# DIGITAL MAGAZINE JA POTASHWORKS COMPANION

# **2025** ISSUE 2



K+S Potash Canada and Bantrel announce partnership for Bethune ramp-up

Nutrien's billion-dollar playbook: Procurement, sites, and suppliers reshaping Indigenous supply chain

Port of Vancouver: A critical hub supporting world potash trade

Subscribe for free at potashworks.com





www.standardmachine.ca

HIGH QUALITY NEW GEARBOX DESIGNS

# Mining Applications for Mine or Plant

Standard Machine designs and manufactures high quality gearboxes for all mining applications. From design concept to manufacture, whatever your critical equipment needs are we have the engineering experience and know how to get your equipment up and running.

The Timken Power Systems team applies their know-how to improve the reliability and performance of machinery in diverse markets worldwide. The company designs, makes and markets mechanical components, including bearings, gears and related mechanical power transmission products and services.





Standard Machine 868-60 St. Saskatoon, SK S7K 8G8 Phone 306-931-3343 Inquiries - customerservice@standardmachine.ca Website - www.standardmachine.ca



# IN THIS ISSUE

Message from the editor, Shayna Wiwierski – **6** 

Message from the Minister of Energy and Resources, The Honourable Colleen Young – **8** 

Let's get ready to rumble: Potash producers look to growth markets in East of Suez – **10** 

Introducing the Diamond Edge™ Conveyor Belt – **14** 

Port of Vancouver, a critical hub supporting world potash trade – **16** 

A passion for innovation: Hackathon sparks student-driven solutions for potash and mining sector – **20** 

Nutrien's billion-dollar playbook:
Procurement, sites, and suppliers
reshaping Indigenous supply chain – **24** 

K+S Potash Canada and Bantrel announce partnership for Bethune ramp-up – **26** 

Improving measurement of clay and other parameters in process flows using online automation – **28** 

Set up. Shift in. Dig deep: How rapid-deploy buildings are changing mine startup timelines – **30** 

The shape she gave the basin:
A tribute to Margaret "Anne" Fuzesy – **32** 

Support recovery and resilience with enhanced physiotherapy and paramedical benefits – **34** 

Air booster rebuilds: New life for your booster on today's tight budgets- **36** 

Legacy in motion: How CAB® is building the future of hanger manufacturing – **38** 

# Producer

DEL COMMUNICATIONS INC.
www.delcommunications.com

**President & CEO: DAVID LANGSTAFF** 

Project Lead & Sales: MIC PATERSON mic@delcommunications.com

Managing Editor: SHAYNA WIWIERSKI shayna@delcommunications.com

Contributing Writers: LOUIS FOURIE ANDREA HANSEN VICTORIA MARTINEZ JOSH MAYFIELD BRAD SHAMBEL LUCINDA WOOD

© 2025 DEL Communications Inc.

All rights reserved. Contents may not be reproduced by any means, in whole or in part, without the prior written permission of the publisher.

While every effort has been made to ensure the accuracy of the information contained in and the reliability of the source, the publisher in no way guarantees nor warrants the information and is not responsible for errors, omissions or statements made by advertisers. Opinions and recommendations made by contributors or advertisers are not necessarily those of the publisher, its directors, officers or employees.

# DEL Communications Inc. is extremely grateful to our advertisers for their support in this publication. CLICK HERE TO DOWNLOAD THE MEDIA KIT.

AZSKI Industriai	Nutana Machine
A2Z Safety & Training Ltd27	Nutrien13
Allan Construction27	PICA6
Brokk Inc5	Pocono Fabricators
CAB Products39	Respec
Comairco	Richwood
Commercial Sandblasting3	Rulmeca11
Continental Conveyor Ltd22	SaskTel9
Custom Machine & Mechanical Services8	SaskWater
Fenner Dunlop Americas, LLC15	SRC
GNB Global31	Standard MachineIFC
Jennmar Holdings17	Sulzer Pumps (Canada) Inc
Komatsu7	Sutton Benefits & Pension35
Lajcon Distributors Ltd	The St. Lawrence Seaway Management Corporation 37
Ludman Industries34	West River Conveyor
Millwright Regional Council23	Workwear Outfitters



# TAKING MINING TO ANEW LEVEL

This is the natural habitat for Brokk's compact giants. With the perfect combination of power, operability and accessibility our demolition robots provide efficient solutions to increase profits.





## MESSAGE FROM THE EDITOR

# SHAYNA WIWIERSKI

elcome to Issue 2,
2025 of *The Potash*Producer, your
digital source for
the latest insights and developments
in the global potash industry. As we
navigate a dynamic landscape of trade,
innovation, and sustainability, this
issue highlights stories that underscore
the industry's vital role in feeding the
world and fostering inclusive growth.

One of our feature stories explores the Port of Vancouver, a critical hub in the global potash trade. As Canada remains the world's largest potash supplier, the port's two major bulk terminals handle up to 10 million metric tonnes annually, connecting Canadian producers to key markets in the Indo-Pacific and Americas, including Brazil, China, Indonesia, and India. This infrastructure ensures Canadian potash supports global food security.

We also examine Nutrien's billion-dollar playbook, transforming the potash supply chain with a focus on Indigenous participation. Ten years ago, the industry saw the need for greater inclusion but lacked a clear path.

Nutrien's *Indigenous Content Playbook* now guides suppliers and Indigenous leaders to build partnerships, increase employment, and invest in training and mentorship. The result is a more diverse, secure, and sustainable supply chain in Saskatchewan, setting a standard for industries globally.

These stories reflect the potash sector's commitment to innovation and responsibility, themes woven through every article in this issue. From procurement advancements to the strategic role of trade hubs, we explore how the industry meets global demands while prioritizing community and environmental stewardship.

Beyond *The Potash Producer*, we invite you to explore our flagship publication, *PotashWorks*, our annual print magazine set for release in late 2025/early 2026. Renowned for its in-depth features about the world of potash, *PotashWorks* is essential reading for industry professionals. For real-time updates, visit potashworks.com for breaking news, market trends, and exclusive content.

We encourage you to engage with us—share your feedback, suggest stories, or connect via our digital platforms. Your perspectives help us tell the complete story of an industry powering agriculture and communities worldwide.

Thank you for reading, and we look forward to delivering more compelling content in our next issue.

## Shayna Wiwierski

shayna@delcommunications.com



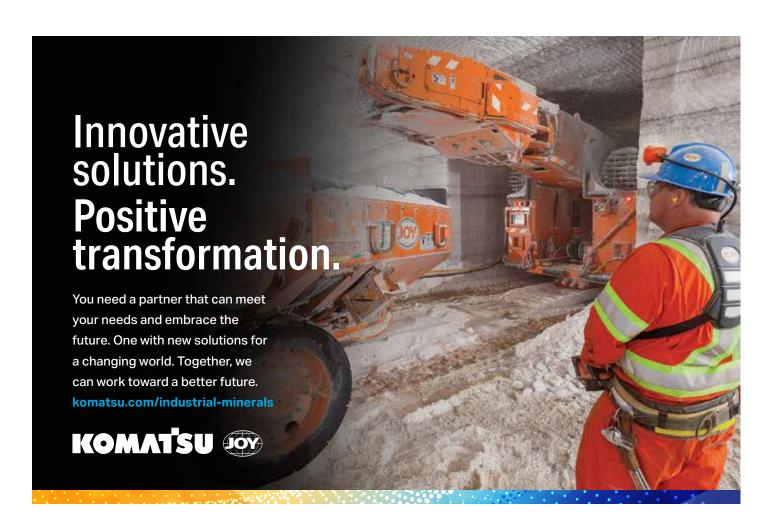
"Good Decisions start with Good Information"

PICA provides excellent information on the condition of your pipeline assets.

www.picacorp.com

1-800-661-0127





# MESSAGE FROM THE MINISTER OF ENERGY AND RESOURCES

# The Honourable Colleen Young

askatchewan is known as a reliable supplier of sustainably produced food, fuel, fertilizer, and critical minerals needed in a growing world. This outstanding reputation is built upon the strength of our potash industry, which plays a pivotal role in local and global markets.

Saskatchewan's potash industry reached a remarkable milestone in 2024, with production reaching a record high of 15.1 million tonnes of potassium oxide. This achievement represents an eight per cent increase compared to the previous year, bolstering the province's status as the world's leading supplier of this critical mineral.

Currently, Saskatchewan accounts for approximately one-third of the global supply. With strong demand fueling growth, new mine expansion projects, as well as ongoing investment into the sector, Saskatchewan's potash industry is exceptionally well-positioned for sustained, long-term success.

www.custommachine.ca

This success story didn't happen overnight. It is the result of Saskatchewan potash producers' decades of hard work, big investments, and a strong focus on innovation and sustainability. Companies like Mosaic and Nutrien are innovating and applying new technology in their operations to meet the rising global demand for Saskatchewan potash. At the same time, K+S is ramping up the capacity at its Bethune mine, and BHP's Jansen operation is progressing towards an expected start of production in late 2026. We are fortunate to have a number of the world's premier mining companies operating in Saskatchewan and continuing to make our province a leader in the global fertilizer market.

With the world's population continuing to grow, the need for dependable potash is more important than ever. Potash helps improve crop growth and quality, allowing farmers to produce

more food on smaller areas of land. The efficient use of potash is crucial for sustainable farming and global food security.

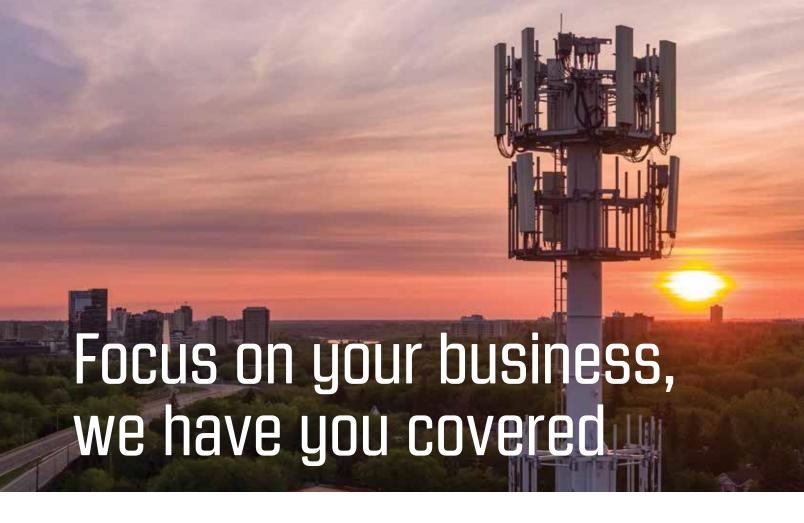
Despite lower global prices in the year, Saskatchewan's potash sector achieved \$7.85 billion in sales in 2024. This figure is a testament to our industry's strength, resilience, and global competitiveness in times of economic uncertainty. As a core pillar of the Saskatchewan economy, the potash sector brings tremendous benefits to our people and communities. These benefits include thousands of good jobs in the potash sector and the billions of dollars potash producers spend with local long-term contractors and mining support businesses based in our province. This helps to create stronger communities and a more stable economy.

Looking ahead, Saskatchewan expects to see the continued growth of our already world-leading potash industry and our government remains firmly committed to supporting this growth through our stable and competitive development framework.

As a province, we are diligently working to strengthen Saskatchewan's economy and simultaneously support global food security, one tonne of potash at a time. Our potash producers' dedication to innovation, sustainability, and strengthening communities will continue to drive our success well into the future. The collaborative efforts of government, industry, and local communities will ensure that Saskatchewan remains at the forefront of the global potash market, bringing prosperity for our people and food security to the world.







# IoT Connectivity is the crucial link to your data

Our IoT Connectivity and the Wireless Management Portal provide top-tier wireless networks with superior coverage and reliable access to the critical information you need for your IoT deployments.

Powerful management tools and unique billing features help enhance your decision-making, improve efficiency, and reduce costs.

The Wireless Management Portal is an easy-to-use web app to manage all your connected devices 24/7. Order SIM cards, manage subscriptions, change rate plans, monitor usage and download reports—all in one place.

Try our connectivity for your IoT solution or get in touch with us about your unique business needs. We can create a personalized solution using our dedicated IoT team and partners.

Impacted by a recent 3G turndown? We can help.

Call us today! 1.844.SASKTEL (1.844.727.5835)

sasktel.com/iot





## **GEOPOLITICAL RISK FOR POTASH**

The Israel-Iran war escalation in June did more than just put global fertilizer supplies into focus again. It turned attention over to the East of Suez markets. With Asia-Pacific's growing demand for food, potash and nitrogen fertilizer supplies have seen a significant shift to the East of Suez. Canadian potash producers even had a hard time competing with Russia and Belarus in the key markets there. The reasons are clear: Indonesia and Malaysia have a high preference for Belarusian potash supplies, while Russian fertilizer producers make deals with governments in tandem with their strategic objectives for food security.

In the East of Suez markets, fertilizer supplies are indeed high politics and thus price movements and trade deals should be analyzed from this vantage point. Although no one was paying attention, Russia held the St. Petersburg International Economic Forum (SPIEF) on June 18 and food and fertilizer supplies were on the agenda. Russia's fertilizer producer Phosagro stole the show after selling 4.3 million tonnes of fertilizers through January to May 2025. The CEO of Phosagro, Mikhail Rybnikov, even showed off how the company is going to capitalize on the EU's fertilizer tariffs by sending more fertilizer supplies in the upcoming quarters.

This year's SPIEF was important geopolitically as well. Russian President Putin and Belarusian President Lukashenko held a joint meeting about the state of the world from their perspectives. It didn't sound like Lukashenko had much to say about it at all, though. The US and EU sanctions on Belarus' potash fertilizer

exports have been a devastation to the country's economy. Moreover, Belarus is even more dependent on Russia for transportation and shipping of its fertilizer supplies since the shipping routes were cut off from the Baltic Sea in 2021.

Here were the attendees during this joint meeting: Azerbaijan, UK, Vietnam, Germany, Indonesia, Spain, Kazakhstan, China, USA, Türkiye, Uzbekistan, and France. These are all countries that rely on Russian fertilizer imports. The results of a press conference between heads of state from Russia and Belarus might not be important at the G7 Summit, but any strategic planning being made between them is critical to the global potash markets. Greenfield potash production capacity will not be able to take market share away from Canada, Russia, or Belarus in the future.



# **PREMIUM** COMPONENTS OR MATERIAL HANDLING

Rulmeca offers a wide range of quality Rollers/Idlers, Motorized Pulleys, Pulleys and components used in the most demanding applications in belt conveyors material handling. We are close to you, whenever you need us, with a global network of sales and service centers.



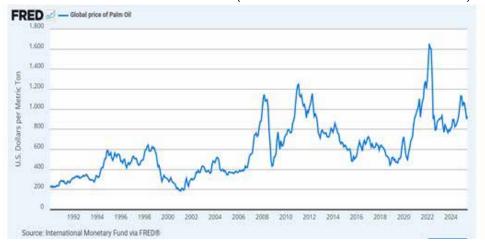






#### MARKET DRIVERS FOR POTASH

Brazil continues to be the most important market for potash supplies, but with all the changes happening there in greenfield fertilizer projects, such as Brazil Potash's Autazes Project, the major potash producers are looking to the East of Suez to crowd out the space before others start looking for growth markets. For example, the top three potash



SaskWater Wish you had access to a diverse team of We have the answers Visit saskwater.com/industrial-overview

suppliers to China—Canada, Russia, and Belarus—were also the top three suppliers to Indonesia and Malaysia in 2024. The higher demand for MOP in those countries has been attributed to higher palm oil output because of the biodiesel sector. This trend will likely see higher volumes of MOP to Indonesia, Malaysia, and India in 2025. However, this is not only a story about the higher potash volumes to Southeast Asia markets in 2025.

The evidence of a fierce competition for these new in Southeast Asia markets in 2024 revealed that Canada must go up against a Russia-Belarus tag team of potash supplies. In a wrestling match, tag-teams usually tag out for their partner when they have either become exhausted or have lost their edge against an opponent. This fight for Southeast Asian markets is a case in point, since Canada sells its potash supplies through the Canpotex joint venture with the Mosaic Company.

Canpotex signs long-term agreements with key potash markets in China and India, but it had to tag out several times when going up against Belarus and Russia in Southeast Asia. Not to mention the railroad strikes in Canada which made Canpotex potash sales to Southeast Asia inconsequential from September 2024—there were literally zero Canpotex MOP exports to

Indonesia in the month of September 2024.

Ottawa and Washington DC were at each other's throats due to Trump's tariff threats on Canadian potash. Nutrien Ltd. shared these concerns with an audience at the BofA 2025 Global Agriculture & Materials Conference. It has been claimed that 85 per cent of American farmers import potash from Canada. This is a major concern for Nutrien shareholders. but also the global market for potash supplies in the near term. Any reduction in potash imports from the U.S. will influence prices.

### CONCLUSION

The government of Saskatchewan sent a mission to Vietnam and Singapore to address leaders of the Association of Southeast Asian Nations (ASEAN) at a forum to promote sustainable food security. Nevertheless, China will be the top concern for potash supplies in the short term. Uncertainty around

MAKING CONCRETE IMPERMEABLE

• Moisture vapor emission

**BRINGING CONCRETE BACK TO LIFE** 

• Salt, moisture and chemically

resistant mortar

· lonic bond to concrete

• Water and chemical intrusion

• No minimum or maximum depth of install

• Stronger than concrete in 45 minutes

China's agricultural seasons will be on the radar of Canpotex, as well as the reality of Trump's tariff threats on Canada. Canpotex will have to increase its maritime shipping capacity to meet this supply disruption from China and Southeast Asia. Otherwise, Canpotex will have no choice but to tag out of the match.

Russia and Belarus are poised to grab more of the global potash market share in the long term. There are simply no other alternatives to supply the East of Suez markets, which is why Canada will prefer to send more of its potash supplies to the U.S. market to hedge against this fierce competition. The shifts in the East of Suez markets reveal that Southeast Asian countries will be a growth market for the biggest potash producers. It will be a long game to supply the potash demand for China and India. At the same time, other countries will compete for more potash supplies to fill niche markets.

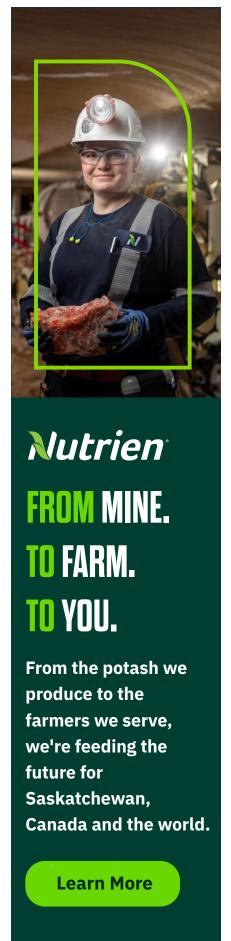
Let's get ready to rumble!

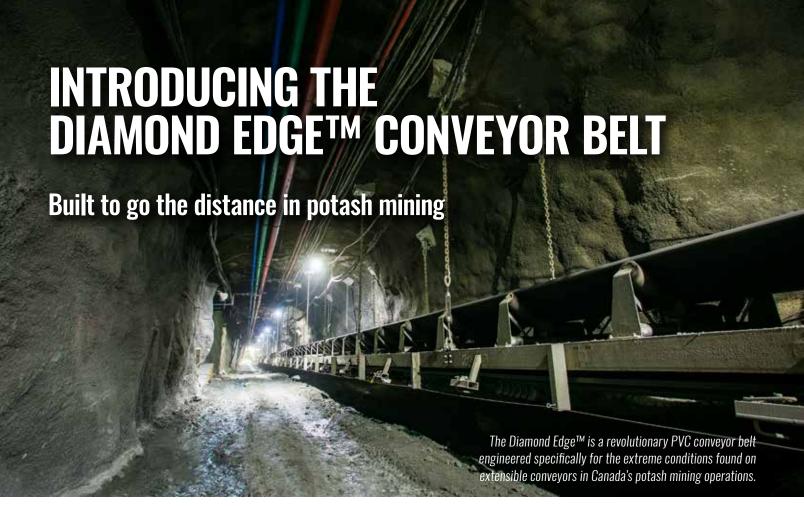
Makes concrete impermeable to potash/brine deterioration.

Encapsulates steel reinforcement and protects

VAPOR LOCK ADMIXTURE







n the demanding world of underground potash mining, equipment failure isn't just costly—it's dangerous. That's why Fenner Dunlop developed the Diamond Edge<sup>TM</sup>, a revolutionary PVC conveyor belt engineered specifically for the extreme conditions found on extensible conveyors in Canada's potash mining operations. With a proven track record of outperforming competitor belts by up to four-times in lifespan, Diamond Edge is the trusted choice for operations that can't afford to compromise on safety, reliability, or performance.

#### PURPOSE-BUILT FOR POTASH MINING

The Diamond Edge™ belt wasn't created in a lab—it was forged in the real-world challenges of underground potash mines. Designed for extensible conveyor systems, which are prone to uneven structure and high-impact loads, this belt delivers unmatched durability and longevity where it matters most. By focusing on the specific needs of Canadian potash operations, we've built a product that excels under conditions that typically cause premature failure in traditional belts.

# REVOLUTIONARY EDGE DESIGN FOR SUPERIOR WEAR RESISTANCE

Edge wear and stranding are leading causes of belt failure in harsh mining environments. The Diamond  $Edge^{TM}$  belt

tackles this issue head-on with a unique carcass design that incorporates a specialized fabric configuration in the belt edges. This design significantly reduces edge wear and minimizes stranding, allowing the belt to maintain its full width and structural integrity for a far longer period.

Result: Less edge degradation, fewer unscheduled stoppages, and extended belt life—up to four-times longer than standard belts used in similar applications.

#### **ENGINEERED FOR STRENGTH AND STABILITY**

Durability isn't just about thicker covers—it's about smarter construction. The Diamond Edge<sup>TM</sup> features:

Increased internal and cover adhesion

Prevents delamination and improves resistance to point-of-trough failures.

• Enhanced lateral stiffness

Reduces belt deformation under load, increasing tracking stability and further preventing structural failure.

• Increased cover hardness

Improves resistance to abrasion and material penetration, a major issue in potash handling.



#### UNMATCHED JOINT PERFORMANCE

When your joints fail, your entire operation suffers. That's why we designed the Diamond Edge<sup>TM</sup> to deliver an approximate doubling of dynamic fastener holding results compared to conventional belts. This ensures longer-lasting joints, fewer joint replacements, and reduced maintenance intervals—delivering measurable improvements in uptime and productivity.

# LIGHTWEIGHT CONSTRUCTION, HEAVYWEIGHT PERFORMANCE

Despite its rugged design, the Diamond  $Edge^{TM}$  is lighter than an 800 PIW extensible belt. This translates into lower energy consumption, easier handling during installation and maintenance, and less strain on your conveyor system—without sacrificing strength or performance.

#### REAL-WORLD BENEFITS THAT MATTER

The bottom line is simple: fewer belt changes, less downtime, lower cost per tonne, and improved operational safety. With fewer roll movements and maintenance interventions underground, your crews can focus on production instead of repair.

And in an industry where every hour counts and every ton matters, the Diamond  $Edge^{TM}$  belt doesn't just last longer—it delivers more value over its entire lifecycle.

#### TESTED. TRUSTED. PROVEN.

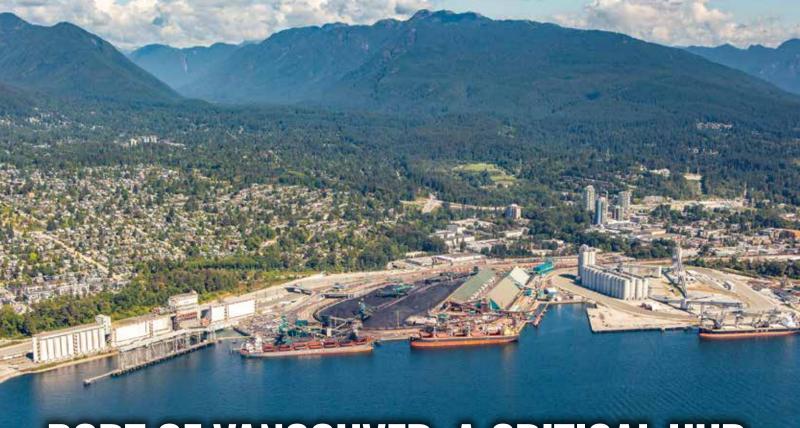
The Diamond  $Edge^{TM}$  isn't just another belt—it's a field-proven solution that has consistently outperformed competitors in side-by-side trials. In one case study, it lasted four-times longer than the next-best competitor in identical conditions, significantly reducing both direct and indirect operational costs.

#### **EXPERIENCE THE EDGE**

When it comes to potash mining, you need a belt that's as tough and reliable as your crew. Choose Diamond Edge<sup>TM</sup> — the belt designed to meet the demands of Canada's most challenging underground operations.

Contact Fenner Dunlop today to learn how Diamond Edge™ can give your operation the advantage it needs. •





# PORT OF VANCOUVER, A CRITICAL HUB SUPPORTING WORLD POTASH TRADE

Neptune Bulk Terminals is one of North America's largest multi-product bulk terminals.



anada is the world's largest supplier of potash and the Port of Vancouver on its west coast plays a critical role connecting Canadian production to international markets.

Potash moves through two major bulk terminals at the port—which have handled as much as an annual combined 10 million metric tonnes (MMT) of potash in recent years. Exports through the port are mainly destined for the Indo-Pacific and Americas regions, including the key markets of Brazil, China, Indonesia and India.

"Canada has some of the largest reserves of potash in the world, with a mature mining sector that continues to see investment and growth," said Jane Banham, director of trade development at the Vancouver Fraser Port Authority, the federal agency that oversees trade through the Port

of Vancouver. "The Port of Vancouver has successfully supported potash exports for decades, and we are seeing ongoing investment in the port and its terminals to support future needs. This includes a major infrastructure redevelopment at the Westshore terminal so it can handle potash—expected to come online later this decade.

The terminal will support BHP's new Jensen mine in Saskatchewan and we expect this upgrade alone to add millions of tonnes a year to the port's annual potash exports."

Over the past 10 years, annual potash exports moving through the Port of Vancouver have been around seven to 10 MMT—with China and Brazil being the main markets and each typically getting about one to three MMT annually. Last year, port terminals moved 8.2 MMT of potash, while so far this year strong throughput has seen year-to-date June volumes up 26 per cent.

Potash is just one of the many commodities that moves through the Port of Vancouver—Canada's largest and most diversified port. The port moves cargo and people across fives sectors (auto, breakbulk, bulk, bulk and cruise), handles \$350



At Jennmar Canada, we're committed to delivering cutting-edge products and services that set the standard for safety, performance, and innovation. With state-of-the-art manufacturing facilities in Sudbury, Ontario, and Rouyn-Noranda, Quebec, plus a strategically located distribution center in Saskatoon, Saskatchewan, we offer high-quality, locally produced solutions with faster delivery and streamlined logistics. By manufacturing and sourcing in Canada, we strengthen the local economy while providing responsive service, expert technical support, and customized solutions that help our clients succeed. We proudly offer bilingual service in both English and French to better serve customers across the country.

#### **CANADA LOCATIONS**

Sudbury, ON, CANADA (705) 525-0101 Rouyn Noranda, QC, CANADA (819) 797-3866

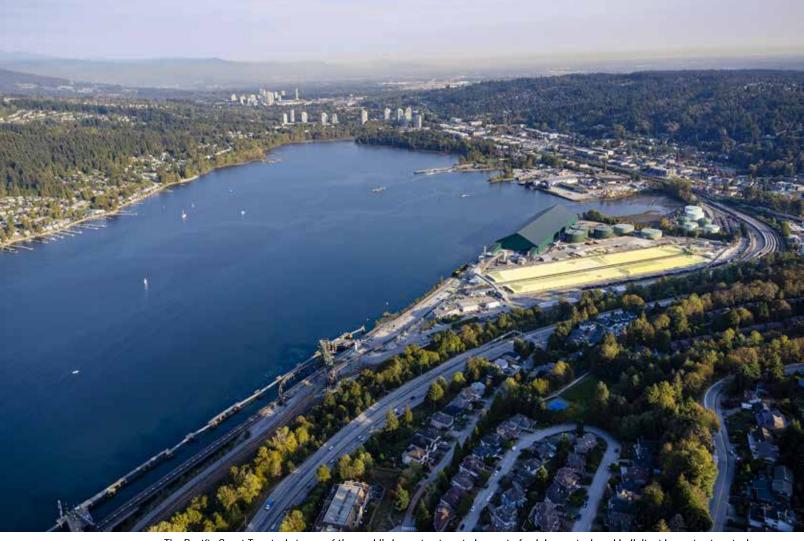
#### **GLOBAL HEADQUARTERS**

Pittsburgh, PA, USA (412)-963-9071

For more information on our portfolio of diverse and complementary brands visit us at www.jennmar.com.







The Pacific Coast Terminals is one of the world's largest automated export of sulphur, potash and bulk liquids marine terminals.

billion in goods every year, and connects Canada with more than 170 countries.

"Our purpose as a Canada port authority is to enable trade through the Pacific gateway by being reliable and innovative, while protecting the environment," Banham said. "This includes managing marine traffic and leasing federal land to independent operators who manage terminals and move goods, such as the Neptune and Pacific Coast bulk terminals that help deliver high-quality Canadian potash to world markets."

With ship traffic and cargo volumes growing at the Port of Vancouver—and Canada focused on further diversifying its trade partners—the port authority is collaborating with industry and government on optimization efforts. Central to this work is boosting the maritime supply chain through the Active Vessel Traffic Management Program and Canada's first seaport centralized scheduling system, a transformative tool that allows the port authority to take an active role in managing ship traffic. The port receives about 3,000 ship calls every year.

"Active vessel traffic management enhances visibility and fluidity of marine movements at the port—enabling better coordination among port users and allowing ship, terminal, and rail operators to foresee demand and optimize operations," Banham said. "We are using this new digital tool to drive collaboration and inform decision making at the port—helping unlock latent capacity for terminals, support Canada's growing trade needs, and deliver potash to world markets."

# PORT OF VANCOUVER BULK TERMINALS THAT HANDLE POTASH

- Neptune Bulk Terminals: One of North America's largest multi-product bulk terminals, it handles exports of potash and Canadian metallurgical coal. It is operated by Neptune Bulk Terminals (Canada) Ltd.
- Pacific Coast Terminals (PCT): One of the world's largest automated export of sulphur, potash and bulk liquids marine terminals. It is operated by Pacific Coast Terminals Co. Ltd.

## Adjustable Free Standing Seeking a haul truck Discharge Chute alternative? **INCREASE YOUR PRODUCTIVITY WITH MADE-TO-ORDER CUSTOMIZABLE CONVEYOR SYSTEMS West River has what your operation needs:** Effective, affordable, highly reliable conveyor equipment Quality components and structure Ability to lower your operating costs Friendlier environmental options Rigid Rail Conveyor Safety Skirting Structure Single Beam Design Surface and underground structure and idlers Contact us today for more information on material handling solutions for potash operations.



WESTRIVERCONVEYORS.COM



800 332-2781 | FAX: 276 259-5252

# Pumping and mixing specialist for the fertilizer industry





Pumps are at the heart of fertilizer production, and correct equipment selection that takes into consideration hydraulic design, materials, application knowledge, duty point and maintenance regime are critical to achieving reliable long-term pumping operation and maximum plant production. As an expert in solutions for corrosive and abrasive liquids, or those with high gas content, Sulzer offers a complete range of pumps, agitators, mixers and compressors for the fertilizer industry. Our innovative products are suitable for the production of potash, phosphate and NPK compound fertilizers as well as acids and industrial chemicals.

8936 DISMAL RIVER ROAD

Sulzer's global presence provides local support and expertise through a network of manufacturing facilities and service centers. Our solutions combine energy efficiency, low lifecycle costs, reduced environmental footprints and excellent reliability.

Contact us today to learn more.

Sulzer Pumps (Canada) Inc. Phone (514) 836-3796, salah.attie@sulzer.com

www.sulzer.com



**OAKWOOD, VA 24631** 



# A PASSION FOR INNOVATION

Designed to bridge the gap between industry and future talent, the hackathon gave students a chance to apply their academic learning to real-world scenarios.

# Hackathon sparks student-driven solutions for potash and mining sector

n January 2025, the College of Engineering at the University of Saskatchewan (USask) welcomed bright minds, big challenges, and bold ideas as it hosted the second SIMSA Mining Hackathon — an intense 24-hour innovation sprint that connected students with pressing needs in Saskatchewan's mining and minerals industry.

The hackathon was presented in partnership with USask Engineering's Tech Innovation Certificate program and the SIGMA summer entrepreneurship program, and was proudly partnered by the Saskatchewan Industrial and Mining Suppliers Association (SIMSA) and

the International Minerals Innovation Institute (IMII).

Over 30 undergraduate and graduate students from USask and Saskatchewan Polytechnic took part in the challenge, which asked participants to design solutions in response to the DEMOday 2025 list of technology needs developed by the IMII. With limited time, teams collaborated, problem-solved and pitched their ideas to a panel of industry judges.

Designed to bridge the gap between industry and future talent, the hackathon gave students a chance to apply their academic learning to real-world scenarios. Students worked in multidisciplinary teams, blending skills in engineering, computer science, environmental science, and more, to reflect the collaborative nature of modern mining.

"Hackathons like this are essential in supporting students to apply their knowledge gained from the classroom to improve safety, efficiency, and sustainability within industry," says Professor Tate Cao, La Borde chair in Engineering Entrepreneurship at USask. "It's about developing domain expertise, building confidence, innovation capacity, and supporting students to make an impact."



This year's competition proved to be more than just an academic exercise. Many of the students were offered jobs in Saskatchewan's mining and suppliers' industry, thanks to their entrepreneurial thinking, problem-solving abilities, and teamwork.

The top prize went to a team of USask Engineering students: Grayson Goodwin, Lian Wood, Makayla Robinson, Layne Ransom, and Obinna Ezenyeaku. Their solution proposed a system to alert underground low-voltage operators about road hazards and nearby personnel. Their concept was designed to improve safety and reduce costly maintenance interruptions. Their idea attracted industry interest, and the team was invited to pitch their innovation to IMII's DEMOday event in May. The team is now exploring the potential to advance their solution as a start-up in the SIGMA summer program.

The hackathon underscored USask's role in advancing innovation and workforce development within Saskatchewan's critical mineral and resource sectors. It demonstrated how strategic partnerships between post-secondary institutions, students and industry can accelerate ideas from concept to potential commercialization.





The hackathon underscored USask's role in advancing innovation and workforce development within Saskatchewan's critical mineral and resource sectors.

"We are very proud and appreciative of the groups of students, ranging from undergrad to doctoral candidates, as well as faculty and industry who attended the Hackathon," says James Bulmer with SIMSA. "Everyone came together to create an amazing event which both promoted innovation and the mining industry, and produced high-quality ideas and presentations."

Lesley McGilp, executive director of the IMII, added that they are proud to support the next generation of innovators through their involvement in the hackathon.

"Events like this empower students

to tackle real-world challenges with creativity, collaboration, and cutting-edge thinking—qualities that are essential to the future of Saskatchewan's minerals industry," says McGilp. "We're excited to see the energy and ingenuity these students bring to the table."

With an eye on the future, Professor Cao and USask Engineering continue to encourage mining and industrial partners to collaborate with the college through future hackathons, guest lectures, or real-world project mentoring.

"Innovation happens where curiosity meets purpose, and that's exactly what

we're building at USask," says Cao.

For more information or to connect, contact Tate Cao at tate.cao@usask.ca.

### **ABOUT SIMSA**

SIMSA represents over 360 companies with a permanent physical office in Saskatchewan, in the energy, mining, and industrial sectors.

This membership has over 34,000 employees in our province with over \$17 billion in annual sales attributable to their Saskatchewan operations. We are the voice of the Saskatchewan industrial and mining supply chain.

#### **ABOUT IMIL**

The International Minerals Innovation Institute (IMII) is the trusted hub for expertise and innovation in Saskatchewan's minerals industry, driving transformative change, inspiring actionable solutions, and building a sustainable and globally respected minerals sector in the province. As a member-based organization governed by industry, post-secondary education, and government, we unite to accelerate technological innovation, develop a representative workforce, and promote thought leadership. Together, we drive progress and shape the future of the minerals sector.





Canada's mining industry runs on precision, efficiency, and reliability—so should your workforce.

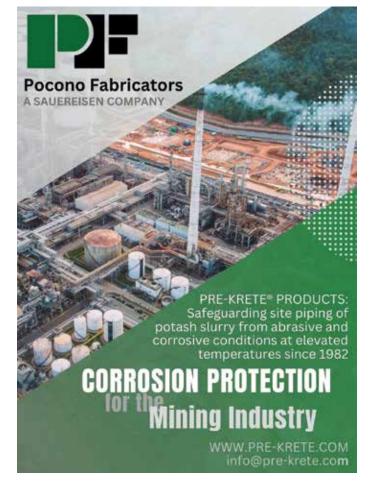
The Millwright Regional Council (MRC) connects mining contractors and owners with highly trained, job-ready millwrights to keep your operations moving. Whether you're ramping up for a shutdown, major installation, or critical repair, we provide the skilled professionals you need—on time and on budget.

REDUCE DOWNTIME.
IMPROVE EFFICIENCY.
BUILD WITH CONFIDENCE.

Partner with MRC Today. ubcmillwrights.ca







# **NUTRIEN'S BILLION-DOLLAR PLAYBOOK**

# Procurement, sites, and suppliers reshaping Indigenous supply chain



en years ago, the need to increase Indigenous participation in the potash industry was clear. The path to get there was not.

"We asked our suppliers to help find solutions and they delivered in a big way," says Josh Dodd, Nutrien's director of procurement – potash.

Armed with Nutrien's Indigenous Content Playbook as a guide, long-time suppliers and entrepreneurial Indigenous leaders began experimenting with different models to build business partnerships, encourage employment, and support training and mentorship programs.

As a result, Saskatchewan's potash supply chain is now more diverse, secure, and sustainable.

"The \$1 billion milestone reflects the efforts and innovative thinking of our Indigenous partners, our suppliers, and our company," said Trevor Berg, Nutrien's senior vice-president, potash operations. "We recognized a need for change and our partners – Indigenous and non-Indigenous – worked together to reshape the potash supply chain. It's a team approach that continues to make the potash industry in Saskatchewan stronger and global food security more achievable."

In 2020, Nutrien set a target of " $25 \times 25$ " – that by 2025, at least 25 per cent of the local, relevant spend in the potash operating segment would be with Indigenous-owned suppliers, or suppliers who have at least 15 per cent Indigenous employment.

The company blew by that target in each of the past three years, with more than 30 per cent of the relevant potash spend involving suppliers who met those criteria.

In total, Nutrien awarded \$1.1 billion in potash procurement spending to qualified suppliers between 2020 to 2024, including \$567 million – more than 50 per cent – to Indigenous-owned companies.

The dollar figure, however, tells only part of the story.

"The relationship reset is what's really powerful," explains Julie Ann Wriston, Nutrien's director of Indigenous relations. "There has been an earnest effort by our partners and our company to step out and do something proactive that has actual impact. And that's happening, thanks to our suppliers."

#### **MOVING ORE AND SHIFTING ATTITUDES**

The changing dynamic has taken hold inside and outside the company.

In 2017, Saskatoon Tribal Council established STC Industrial (STCI) as a means of generating own-source revenue and creating employment opportunities through economic development.

"We didn't own a hammer, or a ladder and we didn't have a contract," recalls Shaun Howdle, president and CEO of STCI. "It was very much a start-up entrepreneurial model. But we had relationships and subcontracting agreements to get our people employment and build technical capacity."

Initially, STCI began working on underground conveyor structures at Lanigan with the support of existing fabricators, including Keys Welding Service (Keys). Within three years, STCI gained the expertise and financial strength to purchase Keys and bring that capacity fully in-house.

Meeting Nutrien's requirements for safety, reliability, and competitive pricing, however, can be challenging for even large-scale, long-term suppliers. The cyclical timing of deliveries, fluctuating steel prices, and a global pandemic made these challenges even greater for a relatively new entity working to train its people for the industry.

Cody Kennedy, chief mine engineer at Lanigan, recognized that Nutrien would need a different level of teamwork to give STCI/Keys a proper opportunity to address the needs of the site. Through discussions and the collaborative efforts of Lanigan general manager Rob Jackson; senior manager, procurement operations Jaime Aamodt; and other key stakeholders, the site and STCI/Keys signed longer-term agreements that allow the supplier to better plan its labour and input needs.

"We order miles of conveyor structure every year — thousands of tons of metal specifically designed to our application underground," says Kennedy. "And we were looking at basically doubling those quantities over the next seven years. To be fair to them, we needed to go beyond a spot contract. We needed to hammer out a commitment — with stipulations on quality, stipulations on schedule and estimated price — that let them optimize the way they plan to ensure Lanigan got the right product at the right time."

An initial two-year agreement signed in 2021 was renewed in 2023, with negotiations on a further extension currently underway. STCI/Keys' performance over the past several years has enabled it to expand its operations, adding more employees and new services, including a powder-coating paint line to finish materials before they leave the manufacturing plant.

"They've become competitive with their peers in the industry, which is a great thing," says Kennedy. "It's difficult to grow and mature into an organization that can supply the mining industry. You're competing against big guys that are entrenched for decades. And they've been able to do that."

Howdle says the initiative from Nutrien to encourage partnerships while allowing flexibility to find workable solutions has been a key foundation for growth.

"The biggest thing I give Nutrien credit for is understanding a true partnership as opposed to a supplier-buyer relationship," says Howdle. "We've been very open with them – 'This is what we need. This is what our structure is...' And they're able to work with us and say, 'Okay, we need to hit these objectives and this is why...' That's a true partnership model."

#### **EVOLVING THE PLAYBOOK**

The experiences of the past decade informed updates to Nutrien's Indigenous Content Playbook. The updated playbook, which is available at https://shorturl.at/6D7aL, reflects changes in the environment, industry, and supply chain since the initial release almost a decade ago.

Lee Price, Nutrien's manager, Indigenous supply chain - potash, says the efforts of suppliers across the industry have been essential to the success of the program and into reshaping the opportunities for Indigenous people and businesses.

The evolution of the STCI/Keys relationship with Nutrien is just one example of supply-chain partners working together and with Nutrien to strengthen the industry in Saskatchewan.

"There was reciprocity – finding that mutually beneficial relationship," explains Price. "They were able to ask what we need. Then we were able to flip it and say, 'What role can we play to support your success?' You come out the other end with everybody in a better place."



# K+S POTASH CANADA AND BANTREL ANNOUNCE PARTNERSHIP FOR BETHUNE RAMP-UP

+S Potash Canada (K+S) and Bantrel are pleased to announce their Integrated Program Management Team (IPMT) partnership to deliver on K+S's growth plan for the sustained production increase, or Ramp-Up program, at Bethune mine. An IPMT is a collaborative, multi-disciplinary team that oversees and manages all phases of a project from inception to completion.

In May 2022, K+S announced a long-term growth plan to continuously increase production capacity at Bethune mine over the course of the next couple decades, with a target of four-million tonnes of potash production per year. The third-party partner, Bantrel, is providing integrated program management services to support this growth.

"Growing production at Bethune mine is incredibly important to the future of our business, and this partnership marks a significant step forward in our Ramp-Up program," said Sam Farris, president, K+S Potash Canada. "Increased production will significantly improve the efficiency of our Bethune mine operations and our resource usage, ensuring we have a long future operating in Saskatchewan. Bantrel will undoubtedly be a key partner in this success."

Bantrel is an engineering, procurement, construction, and construction management (EPCM) services company that has executed some of the largest and most challenging industrial projects across Canada. The partnership with K+S will utilize the company's Saskatchewan-based engineering, procurement and construction expertise, and provide an opportunity to showcase one of its core values: "Deliver as Promised".

"We are thrilled to partner with K+S in the growth of their Bethune mine," said Darren Curran, president and CEO, Bantrel. "Our teams, supported with K+S operational excellence and Bantrel major project expertise, are well-positioned for the successful delivery of the Bethune Ramp-Up program."

K+S and Bantrel view the partnership as an opportunity for mutual growth and success, achieved through the talent, behaviours, and culture that the companies intend to build together as part of their integrated team.



Darren Curran (left), president & CEO, Bantrel Co., and Sam Farris (right), president, K+S Potash Canada, at Bethune mine.

#### **ABOUT K+S POTASH CANADA**

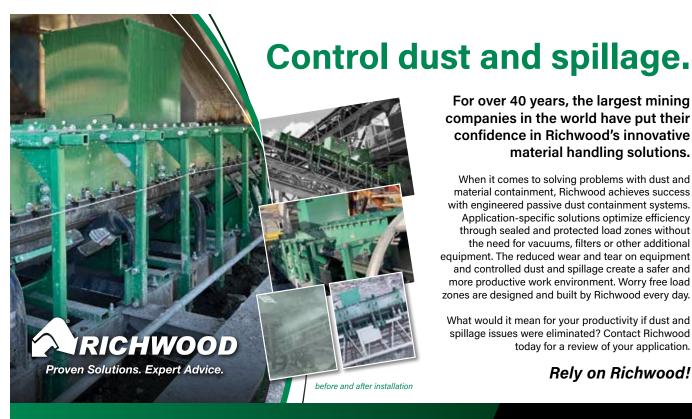
K+S Potash Canada is part of the K+S Group, a German-based company that has been mining and processing potash and salt for over 125 years. At their Bethune solution potash mine near Moose Jaw, Sask., K+S Potash Canada extracts potash crude salt which is further processed into two types of potassium chloride (MOP) product. Their products are used primarily as natural fertilizers for agriculture.

Bethune is the first greenfield potash mine in the province in more than 40 years and enables K+S to produce high-quality potash for generations to come. With this facility, K+S can more easily reach the markets in Asia, as well as North and South America, and is well-equipped for expansion of total capacity as markets grow.

#### **ABOUT BANTREL**

Bantrel is an engineering, procurement, construction and construction management (EPCM) services company. As a widely respected EPC provider, Bantrel has executed some of the largest and most challenging industrial projects across Canada. After over 40 years we continue to grow, building Canada's future.

Their talented team is made up of engineers, designers, project managers, supply chain personnel, construction tradespeople, and professional staff. They engineer, design, and deliver projects that are improving the wellbeing of their communities, resources, and infrastructure.



For over 40 years, the largest mining companies in the world have put their confidence in Richwood's innovative material handling solutions.

When it comes to solving problems with dust and material containment, Richwood achieves success with engineered passive dust containment systems. Application-specific solutions optimize efficiency through sealed and protected load zones without the need for vacuums, filters or other additional equipment. The reduced wear and tear on equipment and controlled dust and spillage create a safer and more productive work environment. Worry free load zones are designed and built by Richwood every day.

What would it mean for your productivity if dust and spillage issues were eliminated? Contact Richwood today for a review of your application.

Rely on Richwood!

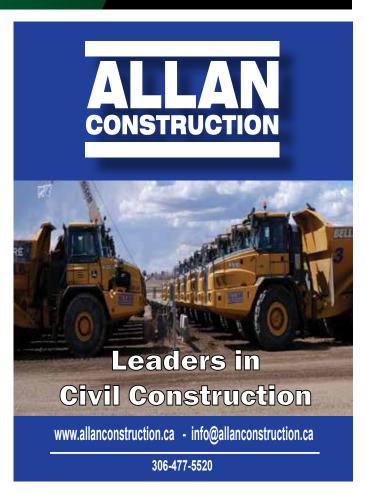
richwood.com

+1 (304) 525-5436 Located in Huntington, WV USA



- DAILY CLASSROOM TRAINING ON-SITE TRAINING
- DRUG & ALCOHOL TESTING
  - RENTALS & SALES
- CONSULTING & MEDIC STANDBY

a2zsafety.ca T: 306-960-2881 TF: 1.855.756.2884 info@a2zsafetyandtraining.ca



# IMPROVING MEASUREMENT OF CLAYS AND OTHER PARAMETERS IN PROCESS FLOWS USING ONLINE AUTOMATION

## By Victoria Martinez and Lucinda Wood

hether in potash slimes, oil sands, or in kimberlite slurries, active clay minerals can cause serious issues in many plant operations. For industries where clay minerals are present, a better analytical approach is needed to more quickly and accurately measure these minerals.

In response to this, experts at SRC's Pipe Flow Technology Centre<sup>TM</sup> developed an Automated Measurement Platform (AMP) that provides accurate, real-time, measurement of clay minerals.

Industrial processes are affected by the reactivity of the clays present, and how those clays interact with cations in the environment—this is known as the cation exchange capacity (CEC). Depending on what clays are present in an ore, the reactivity or CEC can vary, ranging from small in "inactive" clays, such as kaolinite, to very large in "active or swelling" clays, such as smectite.

Particularly where there is a solidliquid separation process or pumps, the amount and CEC of the clay minerals present can lead to significant operational problems.

"As soon as a mine has an active clay in it, there's probably going to be a problem, and it's going to be a big problem," said Jennifer Bentz, SRC research scientist, who works at its Pipe Flow Technology Centre<sup>TM</sup>. "It can cause a shutdown or a stop to

production to fix the issue or clean it up."

In certain applications, active clays are beneficial, like at foundries where they are a key component of molds made with a compound mixture called "green sand" that are used for metal casting. Active clays are also used in cat litter because of their exceptional absorbent and clumping properties, and in water and soil treatments to adsorb contaminants from the environment, such as heavy metals, organics, industrial dyes, and radioactive isotopes.

They can also be used as liners for landfills, tailings ponds, and heap leach processes due to their very low permeability, which prevents contaminants from escaping into the environment.



Clays are difficult to measure because they are small and share a similar crystal structure to each other, despite significant differences in CEC.

This means that many of the traditional analytical methods used to

Far left: SRC's Automated Measurement Platform (AMP) provides accurate, real-time, measurement of clay minerals.

Left: Clays are difficult to measure because they are small and share a similar crystal structure to each other. This is where SRC's Automated Measurement Platform (AMP) comes into play.





measure them (e.g., X-Ray Diffraction (XRD), Fourier Transform Infrared Spectroscopy (FTIR), Short-Wave Infrared Reflectance Spectroscopy (SWIR), and particle size) require intensive sample preparation to get accurate data, sophisticated equipment, and robust chemometric models to resolve overlapping patterns.

And this is where SRC's AMP comes into play. The AMP combines automation and a tailored spectroscopic analytical technique to make on-site measurements of CEC using a cationic dye simpler, faster, and more precise.

# APPLICATIONS FOR OTHER INDUSTRIES

Beyond mining, the Automated Measurement Platform could be beneficial to the foundry industry, which use active clays like bentonite in their green sand molds. They regularly measure clay levels to adequately refresh the spent green sand.

Automating the CEC (or clay) measurements with the AMP could make foundry processes more effective and reduce waste, helping lower costs by maximizing the reusability of the sands throughout the production cycle.

SRC is also looking at applications for the AMP beyond clay measurement.

With an established reputation in potash in Saskatchewan and beyond, the potash industry is one key area SRC is looking to support with the AMP.

For potash processing, insolubles—in this case, clay minerals that aren't necessarily active—can pose challenges. Insolubles in the brine, especially if clays are present, affect separation and flotation, absorb chemicals, and decrease recovery. They may clog filters, wear down equipment,

and require more reagents.

In tailings management, getting near real-time data on the clay content of tailings can aid in determining optimum flocculant dosages and prevent settling issues in the tailings.

The AMP also has potential in several applications beyond active clay and insoluble particle detection. It can be configured to perform other analytical measurements, including pH, conductivity, or water hardness.

"We can really tailor it to perform a wide range of automated analytical measurements," Bentz said. "It just takes beta testing and making sure all the sequencing within the platform happens in the right order, and that it's optimized for the client."

This is a condensed version of a longer article. To read the full article, visit www.src.sk.ca/blog. ●



# SET UP. SHIFT IN. DIG DEEP: HOW RAPID-DEPLOY BUILDINGS ARE CHANGING MINE STARTUP TIMELINES







In a matter of weeks, you can have fully functional warehousing, bulk product coverage, or insulated wash-down bays set up and ready to go—no rebar jungle gym required.

f you've ever tried to start a potash mine without a proper building on site, you already know: Mother Nature does not care about your schedule.

Getting operations up and running fast—really fast—is critical. And in recent years, mine managers across North America have caught onto a not-so-secret weapon: rapid-deploy fabric buildings.

We're not talking about tarp shacks and circus tents. We're talking about engineered, heavy-duty structures that go up quickly, hold strong through brutal conditions, and move when your mine moves. Warehouses. Equipment wash-bays. Product storage. Lunch shelters that don't feel like punishment. These buildings have gone from "nice to have" to "standard issue".

#### SPEED IS THE STRATEGY

Permanent buildings are great eventually. But they take time. Time you don't always have when you're trying to hit production targets, stay ahead of frost, or just keep crews from eating lunch in a pickup truck.

That's where rapid-deploy structures shine. In a matter of weeks, you can have fully functional warehousing, bulk product coverage, or insulated wash-down bays set up and ready to go—no rebar jungle gym required.

And because these buildings are relocatable, you're not stuck with infrastructure that only works in one phase. They move when your project moves. You're building smarter, not just faster.

## **BUILT FOR REAL MINE LIFE**

Potash sites aren't gentle environments. Between the dust, the wind, the temperature swings, and the sheer scale of operations, your buildings need to show up and hold up. That's why the fabric structures popping up across Saskatchewan and the U.S. midwest are built to meet serious snow and wind loads. They're not just for storage—they're built for survival.

Most often, they're used for:

- Warehousing spare parts, tools, and materials
- Product storage to keep processed potash dry and protected
- Equipment wash bays to stop machinery from choking on salt and dust

# More and more potash mines are using rapid-deploy shelters as essential startup infrastructure—not because it's trendy, but because it flat-out works.

But some crews are getting creative. It turns out, tension buildings make damn-good craft tents and lunch commons, especially when they're insulated and outfitted with heat-up stations. When it's -30 and the wind's howling, having a warm place to defrost your face isn't just comfort—it's retention.

### MOVE IT. REUSE IT. DO IT AGAIN.

One of the biggest perks? Flexibility.

These buildings aren't one-and-done. You can repurpose them from one phase to the next, relocate them across the site, or even take them with you to the next project.

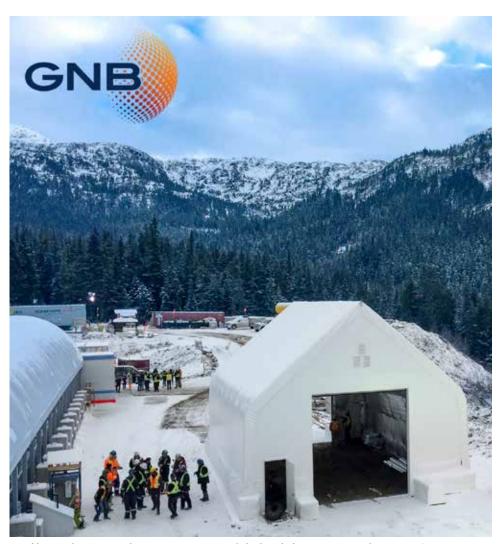
And while everyone else is waiting six months for steel and concrete, you're already moving dirt under your roof.

# FROM OPTIONAL TO OPERATIONAL STANDARD

Let's be real: if your jobsite still doesn't have one of these buildings, you're probably the exception, not the rule.

More and more potash mines are using rapid-deploy shelters as essential startup infrastructure—not because it's trendy, but because it flat-out works.

It's faster. It's smarter. And it means you can get to the digging part a whole lot sooner. ●



More and more potash mines are using rapid-deploy shelters as essential startup infrastructure — not because it's trendy, but because it flat-out works.



# THE SHAPE SHE GAVE THE BASIN

# A tribute to Margaret "Anne" Fuzesy

By Louis Fourie, Principal Geologist at RESPEC

n 2016, I wrote my first soloauthored NI 42-101 report for a potash project in Saskatchewan, Canada. I had picked up potash geology by osmosis, working on projects first as a modeler and then as a consultant. But this time, I was responsible for the full story: the geology, assumptions, and framework. As I pieced my report together, one reference kept resurfacing: Potash in Saskatchewan, published in 1982 by Anne Fuzesy. Fuzesy provided a beautiful and concise overview of the greatest potash-producing region in the world. Yet, other than this single report, I was ignorant of this remarkable talent who shaped the industry in Saskatchewan and beyond.

#### THE SPACE SHE CARVED

Born in the UK and educated in Wales, Margaret "Anne" Fuzesy moved to Canada in 1956 and joined the Saskatchewan Geological Survey. She entered the profession as both an immigrant and a woman, neither of which made it easy to be heard. However, she advanced with steady purpose. Her work spoke for itself: detailed maps, well-reasoned correlations, and interpretations that held up over time. She didn't just participate; she gave others a clearer way to understand the field.

Few women held influence in the industry when Fuzesy began. Even fewer left frameworks behind that still serve as reference points today. She made space not by demanding it, but by delivering work others trusted and relied on.

#### A BASIN WITHOUT SHAPE

Before her report, Saskatchewan's potash industry was growing rapidly, but the geologic understanding was often fragmented. Different operators



used different names for the same formations, stratigraphic columns didn't always align across regions, and correlations between mines could be inconsistent. There was shared knowledge of the subsurface, but not a shared framework for describing it.

For an industry trying to scale production and attract long-term investment, the lack of alignment created real challenges. Fuzesy helped address that.

Her 1982 report brought much-needed structure to the field. She documented the mineralogy of potash beds, mapped the stratigraphy of the Prairie Evaporite Formation, and outlined how to interpret gamma-ray and neutron logs. She also captured the basin's industrial history, placing the science in a practical context. Her work provided a reference that helped bring more consistency to exploration and technical communication across the province.

Her 1982 report brought much-needed structure to the field. She documented the mineralogy of potash beds, mapped the stratigraphy of the Prairie Evaporite Formation, and outlined how to interpret gamma-ray and neutron logs. She also captured the basin's industrial history, placing the science in a practical context.

While methods have evolved, some of the stratigraphic concepts she clarified still inform how the basin is studied today. In a field that advances quickly, her work's lasting relevance speaks to its clarity and utility.

#### WHAT STILL HOLDS

People often describe breakthroughs as moments of rupture, explosions, or fire. Fuzesy's contribution was something else. It came from discipline and patience, from connecting the dots others had scattered. Although her progress wasn't loud, it endured.

Fuzesy passed away in early 2025. Her name may not appear in headlines or textbooks, but for those of us who map the basin she helped define, her presence is still unmistakable. It lives in the language we use and in the confidence we place in foundational data.

Her legacy invites us to rethink how we define impact. Scientific communities often reward novelty, disruption, and visibility. But Fuzesy offered a different kind of value, one rooted in precision, practicality, and long-term utility.

The persistence her career required should not be underestimated.
Fuzesy didn't wait for recognition.
She navigated a profession that didn't always welcome her, yet she contributed anyway. She gave the field a stronger basis than she was given.

For those of us continuing the work she helped define, remembering Fuzesy isn't just about honouring a name in the footnotes, but about valuing the kind of contribution that holds up across decades. She gave others the tools to move forward, provide better science, and build confidently.

In the strata of our field—both literal

and professional—she is embedded.

There is a kind of legacy that doesn't rely on acclaim. It lives in the quiet alignment of systems, in the names and maps that feel like they've always been there. Fuzesy is remembered in the continuity of understanding she made possible. Her work is passed hand to hand, paper to paper, generation to

generation. Not loudly, but faithfully.

In a world that chases disruption,
Fuzesy built something that endures:
clarity that outlasts confusion and
structure that asks nothing of the
spotlight. We walk more surely because
of her. And whether or not her name is
spoken, the ground remembers.



# SUPPORT RECOVERY AND RESILIENCE WITH ENHANCED PHYSIOTHERAPY AND PARAMEDICAL BENEFITS



By Andrea Hansen, President, Sutton Benefits & Pension

magine a welder sidelined by chronic back pain, or a machine operator struggling with untreated anxiety. These scenarios may seem very different, but both pose risks to safety and productivity in the workplace, which is why physiotherapy and paramedical benefits such as chiropractic care, massage therapy, and mental health counselling — are strategic investments.

A 2024 healthcare survey from Benefits Canada highlights

## **FERTILIZER COMPACTION LEADING TECHNOLOGIES**

Delivering Ruggedness and Reliability



Do you wish you could solve frequent problems with simple solutions? Our goal is to help our customers achieve better results and lower total cost of ownership.

We are offering you opportunities to increase performance & reduce maintenance with:

- Roll Synchronization
- Bearing Technologies
- · Air and Dust Removal
- Roll Design and Hardness

Why wait? Call now! +1 (414) 431-3500 Learn more at **ludman.net** 

Ludman Industries 4810 N 124th Street Milwaukee, WI 53225

- · Upgraded controls
- Application-Tailored Seals
- Standalone Roll-Cooling

Sizing Up Results.

· Easy Roll Removal

the prevalence of these issues, noting that 38 per cent of plan members live with chronic pain, and 58 per cent have at least one chronic condition, underscoring the urgent need for coverage.

In industrial settings, where repetitive motions or heavy lifting are common, untreated musculoskeletal issues can escalate into serious injuries requiring extended time off work. The Canadian Physiotherapy Association estimates that musculoskeletal disorders account for nearly a third of all workplace injuries in Canada, costing employers billions annually in lost productivity and workers' compensation board (WCB) claims.

Mental health support is equally important. The Benefits Canada survey notes that 22 per cent of plan members report mental health conditions like depression or anxiety. Mental health challenges often worsen physical pain, threatening performance and safety. Comprehensive paramedical benefits, including access to counsellors, can break this cycle before it leads to disability claims or incidents.

### PREVENTION AS A SAFETY STRATEGY

Investing in physiotherapy and paramedical benefits aligns with workplace safety goals, particularly in reducing WCB claims. In Saskatchewan, WCB premiums are experiencerated, meaning a company's claim history directly affects its premium costs. A single significant claim can increase premiums for years, straining budgets.

Industry leaders also note that suppliers with high WCB claim rates may face tougher scrutiny when bidding for contracts, as clients prioritize strong safety records. A 2020 report by the Canadian Centre for Occupational Health and Safety said that proactive injury prevention programs, including access to physiotherapy, reduce claim frequency and severity, enhancing a company's competitiveness.

For workers with chronic pain or repetitive strain, timely physiotherapy prevents minor issues from becoming debilitating. Yet, the Benefits Canada survey says 16 per cent of plan members face limited benefits coverage, hindering access to care. Raising physiotherapy maximums — often capped at \$500 annually — ensures consistent treatment to manage pain and prevent escalation.

In high-risk industrial settings, fatigue or stress can lead to safety lapses. As with physio, higher mental health coverage maximums can provide meaningful support, reducing stress-related absences and improving overall well-being.

# THE BUSINESS CASE: COST SAVINGS AND TALENT RETENTION

Enhanced benefits deliver clear savings. The Canadian Physiotherapy Association reports that every \$1 spent on physiotherapy saves \$3 in health care and productivity costs. And a 2021 study by the Workers' Compensation Board of

Manitoba found that early physiotherapy reduced claim durations by 20 per cent.

For a mid-sized industrial firm, where a single WCB claim can cost tens of thousands of dollars, increasing physiotherapy maximums to cover 10 to 15 sessions annually could prevent multiple claims, offsetting the cost of higher premiums.

Beyond cost savings, comprehensive benefits are a powerful tool for talent retention in Saskatchewan's competitive industrial sector. Benefits Canada found that health benefits rank second only to wages as a factor in employees' decisions to stay with an employer. With labour shortages a pressing concern, employers who offer flexible, employee-focused benefits stand out.

Saskatchewan's industrial and resource sector has the capability to lead the country in prioritizing prevention and resilience. Raising physiotherapy and mental health maximums is an investment in people, performance, and Saskatchewan's competitive edge.



Coverage you can be sure of.







Robust, top-ofthe-line benefits package



Inclusive coverage, customizable tiers



Leveraging over 30,000 employees in SIMSA membership

Elevate your employee benefits experience with Protecture – SIMSA Member Benefits Plan.
Visit **simsa.ca/benefitsplan** to learn more.

Let Protecture work for you. Get Started Today!

# **AIR BOOSTER REBUILDS**

# New life for your booster on today's tight budgets





Compressor rebuilds have been an important part of Comairco's business since day one and they now offer a refurbishment service for your entire air booster package. Seen here is the machinery before it was sent to Comairco.

Comairco's refurbishment service can bring new life to your aging air booster packages for much less than the cost of a new booster.

f the air stops, the mine stops. So as an air compressor ages, the risks of extended outages and lost production increase dramatically. Even still, with budgets tightening across the mining industry, it can be difficult to find the capital for a new compressor. Comairco's new booster refurbishment service may be the most economical way to breathe new life into your old air booster packages.

Electric-driven compressed air booster packages can be found next to any air-powered drill requiring an elevated compressed air pressure (typically 250-350 psig). The booster takes compressed air from the mine's standard supply and boosts the pressure as high as 400 psig. These compressors are typically mounted on a towable wheelbase with all the accessories, controls, and fire suppression, so it can be easily moved around with the drills as required.

The harsh conditions of a mine can wear on even the most rugged equipment, and these air booster packages are no exception. Coolers can become caked with oil and dust, elevated operating temperatures can lead to varnish formation in the air end, and harsh atmospheres can cause internal corrosion. Over time, these conditions will hamper

the performance of the compressor, and eventually lead to a risk of catastrophic failure.

Comairco has been a critical supplier to the North American mining industry since 1972, and offers a wide variety of products and services related to air compressors, blowers, and vacuums. Compressor rebuilds have been an important part of Comairco's business since day one, and they now offer a refurbishment service for your entire air booster package.

The air end is the heart of the air booster package, and the unique high-pressure rotary screw design (often by Sullair) demands special expertise for a rebuild or major repair. Comairco only allows their most experienced and well-trained technicians to rebuild these air ends, and only uses high-quality OEM parts. This ensures "like new" performance and durability for every air end and allows Comairco to stand behind their work with a two-year warranty.

The air end rebuild by Comairco includes replacement of all bearings, seals, gaskets and o-rings with new OEM parts. This complete rebuild service also includes sealing strip repairs, remanufacturing of bearing bores and air



Going beyond the air end, Comairco inspects every component in the booster package for repair or replacement. Seen here is machinery after Comairco refurbished it.

gaps, precision grinding of rotor faces and air gap collars, machining of housings, gear fit repairs, repair of broken or cracked shafts, repair of broken housings, and dynamic balancing of all rotating parts.

Going beyond the air end, Comairco inspects every component in the booster package for repair or replacement. The motor and electrical panels are refurbished, and gauges, hoses, and valves are repaired or replaced. To protect your investment, the entire frame and sump tank are sandblasted and repainted, and new reflective safety decals are added. Before leaving the shop, Comairco tests the package for leak tightness and performance, and performs a full visual inspection.

This is also a great opportunity to add customizations or upgrades to meet your changing needs. Comairco can add stainless-steel control panels, new air or electrical connections, instrumentation, safety devices, and much more.

Comairco's refurbishment service can bring new life to your aging air booster packages for much less than the cost of a new booster. Their investment in personnel and facilities ensure prompt repair time at competitive pricing.

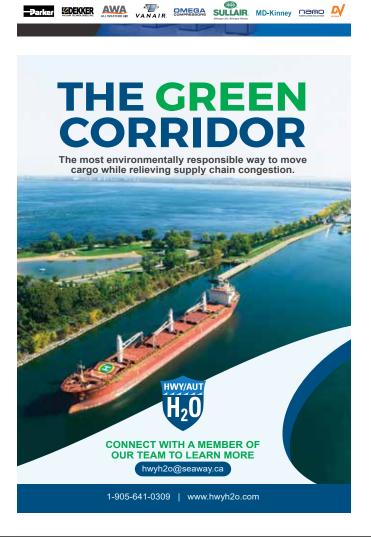
Visit www.comairco.com to contact one of their 23 North American locations.



COMAIRCO.COM

800 761-8780

**EDEKKER AWA** 



f 🖸 in

# LEGACY IN MOTION: HOW CAB® IS BUILDING THE FUTURE OF HANGER MANUFACTURING







Today, CAB® products are used in mining, solar, utility, pipeline, electrical, and infrastructure projects around the world.

ince 1985, CAB® Products has proudly supported the Canadian mining industry. Our cable hangers have served underground operations across Saskatchewan and beyond for nearly four decades. They are trusted for their strength, simplicity, and reliability. Canada is more than a destination, it is a long-standing partner built on shared values and trust earned through years of collaboration.

That foundation defines us. CAB® Products is the manufacturing identity of the Cambria County Association for the Blind and Handicapped (CCABH), a non-profit organization based in Western Pennsylvania. Our mission is twofold: to provide meaningful employment for individuals with disabilities and to manufacture products that meet the highest standards of quality and consistency. These goals are deeply connected. The

quality of our products comes from the quality of our people.

Over the years, we have grown.
Our production floor now includes automated welders, robotic CNC machinery, and upgraded dipping systems. These modern tools do not replace workers, they support them.
They help us scale responsibly, expand training opportunities, and ensure that every production order reflects the care

and quality our partners expect.

We have also expanded our warehousing with a new, state-of-the-art facility that allows us to move faster and stay responsive. This is especially critical in sectors where urgency is the norm. These decisions are shaped not by trends, but by conversations with our partners.

This year, we achieved ISO 9001 certification. It was not a change in direction, but a formal acknowledgment of what has always been true. Our products have delivered reliable performance for decades. ISO 9001 certification reflects our commitment to doing things right, every time.

In Canada, CAB®'s Bosserman Clips have become a fixture in potash and hard rock operations. They are valued for their ease of installation and long-term durability. But they are just one component of what we offer. CAB® also supplies various line management and safety-focused solutions including J-hooks, tunneling hangers, high-visibility streamers and tubes, and custom webbing products. Each is designed to help mining operations stay organized, compliant, and safe.

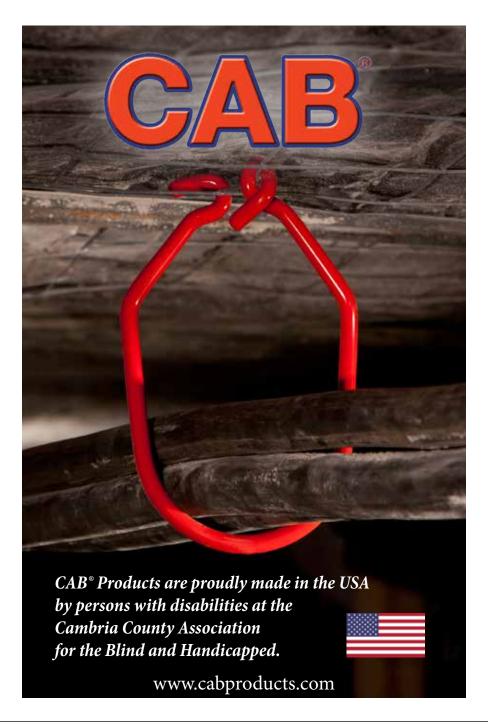
Today, CAB® products are used in mining, solar, utility, pipeline, electrical, and infrastructure projects around the world. Canadian mining has been an important part of that journey and continues to be a vital partner as we move forward.

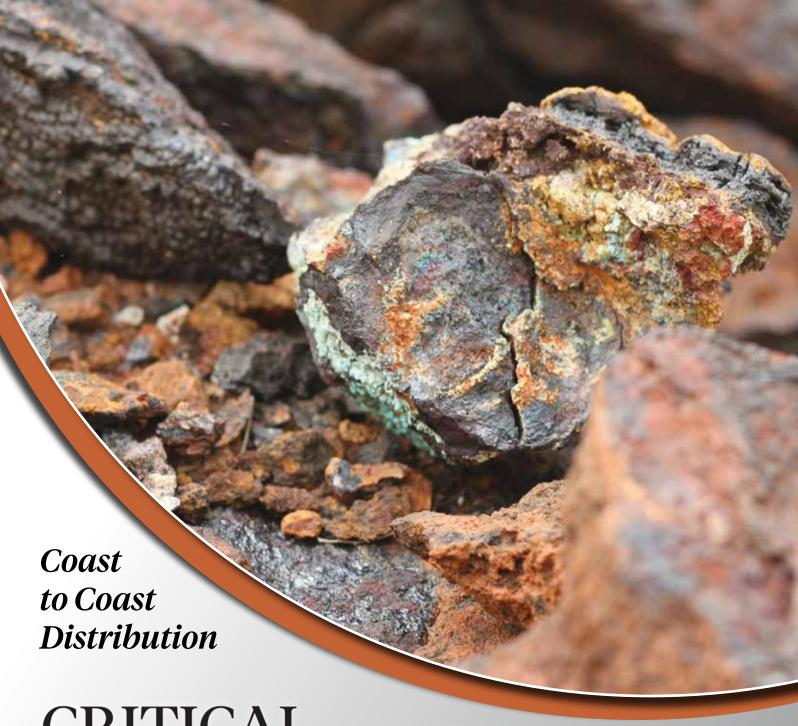
In a time when stability can feel uncertain, we remain committed to being the constant. The partner who listens. The product you trust to perform every time.

We are proud of where we have been and even more excited about what comes next. CAB® is here to serve, support, and build the future together.

This legacy is still moving. And it is moving with purpose. ●

Today, CAB® products are used in mining, solar, utility, pipeline, electrical, and infrastructure projects around the world. Canadian mining has been an important part of that journey and continues to be a vital partner as we move forward.





# CRITICAL MARINE CRITICAL CRITICAL CRITICAL CRITICAL CRITICAL SALVER CRITICAL CRITICA

Open full-screen mode



Biannual digital magazine

Ad prices

criticalmineralsreview.com