

# COMMITTED. PASSIONATE. UNCONVENTIONAL.

The 10 people profiled here are emblematic of the vision and energy that is driving the industry forward. They are CIM Magazine's

2022 NAMES TO KNOW.

## ■ Mineral economics doctoral candidate, University of British Columbia

The CIM Convention, CIMBC22, was an ideal opportunity to get out from behind the screen and add the missing third dimension to all the acquaintances made over the last two years of pandemic life, and perhaps for none more so than mineral economics doctoral candidate Benjamin Cox. Over that time, he and the metallurgist Ben Murphy have been cultivating a growing online community centred around their mining education program with the Bradshaw Research Institute for Minerals and Mining (BRIMM) at UBC.

In the spring of 2020, the two piloted a continuing education course meant to bridge the divides between the technical, sustainability and business angles of mining. That experiment has evolved into a certificate program composed of a series of courses that has brought in over 700 students, many of whom were in Vancouver attending the CIM Convention and were eager to meet their teacher.

"It was awe-inducing just to see where we had gone with this," said Cox of the reception his online teaching work with BRIMM earned him at CIMBC22.

Cox, who has worked at hedge fund D.E. Shaw and as a CEO of a junior resource company, has an uncommon knack for financial modelling, including the mundane aspects of domestic life. For his online followers, now nearing 10,000 on LinkedIn, he will do a thorough analysis of the value generated by his family's dishwasher – estimated cost per load versus time saving benefits, etc. – to explain why he bought a new machine. He is now also applying this talent for the mining analytics start-up Open Mineral to help juniors optimize their projects and the value of their offtake agreements.

Cox struggled with learning disabilities when he was young, but was never diagnosed as autistic. It was an inflight viewing of "Temple Grandin," the biopic of an autistic animal behaviourist who remade the livestock-handling industry, that confirmed this fact about himself in his early 20s. "This lady is just like me, but this can't be me. And I'm like, 'oh, okay, this all makes so much sense.'"

Unconstrained by conventional thinking, Cox's inquiries take him in unexpected directions. Earlier this spring, he, along with doctoral candidate Sally Innis, his doctoral supervisor Nadja Kunz and BRIMM director John Steen, authored an article in Nature Portfolio's Communications Earth & Environment journal, which argued that metals miners who will supply the necessary materials for the decarbonization of the economy should lead the charge in pushing for carbon taxation.

"It's staggering how much it will drive metals demand," Cox offered at his technical presentation at CIMBC22, "because there's not a single green-economy solution that can happen without metals. Carbon taxing will drive the death of coal. It's not a bad thing for us. We're not the coal-mining industry. We're the mining industry. We have so much more money to be made off nickel and copper. Why are we focused on things where we're going to lose money?"

That misdirected focus is common in the mining industry's environmental efforts, maintains Cox. "We are not focusing on the right metrics."

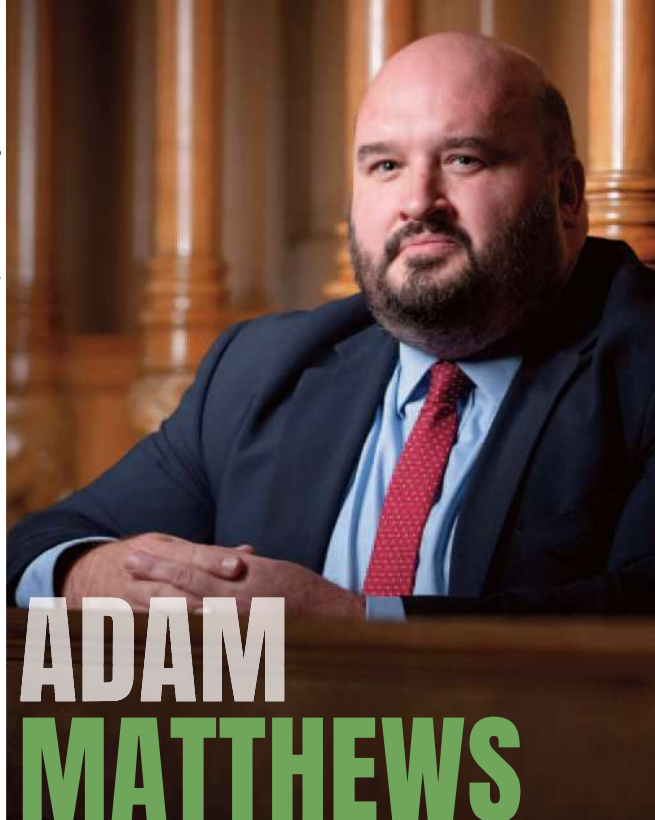
— RYAN BERGEN

## BENJAMIN COX



Jon Benjamin Photography

Courtesy of Church of England Pensions Board



ADAM  
MATTHEWS

■ **Chief responsible investment officer, Church of England Pension Board**

Activist investors have been a strengthening force in bringing the mining industry to a greener, more sustainable future, and Adam Matthews might be one of the most powerful of them. As chief responsible investment officer for the Church of England Pensions Board, Matthews oversees nearly six billion pounds in funds and has a mission to invest in a way that promotes sustainability and best practices.

After the 2013 Mariana and the 2019 Brumadinho tailings dam disasters in Brazil, it was clear the mining industry had a serious risk that was not being adequately addressed, and that outside intervention would be required. “Quite honestly, I just felt it was the wake-up call to the whole responsible investment community that there’s a fundamental issue here that we’re not engaging with,” Matthews said. “And therefore, we need a very different intervention, where investors are going to be at the table... and working constructively, pragmatically, but with purpose, with the industry until the issues are addressed.”

The result was the Investor Mining and Tailings Initiative (IMTSI), which, alongside the Swedish Council on Ethics, helped to develop the “Global Industry Standard on Tailings Management” and an online portal with the locations of tailings facilities around the world.

Just creating a standard is not enough, however, and sometimes enforcement is needed. In January 2022, the IMTSI indicated its intention to vote against the chairs of corporate boards that have not committed to the initiative’s (or an equivalent) standard. With a combined 100 investors controlling more than US\$20 trillion in assets under management, this is not an empty threat.

“We’ve had a number of companies contact us to confirm that they’re looking to implement the standard and are assessing it. So that was a helpful reinforcement to them, of the seriousness with which investors are taking this issue, and that we do expect companies to be responsive. We also have been made aware that a number of other funds are also integrating a similar approach into their voting, and there are a couple of companies that we will vote against when their AGMs occur,” Matthews said. “But our sense is that this has been very helpful, underlining to companies that haven’t responded that there is an intent amongst investors to ensure that this standard becomes normalized and taken up.”

According to Matthews, this should not be viewed as an attempt to punish the mining industry, but rather to act as an example for how investors can be active in improving the industry overall. “I think there’s a very different role for us to play from the sort of individual company dialogues to a sort of cross-sectoral assurance that the whole industry is operating to standards of best practice,” he said. “[To be] clear, there are good practices in mining. This isn’t about trying to undermine mining, this is about how we constructively work with them, but with our eyes open, to deal with difficult challenges.”

— MATTHEW PARIZOT

Courtesy of Christy Smith



CHRISTY SMITH

■ **Vice-president Indigenous and stakeholder relations, Falkirk Environmental Consultants, and vice-president sustainability, TDG Gold Corp.**

For Christy Smith, Indigenous engagement in mining is not about hitting ESG targets: it is about leaving a legacy. “Indigenous communities are going to be there for thousands of years, and have been. These are very short projects with a significant impact, so make that impact as positive as you possibly can, and leave a legacy,” she said.

Smith, a member of the K’ómoks First Nation herself, holds the position of vice-chair for the Indigenous Relations and Reconciliation Committee for the British Columbia-based Association for Mineral Exploration. She has worked in the resource sector for over 25 years after obtaining her bachelor of arts in native studies from the University of



Courtesy of PyroGenesis



■ **Chief technology officer and chief strategist,  
PyroGenesis Canada**

As the minerals and metals industry looks to significantly reduce its carbon footprint, innovators like Pierre Carabin at PyroGenesis Canada are helping pilot new technologies that make that prospect more likely.

Carabin has spent the last 24 years with the Montreal-based high-tech company that designs, develops and manufactures advanced plasma torches, among other emission-reducing innovations, for a variety of industries. In recent years, PyroGenesis has turned its attention to mining and metallurgy, and has begun creating plasma-torch alternatives to fossil fuel burners for iron ore pelletization because they produce thermal energy from low-carbon electricity.

“We see ourselves as the Tesla of the industry, not just in electrifying pelletization in iron ore but in applying these concepts to the entire mining industry,” said Carabin, who is the company’s chief technology officer and chief strategist. “What we bring with our plasma technology is a relatively simple way of decarbonizing processes.”

PyroGenesis has already made significant inroads in bringing its technology into practice. In 2017, the company was granted a patent for its design and in early 2019, PyroGenesis was contracted to pilot a clean-heating-source 900-kilowatt plasma torch for Sweden’s RISE Energy Centre AB to replace traditional burners in furnaces and kilns for iron-ore pelletization. The testing was successfully completed in nine months, addressing a major industry concern around greenhouse gas (GHG) emission reduction.

The global iron-ore pellet industry generates approximately 40 million metric tonnes of CO<sub>2</sub> every year, equivalent to the combined yearly emissions of 8.7 million passenger vehicles. Using plasma torches has the potential to not only reduce operating costs by up to 30 per cent, but significantly reduce pollution. “We estimate that the iron-ore industry could reduce its GHG emissions by 35 per cent if it were to switch all its fossil-fuel heating to plasma,” said Carabin.

The fact that there are mining companies and metal producers already on board has him even more excited. “We’ve gone from pilot to real industrial demonstration and will reach full deployment within the next few years,” said Carabin. “My dream is to see this technology adopted in many other sectors, such as steelmaking and aluminum, so that eventually we have very little use for fossil fuel for heating purposes.”

He said he is very encouraged that the mining sector is taking action in improving its environmental footprint, and that he and his team will have contributed to changing the industry for the better. “I’ve spent my career in ‘clean tech,’ where we are using technology to reduce our carbon footprint and pollution,” he said. “It’s so important to me that I can do this job.”

— ROSALIND STEFANAC

Alberta and her masters of business administration from the University of Northern British Columbia. Her professional experience has been one of navigating through the Indigenous and industry perspectives.

At TDG Gold, Smith is focused on its legacy, trying to build a sustainable model for engagement that can serve as an example for others. The way she sees it, fostering economic resilience in stakeholder communities is a step in the right direction. Partnering with local Indigenous providers of side services, such as first-aid and core cutting, allows TDG to build capacity while supporting those businesses and helping them scale up their services so they can continue to offer them to new clients long after the initial project has reached its end.

Smith’s extensive experience in different roles across the industry has allowed her to get a feel for its pulse on Indigenous participation. While adoption of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) has put pressure on companies to engage more with Indigenous communities, some are lagging behind by still only viewing it as a box-ticking exercise. “There are people who perceive they’re doing a good

job and truly believe it, and may be failing to understand what a good job means to the community,” she said.

How to avoid a lack of alignment between company and community perceptions, then? “It’s about reporting [on company performance] together, leaving a legacy that was agreed upon together and strategically developing reconciliation or economic opportunities together,” Smith stressed.

Smith recently co-authored the book *Weaving Two Worlds: Economic Reconciliation Between Indigenous Peoples and the Resource Sector* with her Falkirk colleague Michael McPhie. The book presents tools for achieving economic reconciliation with Indigenous communities, and if there is one thing Smith hopes people will take away from it, it is how to actively listen. “I always say it’s not always about listening to the words, but listening to the silence,” she explained.

“Indigenous communities are the teachers. That’s why if you listen, actively listen and listen to the silence, without all the biases and assumptions and all that extra stuff that we carry into the meeting, you will learn something. And what you learn will be valuable to the project.”

— SARAH ST-PIERRE

# CHIEF HARVEY YESNO

## ■ Board member, Avalon Advanced Materials

Chief Harvey Yesno and Donald Bubar first met 20 years ago as panelists focused on development opportunities in northwestern Ontario. At the time, Chief Yesno was representing the interests of the Nishnawbe Aski Development Fund, which provides financing and business support to Indigenous businesses in northern Ontario. Then, as now, Bubar was CEO and president of Avalon Advanced Materials.

Today, Yesno, a former Chief of the Eabametoong First Nation, past director of community relations for Ontario's Ring of Fire Secretariat and Grand Chief of the Nishnawbe Aski Nation is the newest member of Avalon's board of directors. Avalon has interests across Canada, but currently, the company's focus is squarely on Ontario, and specifically on its Separation Rapids lithium project near Kenora, which the company hopes will produce industrial lithium-mineral products for glass-ceramics and lithium chemicals for energy storage, as well as its Lilypad cesium-tantalum project near Fort Hope, which includes 14 claims totalling 3,108 hectares of cesium, tantalum and lithium-rich granitic pegmatites. Even before joining the Avalon board, Chief Yesno was familiar with Lilypad, as it is located on the traditional lands of the Eabametoong First Nation.

Chief Yesno recognizes that his current position at Avalon represents something new and uncommon – participation of Indigenous members on executive boards. A 2020 Statistics Canada report on publicly traded companies in Canada found that only 1.7 per cent have at least one Indigenous person on their board of directors, while a 2021 report by Corporations Canada found that Indigenous members hold a mere 0.3 per cent of board seats.

The clincher for Chief Yesno to accept the board appointment was the opportunity to advocate for First Nations in a novel way. "I thought this was a good opportunity for me to



sit at a different table and continue to advocate, promote or even educate people who maybe don't understand some of the processes that First Nations go through and that are often misunderstood as maybe 'anti-development' or 'too slow.'"

For Chief Yesno, the appointment is not about technical expertise, but recognizing his experience, and knowledge of consultation processes in Indigenous communities – knowledge he gained, in part, through four decades of volunteering and participating in other panels and task forces. "Some of the things that I had been advocating for – how to create certainty, engagement and decision-making processes in the community – I think that could be beneficial to companies," he explained, highlighting cultural practices such as consensus-driven decision-making rather than majority rules and translating technical terms into local languages and dialects as examples of the lessons he brings to the table.

While Indigenous participation on boards may not be common now, Chief Yesno expects to see that change in the future. Until then, he is going to do his best to represent First Nations' interests.

"I'm not saying I have all the answers, but I'm willing to share what I have gained in terms of experience and knowledge because, if it's going to help First Nations participate in not only the industry but also in the economy [overall], I think that's going to be good for everyone."

– TIJANA MITROVIC

Katherine Takoannie



## ■ President of the Pauktuutit Inuit Women of Canada

In April 2022, Gerri Sharpe, a human-rights advocate and president of the Pauktuutit Inuit Women of Canada, stood before members of the United Nations in New York and told the international delegates that Inuit women working in Canada's resource extraction industries suffer from sexual harassment and violence at an alarming rate.

Pauktuutit Inuit Women of Canada is a national non-profit organization representing Inuit women in Canada. Its mandate is to foster a greater awareness of the needs of Inuit women and to encourage their participation in community, regional and national concerns relating to social, cultural and economic development. The organization conducted a survey in 2019 that revealed that more than half of the Inuit women questioned who work in the resource-extraction industries had experienced repeated events of violence or sexual harassment, and it was the results of that study that Sharpe presented to the UN's Permanent Forum on Indigenous Issues.

Sharpe pointed out that while Inuit impact and benefit agreements (IIBA) explain potential implications, both negative and positive, and clarify how the associated Inuit groups will gain economic and material benefits, there are no guarantees that critical issues such as health and safety, systemic inequalities, gender or diversity sensitivities



■ **Senior director, organization effectiveness and global compensation, Agnico Eagle Mines**

Michelle Edwards knows that everybody can benefit from having someone in their corner when job hunting or changing jobs.

Eight years ago, a human resources manager from Agnico Eagle reached out to Edwards out of the blue through LinkedIn. Traditionally, Agnico Eagle looked to promote employees from within or hire people with industry experience, explained Edwards, but the HR manager decided to expand the pool of possible candidates and look outside the industry.

The HR manager thought that despite having zero experience in the mining sector, Edwards' experience in telecommunications, finance, pharmaceutical, retail and healthcare gave her a different outlook on company cultures and HR practices and championed her for a position with the company.

Now, at Agnico Eagle, Edwards has brought in a holistic approach, building programs that can effectively attract and retain people. Part of her responsibilities includes forging a path for performance and leadership development, and creating policies to promote diversity, inclusivity and culture awareness.

"My love for HR sparked from an interest in seeing people working at their best and leveraging their strengths and skills to have an impact in an organization," said Edwards.

Since entering the sector, Edwards has found that one of the most difficult obstacles to overcome in terms of increasing diversity and inclusion in mining is that there is still a narrow perception of who belongs in the industry. She even recalls that during her student days in college and university, at no point did any professor or councillor ever suggest mining as a potential career, despite Edwards having taken classes in geology and other sciences.

Edwards said every organization must ascertain how to create a welcoming and inclusive environment for all gender identities, races and nationalities, and provide psychologically safe environments that encourage collaborative, open and inclusive dialogue for employees.

At Agnico Eagle, Edwards has spent a lot of time engaging with employees as part of the process of designing and understanding of what kind of programs they want to see deployed



throughout the company. She has worked on launching the company's "guiding principles" which outlines how the organization values cultural awareness and employee input.

"[We] did a lot of work helping people understand what it meant to work at Agnico, how we work internally, how we collaborate and the principles that we felt were really critical for success," she said. "For the rollout, we were able to really help people engage with stories of their experience at Agnico, learn from them and help new people in the organization really understand what that looks like."

As the industry continues to deal with a significant labour shortage, Edwards thinks fostering initiatives around diversity and inclusion will be vital in recruiting future generations of workers who see diversity and inclusion as a requirement, not just a preference. Edwards also said that the industry needs to connect with more students in order to increase enrolment and interest in mining in general.

"Continuing to work with schools at the early stages isn't going to solve the problem for today, but it would help for the future."

— MEHANAZ YAKUB

or access to information will be addressed. This can create situations in which community expectations are not met and Inuit workers, especially the women, are faced with situations that they do not understand and are not comfortable with.

"What [the women] are experiencing is a lot of sexual harassment, a lot of intimidation, a lot of misogynist behaviour," Sharpe explained. "And what Pauktuutit found is ... that this is underreported, because the women are not sure where to go, where to report it. There is a lack of understanding of the Inuit culture and how that revolves around harassment of any sort. And language is also a barrier in some cases."

To compound the problem, the social norms – such as the philosophy that what affects a single person affects the entire community – and nuances of communication familiar to Inuit are not immediately apparent or understood by workers brought in from the south. To help resolve that problem, Sharpe said, there is learning to be done on both sides. "This is one of the things that is difficult when women go to work on

one of the sites," Sharpe noted. "Because that's not the mindset that they're encountering."

"I feel that when employees are coming from the south to work in the North, there should be some cultural safety training that's done," she said. "Men that are from the North should already know the expected behaviours, and they should speak out against behaviours that are not appropriate, and they should be protecting and watching over the women."

Sharpe said that the industry as a whole needs to prioritize the safety of Inuit women while keeping all women safe.

"Mines also need to keep in mind that when they hire women, it is also their obligation to keep women safe. And this is just not physically safe. It's also mentally as well as all other aspects of life, which means being free of any sexual harassment, discrimination or abuse of any sort," said Sharpe.

"I think the mining community can engage with our Elders and be more culturally appropriate and more culturally mindful... They can do a lot more than what they're doing. They can find the mechanisms that will succeed."

— LYNN GREINER



**GREG  
SUTHERLAND**

■ Senior vice-president Canada environmental, Parsons

There are no sites more challenging and environmentally complex to clean up in Canada than the Giant and Faro mines, according to Greg Sutherland, the man in charge of doing the job.

Sutherland, who has been involved in remediation site cleanup since he joined Parsons fresh out of graduate school at Utah State University 25 years ago, has led the teams working at the Giant and Faro mines for the past seven years.

In February 2022, the Canadian government signed a \$108 million contract with Parsons for construction management at Faro, which was once the world's largest open-pit lead-zinc mine. According to the company, the agreement could span 20 years and exceed \$2 billion.

Sutherland explained that the goal of the work is to not only clean up the site and protect human and environmental health but also maximize the social-economic benefits for the local Kaska Dena communities through training, employment and subcontracting to Indigenous-owned businesses. "We cannot let this opportunity slip by without taking advantage of the size and scale of this project," he said.

Sutherland has been leading the team at Faro since the company first started care and maintenance work at the site in 2016. With the focus now also being on managing the remediation of the site, his team will have to leverage existing local relationships and apply lessons learned so far from work at Faro and Giant.

The main lesson? Continue the emphasis on planning and communication. Whether it is with local Indigenous communities, local governments, contractors or other stakeholders, planning and communication are key to ensuring every partner knows what work is coming down the line over the next few years.

Sutherland and the team at Faro meet with local Indigenous leadership regularly to understand both their short- and long-term objectives for the project. He said the long-term nature of the project provides the opportunity to do some unique long-term planning and long-term capacity building. "We want to understand their goals and where they want to be in two, five or 10 years, and work with them to get there," said Sutherland. "The part where we see the real value that we add is by making sure that we have [those] open lines of communication."

Sutherland still anticipates a challenging road ahead for the possibly multi-billion-dollar project, especially given the scrutiny on it. "[These] projects are not easy, they come with a lot of their own challenges," he said. "But that's what we like to do. We like to take on challenging projects."

While Sutherland's career has been focused on the remediation of contaminated sites, he said he could not have predicted working on such massive projects like Faro at the start of his career.

"Personally, did I see myself doing this? Probably not, but it is an exciting opportunity. And after cleaning up sites across Canada for 25 years, it's pretty neat to be involved in these types of projects."

— TIJANA MITROVIC



**GREG  
DIPPLE**

■ Chief scientific officer, Carbin Minerals

Winning an X-Prize for carbon removal is a significant milestone for any company. In April, Carbin Minerals not only took home US\$1 million from the international competition, but it did so only seven months after being incorporated. When dealing with a timeline that short, it helped to have a co-founder with 20 years of experience in carbon-sequestration research.

Geologist Greg Dipple is a professor at the University of British Columbia and a researcher with the Mineral Deposit Research Unit (MDRU). Another of Carbin's co-founders, Bethany Ladd is a research scientist with MDRU, where Carbin's third co-founder, Peter Scheuermann, is a postdoctoral research fellow. While the company may be a very new venture, its scientific credentials have a solid foundation.

Dipple believes that within the next 10 years, the first net-carbon-negative mine will be a reality, and he hopes to play a role in its creation and operation.

"It is a really achievable goal. It will be a huge accomplishment. It'll be important for the planet, and it'll be important for the industry," said Dipple.



## ■ Chair of the board of directors and interim president and CEO, Iamgold

Maryse Bélanger has never backed down from a challenge in her life. That attitude has often placed her at the head of mining companies looking to restructure. It's a familiar assignment and one she has found again – this time with Iamgold.

"The company needs some debt restructuring and a new focus on operations and project execution at the Côté gold project [in Ontario]. I decided that was a challenge I wanted to take on," she said. "For the operations, I'm really focusing on efficiencies at Côté. I really believe that Côté is a multi-generational asset. It's a massive resource. And I'm really, really passionate about developing it."

Bélanger joined the Iamgold board of directors in February and has past experience with one of the company's assets: she was at the Essakane gold mine in Burkina Faso while undertaking exploration activities in West Africa in the 1990s.

After studying geology at the University of Quebec at Chicoutimi, the "small-town Quebec girl" did her graduate studies in geostatistics in Fontainebleau, France.

She has planned diamond mines, restructured a nickel mining operation, planned and run operations at both copper and gold mines and worked for the late resource modelling and geostatistics authority Harry Parker at MRDI (now AMEC) "until the very first 43-101 conference." More recent assignments include serving as COO of Atlantic Gold Corp as it ramped up its Touquoy mine and acting as mine general manager (while still serving as director) at PureGold Mining to help restructure the company and rebuild the management team.

Being an active board member – she is currently on the board of Sherritt International and Equinox Gold, as well as Iamgold – is important to Bélanger, and she believes board members have a duty to step into operations when needed.

"The board is not there to sit around, and just rubber stamp approvals. There are real healthy discussions at the board level. And at one point, you have to say that you're going to put your time and energy in and be really, really committed to the company."

Dipple explained that certain nickel deposits are hosted in ultramafic rock and have a mineralogy that "is inherently reactive to CO<sub>2</sub> in air. We can now accurately measure the rate of CO<sub>2</sub> mineralization that's happening on these mine tailings.

"Our work at Carbin Minerals is focused on optimizing the reactivity of the tailings to atmospheric CO<sub>2</sub>, speeding up the whole process of carbon mineralization. We do this by coupling our treatment technologies with real-time monitoring so we can direct our interventions for maximum effect. The more we can get them reacted before they get buried, the more carbon that we capture, and once that carbon gets captured, that precipitates out as magnesium carbonate mineral, which is a very dense and stable form of stored carbon."

One of the treatments used by Carbin Minerals involves the manipulation or churning of the surface of the tailings to increase exposure to the air. How that is actually done



# MARYSE BÉLANGER

One of the reasons Bélanger is successful at turn-arounds is her forward-looking approach to both life and business. That is why she knows what her next task at Iamgold is: developing future company leaders. While the industry promotes mentorships, Bélanger feels having internal sponsors is a more effective way to help pull young talent up the corporate ladder. She credits a senior executive at one of her first jobs for teaching her how to be a good leader and about how boards operate – lessons she still uses today.

"I really want to bring some really good people to the next level, because I see a huge gap between the 60-year-old crowd, like me, and the 40-year-olds. We have a real challenge with the pipeline of executives coming through the industry.

"It's not about me. I could easily be working on my golf game or travelling, but I do it because I'm passionate. Once Iamgold is done, I see myself as going back to board work and working with a great management team, teaching them a few things, and hopefully proving useful and just doing good work." – CAROLYN GRUSKE

depends on the nature of the tailings being treated, the local climate, and various other physical and chemical parameters that can vary significantly across the whole tailings storage facility (TSF). "We have tested these technologies in the lab, piloted them at a small scale on actual TSFs and next we are going to pilot the technologies at some larger active mines. That will allow us to further optimize our processes," said Dipple.

Dipple is absolutely convinced that it is possible to reduce greenhouse gases in mining (and throughout the world in general), but he thinks there is a catch.

"If we don't achieve large-scale carbon removal by 2060, 2070 or 2080, as a species, we're going to be suffering because of it. And it's not clear that we will do it. There's a clear pathway to do it technically, but to do it politically and to make the economic choices to make that happen are going to be difficult, as we're seeing today." – CAROLYN GRUSKE