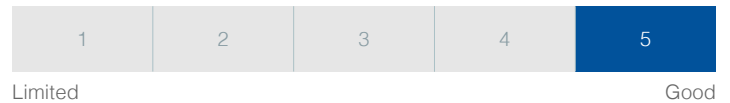
In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

The people who are attracted to this job get satisfaction from finding creative and visually attractive solutions to problems. They tend to enjoy information technology and databases, and the presentation of data (especially using maps, of course). They appreciate the chance to work as a member of a multidisciplinary team, at the forefront of a rapidly developing field, using the latest technologies and equipment.

## Job Prospects

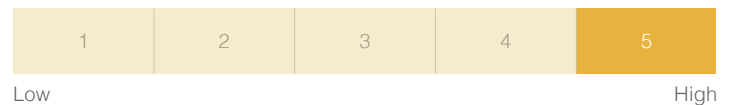
Each year, MiHR researches the needs of the mining industry to hire Mapping Technicians. Based on 2015's forecast, we are providing the following assessment of the Job Prospects in mining as well as an evaluation applicability of these skills in other sectors. Together, these measures will help future job seekers to make informed decisions about potential careers, based on the opportunities in the mining industry.

### Job Prospects in Mining



### Transferability

*Demand for these skills in other industries*



## What is it Like to Work as a Mapping Technician in Mining?

*Note: conditions vary according to employer and region.*

As a Mapping Technician you will probably be based in an office far from the mine site, but may spend some of your time at the production and exploration sites. Working hours vary considerably but you will likely have standard weekday working hours with only occasional overtime, evening and/or weekend work.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

## Success Profile

Common traits that successful Mapping Technicians share are:

- A strong interest in technology, Information Technology, instrumentation, new applications and efficiency
- A strong interest in visual presentation, aesthetics, colour schemes
- Ability to build trust and maintain positive relationships with a wide variety of personnel
- Ability to identify issues and solve problems with a positive attitude
- Ability to work in a fast-paced, changing environment

- Ability to work in a team and independently
- Committed to accuracy, data integrity, improved production and reduced costs
- Embraces new techniques and technology
- Interest in quality assurance, safety and environmental protection, procedures, legislation and regulations
- Learns quickly, especially detailed functional, legal/privacy and technical information
- Organized and a critical thinker
- Strong analytical, computer and programming skills
- Strong communication skills (verbal and written)
- Strong listening skills
- Strong multi-tasking skills
- Takes initiative and achieves new insights into the data
- Works well under pressure
- Works well with the continuing changes of pragmatic iterative processes

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, on-site housing for couples, gender-inclusive work environments or flexible schedules
- Provide professional development programs to support you and to develop career progression options

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Job Entry Requirements

*Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
Post-secondary degree or diploma in a relevant subject (i.e. geography, geology, surveying, cartography, photogrammetry, aerial survey, remote sensing, geographic information systems, geomatics, drafting, health science, business, or electronic technician), or a combination of education with experience as a Database Technician	●			
Proficiency with surveying terminology and with the use and care of survey tools and other survey field equipment	●			
Proficiency with AutoCAD, digital mapping and spatial database software	●			
Able to prepare and execute less complex tools such as scripts, menus and routines related to the work performed	●			
Proficiency with graphic workstations, colour plotters, digitizers and related equipment	●			
Knowledge of GIS software	●			
Proficiency with word processing, spreadsheet and email software	●			
Knowledge of advanced geographic information concepts, systems and applications, legal land surveying, coordinate geometry, survey calculations and topographical mapping	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to work in a diverse environment	●			
Proficiency in language of operation	●			
Certification through provincial associations of applied science technologists and technicians		●		
Two years of supervised work experience		●		
Valid driver's licence (or eligible for a driver's licence) with few or no current infractions			●	
Willingness to relocate				●
Other languages				●



# Mechanic

*DO YOU ENJOY WORKING WITH EQUIPMENT, MACHINERY AND MECHANICAL PARTS?  
DO YOU LOVE TOOLS?  
DO YOU LIKE TO TAKE THINGS APART TO SEE HOW THEY WORK?*

In the mining sector, Mechanics inspect, repair and maintain light vehicles, trucks and mine support equipment such as shotcrete sprayers, scissor lifts, boom trucks and forklifts. If you have a passion for all things mechanical, then a career as a Mechanic could be the one for you.

## Job Description

- Be proactive about workplace safety and follow all rules and legislation for using equipment and tools
- Conduct preventive maintenance through scheduled inspections, servicing, adjustments, troubleshooting and repair of light vehicles and mine support equipment
- Perform ad hoc repair tasks, as required
- Fix mechanical and electrical problems quickly and effectively so vehicles are available as much as possible
- Maintain equipment according to manufacturer specifications
- Keep work station tidy in the maintenance shop and wherever maintenance work is carried out
- Contribute to worksite improvements in safety, productivity and cost effectiveness

## Compensation

Mechanics are paid on an hourly basis. Depending on factors such as the location of the mine and the type of mineral or metal produced, pay ranges from \$17 to \$58 per hour (CostMine, 2014). In addition, Mechanics often receive other benefits. Mechanic Apprentices are typically paid a percentage of the full wage beginning at 75% and increasing with experience.

## Why are People Attracted to this Career?

In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

Being a Mechanic involves a lot of hands-on work using a variety of tools. It is a perfect fit for people who are passionate about engines, carburetors and transmissions, and who have been working with cars and trucks for as long as they can remember. It is the ideal career for people who want to do what they love and gain a deeper knowledge of how mechanical, electrical and computer systems work.

## Job Prospects

Each year, MiHR researches the needs of the mining industry to hire Mechanics. Based on 2015's forecast, we are providing the following assessment of the Job Prospects in mining as well as an evaluation applicability of these skills in other sectors. Together,

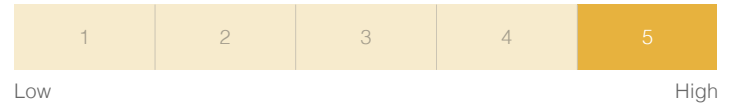
these measures will help future job seekers to make informed decisions about potential careers, based on the opportunities in the mining industry.

## Job Prospects in Mining



## Transferability

*Demand for these skills in other industries*



## What is it Like to Work as a Mechanic in Mining?

*Note: conditions vary according to employer and region.*

As a Mechanic in the mining sector, you will use computerized diagnostic equipment to test, adjust and repair key vehicle components such as engines, steering systems, braking systems, drive trains, vehicle suspensions and electrical systems. You will also reassemble and test repaired items against manufacturer standards, as well as perform preventative maintenance such as wheel alignments, oil changes and tune-ups. You will have the opportunity to work with a wide variety of equipment and machinery, which can be challenging and rewarding. This career can be demanding; you will be on your feet or holding awkward or uncomfortable positions most of the day. In some cases, you will have to lift up to 23 kg (50 lbs) (based on job research, 2014) and sometimes you will use cranes and hoists for lifting.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Overtime is generally not required but you may have opportunities to work overtime in return for extra compensation.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

Many mines are situated in remote areas and require most employees to live in a mining camp. In these mines, employees usually work on a “fly-in, fly-out” schedule. When on-site, all of your living expenses would be covered, including meals. Trained chefs and kitchen staff generally prepare meals and some camps provide accommodations for dietary restrictions and preferences.

Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

### Success Profile

Common traits that successful Mechanics share are:

- Ability to use computer diagnostic and testing equipment
- Dependable and patient
- Embraces new technology
- Excellent manual dexterity
- Rational and analytical
- Strong communication skills (verbal)

### Job Entry Requirements

*Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
Completion of a three or four-year apprenticeship program that combines classroom instruction with on-the-job training	●			
Journeyman Trade Certificate as Mechanic (check the requirements for your province or territory)	●			
Must be able to read and understand manuals and written instructions in language of operation	●			
Valid driver's licence (or eligible for a driver's licence) with few or no current infractions	●			
High school diploma or equivalent	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to work in a diverse environment	●			
Proficiency in language of operation	●			
Red Seal certification in a related trade			●	
Willingness to relocate				●
Other languages				●

- Strong diagnostic skills
- Strong listening skills
- Strong math and computer skills
- Works well in a team and independently
- Works well under pressure

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, on-site housing for couples, gender-inclusive work environments or flexible schedules
- Provide professional development programs to support you and to develop career progression options



# Mechanical Engineer

*DO YOU ENJOY KEEPING EQUIPMENT RUNNING SMOOTHLY AND SAFELY? ARE YOU IMAGINATIVE WITH STRONG ANALYSIS, TROUBLE-SHOOTING AND DESIGN SKILLS? DO YOU WANT TO LEAD A TEAM THAT PROCURES, INSTALLS AND OPERATES POWERFUL SPECIALIST MACHINES?*

Mechanical Engineers are leading members of the Engineering Department in a mine, supporting the Production and Minerals Processing operations. If you want to work in the team that specifies, purchases and installs specialist mechanical equipment and keeps it all operating efficiently and safely, then you might like a career as a Mechanical Engineer.

## Job Description

- Conceive and plan the mechanical equipment and systems to operate in the demanding conditions at the mine site
- Research, specify and supervise the procurement, installation and commissioning of the mechanical equipment and systems
- Oversee the maintenance, repair and support of mechanical equipment and systems by trained operators and mechanics
- Prepare and/or check and approve calculations, documents, drawings, cost estimates and tests in compliance with quality assurance policies
- Analyze the dynamics and research the causes of vibration, mechanical failures and maintenance problems
- Prepare tendering competitions, evaluate technical aspects of bids, supervise contractors, negotiate variations and remedial works, assure and control quality, measure work done, approve and accept works
- Lead or work on a team to ensure projects are completed on time and budget, and meet high quality standards
- Write reports, attend meetings, exchange information with other professionals, record and store information in compliance with legislation, regulations and company policies
- Play a leading role in ensuring safety, improving operational and energy efficiency and quality, controlling production costs and protection of the environment at all stages of a mine life cycle
- Work cooperatively with other departments, engineering disciplines, project managers, supply chain and management to optimize production, reduce costs, solve problems and meet deadlines
- Supervise Junior Engineers and Technicians and assist Supervisors in building an efficient work force
- Only licensed engineers authorize designs, calculations and drawings and are accountable on behalf of their employers

## Compensation

Mechanical Engineers' salary is unknown at this time.

## Why are People Attracted to this Career?

In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured

work schedule which allows for personal pursuits and professional development.

The people who are attracted to working as a Mechanical Engineer tend to be responsible people who enjoy tackling a challenging variety of duties including design, analysis, problem-solving and creating systems. They appreciate the opportunity to lead a multidisciplinary team and use the latest technologies and equipment in their work.

## Job Prospects

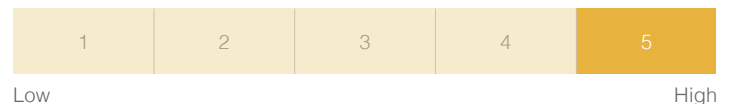
Each year, MiHR researches the needs of the mining industry to hire Mechanical Engineers. Based on 2015's forecast, we are providing the following assessment of the Job Prospects in mining as well as an evaluation applicability of these skills in other sectors. Together, these measures will help future job seekers to make informed decisions about potential careers, based on the opportunities in the mining industry.

### Job Prospects in Mining



### Transferability

*Demand for these skills in other industries*



## What is it Like to Work as a Mechanical Engineer in Mining?

*Note: conditions vary according to employer and region.*

As a Mechanical Engineer, you will probably be based in an office on (or near) the mine site, but spend much of your time at the mine. You may be exposed to challenging working conditions and may be required to work safely in confined spaces, at heights and near open holes. You must be willing and able to climb ladders and steel ramps on the surface and underground.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that

come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Overtime is generally not required but you may have opportunities to work overtime in return for extra compensation.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

Many mines are situated in remote areas and require most employees to live in a mining camp. In these mines, employees usually work on a “fly-in, fly-out” schedule. When on-site, all of your living expenses would be covered, including meals. Trained chefs and kitchen staff generally prepare meals and some camps provide accommodations for dietary restrictions and preferences.

Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

### Success Profile

Common traits that successful Mechanical Engineers share are:

- Ability to build trust and maintain positive relationships with a wide variety of personnel
- Ability to identify issues and priorities, and solve problems with a positive attitude
- Ability to plan and work in a fast-paced, dynamic environment
- Committed to quality, innovative design, improved production and

### Job Entry Requirements

*Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
A Bachelor's degree in Mechanical Engineering or related subject	●			
Eligible for registration as Engineer in Training	●			
Proficiency with word processing, spreadsheet and email software	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to work in a diverse environment	●			
Proficiency in language of operation	●			
Specialized software skills			●	
Use of computer-based design and drafting using mechanical engineering and mining software			●	
Professional Registration			P. Eng.	
Master's degree in Mechanical Engineering or related subject				●
Willingness to relocate				●
Other languages				●

reduced costs

- Committed to safety and environmental protection
- General understanding of the mine's long term plans and assist in determining the best method to follow it
- Learns quickly, especially detailed legal, technical and production information
- Organized and a critical thinker
- Strong interest in machines, the production process, technology, Information Technology and efficiency
- Strong active listening skills
- Strong analytical, computer and planning skills
- Strong communication skills (verbal and written)
- Thorough understanding of, and compliance with, legislation and regulations concerning safety, employment and environmental protection
- Works well under pressure

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, on-site housing for couples, gender-inclusive work environments or flexible schedules





## Mill Manager

*ARE YOU A SUCCESSFUL PROCESS SUPERINTENDENT WITH STRONG MANAGERIAL AND PEOPLE SKILLS? ARE YOU READY TO TAKE ON BROADER EXECUTIVE RESPONSIBILITIES? DO YOU WANT TO MAKE A DIRECT CONTRIBUTION TO THE SUCCESS OF THE MINE?*

The Mill Manager is accountable for the success of the process operations and is responsible for safety, quality, costs and achieving targets. If you are ready to handle a high level of responsibility, motivate your teams and collaborate with other area managers to achieve results, then Mill Manager could be the job for you.

### Job Description

- Maintain and encourage a positive safety and environment culture at all times
- Lead the mill processing plant team, managing all processing personnel and resources to achieve production
- Prepare and implement operational plans for the mill, and monitor and report progress
- Propose capital expenditure projects for process improvements or capacity expansion
- Prepare production and operating budgets, and monitor and report performance and costs
- Recognize and anticipate operational, technical and safety challenges, take action to prevent or overcome them, and seek continuous improvement
- Contribute to business planning and company strategy to improve competitiveness, profitability and growth
- Engage with local communities and regulatory authorities to promote company policies
- Work closely with maintenance department to ensure continuous, safe, efficient operations
- Collaborate with other management colleagues and corporate executives to achieve overall business objectives
- Oversee new projects to increase capacity or replace old equipment
- Oversee the recruitment and development of superintendents, supervisors and operators, providing support, encouragement, advice and guidance to build an effective workforce
- Manage relations with trade unions

### Compensation

Mill Managers are paid on an annual basis. Depending on factors such as the location of the mine and the type of mineral or metal produced, annual salaries are in line with typical executive compensation levels. In addition, Mill Managers often receive other benefits.

### Why are People Attracted to this Career?

In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured

work schedule which allows for personal pursuits and professional development.

The people who are attracted to this job are highly motivated to take on a very senior position with a high level of responsibility and challenging work, covering many different aspects of management. They like to use modern tools to solve process problems. They appreciate the opportunity to lead large teams of people, contribute to the business management and act as an ambassador for the industry. They also like working with other executives and the community at large.

### What is it Like to Work as a Mill Manager in Mining?

*Note: conditions vary according to employer and region.*

As a Mill Manager you will be based in an office in the mill or at the mine site. You will also chair internal meetings and participate in other management meetings.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Overtime is generally not required but you may have opportunities to work overtime in return for extra compensation.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

Many mines are situated in remote areas and require most employees to live in a mining camp. In these mines, employees usually work on a "fly-in, fly-out" schedule. When on-site, all of your living expenses would be covered, including meals. Trained chefs and kitchen staff generally prepare meals and some camps provide accommodations for dietary restrictions and preferences.

Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a

variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

### Success Profile

Common traits that successful Mill Managers share are:

- Ability to earn and maintain respect by demonstrating credibility and integrity
- Ability to delegate work to achieve results
- Ability to influence people at all levels
- Ability to make and implement difficult decisions, and communicate the reasons for them
- Ability to overcome difficulties and solve problems with a positive attitude
- Accountable for decisions and actions
- Ambitious
- Cooperative
- Have a deep interest in the wider business aspects of the industry
- Have a deep level of understanding and respect for legislation, regulations and procedures concerning safety, employment and environmental protection
- Maintain positive working relations with trade unions
- Operational leadership experience
- Organized and a critical thinker
- Responsible
- Strong communication skills (verbal and written)

- Strong computer skills
- Strong interpersonal skills
- Strong risk management skills
- Team player
- Technical and operational expertise
- Works well under pressure

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, on-site housing for couples, gender-inclusive work environments or flexible schedules
- Provide professional development programs to support you and to develop career progression options

### Job Entry Requirements

Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.

	Fixed Requirement	Regional Requirement	May be Required	Asset
Degree in chemical engineering, metallurgy or mining	●			
Knowledge and experience in the mining industry	●			
Minimum of five years of experience in a leadership position, including in the processing activities	●			
Proficiency with word processing, spreadsheet, email and presentation software	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to lead in a diverse environment	●			
Proficiency in language of operation	●			
Bilingual French and English (Quebec and NB)		●		
A degree in business or management, or a relevant Master's degree				●
Willingness to relocate				●
Other languages				●



# Millwright

*DO YOU ENJOY DOING PRECISION WORK ON EQUIPMENT AND MACHINERY?  
DO YOU WORK WELL ON YOUR OWN AND WITH OTHERS?*

Millwrights do critical work in all mining operations and at all stages of production. If you are good with tools, enjoy taking machines apart and rebuilding them, and you work well in a team and independently, a career as a Millwright may be the one for you.

## Job Description

- Install, maintain, overhaul, modify and repair machinery and stationary equipment (e.g. conveyors, hydraulic systems, pneumatic devices, pumps, engines, motors, production machines, etc.)
- Troubleshoot production problems and take preventive or corrective action as required
- Perform pre- and post-operational checks of equipment
- Read and interpret blueprints, manuals and process specifications to visualize layouts and guide work
- Collect, analyze, summarize information and trends in order to prepare mechanical maintenance reports
- Operate lifting equipment
- Maintain a clean, orderly and safe work environment
- Demonstrate leadership in health and safety by adhering to established safety and environmental policies and procedures
- Collaborate with maintenance planning departments and maintenance shop personnel to ensure maintenance requirements are met
- Document and communicate actions, irregularities and ongoing maintenance requirements (e.g. routine oil change)

## Compensation

Millwrights are paid on an hourly basis. Depending on factors such as the location of the mine and the type of mineral or metal produced, pay ranges from \$17 to \$58 per hour (CostMine, 2014). In addition, Millwrights often receive other benefits. Commission work can pay between \$70 and \$100 per hour. Millwright Apprentices are typically paid a percentage of the full wage beginning at 75% and increasing with experience.

## Why are People Attracted to this Career?

In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

The people who are attracted to working as a Millwright enjoy the hands-on challenge of performing precision work and keeping production systems in good working order. They like solving a range of technical problems in diverse mining environments. They take

great pride and satisfaction in their ability to troubleshoot and fix equipment and machinery.

## Job Prospects

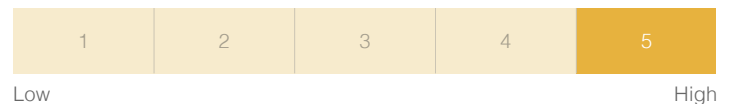
Each year, MiHR researches the needs of the mining industry to hire Millwrights. Based on 2015's forecast, we are providing the following assessment of the Job Prospects in mining as well as an evaluation applicability of these skills in other sectors. Together, these measures will help future job seekers to make informed decisions about potential careers, based on the opportunities in the mining industry.

### Job Prospects in Mining



### Transferability

*Demand for these skills in other industries*



## What is it Like to Work as a Millwright in Mining?

*Note: conditions vary according to employer and region.*

As a Millwright, you will often be required to work safely in confined spaces, at heights and near open holes. You must be willing and able to climb ladders and steel ramps on the surface and underground. This physically demanding job involves a variety of tasks, including working with large equipment, doing precision alignment work as well as performing regular maintenance. You will be required to lift up to 25 kg (55 lbs) (based on 2014 job research). Millwrights in the mining sector work with a variety of tools, equipment and machinery; some are trained to use optical equipment like laser tools for pumps and motors.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Overtime is generally not required but you may have opportunities to work overtime in return for extra compensation.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

Many mines are situated in remote areas and require most employees to live in a mining camp. In these mines, employees usually work on a “fly-in, fly-out” schedule. When on-site, all of your living expenses would be covered, including meals. Trained chefs and kitchen staff generally prepare meals and some camps provide accommodations for dietary restrictions and preferences.

Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

### Success Profile

Common traits that successful Millwrights share are:

- Committed to safe work habits
- Excellent manual dexterity
- Good interpersonal skills
- Have a deep level of respect for, and understanding of, safety procedures, regulations and legislation

### Job Entry Requirements

*Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
Journeyman Trade Certificate as Industrial Mechanic/ Millwright (check the requirements for your province or territory)	●			
Physically fit and mobile	●			
Knowledge of mining operations and mining equipment	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to work in a diverse environment	●			
Proficiency in language of operation	●			
Red Seal certification as Industrial Mechanic/Millwright			●	
Completion of a four-year apprenticeship program that combines classroom instruction with on-the-job training			●	
Valid driver's licence (or eligible for a driver's licence) with few or no current infractions				●
Willingness to relocate				●
Other languages				●

- Independent
- Results-oriented
- Strong communication skills (verbal)
- Strong troubleshooting skills
- Team player
- Values safety, health and a positive working environment
- Willing to engage in continuous learning and skills development
- Willing to perform repetitive or routine tasks

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, on-site housing for couples, gender-inclusive work environments or flexible schedules
- Provide professional development programs to support you and to develop career progression options



# Mine Dispatcher

*WOULD YOU LIKE TO WORK IN A FAST-PACED ENVIRONMENT AT THE CENTRE OF AN INTRICATE COMMUNICATION NETWORK? CAN YOU COMMUNICATE IMPORTANT INFORMATION AND COORDINATE ACTIVITIES IN MULTIPLE AREAS? ARE YOU COMMITTED TO A SAFE AND HEALTHY WORKPLACE?*

If you have experience in production or processing in the mining industry, have exceptional communication skills and enjoy working with a variety of computer software, satellite phone and various types of office equipment, then you might enjoy working as a Mine Dispatcher.

## Job Description

- Communicate schedule and dispatch workers, work crews, equipment and service vehicles according to requests, specifications or needs using two-way radios or microphones
- Serve as central communication for mine production and safety, including emergency events
- Capture, validate and record mine site data, shift and production reports
- Monitor traffic and heavy equipment through video cameras to ensure efficient use
- Receive, prepare and relay work orders, messages and information to and from work crews, supervisors and field inspectors
- Enter computer information to facilitate decision-making for mine management and engineering
- Provide accurate information required to make informed production decisions

## Compensation

Mine Dispatchers are paid on an hourly basis. Depending on factors such as the location of the mine and the type of mineral or metal produced, pay averages \$30 per hour (CostMine, 2014). In addition, Mine Dispatchers often receive other benefits.

## Why are People Attracted to this Career?

In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

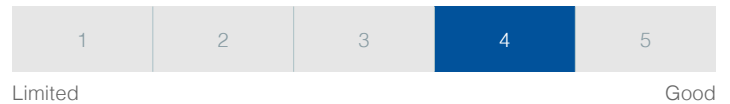
The people who are attracted to working as a Mine Dispatcher enjoy using computers and various applications to transmit information efficiently and effectively. As members of the leadership team, the nature of their work enables the development of close connections with, and among, colleagues and supervisors. Mine Dispatchers enjoy problem-solving and learning new technology and new procedures.

## Job Prospects

Each year, MiHR researches the needs of the mining industry to hire Mine Dispatchers. Based on 2015's forecast, we are providing

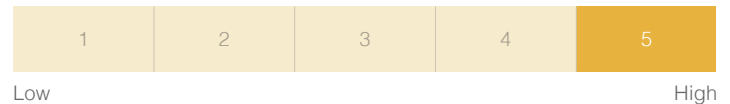
the following assessment of the Job Prospects in mining as well as an evaluation applicability of these skills in other sectors. Together, these measures will help future job seekers to make informed decisions about potential careers, based on the opportunities in the mining industry.

## Job Prospects in Mining



## Transferability

*Demand for these skills in other industries*



## What is it Like to Work as a Mine Dispatcher in Mining?

*Note: conditions vary according to employer and region.*

As a Mine Dispatcher, you will be working under pressure, generally in a control-room working environment.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Overtime is generally not required but you may have opportunities to work overtime in return for extra compensation.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

Many mines are situated in remote areas and require most employees to live in a mining camp. In these mines, employees

usually work on a “fly-in, fly-out” schedule. When on-site, all of your living expenses would be covered, including meals. Trained chefs and kitchen staff generally prepare meals and some camps provide accommodations for dietary restrictions and preferences.

Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

### Success Profile

Common traits that successful Mine Dispatchers share are:

- Ability to stay focused
- Computer skills
- Detail-oriented
- Problem-solving skills
- Risk management skills
- Strong communication skills (verbal and written)
- Strong interpersonal skills
- Strong multi-tasking skills
- Time management skills
- Values safety, health and positive working environment
- Works well under pressure

### Job Entry Requirements

*Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
High school diploma or equivalent	●			
Minimum of five years of experience working in a mine environment, including heavy equipment operations and different types of mobile equipment	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to work in a diverse environment	●			
Proficiency in language of operation	●			
Experience operating computer-assisted communications and dispatching equipment			●	
Knowledge of standard operating procedures in mining			●	
Understanding of mine dispatch systems and operating software applications systems				●
Willingness to relocate				●
Other languages				●

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, on-site housing for couples, gender-inclusive work environments or flexible schedules
- Provide professional development programs to support you and to develop career progression options



# Mine Manager

*ARE YOU A SUCCESSFUL MINE SUPERINTENDENT WITH STRONG MANAGERIAL AND PEOPLE SKILLS? ARE YOU READY TO TAKE ON BROADER EXECUTIVE RESPONSIBILITIES? DO YOU WANT TO MAKE A DIRECT CONTRIBUTION TO THE SUCCESS OF THE ORGANIZATION?*

The Mine Manager heads the mine management team running mining operations, and is responsible for safety, quality, costs and achieving targets. If you are ready to handle this high level of responsibility and achieve results by leading your teams, then Mine Manager could be the job for you.

## Job Description

- Maintain and encourage a positive safety and environment culture at all times
- Lead the mine operations management team and manage all mining personnel and resources
- Prepare and implement operational plans for the mine, and monitor and report progress
- Propose capital expenditure projects to expand capacity or improve operations
- Prepare production and operating budgets, and monitor and report performance and costs
- Recognize and anticipate operational, technical and safety challenges, take action to prevent or overcome them, and seek continuous improvement
- Contribute to business planning and company strategy to improve competitiveness, profitability and growth
- Engage with local communities and regulatory authorities to promote company policies
- Work closely with maintenance department to ensure continuous, safe, efficient operations
- Collaborate with other management colleagues and corporate executives to achieve overall business objectives
- Oversee new projects, such as installing new mining equipment or opening a new shaft
- Oversee the recruitment and development of superintendents, supervisors, and operators, providing support, encouragement, advice and guidance to build an effective workforce
- Manage relations with trade unions

## Compensation

Mine Managers are paid on an annual basis. Depending on factors such as the location of the mine and the type of mineral or metal produced, annual salaries range from \$90,000 - \$295,000 (CostMine, 2014). In addition, Mine Managers often receive other benefits.

## Why are People Attracted to this Career?

In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

The people who are attracted to this job are highly motivated to take on a very senior position with a high level of responsibility and challenging work, covering many different aspects of management. They appreciate the opportunity to lead large teams of people, contribute to the business management and act as an ambassador for the industry. They also like working with other executives and the community at large.

## What is it Like to Work as a Mine Manager in Mining?

*Note: conditions vary according to employer and region.*

As a Mine Manager you will be based in an office in the mine site, and you will spend some of your time in the mine. You will also chair internal meetings and participate in other management meetings.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Overtime is generally not required but you may have opportunities to work overtime in return for extra compensation.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

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## Success Profile

Common traits that successful Mine Managers share are:

- Ability to delegate work to achieve results
- Ability to earn and maintain respect by demonstrating credibility and integrity
- Ability to influence people at all levels
- Ability to make and implement difficult decisions, and communicate the reasons for them
- Ability to overcome difficulties and solve problems with a positive attitude
- Accountable for decisions and actions
- Ambitious
- Cooperative
- Have a deep interest in the wider business aspects of the industry
- Have a deep level of understanding and respect for legislation, regulations and procedures, concerning, safety, employment and environmental protection
- Maintain positive working relations with trade unions
- Operational leadership experience
- Organized and a critical thinker
- Responsible
- Strong communication skills (verbal and written)
- Strong computer skills
- Strong interpersonal skills

- Strong risk management skills
- Team player
- Technical and operational expertise
- Works well under pressure

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

## Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, on-site housing for couples, gender-inclusive work environments or flexible schedules
- Provide professional development programs to support you and to develop career progression options

## Job Entry Requirements

Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.

	Fixed Requirement	Regional Requirement	May be Required	Asset
Post-secondary degree in mining or engineering	●			
Knowledge and experience in the mining industry	●			
Minimum of five years of experience in a leadership position, including in operations activities	●			
Proficiency with word processing, spreadsheet, email and presentation software	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to lead in a diverse environment	●			
Proficiency in language of operation	●			
Bilingual French and English (Quebec and NB)		●		
Post-secondary degree in business or management, or a relevant Master's degree				●
Willingness to relocate				●
Other languages				●





# Mine Operations Superintendent

*ARE YOU A SUCCESSFUL FRONTLINE SUPERVISOR OR TEAM LEADER WITH EXPERIENCE IN MINING? ARE YOU READY TO TAKE ON A NEW CHALLENGE? DO YOU WANT MORE RESPONSIBILITIES AND MORE RESOURCES?*

Mine Operations Superintendents are part of the mine management team that runs mining operations. If you are ready to manage several teams of people and want to be responsible for safety, production volumes, quality and budgeting, then becoming a Mine Operations Superintendent could be right for you.

## Job Description

- Responsible for the safety, production, quality and budgets for their area of mine operations
- Work with Senior Managers, other Superintendents and their Frontline Supervisors to control the mine operations
- Responsible for all the people, equipment, tools and materials in area of responsibility
- Prepare and approve plans, allocate work to their teams, oversee progress, solve problems, and take corrective action when required
- Prepare and negotiate budgets, and monitor spending
- Prepare reports and briefs on production, safety, progress on projects and other matters
- Lead and participate in meetings and briefings, both formal and informal
- Recruit, train and develop their employees, with support from Frontline Supervisors and Human Resources (HR) specialists
- Oversee the development of supervisors, providing support, encouragement, advice and guidance
- Work with trade union(s), supervisors and HR department to avoid and resolve personnel issues and grievances

## Compensation

Mine Operations Superintendents are paid on an annual basis. Depending on factors such as the location of the mine and the type of mineral or metal produced, annual salaries range from \$88,000 to \$170,000 (CostMine, 2014). In addition, Mine Superintendents often receive other benefits.

## Why are People Attracted to this Career?

In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

The people who are attracted to this job are highly motivated to take on a senior position with increased responsibilities and challenging work, involving a mix of office and operational work. They are ambitious and appreciate the opportunity to work with new technologies and to develop their teams. They also like working with

other senior managers and the broader perspective on the industry that comes with that collaboration.

## Job Prospects

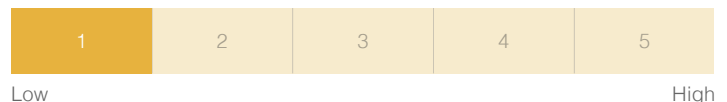
Each year, MiHR researches the needs of the mining industry to hire Mine Operations Superintendents. Based on 2015's forecast, we are providing the following assessment of the Job Prospects in mining as well as an evaluation applicability of these skills in other sectors. Together, these measures will help future job seekers to make informed decisions about potential careers, based on the opportunities in the mining industry.

## Job Prospects in Mining



## Transferability

*Demand for these skills in other industries*



## What is it Like to Work as a Mine Operations Superintendent in Mining?

*Note: conditions vary according to employer and region.*

As a Mine Operations Superintendent, you will probably be based in an office on (or near) the mine site and you will spend some of your time in the mine. You will also attend and chair mine management meetings.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Unpaid overtime may be required on occasion.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

Many mines are situated in remote areas and require most employees to live in a mining camp. In these mines, employees usually work on a “fly-in, fly-out” schedule. When on-site, all of your living expenses would be covered, including meals. Trained chefs and kitchen staff generally prepare meals and some camps provide accommodations for dietary restrictions and preferences.

Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

### Success Profile

Common traits that successful Mine Operations Superintendents share are:

- Ability to delegate work to achieve results
- Ability to earn and maintain respect by demonstrating credibility and integrity
- Ability to influence people at all levels
- Ability to make and implement difficult decisions, and communicate the reasons for them
- Ability to overcome difficulties and solve problems with a positive attitude
- Cooperative

### Job Entry Requirements

*Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
Post-secondary degree in mining or engineering	●			
Minimum of five years of relevant operations experience in mining, including several years as a Frontline Supervisor	●			
Proficiency with word processing, spreadsheet, email and presentation software	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to lead in a diverse environment	●			
Proficiency in language of operation	●			
Bilingual French and English (Quebec and NB)		●		
Proficiency with AutoCAD				●
Post-secondary degree in business or management				●
Willingness to relocate				●
Other languages				●

- Have a deep level of understanding and respect for legislation, regulations and procedures concerning safety, employment and environmental protection
- Organized and a critical thinker
- Responsible and accountable
- Strong communication skills (verbal and written)
- Strong computer skills
- Strong interpersonal skills
- Team player
- Works well under pressure

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, on-site housing for couples, gender-inclusive work environments or flexible schedules
- Provide professional development programs to support you and to develop career progression options



# Mineral Process Engineer

*DO YOU WANT TO FIGURE OUT HOW TO TRANSFORM WASTE INTO NEW PRODUCTS?  
ARE YOU PASSIONATE ABOUT PROTECTING AND RESPECTING THE ENVIRONMENT?  
WOULD YOU LIKE TO USE CUTTING-EDGE TECHNOLOGY IN YOUR EVERYDAY WORK?*

Mineral Process Engineers use sophisticated processes and new technologies to extract and refine valuable minerals from raw ores. If you want to create new products from waste materials, clean up the landscape and promote economic growth, you might enjoy a career as a Mineral Process Engineer.

## Job Description

- Plan, organize and supervise the extraction of metallic or non-metallic minerals from the ore at underground or surface mines
- Monitor the operational conditions of the various processes and the flow of material through the mill
- Monitor and control the mine feed, operating parameters (such as grinding conditions) and the addition of chemical substances to ensure that maximum amounts of mineral is extracted from the ore, and a stable and quality concentrate is created
- Conduct on-site testing and research to identify ways to improve systems
- Provide troubleshooting support to improve operational efficiencies
- Lead the implementation of cutting-edge processes and safety practices
- Write reports, attend meetings, exchange information with other professionals, record and store information in compliance with legislation, regulations and company policies
- Work cooperatively with other departments, project managers, supply chain and mine management to optimize production, reduce costs, solve problems and meet deadlines
- Supervise Junior Engineers and Technicians and assist Supervisors in building an efficient work force
- Research, study and plan for equipment wear and create proactive maintenance regimens and procedures
- Only licensed engineers authorize designs, calculations and drawings and are accountable on behalf of their employers

## Compensation

Mineral Process Engineers are paid on an annual basis. Depending on factors such as the location of the mine and the type of mineral or metal produced, annual salaries range from \$70,000 - \$120,000 (CostMine, 2014). In addition, Mineral Process Engineers often receive other benefits.

## Why are People Attracted to this Career?

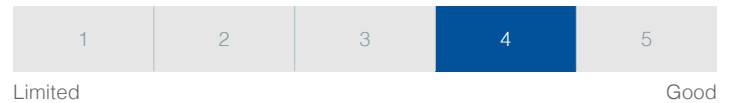
In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

People drawn to the role of Mineral Process Engineer tend to be seeking challenging and rewarding technical work. Possessing strong analytical skills, they enjoy tackling a problem and testing different ways to solve it. They like the idea of working both independently and with a team, as well as the opportunity to work with new technologies.

## Job Prospects

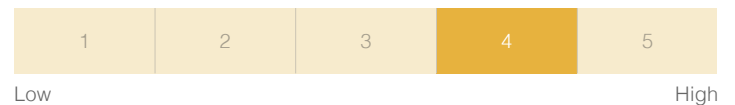
Each year, MiHR researches the needs of the mining industry to hire Mineral Process Engineers. Based on 2015's forecast, we are providing the following assessment of the Job Prospects in mining as well as an evaluation applicability of these skills in other sectors. Together, these measures will help future job seekers to make informed decisions about potential careers, based on the opportunities in the mining industry.

### Job Prospects in Mining



### Transferability

*Demand for these skills in other industries*



## What is it Like to Work as a Mineral Process Engineer in Mining?

*Note: conditions vary according to employer and region.*

As a Mineral Process Engineer, you will probably be based in an office in the mill or in a research lab. You may be exposed to challenging working conditions and may be required to work safely in confined spaces, at heights and near open holes. You must be willing and able to climb ladders and steel ramps.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves

evening and/or weekend work. Overtime is generally not required but you may have opportunities to work overtime in return for extra compensation.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

Many mines are situated in remote areas and require most employees to live in a mining camp. In these mines, employees usually work on a “fly-in, fly-out” schedule. When on-site, all of your living expenses would be covered, including meals. Trained chefs and kitchen staff generally prepare meals and some camps provide accommodations for dietary restrictions and preferences.

Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

### Success Profile

Common traits that successful Mineral Process Engineers share are:

- Creative
- Embraces new techniques and technologies
- Enjoys working with math, science, computers and all things mechanical

### Job Entry Requirements

*Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
Bachelor's degree in engineering (e.g. metallurgical, chemical, mechanical or mining)	●			
Eligible for Registration as Engineer in Training	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to work in a diverse environment	●			
Proficiency in language of operation	●			
Professional Registration			P.Eng.	
Specialized software skills			●	
Master's degree				●
Proficiency with word processing, spreadsheet and email software				●
Willingness to relocate				●
Other languages				●

- Goal-oriented
- Have a deep level of understanding and respect for established safety procedures, legislation and regulations
- Intelligent
- Patient, flexible, adaptable and resilient
- Strong communication skills (verbal and written)
- Strong time management skills
- Team player

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, on-site housing for couples, gender-inclusive work environments or flexible schedules
- Provide professional development programs to support you and to develop career progression options



# Minerals Processing Operator

DO YOU WANT TO HELP CONTROL MINERAL AND METAL PROCESSING?

ARE YOU INTERESTED IN OPERATING A VARIETY OF EQUIPMENT?

DO YOU WANT TO USE CUTTING-EDGE TECHNOLOGY IN YOUR EVERYDAY WORK?

Minerals Processing Operators work as part of a team to perform an essential role in mining operations. If you would like to play a key part in understanding and controlling the processing of minerals and metals, then a career as a Minerals Processing Operator could be the one for you.

## Job Description

- Work in a team to help process the ore extracted from the ground and may load the finished product into railcars to ship to customers
- Monitor processes and equipment that upgrade ore to produce a marketable product like potash
- Operate equipment like bins, conveyors, chutes, pumps, valves, crushers, flotation cells, cyclones, thickeners, screeners, weigh scales, railcar movers and front-end loaders

## Compensation

Minerals Processing Operators are paid on an hourly basis. Depending on factors such as the location of the mine and the type of mineral or metal produced, pay ranges from \$24 to \$58 per hour (CostMine, 2014). In addition, Minerals Processing Operators often receive other benefits.

## Why are People Attracted to this Career?

In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

People drawn to the role of Minerals Processing Operators enjoy working in a team and playing a key part in the production process. They enjoy working with different kinds of equipment and with cutting-edge technologies.

## Job Prospects

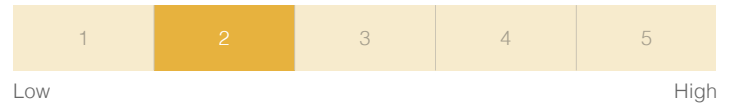
Each year, MiHR researches the needs of the mining industry to hire Minerals Processing Operators. Based on 2015's forecast, we are providing the following assessment of the Job Prospects in mining as well as an evaluation applicability of these skills in other sectors. Together, these measures will help future job seekers to make informed decisions about potential careers, based on the opportunities in the mining industry.

## Job Prospects in Mining



## Transferability

*Demand for these skills in other industries*



## What is it Like to Work as a Minerals Processing Operator in Mining?

*Note: conditions vary according to employer and region.*

As a Minerals Processing Operator, you may be exposed to challenging working conditions and may be required to work safely in confined spaces, at heights and near open holes. You must be willing and able to climb ladders and steel ramps.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Overtime is generally not required but you may have opportunities to work overtime in return for extra compensation.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

Many mines are situated in remote areas and require most employees to live in a mining camp. In these mines, employees usually work on a “fly-in, fly-out” schedule. When on-site, all of your living expenses would be covered, including meals. Trained chefs and kitchen staff generally prepare meals and some camps provide accommodations for dietary restrictions and preferences.

Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

### Success Profile

Common traits that successful Minerals Processing Operators share are:

- Ability to follow procedures (especially around potentially hazardous materials, equipment and machinery)
- Adaptable
- Embraces new techniques and technologies
- Enjoys hands-on work
- Enjoys working with math, science, computers and all things mechanical
- Have a deep level of respect for, and understanding of, safety procedures, regulations and legislation
- Methodical
- Patient and flexible

### Job Entry Requirements

*Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
High school diploma or equivalent	●			
Previous experience in a mill environment	●			
Physically fit and mobile	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to work in a diverse environment	●			
Proficiency in language of operation	●			
Depending on the type of mining, a bachelor's degree in metallurgical/chemical/mechanical engineering				●
Willingness to relocate				●
Other languages				●

- Strong communication skills (verbal)
- Strong problem-solving skills
- Strong risk management skills
- Strong time management skills
- Team player
- Willing to perform repetitive or routine tasks

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, on-site housing for couples, gender-inclusive work environments or flexible schedules
- Provide professional development programs to support you and to develop career progression options



# Mining Engineer

*DO YOU WANT TO USE THE LATEST INFORMATION TECHNOLOGY IN YOUR EVERYDAY WORK? WOULD YOU LIKE TO HELP PLAN, DESIGN AND BUILD NEW MINES? DO YOU WANT TO PLAY A KEY PART IN A MINE'S OVERALL SUCCESS?*

Mining Engineers work with other engineers and technologists in the development and construction of new mines and in the management of existing mines. If you are looking for a challenging career full of variety, then you might enjoy a career as a Mining Engineer.

## Job Description

- Conduct investigations of mineral deposits and undertake evaluations in collaboration with geologists, other earth scientists and economists to determine whether the mineral deposits can be mined profitably
- Prepare plans for mines, including tunnels and shafts for underground operations, and pits and haulage roads for open-cut operations, using computer-aided design packages
- Prepare the layout of the mine development and the way the minerals are to be mined
- Consult with Geologists and other engineers about the design, selection and provision of machines, facilities and systems for mining and infrastructure such as access roads, water and power supplies
- Oversee the construction of the mine and the installation of plant and equipment
- Provide trouble-shooting support to improve operational efficiencies
- Lead the implementation of cutting edge processes and safety practices
- Prepare tendering competitions, evaluate technical aspects of bids, supervise contractors, negotiate variations and remedial works, assure and control quality, measure work done, approve and accept works
- Lead or work on a team to ensure projects are completed to time and budget, and to high quality standards
- Write reports, attend meetings, exchange information with other professionals, record and store information in compliance with legislation, regulations and company policies
- Play a leading role in ensuring safety, improving operational efficiency and quality, controlling production costs and protection of the environment at all stages of a mine life cycle
- Work cooperatively with other departments, project managers, supply chain and mine management to optimize production, reduce costs, solve problems and meet deadlines
- Supervise Junior Engineers and Technicians and assist Supervisors in building an efficient work force
- Only licensed engineers authorize designs, calculations and drawings and are accountable on behalf of their employers

## Compensation

Mining Engineers are paid on an annual basis. Depending on factors such as the location of the mine and the type of mineral or metal produced, annual salaries range from \$70,000 - \$120,000 (CostMine, 2014). In addition, Mining Engineers often receive other benefits.

## Why are People Attracted to this Career?

In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as are the fixed on and off times or five day work, which allow for personal pursuits and professional development.

People drawn to the role of Mining Engineer tend to want challenging and rewarding technical work. With their strong analytical skills, they enjoy tackling a problem and testing different ways to solve it. They like the idea of working both independently and with a team, as well as the opportunity to work with new technologies.

## Job Prospects

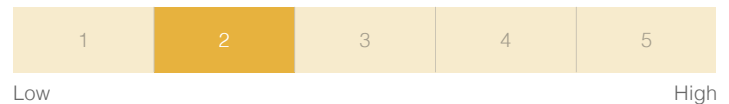
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## Job Prospects in Mining



## Transferability

*Demand for these skills in other industries*



## What is it Like to Work as a Mining Engineer in Mining?

*Note: conditions vary according to employer and region.*

As a Mining Engineer, you will probably be based in an office on (or near) the mine site, but will spend most of your time at the mine. You may be exposed to challenging working conditions and may be

required to work safely in confined spaces, at heights and near open holes. You must be willing and able to climb ladders and steel ramps on the surface and underground.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Overtime is generally not required but you may have opportunities to work overtime in return for extra compensation.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

Many mines are situated in remote areas and require most employees to live in a mining camp. In these mines, employees usually work on a “fly-in, fly-out” schedule. When on-site, all of your living expenses would be covered, including meals. Trained chefs and kitchen staff generally prepare meals and some camps provide accommodations for dietary restrictions and preferences. Many employees find they build strong bonds with their coworkers when living and working on-site.

Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

## Job Entry Requirements

*Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
Bachelor's degree in mining engineering	●			
Eligible for Registration as Engineer in Training	●			
Proficiency with word processing, spreadsheet and email software	●			
Specialized software skills	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to work in a diverse environment	●			
Proficiency in language of operation	●			
Professional Registration			P.Eng.	
Master's degree in mining engineering or related field				●
Willingness to relocate				●
Other languages				●

## Success Profile

Common traits that successful Mining Engineers share are:

- Ability to build trust and maintain positive relationships with a wide variety of personnel
- Ability to plan and work in a fast-paced, dynamic environment
- Ability to visualize three-dimensional layouts
- Embrace new techniques and technologies
- Have a deep level of respect for, and understanding of, safety procedures, regulations and legislation
- Intelligent, creative and goal-oriented
- Organized and a critical thinker
- Patient, flexible, adaptable and resilient
- Strong active listening skills
- Strong analytical, computer and planning skills
- Strong communication skills (verbal and written)
- Strong time management skills
- Takes initiative and demonstrates pride in work
- Team player
- Works well under pressure

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

## Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, on-site housing for couples, gender-inclusive work environments or flexible schedules
- Provide professional development programs to support you and to develop career progression options





# Process Superintendent

*ARE YOU A SUCCESSFUL PROCESS SUPERVISOR OR TEAM LEADER WITH EXPERIENCE WORKING IN THE MILL? CAN YOU MANAGE MULTIPLE TEAMS AND INCREASED RESPONSIBILITY? ARE YOU LOOKING TO TAKE THE NEXT STEP IN YOUR CAREER?*

Process Superintendents are part of the mine management team that runs mill operations, processing the mined material. If you are ready to manage several teams of people and want to be responsible for safety, environment, production volumes, quality and budgeting, then becoming a Process Superintendent could be right for you.

## Job Description

- Responsible for the safety, production, quality and budgets for their area of processing operations
- Work with Senior Managers, other Superintendents and their Process Supervisors to control processing machinery to convert the mined materials into saleable mine products
- Processing activities vary with the mineral being mined, but can include the separation of waste, washing, crushing, grinding, leaching, electrical, chemical or metal processing and packaging
- Responsible for all the people, equipment, tools and materials in their area
- Prepare and approve production plans, allocate work to their teams, oversee progress, solve problems, and take corrective action when required
- Prepare and negotiate budgets, and monitor spending
- Prepare reports and briefs on production, safety, environment, progress on projects, and other matters
- Lead and participate in meetings and briefings, both formal and informal
- Recruit, train and develop their employees, with support from Process Supervisors and Human Resources (HR) specialists
- Oversee the development of supervisors, providing support, encouragement, advice and guidance
- Work with the maintenance team to ensure optimum asset utilization
- Work with trade union(s), supervisors and HR department to avoid and resolve personnel issues and grievances
- Liaise with suppliers and consultants

## Compensation

Process Superintendents are paid on an annual basis. Depending on factors such as the location of the mine and the type of mineral or metal produced, annual salaries range from \$81,000 to \$164,000 (CostMine, 2014). In addition, Process Superintendents often receive other benefits.

## Why are People Attracted to this Career?

In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

The people who are attracted to working as a Process Superintendent are highly motivated to take on a senior position with increased responsibilities and challenging work, involving a mix of office and operational work. They are ambitious and appreciate the opportunity to work with new technologies and processes, and to develop their teams. They also like working with other senior managers and the broader perspective on the industry that comes with that collaboration.

## Job Prospects

Each year, MiHR researches the needs of the mining industry to hire Process Superintendents. Based on 2015's forecast, we are providing the following assessment of the Job Prospects in mining as well as an evaluation applicability of these skills in other sectors. Together, these measures will help future job seekers to make informed decisions about potential careers, based on the opportunities in the mining industry.

### Job Prospects in Mining



### Transferability

*Demand for these skills in other industries*



## What is it Like to Work as a Process Superintendent in Mining?

*Note: conditions vary according to employer and region.*

As a Process Superintendent you will be based in an office in (or near) the processing mill and you will spend most of your time in the mill. You will also attend and chair mill or mine management meetings.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might

have standard weekday working hours or shift work that involves evening and/or weekend work. Unpaid overtime may be required on occasion.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

Many mines are situated in remote areas and require most employees to live in a mining camp. In these mines, employees usually work on a “fly-in, fly-out” schedule. When on-site, all of your living expenses would be covered, including meals. Trained chefs and kitchen staff generally prepare meals and some camps provide accommodations for dietary restrictions and preferences.

Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

### Success Profile

Common traits that successful Process Superintendents share are:

- Ability to delegate work to achieve results
- Ability to earn and maintain respect by demonstrating credibility and integrity
- Ability to identify issues and solve problems with a positive attitude
- Ability to influence people at all levels
- Ability to make and implement difficult decisions, and communicate the reasons for them

### Job Entry Requirements

*Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
Post-secondary degree in engineering, mining or metallurgy	●			
Minimum of five years of relevant process experience, including several years as a Process Supervisor in mining	●			
Proficiency with word processing, spreadsheet and email software	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to lead in a diverse environment	●			
Proficiency in language of operation	●			
Bilingual French and English (Quebec and NB)		●		
Willingness to relocate				●
Other languages				●

- Cooperative
- Have a deep level of understanding and respect for legislation, regulations and procedures, concerning safety, employment and environmental protection
- Organized and a critical thinker
- Responsible and accountable
- Strong communication skills (verbal and written)
- Strong computer skills
- Strong interpersonal skills
- Team player
- Works well under pressure

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, on-site housing for couples, gender-inclusive work environments or flexible schedules
- Provide professional development programs to support you and to develop career progression options



# Process Supervisor

*DO YOU WANT TO OVERSEE THE PROCESSING OF MINERALS AND METALS EXTRACTED FROM A MINE? DO YOU LIKE KEEPING EQUIPMENT AND MACHINERY RUNNING SAFELY AND SMOOTHLY? ARE YOU READY TO LEAD A TEAM?*

Process Supervisors play a critical role in the mining industry. If you have the right experience, are decisive, want increased responsibility, work well under pressure, embrace change, and enjoy leading a team of people, then a career as a Process Supervisor could be right for you.

## Job Description

- Lead by example, and promote a culture of safety and environmental protection in the workplace
- Lead a team of process operators and other personnel controlling various processing machines and conveyor systems, in a mill (or plant) attached to a mine
- Processing activities can include the separation of waste, washing, crushing, grading, chemical or metal processing, and packaging
- Plan and organize work, distribute tasks to the team, oversee progress and monitor results - including quality - at each processing stage
- Build teams, motivate individuals and solve problems to achieve results
- Communicate well with senior managers, other supervisors and the team to promote and achieve to achieve overall objectives of the mine
- Develop employees by providing advice, encouragement and coaching
- Ensure that new and experienced workers are well-trained and have the skills and knowledge they need to do their jobs safely and effectively
- Complete shift production reports
- Liaise with maintenance, engineering and other functions
- Comply with legislation and regulations concerning safety, employment and protection of the environment
- Work with trade unions, if the mine is unionized

## Compensation

Process Supervisors are paid on an annual basis. Depending on factors such as the location of the mine and the type of mineral or metal produced, annual salaries range from \$97,000 - \$136,000 (CostMine, 2014). In addition, Process Supervisors often receive other benefits.

## Why are People Attracted to this Career?

In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

People who are attracted to the role of Process Supervisor are looking for challenging and responsible work that involves major processing equipment. They appreciate the opportunity to work with new technology and to contribute to the development of others.

## Job Prospects

Each year, MiHR researches the needs of the mining industry to hire Process Supervisors. Based on 2015's forecast, we are providing the following assessment of the Job Prospects in mining as well as an evaluation applicability of these skills in other sectors. Together, these measures will help future job seekers to make informed decisions about potential careers, based on the opportunities in the mining industry.

## Job Prospects in Mining



## Transferability

*Demand for these skills in other industries*



## What is it Like to Work as a Process Supervisor in Mining?

*Note: conditions vary according to employer and region.*

As a Process Supervisor, you will be based in an office in the mill (or plant) and will spend most of your time overseeing processing activities. You will probably have to wear personal protective clothing and equipment most of the time, but you will also be expected to participate in meetings with mine management and other stakeholders.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves

evening and/or weekend work. Unpaid overtime may be required on occasion.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

Many mines are situated in remote areas and require most employees to live in a mining camp. In these mines, employees usually work on a “fly-in, fly-out” schedule. When on-site, all of your living expenses would be covered, including meals. Trained chefs and kitchen staff generally prepare meals and some camps provide accommodations for dietary restrictions and preferences.

Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

### Success Profile

Common traits that successful Process Supervisors share are:

- Ability to earn and maintain respect by demonstrating credibility and integrity
- Ability to lead and influence people at all levels
- Ability to make and implement difficult decisions, and communicate the reasons for them
- Ability to overcome difficulties and solve problems with a positive attitude
- Ability to use a computer for administrative tasks
- Cooperative

### Job Entry Requirements

*Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
High school diploma or equivalent	●			
Minimum of two years of relevant experience in a mining environment or in a heavy process industry (e.g. oil and gas, petro-chemicals, steel, electricity generation)	●			
Knowledge of the mining or mineral processing industries	●			
Proficiency with word processing, spreadsheet and email software	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to lead in a diverse environment	●			
Proficiency in language of operation	●			
Bilingual French and English (Quebec and NB)		●		
A Journeyperson Trade Certificate, Red Seal certification, post-secondary technical diploma, or Engineering degree				●
Willingness to relocate				●

- Enjoys keeping equipment and machinery moving smoothly and safely
- Enjoys working with large equipment and machinery
- Have a deep level of understanding and respect for legislation, regulations and procedures concerning safety and environmental protection
- Reliable and responsible
- Some understanding of chemistry
- Strong communication skills (verbal and written)
- Well-organized and a critical thinker
- Works well under pressure
- Works well with others

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, on-site housing for couples, gender-inclusive work environments or flexible schedules
- Provide professional development programs to support you and to develop career progression options



# Project Manager

*CAN YOU MANAGE COMPLEX AND COMPETING RESPONSIBILITIES? DO YOU ENJOY THE CHALLENGE OF SOLVING PROBLEMS AND FINDING PRACTICAL SOLUTIONS? DO YOU LIKE TO PLAN AND EXECUTE PROJECTS?*

If you are an organized multi-tasker who enjoys dealing with comprehensive projects that go above and beyond the day-to-day mining operations, a career as a Project Manager may be the one for you.

## Job Description

- Manage projects to modify or add facilities and infrastructure, such as upgrading an air strip, building new accommodation, constructing a road, building new structures for the mill and opening up new sections of the mine
- Plan projects, for example: develop full scale project work plans and proper documentation and records including scope of work, schedule and budgetary requirements
- Select or source personnel with the required competencies to achieve project outcomes
- Track and control project cost, scope, schedule, and risk to deliver assigned projects within their approved scope, quality, budget, and schedule
- Coordinate between maintenance, engineering, operations and external contractors
- Develop and implement policies, standards and procedures as needed for the project
- Establish responsibility for, and manage, physical construction
- Liaise with department manager to gain necessary approvals and manage risk
- Evaluate the outcomes of the project as established during the planning phase

## Compensation

Project Managers are paid on an annual basis. Depending on factors such as the location of the mine and the type of mineral or metal produced, annual salaries range from \$130,000 - \$180,000 (CostMine, 2014). In addition, Project Managers often receive other benefits.

## Why are People Attracted to this Career?

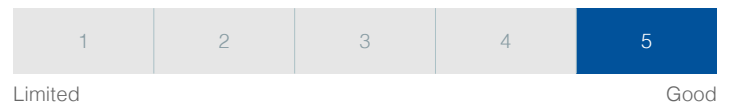
In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

The people that are drawn to work as a Project Manager enjoy the challenge of balancing engineering know-how with managerial processes. This role is also an excellent introduction to the mining industry for experienced candidates with an engineering background who are not yet registered as a Professional Engineer.

## Job Prospects

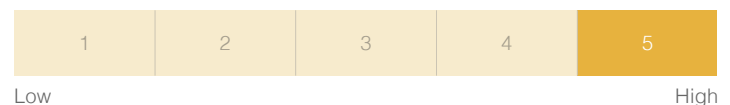
Each year, MiHR researches the needs of the mining industry to hire Project Managers. Based on 2015's forecast, we are providing the following assessment of the Job Prospects in mining as well as an evaluation applicability of these skills in other sectors. Together, these measures will help future job seekers to make informed decisions about potential careers, based on the opportunities in the mining industry.

### Job Prospects in Mining



### Transferability

*Demand for these skills in other industries*



## What is it Like to Work as a Project Manager in Mining?

*Note: conditions vary according to employer and region.*

As a Project Manager, you are likely to spend most of your time working in an office at the mine site. You will perform site visits to a variety of areas in the mine or mill, including surface and underground locations.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Overtime is generally not required but you may have opportunities to work overtime in return for extra compensation.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-

workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

Many mines are situated in remote areas and require most employees to live in a mining camp. In these mines, employees usually work on a “fly-in, fly-out” schedule. When on-site, all of your living expenses would be covered, including meals. Trained chefs and kitchen staff generally prepare meals and some camps provide accommodations for dietary restrictions and preferences.

Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

### Success Profile

Common traits that successful Project Managers share are:

- Ability to delegate work to achieve results
- Ability to identify issues and solve problems
- Ability to influence people at all levels
- Able to visualize completed projects
- Analytical
- Detail-oriented
- Goal-oriented

### Job Entry Requirements

*Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
A Bachelor's degree in Engineering (e.g. civil, mechanical, electrical, mine) or a related technical field, or equivalent experience	●			
A minimum of 10 years of experience in an engineering discipline, including supervisory experience	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to work in a diverse environment	●			
Proficiency in language of operation	●			
Professional Designation			P.Eng.	
Four to six years of experience in the mining sector			●	
Project Management Professional (PMP) training or certification			●	
Knowledge of construction regulations, standards and protocols			●	
Project management experience that includes contracts and administration, procurement, materials control and project accounting				●
Experience in estimating and cost control				●
Willingness to relocate				●
Other languages				●

- Knowledge of mining operations and mining equipment
- Strong communication skills (verbal and written)
- Strong management skills
- Strong multi-tasking skills
- Strong time management skills

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, on-site housing for couples, gender-inclusive work environments or flexible schedules
- Provide professional development programs to support you and to develop career progression options



# Mine Helper

*DO YOU WANT TO START YOUR CAREER IN MINING?*

*ARE YOU PHYSICALLY FIT, CAPABLE AND WILLING TO WORK WHERE NEEDED?*

*DO YOU LIKE HANDS-ON WORK AND HELPING OUT IN A TEAM?*

Mine Helpers provide valuable assistance and support in a team. If you want first-hand experience working in the mining industry, a job as a Mine Helper could open the door to a long and satisfying career.

## Job Description

- Assist mine production crews with various tasks
- Move tools, equipment and materials to and from work area
- Assist Miners with set up and operating of drills and other machinery
- Assist Heavy Equipment Operators to secure special attachments to equipment
- Signal various Operators to guide them in moving equipment
- Support blast crew by delivering supplies and carrying out delegated tasks
- Assist in basic maintenance tasks, such as refueling, lubricating and washing equipment and machinery
- Clean rooms, roadways, working areas, mine equipment and machinery, conveyances and clear blockages and spills
- Complete equipment inspection checks
- Write basic progress reports

## Compensation

Mine Helpers are paid on an hourly basis. Depending on factors such as the location of the mine and their skill level, pay ranges from \$16 - \$28 per hour (CostMine, 2014). In addition, Mine Helpers often receive other benefits.

## Why are People Attracted to this Career?

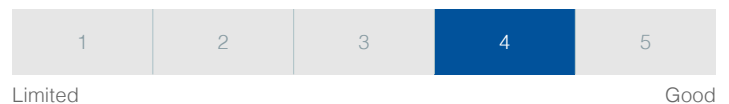
In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

People who want to work as a Mine Helper want to gain practical experience while earning a competitive wage. This entry-level position gives candidates the chance to prove that they are capable and committed, while also providing opportunities to train for jobs that require more experience or specific skills.

## Job Prospects

Each year, MiHR researches the needs of the mining industry to hire Mine Helpers. Based on 2015's forecast, we are providing the following assessment of the Job Prospects in mining as well as an evaluation applicability of these skills in other sectors. Together, these measures will help future job seekers to make informed decisions about potential careers, based on the opportunities in the mining industry.

## Job Prospects in Mining



## Transferability

*Demand for these skills in other industries*



## What is it Like to Work as a Mine Helper in Mining?

*Note: conditions vary according to employer and region.*

As a Mine Helper, you will be asked to help with a variety of tasks, which provides valuable experience and the opportunity to learn many new skills. As with any hands-on learning activity, your work will involve performing the same tasks repeatedly to the same standard. Many tasks will be physically demanding with prolonged periods of standing, bending, crouching or kneeling, and you will be required to lift up to 23 kg (50 lbs) (based on 2014 job research).

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Overtime is generally not required but you may have opportunities to work overtime in return for extra compensation.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

Many mines are situated in remote areas and require most employees to live in a mining camp. In these mines, employees

usually work on a “fly-in, fly-out” schedule. When on-site, all of your living expenses would be covered, including meals. Trained chefs and kitchen staff generally prepare meals and some camps provide accommodations for dietary restrictions and preferences.

Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

### Success Profile

Common traits that successful Mine Helpers share are:

- Ability to follow clear policies and processes
- Committed to safe work habits
- Enjoys hands-on work
- Mechanically inclined
- Positive attitude
- Willing to learn
- Willing to perform repetitive or routine tasks
- Works well with others

### Job Entry Requirements

*Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
Physically fit and mobile	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to work in a diverse workplace	●			
Proficiency in language of operation	●			
Provide own safety equipment (e.g. approved steel-toed boots)			●	
High school diploma or equivalent			●	
Demonstrated ability to work under minimal supervision			●	
Valid driver's licence (or eligible for a driver's licence) with few or no current infractions			●	
Undergo a criminal record check			●	
Knowledge of safe operation of hand tools				●
Some apprenticeship training or other experience				●
Experience in operation of light or heavy duty equipment				●
Experience cleaning complex mechanical equipment				●
Willingness to relocate				●
Other languages				●

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, on-site housing for couples, gender-inclusive work environments or flexible schedules
- Provide professional development programs to support you and to develop career progression options





# Surface Miner

*DO LIKE TO WORK INDEPENDENTLY WHILE BEING PART OF A TEAM? WOULD YOU LIKE TO HELP EXTRACT THE METALS AND MINERALS THAT SUPPORT MODERN LIFE? DO YOU WANT TO PLAY A KEY PART IN A MINE'S OVERALL SUCCESS?*

Surface Miners extract rocks and minerals from the ground. If you are looking for a challenging career at the front line of the mining industry, then you might enjoy a career as a Surface Miner.

### Job Description

- Extract rock and mineral from the ground
- Use state-of-the-art heavy equipment and machinery to blast and move rock containing the sought-after minerals and metals

### Compensation

Surface Miners are paid on an hourly basis. Depending on factors such as the location of the mine and the type of equipment operated, pay ranges from \$21 - \$36 per hour (CostMine, 2014). In addition, Surface Miners often receive other benefits.

### Why are People Attracted to this Career?

In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

People drawn to the role of Surface Miner tend like the idea of working both independently and within a team. They enjoy working sophisticated equipment and machinery, as well as new technologies.

### Job Prospects

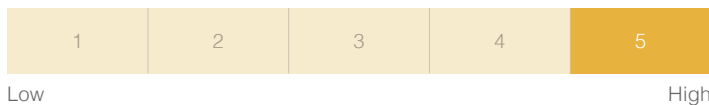
Each year, MiHR researches the needs of the mining industry to hire Surface Miners. Based on 2015's forecast, we are providing the following assessment of the Job Prospects in mining as well as an evaluation applicability of these skills in other sectors. Together, these measures will help future job seekers to make informed decisions about potential careers, based on the opportunities in the mining industry.

### Job Prospects in Mining



### Transferability

*Demand for these skills in other industries*



### What is it Like to Work as a Surface Miner in Mining?

*Note: conditions vary according to employer and region.*

As a Surface Miner, you will spend most of your time at the mine. You may be exposed to challenging working conditions and may be required to work safely in confined spaces, at heights and near open holes. You must be willing and able to climb ladders and steel ramps on the surface.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Overtime is generally not required but you may have opportunities to work overtime in return for extra compensation.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

Many mines are situated in remote areas and require most employees to live in a mining camp. In these mines, employees usually work on a "fly-in, fly-out" schedule. When on-site, all of your living expenses would be covered, including meals. Trained chefs and kitchen staff generally prepare meals and some camps provide accommodations for dietary restrictions and preferences.

Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

## Success Profile

Common traits that successful Surface Miners share are:

- Ability to follow procedures (especially with hazardous materials, equipment and machinery)
- Ability to visualize three-dimensional layouts
- Embraces new techniques and technologies
- Enjoys operating heavy equipment and machinery
- Have a deep level of understanding and respect for established safety procedures, legislation and regulations
- Methodical and enjoys hands-on work
- Patient, flexible and adaptable
- Resourceful and independent
- Strong problem solving skills
- Strong risk management skills
- Works well with others

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

## Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, on-site housing for couples, gender-inclusive work environments or flexible schedules
- Provide professional development programs to support you and to develop career progression options

## Job Entry Requirements

*Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
Physically fit and mobile	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to work in a diverse environment	●			
Proficiency in language of operation	●			
Apprenticeship training up to two years may be required as determined by the province/territory of employment		●		
High school diploma or equivalent			●	
Willingness to relocate				●
Other languages				●



# Training Coordinator

*ARE YOU WILLING TO HELP OTHERS REACH THEIR FULL POTENTIAL AT WORK?*

*DO YOU WANT TO HELP DEVELOP A STRONG MINING WORKFORCE?*

*DO YOU WANT TO BE PART OF A TEAM DEDICATED TO LEARNING?*

If you have experience developing and conducting training, then a career as Training Coordinator could be the one for you.

## Job Description

- Supervise and support trainers and liaise with subject matter experts to ensure quality delivery and outcomes
- Conduct high-level needs assessments for the organization, and identify skills and knowledge gaps
- Organize training delivery and manage training equipment
- Manage costs, training records, evaluation, reporting and follow-up
- Analyze existing training plans
- Provide feedback to participants and mine management
- Procure training programs from outside providers
- May manage and organize apprenticeship programs
- May design and develop new training programs
- May conduct ongoing training, assessment and task certification of equipment, operation, maintenance and administrative personnel

## Compensation

Training Coordinators are paid on an annual basis. Depending on factors such as the location of the mine and the type of mineral or metal produced, annual salaries range from \$60,000 to \$110,000 (CostMine, 2014). In addition, Training Coordinators often receive other benefits.

## Why are People Attracted to this Career?

In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

People who love to learn and to coach others enjoy the creative opportunities offered by a career as a Training Coordinator. With a large workforce to train in a vast array of roles, every day is full of rewarding work.

## What is it Like to Work as a Training Coordinator in Mining?

*Note: conditions vary according to employer and region.*

As a Training Coordinator, you will work closely with mine management to ensure that training programs align with the needs of the organization and comply with legal requirements. When developing training programs, you will collaborate with subject matter experts in all areas of mine operations. Most of your work will be conducted in an office and you will spend some time on-site working with operations.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Overtime is generally not required but you may have opportunities to work overtime in return for extra compensation.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

Many mines are situated in remote areas and require most employees to live in a mining camp. In these mines, employees usually work on a “fly-in, fly-out” schedule. When on-site, all of your living expenses would be covered, including meals. Trained chefs and kitchen staff generally prepare meals and some camps provide accommodations for dietary restrictions and preferences.

Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

## Success Profile

Common traits that successful Training Coordinators share are:

- Ability to develop knowledge, skills and abilities in others
- Ability to identify training requirements and needs
- Ability to influence people at all levels
- Enjoys coaching and mentoring others
- Knowledge of mine operations and mining equipment
- Resourceful
- Strong communication skills (verbal and written)
- Strong interpersonal skills
- Strong management skills
- Strong multi-tasking skills
- Strong time management skills

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, on-site housing for couples, gender-inclusive work environments or flexible schedules
- Provide professional development programs to support you and to develop career progression options

### Job Entry Requirements

*Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
Five to eight years of experience developing and delivering instruction or training programs	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to work in a diverse environment	●			
Proficiency in language of operation	●			
Work experience in the mining sector			●	
Post-secondary diploma or degree in a related field (e.g. training, adult education, instructional design and development, human resources management or communication)				●
Willingness to relocate				●
Other languages				●



# Underground Miner

*DO YOU WANT TO EXPLORE THE EARTH FROM THE INSIDE OUT? DO YOU WANT TO WORK WITH CUTTING-EDGE HEAVY EQUIPMENT AND MACHINERY? WOULD YOU LIKE TO HELP EXTRACT THE METALS AND MINERALS THAT SUPPORT MODERN LIFE? DO YOU WANT TO PLAY A KEY PART IN A MINE'S OVERALL SUCCESS?*

This is what mining is all about! If you want to work with a close-knit team at the front line of the mining industry, then a career as an Underground Miner could be the one for you.

## Job Description

- Work in a team to begin the process of extracting rock and mineral from the ground
- Use sophisticated equipment and machinery to drill, blast and move rock containing the sought-after minerals and metals
- Work closely with other Miners, Supervisors, Mine Captains, Mine Superintendents, Geologists and Mining Engineers to safely and efficiently move material from the mine face to the mineral processing plant (mill)

## Compensation

Underground Miners are paid on an hourly basis. Depending on factors such as the location of the mine and the type of equipment operated, pay ranges from \$21 - \$46 per hour (CostMine, 2014). In addition, Underground Miners often receive other benefits.

## Why are People Attracted to this Career?

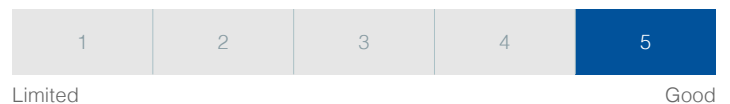
In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

People drawn to working as an Underground Miner tend like the idea of working both independently and within a team. They enjoy working sophisticated equipment and machinery, as well as new technologies.

## Job Prospects

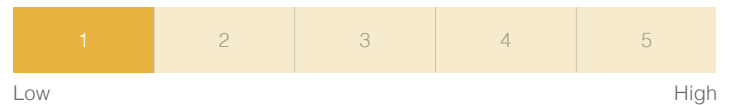
Each year, MiHR researches the needs of the mining industry to hire Underground Miners. Based on 2015's forecast, we are providing the following assessment of the Job Prospects in mining as well as an evaluation applicability of these skills in other sectors. Together, these measures will help future job seekers to make informed decisions about potential careers, based on the opportunities in the mining industry.

## Job Prospects in Mining



## Transferability

*Demand for these skills in other industries*



## What is it Like to Work as an Underground Miner?

*Note: conditions vary according to employer and region.*

As an Underground Miner, you will spend most of your time at the mine site. You may be exposed to challenging working conditions and may be required to work safely in confined spaces, at heights and near open holes. You must be willing and able to climb ladders and steel ramps on the surface and underground.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

Working hours vary considerably from mine to mine. You might have standard weekday working hours or shift work that involves evening and/or weekend work. Overtime is generally not required but you may have opportunities to work overtime in return for extra compensation.

Some mines are located near communities, which would enable you to live at home and commute to work. These mining communities tend to be close-knit, with strong friendships forming among co-workers and their families. Because these communities are often small towns, they provide wonderful opportunities for outdoor activities such as hunting, fishing, snowmobiling and hiking.

Many mines are situated in remote areas and require most employees to live in a mining camp. In these mines, employees usually work on a “fly-in, fly-out” schedule. When on-site, all of your living expenses would be covered, including meals. Trained chefs and kitchen staff generally prepare meals and some camps provide accommodations for dietary restrictions and preferences.

Some camps are fairly basic, while others are well-equipped with gym, recreation, and internet facilities. Many camps provide a variety of training courses including language, yoga and First Aid. Fishing and hiking may or may not be permitted, depending on local regulations, licence requirements, and environmental considerations. Firearms are not permitted in mining camps.

### Success Profile

Common traits that successful Underground Miners share are:

- Ability to follow procedures (especially with hazardous materials, equipment and machinery)
- Ability to operate large equipment and machinery
- Ability to visualize three-dimensional layouts
- Ability to work in dark, enclosed spaces for long periods
- Embraces new techniques and technologies
- Enjoys hands-on work
- Have a deep level of understanding and respect for established safety procedures, regulations and procedures
- Methodical

### Job Entry Requirements

*Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
Physically fit and mobile	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to work in a diverse environment	●			
Proficiency in language of operation	●			
Apprenticeship training up to two years may be required as determined by the province/territory of employment		●		
High school diploma or equivalent			●	
Willingness to relocate				●
Other languages				●

- Patient, flexible, adaptable and
- Strong risk management skills
- Works well with others

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

- Offer job placements, training and mentoring
- Welcome applicants with experience in other industries and countries
- Have incentives to attract women and Aboriginal peoples to mining education, training and employment
- Offer parental leave, on-site housing for couples, gender-inclusive work environments or flexible schedules
- Provide professional development programs to support you and to develop career progression options



# Welder

*DO YOU ENJOY WORKING WITH METAL?*

*DOES TECHNICAL WORK AND COMPUTER PROGRAMMABLE MACHINERY INTEREST YOU?*

*DO YOU LIKE PRECISE AND HANDS-ON WORK?*

Welders construct or repair metal products by joining parts using a variety of techniques. If you are patient and like the idea of using heat and pressure to carefully join pieces of metal, you may enjoy working as a Welder.

## Job Description

- Read, interpret and follow drawings and blueprints for direction on every project
- Clean and prepare metal surfaces for welding, cutting, gouging, beveling, grinding or filing
- Shape and bend piping and metal sections by using hand tools, machines or by heating and hammering
- Measure and align parts for joining, using hand tools and measuring equipment
- Join metal sections using various welding, precision and bolting techniques
- Examine welds for bead width, appearance and penetration
- Smooth welds by grinding, chiseling and filing
- Clean, file, acid bathe and polish finished products
- Fit attachments, connect hoses to gas tanks and other components
- Repair worn parts of metal products

## Compensation

Welders are paid on an hourly basis. Depending on factors such as the location of the mine and the type of mineral or metal produced, pay ranges from \$17 to \$58 per hour (CostMine, 2014). In addition, Welders often receive other benefits, which sometimes include a tool allowance. Welder Apprentices are typically paid a percentage of the full wage beginning at 75% and increasing with experience.

## Why are People Attracted to this Career?

In general, people are drawn to a career in the mining industry for the rewarding work, as well as the opportunity to apply their skills in the workplace. The compensation is attractive as is the structured work schedule which allows for personal pursuits and professional development.

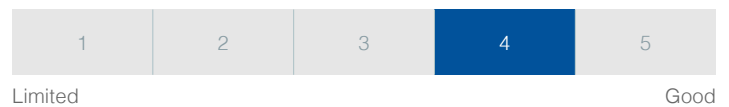
Welding is a hands-on occupation and offers a never-ending supply of challenges and opportunities. Every day, Welders tackle new projects that require different problem-solving skills. Some are drawn to the artistic side of welding and enjoy fine-tuning their technique with every project they take on.

## Job Prospects

Each year, MiHR researches the needs of the mining industry to hire Welders. Based on 2015's forecast, we are providing the following assessment of the Job Prospects in mining as well as an evaluation

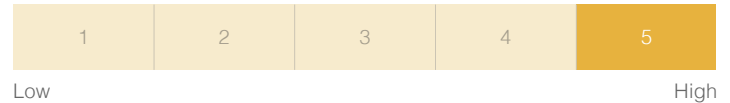
applicability of these skills in other sectors. Together, these measures will help future job seekers to make informed decisions about potential careers, based on the opportunities in the mining industry.

## Job Prospects in Mining



## Transferability

*Demand for these skills in other industries*



## What is it Like to Work as a Welder in Mining?

*Note: conditions vary according to employer and region.*

As a Welder in the mining industry, you can expect to work on equipment ranging from light or service vehicles to large crushers. You will generally be part of the mine's Maintenance Department. Some of your work may be performed in the maintenance shop, and some will be done at the work site. Your work could include the construction of new structures, repairs to existing ones, and repairs or modifications to equipment and machinery. As a Welder, you will often be required to work in confined spaces, lift heavy pieces of metal, and endure long periods of standing, squatting and kneeling, while performing repetitive activities.

Safety is the top priority in the mining industry and employers take every precaution to create a safe workplace. All mine employees observe strict health and safety rules and wear personal protective equipment (e.g. safety glasses, respirator, steel-toed boots, hard hats, ear protection, etc.). This equipment also reduces the risks that come with exposure to various environmental conditions, extreme temperatures and hazards.

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### Success Profile

Common traits that successful Welders share are:

- Ability to build and maintain a positive relationship with supervisors
- Ability to read and follow blueprints, graphs, charts and plans
- Ability to stay focused
- Committed to safe work habits
- Dependable
- Detail-oriented
- Embraces new technology
- Excellent manual dexterity
- Patient
- Strong communication skills (verbal)
- Strong concentration skills

### Job Entry Requirements

*Note: this table reflects what is required at the time of hire. The requirements listed below illustrate what it takes to start the career and does not take into account on-the-job training given to new employees.*

	Fixed Requirement	Regional Requirement	May be Required	Asset
Completion of a three to four-year apprenticeship program or relevant work experience	●			
Journeyman Trade Certificate as Welder (check the requirements for your province or territory)	●			
Good eyesight; contact lenses should not be worn	●			
Knowledge of Metallurgy	●			
Physically fit and mobile	●			
Ability to conduct complex tests	●			
Must be able to pass a medical test	●			
Must be able to pass a drug test	●			
Willingness to work in a diverse environment	●			
Proficiency in language of operation	●			
Red Seal certification as Welder			●	
Willingness to relocate				●
Other languages				●

- Strong decision-making skills
- Strong listening skills
- Strong math skills
- Takes initiative
- Willing to engage in continuous learning and skills development
- Works well in a team and independently
- Works well under pressure
- Works well with others

Many of these traits can be developed. If you are interested in following this career path, first determine your strengths and weaknesses, and set goals in order to develop the traits you need to succeed.

### Supporting You in Building a Career in Mining

Many employers want to help job seekers build a successful and fulfilling career. Here are some ways that the mining industry may support you:

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- Provide professional development programs to support you and to develop career progression options