



Saskatchewan's Mining Labour Market at a Crossroads

The mining industry in Saskatchewan, Canada, is critical to the province's economy, contributing significantly to employment, GDP, and the global supply of critical minerals such as uranium and potash, essential for clean energy and agricultural production. The sector is experiencing a dynamic period of growth and transformation, fueled by the rising global demand for critical minerals. While these minerals place the province in a robust economic position, the mining sector faces a crucial challenge: labour shortages. Sustaining the workforce required to meet future growth demands a thorough understanding of the current situation, the opportunities and market challenges that may lie ahead, and the ability to plan strategically for the future. The Saskatchewan Mining Association (SMA), in partnership with the Mining Industry Human Resource Council (MiHR) – the national sector council for Canada's mining sector, undertook a comprehensive Saskatchewan Mining Labour Market Analysis (SMLMA) to scrutinize the current state, model future needs over the upcoming decade, find ways to address gaps and take advantage of opportunities. Eleven SMA member companies involved in production, or near-

term production, participated in the survey, including Nutrien, The Mosaic Company, K+S Potash Canada, Cameco Corporation, Orano Canada, SSR Mining, Westmoreland Mining, BHP, Foran Mining, Denison Mines and NexGen Energy Ltd.

The SMLMA analysis aligns with the Government of Saskatchewan's Labour Market Strategy. The government's strategy demonstrates their understanding that as the mining industry evolves, it's essential to look to the future to ensure the province has the workforce needed to meet employer demand. "the Government of Saskatchewan's Labour Market Strategy is a three-point plan to ensure Saskatchewan residents have every opportunity to participate in the growing economy, including a strong emphasis on removing barriers; ensure that workers who have earned credentials outside of Saskatchewan can have them recognized to work in the occupation for which they have been trained; and support employers with international recruitment to fill additional workforce needs," says Richelle Bourgoïn, Deputy Minister, Ministry of Immigration and Career Training (ICT).

Addressing the government's collaboration with the mining industry, Bourgoïn adds, "We have invested \$100,000

in a partnership with the Saskatchewan Mining Association to build and promote awareness for mining and exploration careers with classroom and online teaching resources for students."

LABOUR DEMAND AND SUPPLY PROJECTIONS

Pam Schwann, SMA President, explains that a rapidly changing commodity market prompted the need for this study. "Our members identified the labour shortage as a business risk. It wasn't until 2021-22, with the sudden increase in potash and uranium prices, that labour market pressures became a critical concern for our members." SMA partnered with MiHR, offering national expertise in labour market analysis and forecasts specifically for the mining sector. "This was the fourth Saskatchewan Mining Labour Market Study that SMA has partnered with MiHR over the past 16 years". MiHR collected detailed data from SMA members on their current workforce to understand their current demographics, as well as additional information, including place of residence and years of service. This was supplemented by data from StatsCan and MiHR's prior studies.

Driven by the growing global demand for Saskatchewan minerals, the SMLMA

modelled that the Saskatchewan mining sector is expected to experience strong labour demand over the next decade. The baseline forecast predicts a 35% increase in mining employment from 11,043 workers in 2023 to 14,892 by 2034.

However, while demand is surging, the province faces challenges in ensuring an adequate labour supply. By 2034, the Saskatchewan mining workforce is expected to grow, but the increase in supply will not be sufficient to meet demand. The total labour supply is projected to rise by 19%, from 597,494 in 2023 to 708,435 in 2034. However, only 2% of the provincial labour force is projected to be absorbed by the mining sector, leading to a shortfall of local talent.

The SMLMA further highlights the growing labour gaps in Saskatchewan's mining industry. By 2034, ten prevalent (50% of the mining workforce) and ten critical (10%) mining occupations identified in the report (see related tables) will face significant shortages. For example, the demand for underground miners is expected to outstrip supply, creating a shortfall of 530 workers by 2034. Other occupations facing severe gaps include construction millwrights, heavy equipment operators, industrial electricians, and welders. The cumulative workforce deficit across all occupations will be around 4,556 workers, indicating a substantial reliance on external labour or a need for enhanced workforce development initiatives within the province.

FACTORS HINDERING LABOUR MARKET SUSTAINABILITY

Five key factors are contributing to the unsustainability of Saskatchewan's mining labour market, according to the report:

Dependence on Labour Mobility:

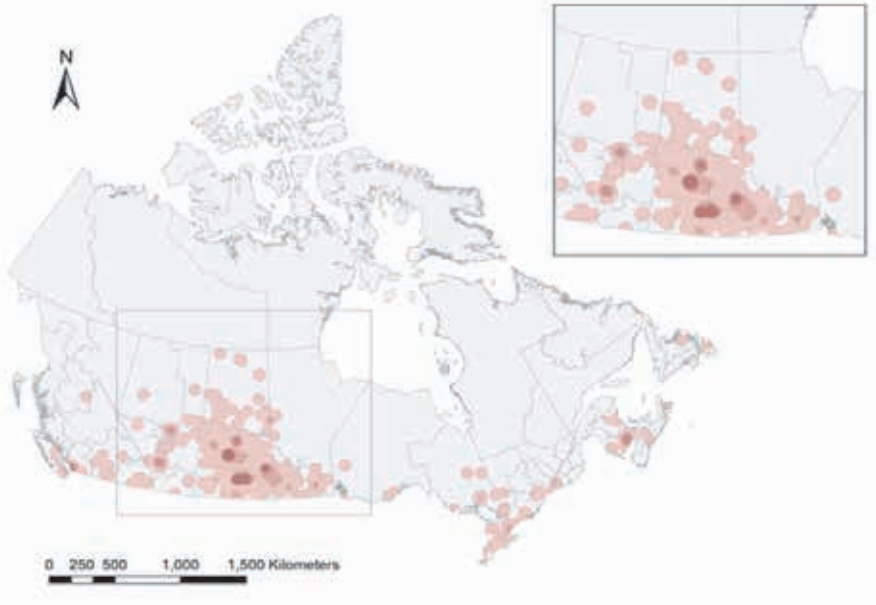
The mining sector relies heavily on out-of-province workers, with 15% of the workforce residing outside Saskatchewan. Without interventions, this could rise to 25%, increasing vulnerability to external disruptions and limiting local labour availability.

Aging Workforce: The workforce is aging, with many nearing retirement. The share of mining workers aged 55 years and older is growing, while only 12% of new workers are under 30. The talent pool is simply too small to meet retirees' replacement and increased demand.

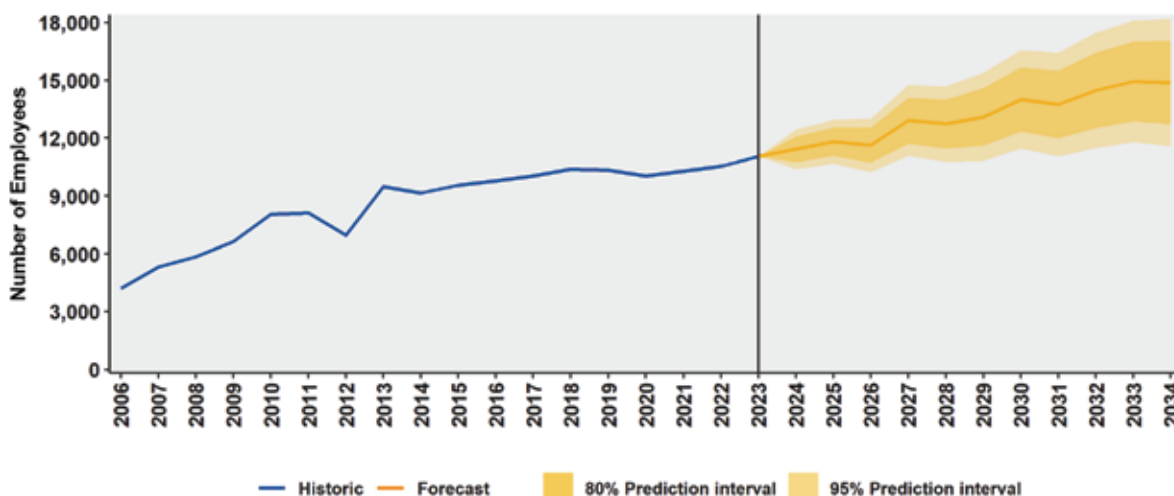
Age Breakdown of Saskatchewan's Mining Workforce (2023)

Age Category	Count	%
18 to 24 years	342	4%
25 to 29 years	708	8%
30 to 34 years	1,238	14%
35 to 39 years	1,555	17%
40 to 44 years	1,595	18%
45 to 49 years	1,232	14%
50 to 54 years	933	10%
55 to 59 years	701	8%
60 to 64 years	579	6%
65 + years	130	1%
No Data	2	0%
Total	9,015	100%

Geographic Distribution of Saskatchewan's Mining Workforce Across Canada (2023)



Historic (2006 – 2023) and Forecasted (2024 – 2034) Employment for Saskatchewan's Mining Sector



Underperformance in Diversity:

While Indigenous participation is improving, women and immigrants remain underrepresented. Women account for 11% of the mining workforce and immigrants 8%, compared to 47% and 20%, respectively, in other sectors. Increasing diversity is crucial to sustaining the labour force.

Shallow Occupational Labour Pools:

Occupations crucial to mining operations, like industrial electricians and industrial millwrights, suffer from shallow labour pools. These pools will quickly be exhausted if the industry does not expand training programs and attract new talent. Out of 700,000 in Saskatchewan's labour force, only 25,000 work in the ten most prevalent mining occupations, with just 6,000 directly employed in mining. Competition with other industries makes these roles hard to fill.

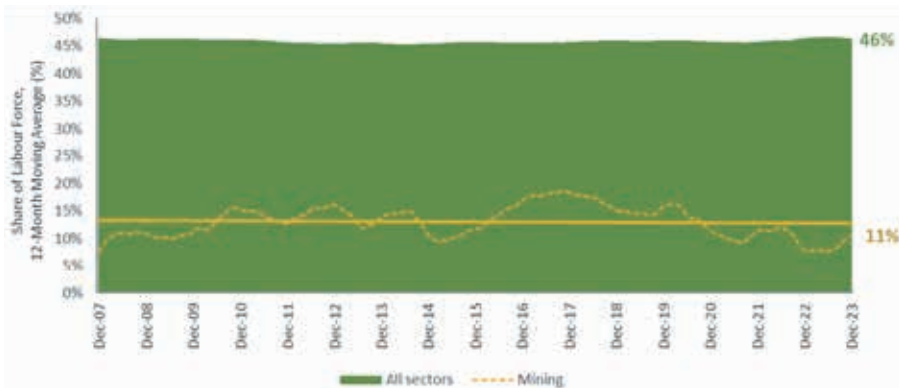
Lack of Alignment in Occupational Choices:

Many workers are choosing occupations that are not aligned with the needs of the mining sector. This misalignment creates a bottleneck in the supply of skilled workers needed for critical mining occupations.

ADDRESSING CRITICAL GAPS TOWARD LABOUR SUSTAINABILITY

To address these challenges, SMA has proposed several strategies. Key recommendations include improving career awareness, particularly among women, Indigenous groups, and newcomers.

Women's Representation in Saskatchewan's Labour Force in All Sectors and Mining Sector, 12-Month Moving Average (Dec 2007 – Dec 2023)



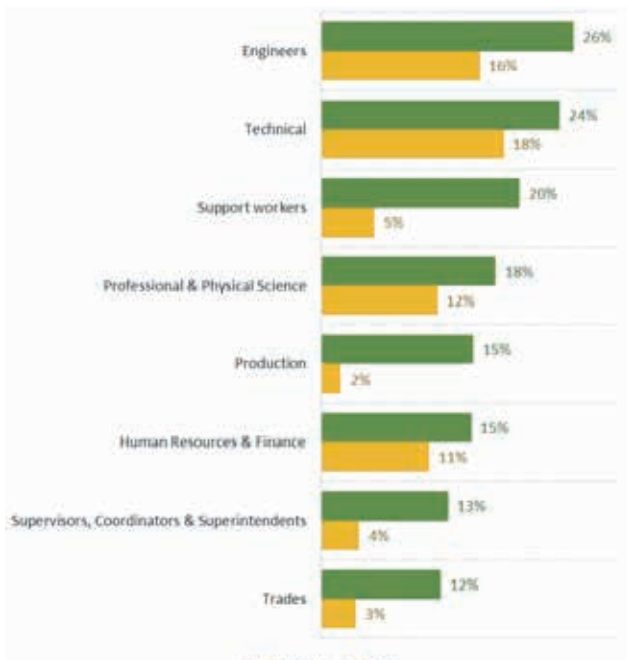
Another recommendation is enhancing collaboration with post-secondary institutions to align training programs with the mining industry's needs. Schwann highlights the ongoing work to attract these groups: "There is significant room for improvement, particularly in attracting underrepresented groups into trades and production roles and promoting more inclusive workplace cultures. We are developing targeted educational programs and efforts to promote careers in mining to these demographics as their participation will be essential for closing the labour gaps."

The report also calls for innovative solutions to address the occupational labour pool limitations, which are significantly challenging the sector's growth. As Schwann

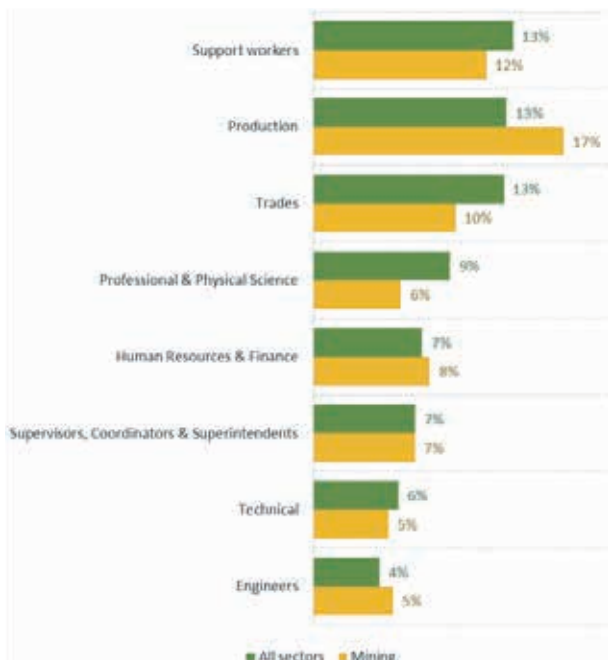
further states, "If we are going to meet the future labour demands of Saskatchewan's mining sector, we need to work together to grow the pool of talent across the diverse communities of Saskatchewan and attract these people into the many rewarding careers offered in mining."

Industry members are being proactive. SSR Mining's Seabee Gold Operation in Northern Saskatchewan exemplifies efforts to address labour shortages through community involvement and strategic workforce development. In addition to their dedicated recruitment position, they have integrated an applicant tracking system, which includes a public engagement tracking component to monitor career fairs, educational institutions' in-classroom

Immigrant Representation in Saskatchewan's Labour Force by Broad Occupational Categories in All Sectors and Mining Sector (2021)



Indigenous People's Representation in Saskatchewan's Labour Force by Broad Occupational Categories in All Sectors and Mining Sector (2021)



presentation opportunities, internships and co-op programs' intakes and more. Glenn Lafleur, the company's Senior Community Relations Liaison, describes their multifaceted approach to engaging with local northern communities in decision-making to address employment and social concerns and invest in workforce development. "We've established various programs, such as our in-house apprenticeship training open to all employees, in which we encourage Northerners and Indigenous people to participate. We also have a driller assistant training program tailored for Lac La Ronge and Peter Ballantyne Band members. We understand the importance of involving traditional land users in our operations, so we have agreements and committees that include representatives from SSR Mining and local Indigenous groups," says Lafleur.

Beyond workforce development, SSR Mining also focuses on long-term northern sustainability by encouraging regional economic diversification. "We meet quarterly with Northern Economic Development Groups to discuss opportunities for their staff training and businesses to grow beyond the mining sector, ensuring their survival even during potential industry downturns. We help develop a local workforce to meet our current and future needs and who can also use their skills elsewhere," Lafleur explains.

Similarly, BHP is addressing workforce gaps through the establishment of the BHP Potash Academy in collaboration with Carlton Trail College. This initiative provides foundational and advanced training in mining, tailored to equip individuals for operational roles at their



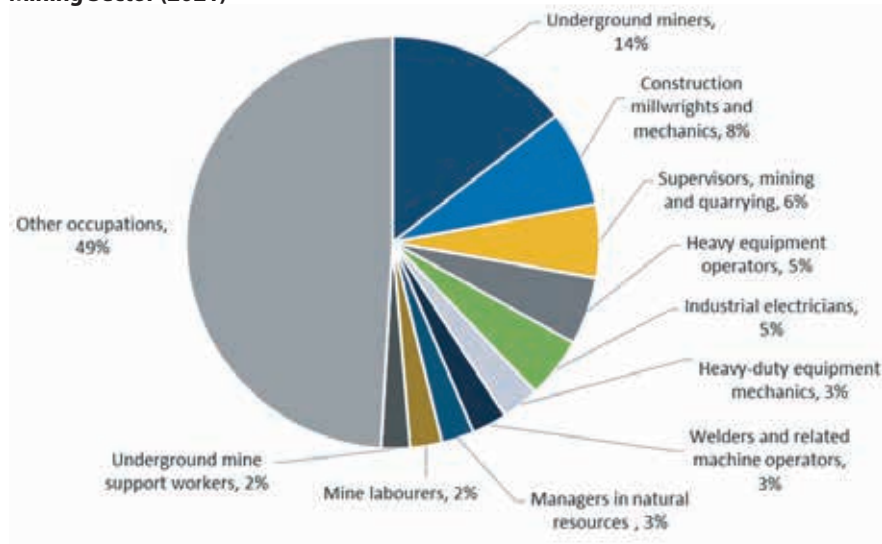
Jansen potash mine project. In 2023 alone, BHP helped support over 40 trainees, focusing on increasing the representation of Indigenous and rural community members in their workforce. The program offers hands-on training in technical and operational skills, such as mine safety, equipment maintenance, and automation technologies, ensuring that graduates are ready for the workforce upon completion.

BHP's initiatives don't just stop at Carlton Trail College. They are working closely with local Indigenous communities to offer tailored training pathways, providing opportunities for skills development and long-term employment. This partnership approach ensures that underrepresented groups have better access to employment opportunities in the mining sector, helping address talent shortages and supporting workforce diversity. In addition, BHP has committed to creating apprenticeships

and traineeship programs for technical roles, which help bridge the gap between traditional education and the hands-on experience required in mining. These initiatives align with the company's long-term strategy to build a sustainable workforce that is adaptable to technological advancements in the industry.

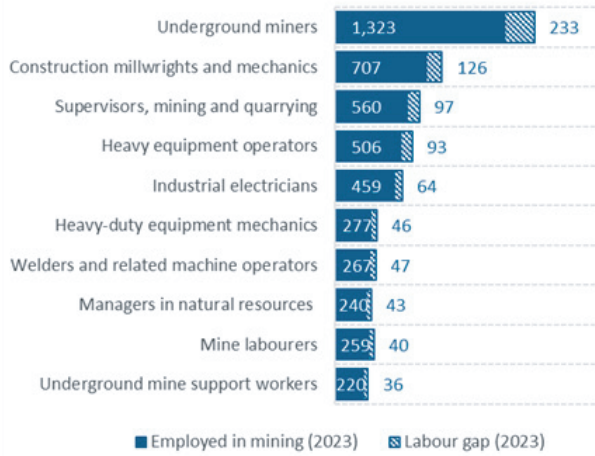
Technological advancements, including AI and automation, are also reshaping the mining landscape, with companies ensuring their workforce can adapt. Nutrien has been a leader in integrating automation and AI to improve operations at its potash mines. At their Lanigan site, tele-remote technology allows operators to control equipment from a centralized location, enhancing operational efficiency and safety by reducing the number of workers needed in potentially hazardous underground environments. In addition to tele-remote systems, Nutrien is also exploring AI-driven predictive maintenance technologies that minimize downtime and optimize production by forecasting equipment failures before they occur. The move towards automation doesn't mean a reduction in the workforce but rather a shift in the types of skills required. Although it reduces the need for some manual roles, it creates new opportunities in tech-focused positions such as remote equipment operators and AI specialists, which could help fill the critical labour gaps that Saskatchewan's mining industry faces. Nutrien has been proactive in reskilling its workforce, offering extensive training programs to prepare employees for working alongside advanced technologies. This includes courses in data analytics, remote equipment operations, and maintenance of automated systems. Such efforts align with the industry's larger goal of maintaining a skilled labour force capable of operating

Occupational Mix in Saskatchewan's Mining Sector (2021)



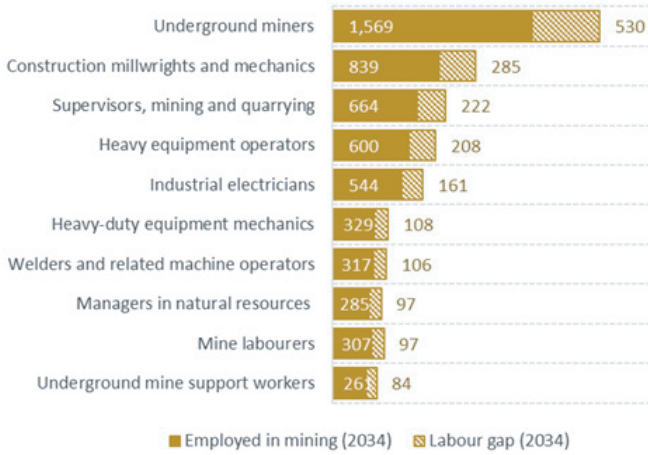
Current (2023) and Forecasted (2034) Labour Gaps for the 10 Most Prevalent Occupations in Saskatchewan's Mining Sector, Baseline Scenario

Current Labour Gaps (2023)



■ Employed in mining (2023) ■ Labour gap (2023)

Forecasted Labour Gaps (2034)



■ Employed in mining (2034) ■ Labour gap (2034)



Put the skill in skilled trades.

Build a certified workforce with apprenticeship training.

1-877-363-0536

saskapprenticeship.ca

Saskatchewan Apprenticeship and Trade Certification Commission



Developing and Supporting the Mining Workforce

The Government of Saskatchewan is focused on building a sustainable workforce by working with employers and Indigenous-led organizations. This collaboration works to align job training with the latest advancements in mining and critical minerals.

At the Ministry of Immigration and Career Training, our dedicated Indigenous and Northern Labour Market Services team supports employers and job seekers in northern Saskatchewan, aiming to boost business development and participation in the resource sector.

saskatchewan.ca

Saskatchewan

COVER

Current (2023) and Forecasted (2034) Labour Gaps for the 10 Most Prevalent Occupations in Saskatchewan’s Mining Sector, Baseline Scenario

Occupation	Employed in Mining (2023)	Labour Demand (2023)	Labour Gap (2023)	Employed in Mining (2034)	Labour Demand (2034)	Labour Gap (2034)
All Occupations	9,387	11,043	1,656	11,131	14,892	3,761
Underground miners	1,323	1,556	233	1,569	2,099	530
Construction millwrights and mechanics	707	833	126	839	1,124	285
Supervisors, mining and quarrying	560	657	97	664	886	222
Heavy equipment operators	506	599	93	600	808	208
Industrial electricians	459	523	64	544	706	161
Heavy-duty equipment mechanics	277	324	46	329	436	108
Welders and related machine operators	267	314	47	317	423	106
Managers in natural resources	240	283	43	285	381	97
Mine labourers	259	300	40	307	404	97
Underground mine support workers	220	256	36	261	345	84

Source: Mining Industry Human Resources Council, Saskatchewan Labour Market Analysis, 2024.

in increasingly technology-driven mining environments.

In the same vein, the electrification of the mining sector will be an essential response to green policies as diesel equipment is replaced by battery-operated equipment. Energy and water efficiency are also

areas where industry is being proactive in sustainability. The report indicates that environmental engineering and IT-related jobs are expected to be in higher demand.

Another significant player in Saskatchewan’s mining sector, Cameco Corporation, is also facing workforce

challenges, particularly in trades, engineering, and mining roles. Lynn McNally, Cameco’s Vice President of Human Resources, acknowledges that the mining sector is not immune to workforce shortages for these in-demand occupations. “Being proactive and strategic will be key in addressing the supply-demand gaps in the labour market,” says McNally.

Cameco has implemented various initiatives to invest in its workforce, for new and existing employees, to enhance their skills and knowledge. “We’re utilizing trainee, apprenticeship, and employee development programs, along with company-supported pre-employment training and third-party training companies. We also offer increased student experience programs, career transition initiatives, and in-house course offerings,” McNally explains.

One key initiative regarding training is Cameco’s partnership with post-secondary institutions in Saskatchewan, which helps foster student learning opportunities through work placements and internships. “We recently signed a Memorandum of Understanding (MOU) with SaskPower and Westinghouse, which includes plans to develop a Saskatchewan-based nuclear



CUSTOM MACHINE AND MECHANICAL SERVICES LTD.

Rotary Kiln and Dryer Alignment, Service and Parts



SERVICES OFFERED IN-HOUSE:

- Engineering; Machining; Welding; Mechanical
- Gear and spline cutting
- CNC Milling, Turning, Grinding
- Gear drive re-builds

ON-SITE SERVICES:

- Survey, inspection & Alignment for Two pier or Multi Pier rotary equipment
- Onsite resurfacing of Dryer Trunnions and Tires
- Hard Turning; Precision Machining of various Mill Rolls on site

www.custommachine.ca



COVER



supply chain and workforce. This collaboration is a step toward preparing the workforce for future needs in both mining and nuclear sectors,” McNally highlights.

Mining companies aren't alone in addressing the labour gaps. The provincial government is undertaking targeted labour recruitment initiatives in Saskatchewan, across Canada and worldwide to support Saskatchewan employers in acquiring the workforce they need to grow their business. ICT Deputy Minister Richelle Bourgoïn explains, “We emphasize in-demand occupations in recruitment efforts to attract skilled workers to address immediate and critical skills shortages. International recruitment also plays an essential role in filling critical vacancies in Saskatchewan’s labour market and contributes to Saskatchewan’s population growth.”

BALANCING GROWTH OPPORTUNITIES AND LABOUR MARKET CHALLENGES

Saskatchewan’s mining sector is at a crossroads, facing immense growth opportunities and significant labour market challenges. Through community engagement, workforce training, and a commitment to diversity and inclusion, companies like SSR Mining and Cameco are demonstrating the industry’s commitment to addressing these challenges. However, the path forward will require continued collaboration between industry, government, and educational institutions to build a labour market capable of sustaining the province’s future growth. With the support of key initiatives outlined by the Saskatchewan Mining Association, there is optimism that the sector can navigate these challenges and continue to thrive. “There are over 120 careers in mining; there’s something for everyone. Now is the time to invest in careers with a sustainable future,” Schwann concludes. 🌱

Read the complete Saskatchewan Mining Labour Market Analysis



Quality services for every stage of your mining project

As the world looks to secure access to the critical minerals vital for a low-carbon economy, the Saskatchewan Research Council (SRC) is supporting exploration and production operations with innovative technology development, demonstration and commercialization services.

From dedicated potash and uranium analytical laboratories to pilot-scale lithium processing facilities to our under-construction Rare Earth Processing Facility, our experts are at the forefront of developing new technologies and markets to help position Saskatchewan as one of the world’s leading mining jurisdictions.

- **Geoanalytical testing** and automated mineralogy
- **Minerals processing** testwork and piloting
- **Sensor-based sorting** characterization and piloting
- **Energy assessments**, including renewables



- **Closure** planning
- **Remediation** solutions
- **Plant performance** diagnostics and optimization
- **Air quality** monitoring



For more information, please visit
src.sk.ca/mining
workwithus@src.sk.ca

COVER