

Canadian Mining Labour Trends – Executive Summary

Table of contents

1.	Introduction	p. 3	
2.	Key Trends	p. 6	
3.	Potential Actions	p. 16	3
4.	About Calross Consulting	p. 22	<u>)</u>
Αŗ	ppendix – 2023 Canadian Salary Benchmarks	p. 25	

1. Introduction

Context

It's no secret. For years mining and resource extraction has been a key driver of economic prosperity in Canada. But as the global context changes, the importance of Canada's mining sector has entered a new era.

The shift to cleaner energy sources is growing in importance and according to the World Bank, global production of critical minerals will need to increase 500 per cent by 2050 to meet global demand. Without these critical minerals, abundant in Canada, there will be no green energy transition.

At the same time the world looks to the mining sector to pave the way for a greener future, global instability is increasing, only elevating the importance of Canada's leadership position in the mining sector, as investors look to responsible jurisdictions to invest for the future.

Unfortunately for Canada, there are notable roadblocks reducing the industries ability to meet these global demands. Not least among them, an acute shortage of skilled workers.

In this report we will explore some of the key trends impacting the Canadian Mining Industry's workforce, from changing demographics, to industry perceptions that are reducing interest in the mining sector.

Finally, this report explores concrete measures some organizations are undertaking in order to meet these labour challenges head on and other potential actions the industry can explore to ensure that the mining sector can enjoy a sustainable and robust labour force, contributing to the vitality of the industry, the economy, and indeed, the environment.

Methodology

To produce this report, Calross Consulting has relied on primary research, in the form of one-on-one interviews with industry experts. Key stakeholders in the Mining industry, including Mining Executives, Human Resource Leaders, and Operational Experts were interviewed to gather their personal experiences and perspectives. It is from these insights that the majority of this report was produced. Calross Consulting would like to thank all interviewees for their participation and whose insights made this report possible.

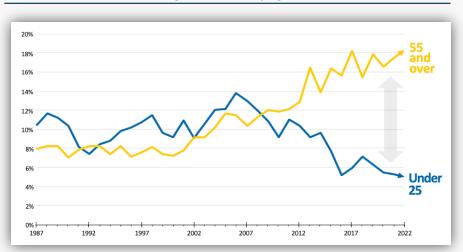
This report also relies heavily on publicly available data. Citations have been included when relevant.

2. Key Trends

The "Great Retirement" is here and the existing talent pipeline is not sufficient to fill future job vacancies

In the coming years the wave of retirements is expected to worsen; the consequences of which are expected to lead to a large loss of industrial expertise and reduced productivity





10%

The reduction in enrollment for mining and mineral-engineering in Canada between 2017-201

1 in 5

The share of mining workers over the age of 55, in 2022²

^{1.} MIHR, A review of Canada's postsecondary education pipeline for the mining sector, 2023.

^{2.} The Wall Street Journal, A dirty job that few want, 2023.

Labour shortages are preventing miners from hitting production targets

The impacts of talent shortages and a smaller labour force have been forseen for years; only recently have these effects been felt by mining organizations

Unfilled positions, absenteeism, and employee attrition are leading to reduction in production capacity, and at times, temporarily stopping production

As the most experienced employees retire, even organizations with a sufficient number of employees are seeing a reduction in production efficiency, due to a less experienced workforce

71%

The share of Mining Executives who say that talent shortages are holding them back from delivering on production targets¹

The rising cost of living has impacted mining workers and workers are reacting

Canada experienced record inflation in recent years, peaking at 8.1 per cent in June 2022. An increasing cost of living is impacting workers and how they interact with their employers:



Increased Salary Demands

Salary demands are increasing and are often well above historic industry benchmarks

Even more junior employees have high salary expectations that are often not reflective of their experience level



Strike Risk and Complex Negotiations

There is an increased willingness to engage in strikes and work stoppages

Compensation negotiations, even for non-unionized employees, have increased in complexity

Headhunting has increased leading to increased negotiations in order to retain existing talent



Reduced Employee Loyalty

Employee loyalty is at an all time low

Employees are more willing to move companies in search of better compensation

Mining professionals have demonstrated an increased willingness to relocate for better career prospects, both within the country and internationally

Work-life Balance, Workplace Flexibility, and Mental Health considerations are growing in priority for mining workers

Workers now demand a more comprehensive package of compensation, complete with better work-life balance, flexibility, and considerations for mental health; expectations of hybrid working models have become normalized and workers are asking for more flexibility, even in roles that have been traditionally viewed as incompatible with hybrid work

	What workers want	What employers are doing
Work-Life Balance	Worker are consistently asking for more vacation time and paid time off There is a declining willingness to work overtime	In general, employers remain reluctant to significantly increase paid time off, given an already tight labour market
Flexibility	Workers are demanding more flexibility regarding when they work, and where work is done, even in roles that have been traditionally viewed as incompatible with hybrid work	Structural changes to work (Ex. moving technical work off-site, when possible) Allowing more work from home and hybrid working environments Conducting non-critical tasks virtually (Ex. Safety training, Administration, etc.)
Mental Health	Mental health is a growing priority for workers, and was a key factor in resignations and increased absenteeism, particularly during the pandemic	More programming for mental health awareness and management Access to councilors, therapists and nurses (Ex. onsite therapists, reimbursements for services, etc.)

Mining companies are modernizing their recruitment strategies to fill vacancies and skill gaps

To cope with a tight labour market, miners continue to rely on traditional recruiting methods (job boards, job fairs, internal referrals, etc.), but are also modernizing their recruitment strategies:



Increasing use of recruitment agencies

Specialized recruitment agencies have grown in importance, particularly for high skilled roles (Geologists, Engineers, Metallurgists, Executives, etc.)



Recruiting outside of the mining industry

In order to access a broader labour pool, miners are more willing to recruit from different industries when possible

Multi-industry experience is considered more positively than in the past



Developing national and international recruitment strategies

While miners continue to prefer local talent, there is a growing willingness to recruit in other provinces, and even internationally, especially for more technical, high-skilled and senior roles

Mining companies are doubling down on internal training initiatives

Due to a tight labour market, employers are investing in existing talent more than ever and are formalizing internal training programs to fill skills gaps, improve retention, but also to demonstrate the value they accord to their employees.

Leadership Training	 Leadership training programs are becoming more common amongst mining companies Organizations are focusing on developing a diverse group of leaders for the future, with an emphasis on bringing more women into leadership roles
Cross-training	 More organizations are concentrating on developing formal cross-training programs and employees are encouraged to develop other skill sets to become more well rounded Mining organizations agree that internal investment into the workforce correlates with better productivity and better retention rates of employees
Mentorships	 Formal mentorship programs are being developed to ensure a transition of skills from experienced employees to junior employees. Mentorship programs are deemed as being particularly important as the most experienced employees begin retiring Mentorship programs are viewed as a tool to identify future leaders and as a succession planning strategy Mentorship programs are used as away to ensure company culture is transmitted effectively Some organizations are relying on more technologically oriented employees to mentor less technologically adept employees
Formalized Training Programs	 Mining companies are investing more in training programs in local communities, hoping to attract members of the local community and to develop local talent pools More mining companies are developing co-op training programs in partnership with educational institutions

Adaptability, Leadership and Technological Literacy are increasingly important for mining companies

Beyond technical skills, mining leaders are putting a value on workforce adaptability, technological knowledge, and leadership/communication skill



Adaptability

Labour shortages continue to lead to skills gaps, and miners are valuing employees who are willing and able to adapt their skill set

As mining processes shift, having an adaptable workforce will be critical to re-deploy existing talent



Technological Literacy

As mining becomes for automated, employees who are comfortable with technology are becoming increasingly important

As AI and technology continues to advance, more employees will be needed to survey this technology



Leadership and Communication

As competition to attract talent increases, skilled leaders who are able to develop a sense of belonging for their team will be critical for employee retention

48% of workers cited working with people they trust as being a key factor for staying in their role, while 51% cited lack of sense of belonging as being a key factor for leaving¹

ESG considerations are increasingly important in the hiring process

Rhetoric surrounding ESG initiatives is now being followed by concrete actions and candidates are now more likely to ask for an organization's decarbonization and ESG strategy before accepting a job offer

Organizations involved in the extraction of minerals critical for energy transition are finding it easier to attract talent compared to non-critical mineral producers (gold, diamonds, etc.)

Savvy organizations are now highlighting their ESG initiatives as a way to attract young professionals. (Ex. Highlighting mine reclamation activities, Aboriginal partnerships, etc.)

3/10

The share of employees who will look for a new role imminently if their employer does not improve its ESG policies¹ 50%

The proportion of young workers who researched an organization's corporate values before applying for a role¹

39%

The proportion of Millennials that would be willing to take a pay cut to work for an employer with an ESG strategy² 54%

The proportion of Millennials and Gen-Z that would be willing to relocate for a job with an employer that has an ESG strategy²

^{1.} Robert Half, How important is ESG to jobseekers?, 2022.

^{2.} Canadian HR Reporter, 1 in 3 millennials would take pay cut for employer with ESG Strategy, 2023.

Diversity in the workforce is no longer just a "nice to have"

As the labour market tightens, Mining companies understand that they are missing out on great employees and diversity in the workforce is now viewed as critical to ensure a robust talent pipeline

Organizations are making an effort to attract and provide more leadership training to women, as women have noted that they feel there are fewer advancement opportunities than there are for their male colleagues

- Women represent 17% of the Canadian mining workforce¹
- The drop-off from entry level to executive for females in mining is among the most dramatic across all industries²
- Involvement in recruiting, networking and development initiatives aimed at women is increasing (Women in Mining, Leadership programs directed at women, etc.)

The proximity of Aboriginal communities and a young population represent a local labour force opportunity for mining companies

- Partnerships with Aboriginal communities are being fostered
- Training and development programs are being offered to ensure Aboriginal youth can develop the skills required for mining, but also to be transferred in other sectors of the economy and community

Mining companies are increasing efforts to attract new Canadians, and to recognize and verify foreign credentials

^{1.} MIHR, Gender Report, 2016.

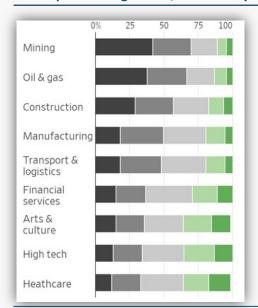
^{2.} McKinsey & Co., Why women are leaving the mining industry and what mining companies can do about it, 2022.

3. Potential Actions

Make mining cool again

The mining sector must demystify the industry and rebrand itself with young people so that mining is considered as a career option and the advantages of a career in mining are known. As one expert put it: "Young people want to work at Google, mining isn't even on their radar."

Respondents age 15-30, Sectors they would consider working in





70%

The share of respondents age 15-30 who said they definitely wouldn't or probably wouldn't work in mining¹

Top suggestions from industry experts

1. Educate young people about mining earlier in their education

• By the time young people reach post-secondary, their career choice is likely already made up

2. Mining needs to rebrand itself

- Mining suffers from a perception as being a "dirty industry" and needs to work to change this
- The role of critical minerals in the green energy transition needs to be demystified and highlighted to potential workers
- ESG plans need to be well constructed and marketed

3. Lean into what makes a career in mining unique

- Stability of working in a mine (an industry not as susceptible to lay-offs)
- The opportunity to work in remote areas and get out of traditional office work
- Competitive remuneration, Teamwork, etc.

^{1.} The Wall Street Journal, A dirty job that few want, 2023.

Double down on efforts to diversify the workforce

Beyond the implicit benefits of diversity in the workforce, with an acute shortage of talent miners need to amplify their efforts to diversify their workforces and attract previously untapped labour markets

1. Change the image of a male-dominated, macho industry to attract more women

• Continue to develop programs to attract, develop and retain female workers (Ex. Mentorship programs, networking, leadership training, etc.)

2. Develop programs to accommodate experienced employees who are not ready for retirement but do not want work fulltime

• Ex. Allow more experienced employees to work scaled back schedules and ease into retirement

3. Formalize foreign credential recognition processes and language learning support to access the new-Canadian workforce

- Immigrants represent just 13% of the mining industry workforce compared to 23% of the total Canadian workforce¹
- Over 25% of all immigrants (aged 25-64) with a foreign bachelor's degree or higher work in occupations requiring only a high-school diploma or less in 2021²

4. Rethink geographic communities from which to draw talent from

- Partner with local communities to develop local talent
- Look to other areas and provinces to develop talent hubs

^{1.} Mining Industry Human Resources Council, Canadian Mining Labour Market: 10-Year Outlook, 2020.

^{2.} The Globe and Mail, Canada's underemployed economic immigrants: How to stop wasting talent, 2023.

Start looking at talent as a key value driver

Traditionally mining organizations have viewed their workforces and talent pipelines as "just an HR problem"¹. While large investments are routinely made on optimizing production, addressing workforce challenges have rarely received the same level of urgency. Moving forward, talent must be viewed as a key value driver that will only become more critical as labour shortages continue and technology changes require new skillsets.

1. Invest in employer branding initiatives

• Understand what employees value (Ex. Well defined career progression pathways, up to date and relevant ESG plan, work-place culture, etc.)

2. Develop a long-term strategic plan with key objectives regarding workforce planning and update it regularly

- Determine planned attrition rates, future talent sources, and future skill requirements
- Incorporate data-driven analysis into workforce planning

3. Invest to fix persistent issues and to better accommodate employees

• Ex. Family friendly camp infrastructure, female accommodations, improved quality of rooms, social and recreational activities, etc.

4. Rethink roles and capabilities

- Can roles be structured differently to better accommodate skill sets?
- Can work be structured differently to better accommodate employees?
- Determine key skills demanded, and invest (Ex., AI, Technology, Leadership, etc.)

Take a more active role in training and upskilling the workforce

To cope with talent challenges, Miners will need to look to other industries to re-skill talent as well as develop more formalized internal training programs. A workforce's ability to adapt will be critical for success.

1. Look to other industries to fill skill gaps, such as Forestry, Oil and Gas, etc.

- Develop formal training programs to develop necessary skills in workers that came from other industries
- Leverage the relative stability and high compensation to attract talent from more cyclical industries (Forestry, Oil and Gas, etc.)

2. Develop an adaptable workforce and invest in cross-training

- As acute labour shortages continue and technology continues to advance an adaptable workforce will be critical to fill skills gaps
- Upskilling and cross-training will be critical and miners should continue investing in their employees
- Put a higher value on adaptability as a key competence when hiring

3. Look internally for future leaders and invest in developing them

- The majority of future mining leaders will come from within the organization, often with a technical background
- Managers lacking in leadership and communication training can have a negative impact on attrition rates
- 52% of employees who left a job in the past six moths cited "not feeling valued by their manager" as a key reason¹

The Mining industry needs collaborative effort to address labour challenges

Talent challenges across the mining sector are too large for any one company to tackle alone. Virtually every organization operating in the industry is being impacted. Experts agree that the industry needs collective effort to address chronic labour shortages.

Collaborative effort will be necessary to rebrand the industry and educate the population at large about the role critical minerals will play in a future energy transition. Highlighting the responsibility of the Canadian mineral sector compared to other jurisdictions will be critical.

Moreover, experts agree that when one company behaves badly the industry as a whole is impacted. Collective effort will be essential to attract and retain workers.

86%

The share of Mining Executives who say it is harder to recruit and retain talent, versus two years ago¹

80,000

The expected shortage of workers in the Canadian mining industry by 2030²

^{1.} McKinsey & Co., Has mining lost its luster? Why talent is moving elsewhere and how to bring them back, 2023.

^{2.} Financial Post, 'We have to do better' Why Canada's main mining lobby wants its members to get serious about workplace culture, 2022.

4. About Calross Consulting

What we do

Calross Consulting provides recruitment and consulting services, with a focus on the Mining and Metals Industry in Canada. Proudly based in Montréal, we work everywhere. Our three main service offerings include:



Recruitment

Partnering with miners to source the right talent, in a quick, simple and transparent process



Employer Branding

Helping mining organizations understand how they are perceived by job seekers, employees and key stakeholders

Developing objectives and action plans to improve their reputations, leading to better attraction and retention of their workforce



Strategic Workforce Solutions

Comprehensive strategies and approaches to effectively manage human capital in alignment with your business objectives

Our solutions are aimed at optimizing workforce planning, governance, talent acquisition, development, and retention

Your Consultant – Danny Parys



Prior to joining Calross, Danny worked in the world of Management Consulting, during which he completed multiple projects (Strategy Plans, Feasibility Studies, Business Valuations, Growth plans, etc.) for numerous companies, with a focus on the mining and metals, manufacturing and technology sectors.

He brings with him a strong capacity for analysis, and an ability to quickly identify the unique needs of his clients, ensuring the delivery of creative and efficient services.

Danny has a contributed to numerous publications, having written articles for organizations such as: The Canadian Mining Journal, Les Affaires, CTV Montréal and the Winnipeg Sun.

Danny holds a BA (Adv.) in Economics from the University of Manitoba and an MBA from HEC Montréal. He is fluent in English, French and Spanish.

Appendix – 2023 Canadian Salary Benchmarks

2023 Canadian Salary Benchmarks

Metallurgy / Processing

Job Title	National Average
Mill Manager / Process Manager	150-225
Chief Metallurgist	140-180
Mill Superintendent	140-180
Senior Process Engineer	120-135
Process Engineer	90-110
Senior Metallurgist	110-130
Metallurgist	90-110
Junior Metallurgist	75-90

Technical Services

Job Title	National Average
Manager, Technical Services	155-210
Superintendent, Technical Services	120-170
Engineering Manager	165-200
Chief Engineer	130-160
Senior Mine Engineer	115-135
Mine Engineer	90-120
Mine Technician	55-85
Ventilation Engineer	90-135

^{1.} Hays Canada, 2023 Canada Salary Guide, 2023.

2023 Canadian Salary Benchmarks

Mine Maintenance

Job Title	National Average
Maintenance Manager	150-225
Maintenance Superintendent	140-180
Maintenance Planner	90-140
Maintenance Foreperson	110-120
Senior Mechanical Engineer	110-140
Mechanical Engineer	80-120
Senior Electrical Engineer	110-140
Electrical Engineer	80-120

Mine Operations

Job Title	National Average
General Manager	155-275
Mine Manager	150-220
Mine or U/G Superintendent	140-180
Mine or U/G Foreperson	100-120

^{1.} Hays Canada, 2023 Canada Salary Guide, 2023.

2023 Canadian Salary Benchmarks

Geology

Job Title	National Average
Exploration Manager	140-180
Chief Geologist	125-160
Senior Exploration Geologist	90-120
Exploration Geologist	70-100
Project Geologist	70-100
Geology Superintendent	100-140
Senior Resource Geologist	90-130
Senior Mine Geologist	110-140
Mine Geologist	75-100

Head Office

Job Title	National Average
President / Chief Executive Officer	250-600
Chief Operating Officer	200-400
Senior Investor Relations	120-200
Vice President Exploration	150-250
Continuous Improvement Manager	140-210

^{1.} Hays Canada, 2023 Canada Salary Guide, 2023.

Any questions?

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