



A subsidiary of

CHAMPION IRON 

# Being the mining company of tomorrow, today

2019  
Sustainability  
Report

Our electronic version  
is even more sustainable.  
Please avoid unnecessary  
printing.





# Sustainability highlights<sup>(1)</sup>

## Communities

\$5 M

Community investments

\$196 M

Sourcing from local suppliers<sup>(2)</sup>

\$3.5 M

Sourcing from Indigenous suppliers<sup>(3)</sup>

## Human capital

500

Employees

42

<sup>(6)</sup> Local and Indigenous jobs

\$65.8 M

Salaries and benefits

## Site restoration

22 hectares

Revegetated area

## Healt & Safety

2.41

Total recordable injury frequency<sup>(4)</sup>

1.11

Lost time injury frequency<sup>(4)</sup>

## Energy and GHG

2,060 TJ

Energy consumed

64,769 tonnes CO<sub>2</sub>e

Direct GHG emissions

## Product stewardship

82.1%

Iron recovered from the extracted ore

<sup>(1)</sup> Since data collection only started in 2018, no comparison is possible with previous years.

<sup>(2)</sup> Suppliers with a business unit in the Côte-Nord region of Quebec.

<sup>(3)</sup> Indigenous businesses or businesses that are Indigenous partners.

## Business ethics

\$59.0 M

Mining taxes paid to government

\$5.6 M

Municipal taxes paid<sup>(5)</sup>

## Tailings Management

100%

Compliance with the monitoring program for mine tailings retaining structures

## Water Stewardship

95%

Reused or recycled mining wastewater

<sup>(4)</sup> Per 200,000 hours worked (excluding contractors and subcontractors), based on the international standard set by the Occupational Safety and Health Administration.

<sup>(5)</sup> Excluding an amount of \$14.9 million for arrears, transfer rights and interest arising before the year 2019.

<sup>(6)</sup> Includes regular Indigenous employees, contract workers and interns.

Intensity generated per tonne of iron concentrate produced

0.11 KG

Hazardous Wastes generated

0.49 KG

Wastes generated

82 litres

Water taken from surrounding lakes

272 MJ

Energy consumed

8.6 KG

Direct CO<sub>2</sub>e emitted



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# A word from the board of directors



On behalf of our team at Quebec Iron Ore and its parent company, Champion Iron Limited, and as the new Chief Executive Officer and Director of Champion Iron Limited, I proudly present our 2019 Sustainability Report.

We recognize that the way we do business is just as important as our business itself, and we believe that producing a high-grade iron concentrate in a responsible manner is vital.

Quebec Iron Ore's long-term vision as an operator inevitably involves the creation of a sustainable and innovative business that considers the social, environmental and economic context in which it operates.

Integrating the sustainability principles by continuously improving the safety and

productivity of our operations and by minimizing social inequities and impacts on the natural environment is essential for our business and its shareholders as well as for communities.

This report reflects our commitment to disclose our efforts to integrate the sustainability principles for all of our activities, in accordance with our corporate values:

Pride, Transparency, Respect and Ingenuity.



## Financial performance

Throughout the year, we continued to make progress in sustainable development while achieving solid operational and financial performances. Since the Bloom Lake Mine was recommissioned in February 2018, we have exceeded all of our team's initial operational expectations. In fact, our company generated C\$785 million in revenue and C\$121 million in cash flow from operations in our second fiscal year ending March 31, 2020.

Along with this success, our company significantly reduced the cost of carrying its debt in 2019 by refinancing its long-term debt with a US\$200 million term loan, with a group of sophisticated global financiers, and entered into a perpetual preferred share offering of C\$185 million with Caisse de Dépôt et Placement du Québec.

Champion Iron Limited also acquired the 36.8% residual equity interest in Quebec Iron Ore held by the Government of Quebec in for a total cash consideration of C\$211 million. With this restructuring, Champion Iron Limited now has 100% ownership of the Bloom Lake Mine.

Our operational excellence led to our shipping of over 10 million tonnes of high-grade iron ore to our customers in Asia, Europe and the Middle East. We reached this major milestone in 2019, a mere 18 months after starting operations at the Bloom Lake Mine. Our company also achieved the highest quarterly output in the history of the mine, with 1,989,400 tonnes of iron ore concentrate produced and record cash flows of C\$91.9 million for the April–June 2019 quarter.

We are proud to have been honoured by our mining industry peers with the Rising Star Award at the prestigious S&P Global Platts Global Metals Awards in London in May 2019. This award reflects the excellence of our company from the very beginning.







## Climate change

We recognize that climate change is a concerning challenge and that it will have measurable environmental, social and economic impacts on communities. We support the United Nations Framework Convention on Climate Change and Canada's commitments under the resulting Paris Agreement which aim to reduce Canadian emissions by 30% below 2005 levels by 2030. We believe our mining company has a role to play in supporting the transition to a global low-carbon economy. We are determined to put our ingenuity and innovation to work in support of efforts to mitigate and adapt to climate change. For example, before restarting the Bloom Lake Mine in 2018, Quebec Iron Ore improved existing infrastructures to substantially reduce fossil fuel consumption and GHG emissions. These modifications will reduce GHG emissions by over 36,000 tonnes every year—that is over 700,000 tonnes across the expected 20-year lifespan of our operations. We continue to be alert and committed to implementing every possible initiative that will allow us to reduce our GHG emissions on an ongoing basis.



## Growth and major project

The high quality of the iron ore from the Labrador Trough, combined with a world-class transportation infrastructure network, as well as the capital restructuring carried out in 2019, provides the most favorable conditions for forthcoming organic growth for Quebec Iron Ore.

In light of these favourable conditions, in June 2019 we announced the positive results of a Feasibility Study that proposed to double the annual output of the Bloom Lake Mine to 15 million tonnes of high-grade iron ore concentrate, which requires an

investment of US\$446.8 million. Benefiting from US\$1.2 billion dollars of investments by our predecessor, the Phase II expansion project offers attractive economics and potential value creation for the Company's shareholders.

Along with the positive findings of the Feasibility Study, the Company's board of directors approved an initial budget of C\$68 million to advance the project in June 2019. This initial budget significantly de-risked the project timeline, while the Company is evaluating to further advance it.





# Governance

We rely on a solid, diligent organizational structure, with governance and accountability mechanisms, to reduce risks and negative impacts on our company. This way, we protect company interests, optimize results and value for shareholders, and ensure long-term success.

In 2018, we set up the Occupational Health and Safety, Environment, Communities and Technique (HSECT) committee within the board of directors. This committee was in office until the conclusion of the transaction which led to the purchase of the 36.8% stake held

by the Government of Quebec in QIO by Champion Iron Limited in 2019. The committee will be reorganized in 2020.

I also appointed Mr. Steve Boucratie as Vice-President, Legal Affairs and Corporate Secretary at Champion Iron Limited in 2019.

We continuously strive for success and I am confident that the governance structure and mechanisms we have already put in place will help us to properly manage and regulate our company, while incorporating sustainability principles at every level, up to our company's executive management.

# COVID-19

The COVID-19 pandemic in 2020 has presented unprecedented challenges for our business. Several measures have been implemented to protect the health of our employees and those of our partners, and to prevent the spread of the coronavirus to surrounding communities and Indigenous groups. Among these measures are those that ensure recommended social distancing for employees, the isolation of our operations and

activities from local communities, the control of entrances to all of our business points, minimizing transportation numbers for our employees, and the establishment of a telework schedule for a maximum amount of employees. Our company has learned several lessons from interactions with our stakeholders during the crisis, which will help improve our approach to sustainable development in the future.



## Looking ahead

I would like to reiterate our commitment to operate responsibly and with the highest standards of transparency and respect for our stakeholders. This commitment is already evident and will continue to be visible as we work to incorporate sustainability principles in every aspect of our value chain.

There exists a growing focus by our customers to evaluate the entire value chain of the products they purchase. Our customers are looking to improve sustainability and ethics through the production of the raw materials they purchase.

I remain convinced that our success depends in part on our ability to anticipate and respond adequately to their needs, while remaining consistent with the fundamental values of our company.

Personally, and on behalf of the board of directors, I want to take this opportunity to thank everyone who works at Quebec Iron Ore for their tireless commitment to our company and its values. Their ongoing efforts and invaluable contributions ensure our company's success, which, in turn, significantly benefits all of our stakeholders.





# A word from executive management



We recognize our duty as a mining company to support environmental protection in order to keep our communities safe and healthy and to preserve life-supporting ecosystems. We also recognize that our company must promote social equity if we are to help our communities grow and respect individuals in all their diversity.

Despite our recent success to recommission a major mining complex, our company has already made great progress in sustainable development. I am fortunate to be part of a team dedicated to make Quebec Iron Ore a sustainable entity with strong economic success while continuously focused on its social and environmental responsibilities.

I am proud of the passion and determination of our people at all levels of our company. With this appetite for success, our people are rapidly shaping Quebec Iron Ore as a company of tomorrow... today.



## Employee health, safety and well-being

Occupational health and safety is our top priority and is already deeply rooted in our corporate culture.

We recorded an incident frequency rate of 2.41 per 200,000 hours worked by our employees in our first year of full operation.

We strive every day to create, for and with our staff, a work environment that minimizes risks to their health, safety and well-being. To deal with the COVID-19 crisis, Quebec Iron Ore set up a crisis management team to react to daily developments related to the pandemic and ensure the

implementation of proactive measures aimed at preventing contamination of our employees and their families as well as members of local communities.

We recognize the importance of maintaining a high level of vigilance and effort to improve the safety of our operations on a continuous basis. With this in mind, our team reviews measures daily to reduce risks and improve our performance in occupational health and safety for the well-being of every staff member and their respective families.







## Human capital

Our goal is to become a company that provides employees with a superior experience, inspiring them to give the best of themselves and commit to creating sustainable value for the company. The managers coaching program implemented in 2019 supports this goal. The program is aimed at highlighting our managers' work styles and degrees of empowerment to help them reach their personal and professional goals in the company.

To be the best possible company we need to nurture and implement the best ideas our employees have to offer. By using an approach that taps into a wide variety of experiences, personalities and points of view, we can continue to reach our business goals. We believe that the diversity and inclusion program, introduced in 2019, will enable our company to prosper.

Hiring and retaining members of Indigenous communities was one of our top priorities in 2019. We also prioritize subcontractors who prioritize Indigenous hires. Though we have not been operating for long, we understand that Quebec Iron Ore is already one of the largest Indigenous mining employers in the Labrador Trough, employing over 70 Indigenous workers directly or indirectly for the Bloom Lake Mine in 2019.

As of December 31, 2019, women made up 11% of company employees. As our company values diversity, we strive to increase the presence of women in our workforce at all levels of the organisation.



## Community and Indigenous relations

Building and maintaining solid ties with host Indigenous communities and peoples is at the centre of our concerns and forms the basis of one of our core values: respect.

We are very proud to have signed an Impacts and Benefits Agreement with the Uashat Mak Mani-utenam in 2017, which also includes provisions for benefits to the Matimekush – Lac-John First Nation. We believe that this agreement is only the beginning of a productive relationship for all parties concerned, and that it will help us pursue a collaboration built on trust and reciprocity.

We recognize that the success of our operations goes hand in hand with the prosperity of the communities in which we operate. That is why we engage with local businesses of all sizes, with a bias to help them win contracts with our company, while making community investments that have real meaning for the community. In 2019, we contributed just over C\$5 million in community investments.

## Tailings management

At Quebec Iron Ore, we take the greatest care to ensure safety and security, which are of vital importance, at our tailings management facilities. It starts with setting high-design standards and using construction techniques that meet stringent safety standards.

In 2019, 100% of the internal and external monitoring program for the tailings retaining infrastructures was respected, and revealed that they generally behaved as expected from a geotechnical standpoint.

## Water stewardship

Water is a precious shared resource that has social, cultural, environmental and economic value. Mining companies have a duty to manage it efficiently and responsibly. We recognize the important role our industry must play in sustainable water resource management, which requires a holistic understanding of hydrology and its use in the watershed.

We aim to use as little natural fresh water as possible in our operations. In fact, we were able to recycle over 95% of the wastewater collected from our facilities into the iron ore treatment process in 2019. We are also proud of our world-class wastewater treatment infrastructure, which allowed us to treat all surplus wastewater, while meeting 100% of physico-chemical quality standards in 2019, before returning it to nature.





## Looking ahead

As current and future social expectations evolve, as we need to take more and more concrete action to preserve the natural world we live in, and as technology changes, it will shape some of the adjustments our company will undoubtedly have to make in the future. There is a need to improve the management of the resources necessary for the development of our societies by raising our level of efficiency, transparency and accountability. The most successful companies will be those that can best anticipate and adapt to future expectations and needs in terms of sustainable development. For now, we will continue to be on the lookout for current and future sustainable development risks and opportunities to prepare for the challenges that lie ahead in the decades to come. That is what makes a company of tomorrow... today. I encourage you to read our 2019 Sustainability Report and, on behalf of the Quebec Iron Ore family, I thank you for your interest.



# About this report

This report was prepared in accordance with the core option of the Global Reporting Initiative (GRI) standards. Under the GRI standards, companies must focus their reports on topics that reflect their economic, environmental and social impact and/or considerably influence decisions of stakeholders.

In accordance with these standards, we identified several relevant topics for Quebec Iron Ore in 2019, as well as the material issues associated thereto. They can be viewed in the relevant section of this report.

This report also provides information on the status of Quebec Iron Ore's commitments in relation to the directions provided by key organizations such as the Mining Association of Canada (MAC) and its Towards Sustainable Mining (TSM) program, as well as the

International Council on Mining and Metals (ICMM) and its principles of sustainable development. It also reports on the progress made by the company in relation to the United Nations' Sustainable Development Goals (SDGs).

Enviro-Access Inc., an independent third party providing the level of assurance required, verified the Quebec Iron Ore greenhouse gas (GHG) emissions data at the site (Scope 1 of the GHG Protocol) in accordance with ISO 14064-3:2006.

All data was internally examined and evaluated. This report was approved for publication by Quebec Iron Ore's executive management team in June 2020. QIO plans to produce a sustainability report for each year of mining operations.





## Limits and scope

This annual report provides information and data on our industrial activities only for the assets over which we have operational control. We therefore exclude data associated with port and transport activities, which are subcontracted by Quebec Iron Ore.

The report also contains information on the management structure and the environmental, social and governance performance of Quebec Iron Ore for the 2019 calendar year, which includes elements relating to its parent company, Champion Iron Limited, being exclusively or partially associated with it. Although this report deals with the 2019 year, some information concerning Quebec Iron Ore's handling of the COVID-19 pandemic from March to May 2020 is presented.

The information presented in this report relating to the annual production of iron concentrate, EBITDA and revenues is based on the fiscal year from April 1, 2019, to March 31, 2020. All other environmental, social and governance information presented is based on the 2019 calendar year, i.e. the period from January 1, 2019, to December 31, 2019. The data reported on the basis of one tonne of iron concentrate produced is based on the production of iron concentrate for the period from January 1, 2019, to December 31, 2019, to reflect the information presented in the annual reports submitted by QIO to government authorities. The human resources data is based on the situation as at December 31, 2019.

## Data and information

Quebec Iron Ore retains all information and data in this report through its document control system. The parameters of this report reflect those used in the markets and sectors in which we operate and are mainly based on GRI indicators.

All figures in this report represent the latest data available, unless otherwise indicated in the text. Some of the totals shown may reflect the rounding up or down of totals and subtotals.

Unless otherwise indicated, all amounts of money presented in the report are in Canadian dollars. The tonne unit used equals 1,000 kg.

We may change our approach to communicating our data in future sustainability reports without prior notice. We also reserve the right to modify the communication of specific data and its interpretation.

Quebec Iron Ore policies accessible to the public are available at [quebecironore.com](http://quebecironore.com).

Quebec Iron Ore values its relationships with its stakeholders and is committed to maintaining open and transparent communication. We accept questions, comments and requests for information on this report and its content and on the sustainability performance of Quebec Iron Ore for 2019. Comments may be sent to the following address: [DDSD@mineraiferquebec.com](mailto:DDSD@mineraiferquebec.com).









# The company

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## Our fiscal year in figures



\$785 M

In revenues <sup>(7)</sup>

\$349 M

EBITDA <sup>(7)</sup>

\$121 M

Net revenue <sup>(7)</sup>

<sup>(7)</sup> For the fiscal year beginning April 1, 2019, and ending March 31, 2020.

\$65.8 M

Salaries and benefits

500

Employees



Champion Iron Limited owns 100% of the Bloom Lake Mine following the repurchase of

36.8%

of the Government of Quebec's shares in Quebec Iron Ore, for the sum of

\$211 M



# Promoting iron around the world



# Our product



Founded in 2015, Quebec Iron Ore is a subsidiary of Champion Iron Limited. The company became one of the world's largest independent producers of high-grade iron ore following the 2018 launch of operations at its main asset, the Bloom Lake Mine in Quebec, Canada.

Quebec Iron Ore produces 66.2% iron high-grade concentrate.

The premium-quality iron ore concentrate produced by Quebec Iron Ore meets the world's highest steelmaking process standards of our clients located mainly in China, Japan, Europe, India, Korea and the Middle East.

The high grade of its product not only saves customers money in the steelmaking process compared to other products, but also improves their ability to reduce carbon emissions.

The iron concentrate produced by Quebec Iron Ore also contains very few impurities such as alumina, sulphur and phosphorus, which are of increasing importance in the industry. Such characteristics of Quebec Iron Ore's iron concentrate also favours the production of more complex steels.



# The territory

Quebec Iron Ore is based in the Labrador Trough in Canada, where a narrow belt of sedimentary and igneous rock 160 km wide and 1,200 km long runs through northern Quebec and Labrador and is known for its very rich deposits of high-quality iron.

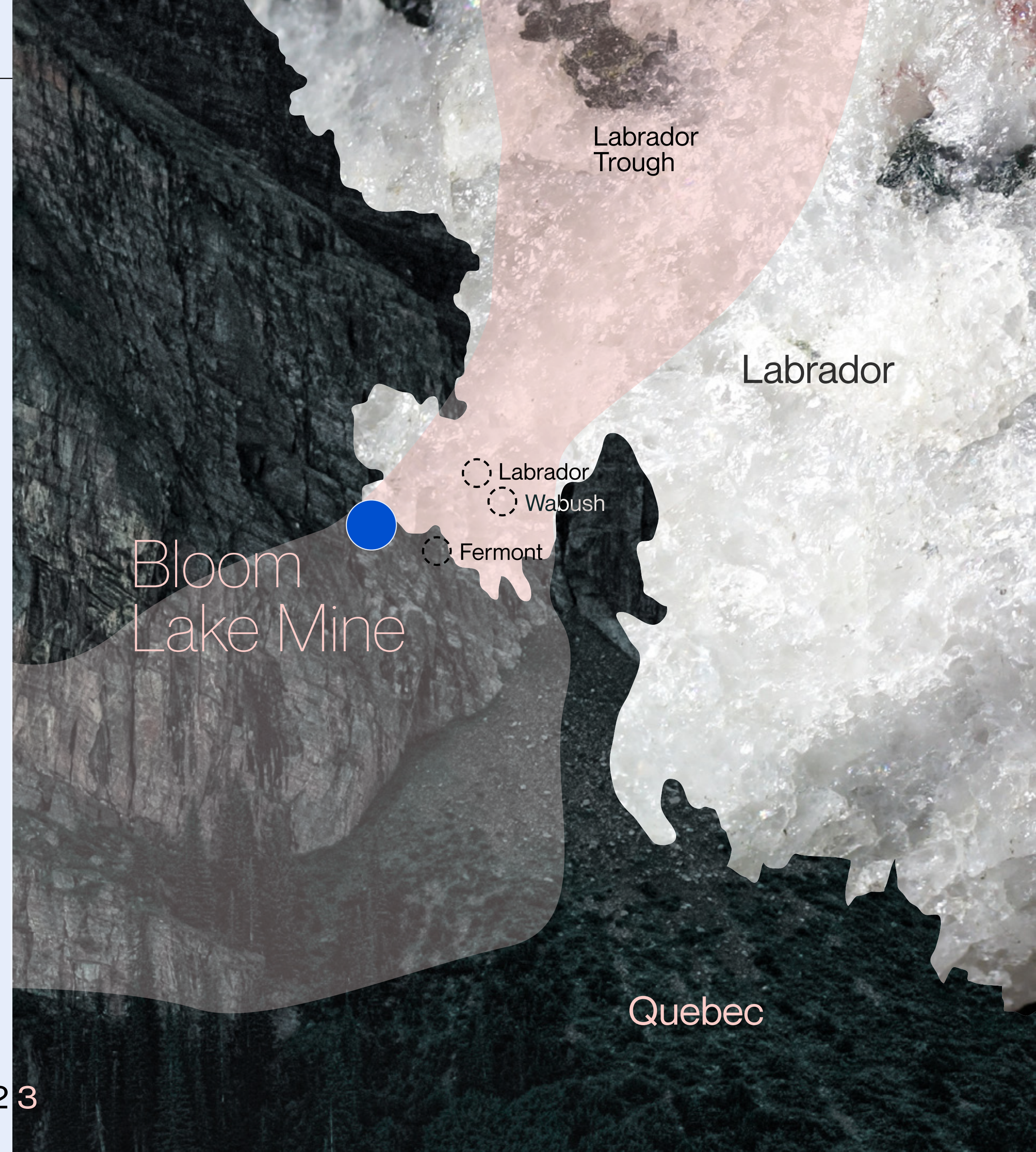
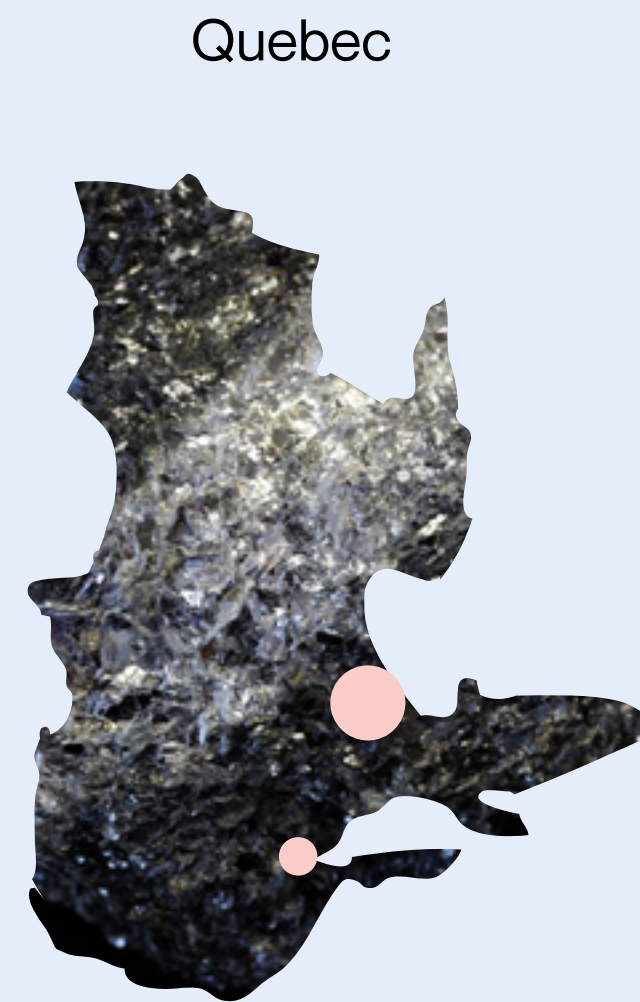
In addition to operating the Bloom Lake Mine, Quebec Iron Ore's parent company, Champion Iron Limited, controls more than 5 billion

tonnes of iron ore resources located less than 100 km south of the mine's current operations, which presents attractive long-term growth opportunities for the company.

Quebec Iron Ore also benefits from access to world-class infrastructure to transport the iron concentrate to a seaport that has a deep-water terminal where "capesize" ships can be loaded in under 50 hours.











respect

transparency

ingenuity

pride



resp  
transpa  
inger  
prio

## Respect

We want to conserve resources and the environment. It is therefore natural for us to comply with safety standards, and to take into account people, partnerships and equipment.





respo  
transpa  
inger  
prio

A portrait of a middle-aged man with short, light-colored hair and glasses, wearing a yellow and orange patterned shirt. He is looking directly at the camera with a neutral expression. The background is a dark, out-of-focus cityscape at night. The portrait is set against a solid blue background.

## Transparency

We encourage open dialogue and active listening among colleagues to foster a constructive work environment.





Expect  
Transparency  
Ingenuity  
Provide

Ingenuity

We rely on the creativity and know-how of all. We support efficient practices and our ambition is to always do better.



respe  
transpa  
inger  
prio

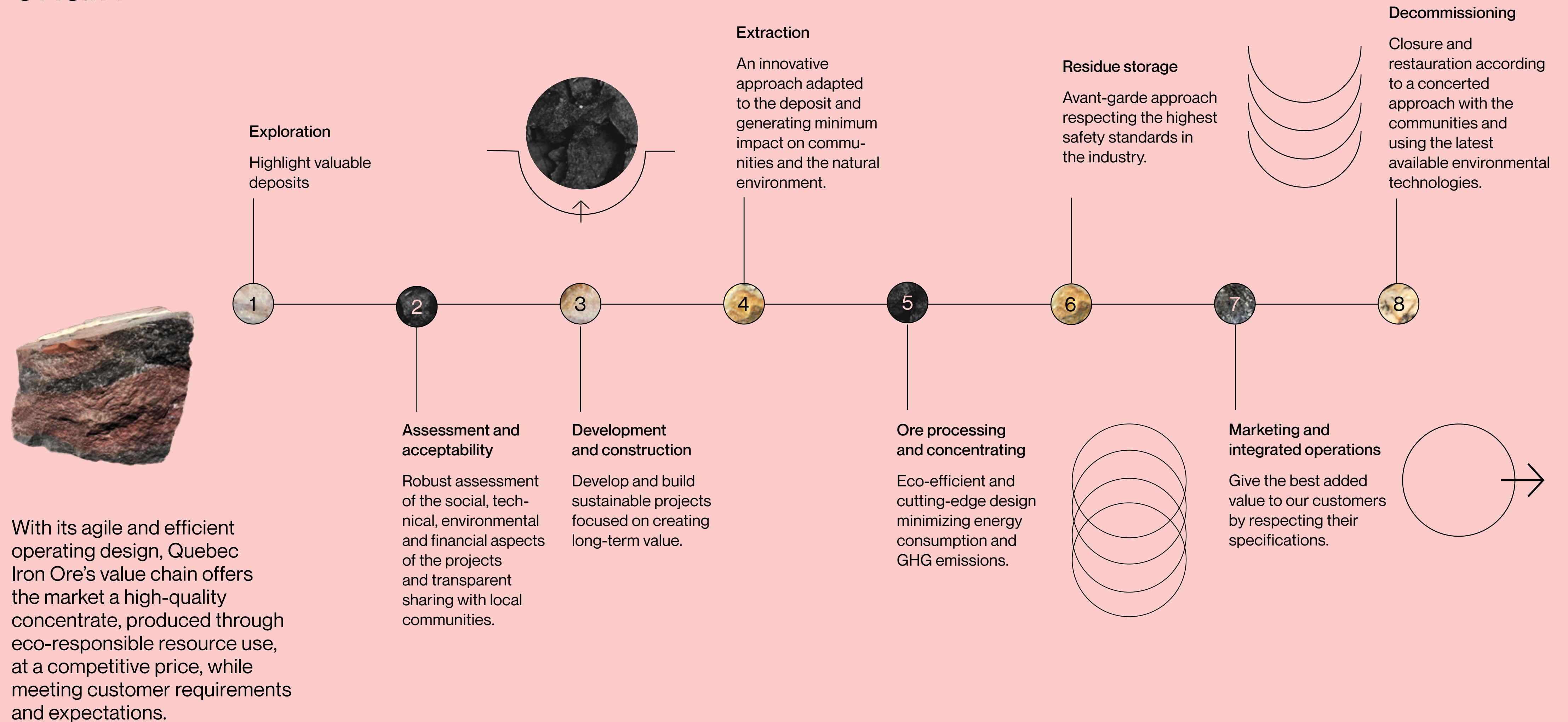
## Pride

We are proud of what we do,  
as a team, as a company, in  
all spheres of iron ore mining.  
Our sense of collective  
belonging is strong.





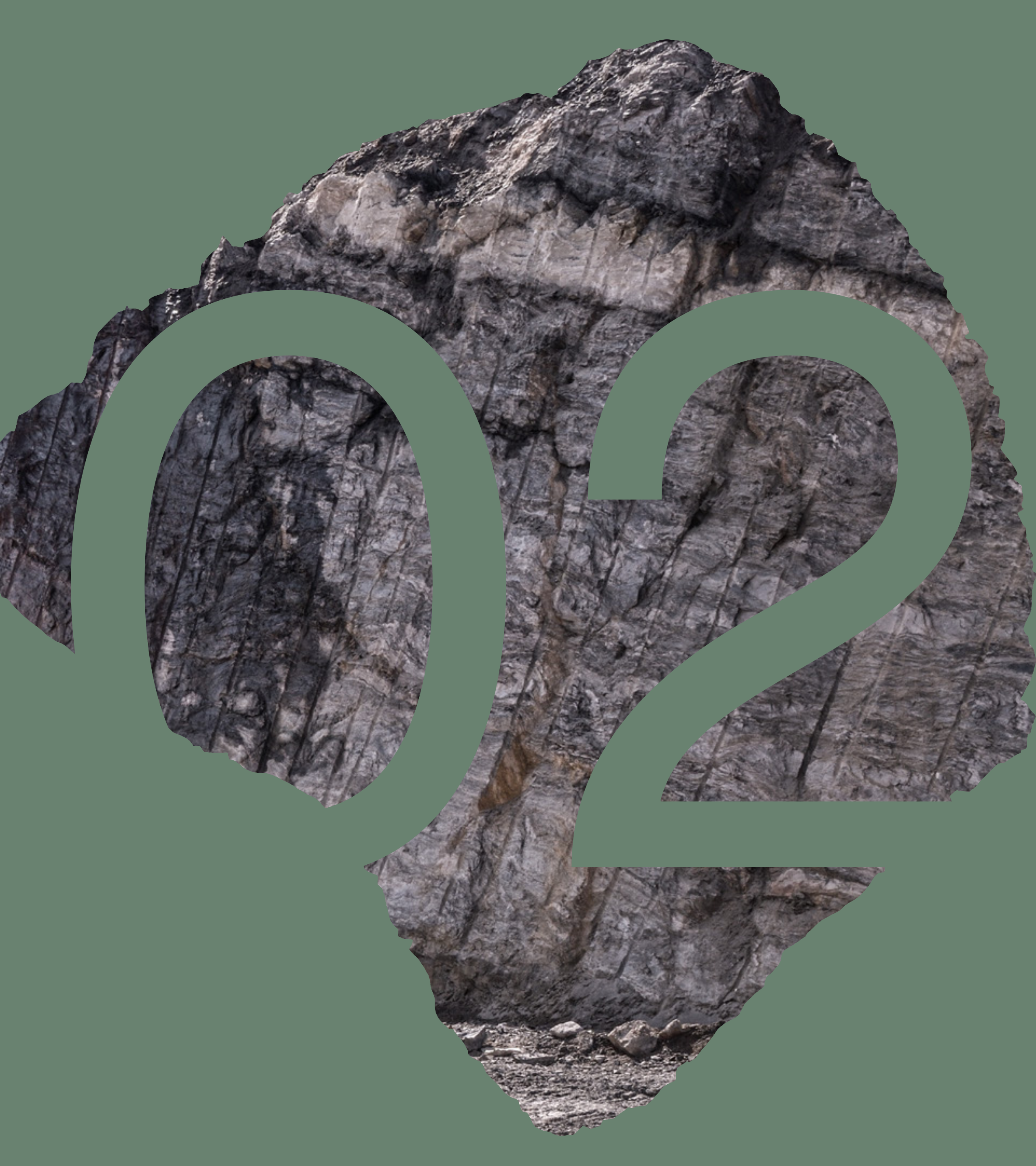
# Our value chain











# Our sustainable approach

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# Competence and consideration



The board of directors of parent company Champion Iron Limited is made up of talented, experienced and diversified members capable of assuming a solid role in governing the business of the parent company and of Quebec Iron Ore, as well as improving and protecting the interests of shareholders and other stakeholders.



# The board of directors

Andrew  
J. Love  
FCA  
Lead Director



Gary  
Lawler  
LL. B.,  
LL. M.  
Director



Michelle  
Cormier  
Director



Jyothish  
George  
Non-executive  
Director



Michael  
O'Keeffe  
Executive Chairman  
of the Board  
of Directors



David  
Cataford  
ENG.  
Chief Executive  
Officer and Director



The Honourable  
Wayne  
Wouters  
PC OC  
Director





The management team is made up of members of the parent company as well as members of Quebec Iron Ore. It is responsible for leading the company to fulfill its mission of surveying and developing all avenues in order to optimize the production of a high quality iron concentrate, while minimizing its environmental footprint, acting with integrity and honesty, and respecting the values of society.



# Executive management



**David  
Cataford**  
ENG.  
Chief Executive  
Officer and Director,  
Champion Iron Limited



**Natacha  
Garoute**  
Chief Financial  
Officer, Champion  
Iron Limited



**François  
Lafrenière**  
Vice-President,  
Sustainable Production,  
Quebec Iron Ore



**Steve  
Boucratie**  
Vice-President, Legal  
Affairs and Corporate  
Secretary, Champion  
Iron Limited



**Alexandre  
Belleau**  
General manager,  
Projects and Innovations,  
Quebec Iron Ore



**Michael  
Marcotte**  
Vice-President,  
Investor Relations,  
Champion Iron Limited



# Sustainable development at Quebec Iron Ore

Quebec Iron Ore's sustainability approach involves a broad vision of its stakeholders and takes into account the associated material issues, throughout the life cycle of mining activities.

We envision the success of our business by creating value in a way that meets long-term business needs while considering our stakeholders and the environmental, social and economic context in which we operate.

Integrating sustainable practices in conducting our business is an essential element since this allows for risk reduction, lower costs, better access to opportunities, and above all the creation of long-term value for stakeholders.

Our global strategy is aimed at integrating the sustainability principles with the governance policies of our parent company together with our corporate values, namely respect, transparency, ingenuity, and pride. This allows our young company to implement a sustainable development approach worthy of the responsible companies of tomorrow. The integrated sustainable development structure of Quebec Iron Ore is presented on the following page.

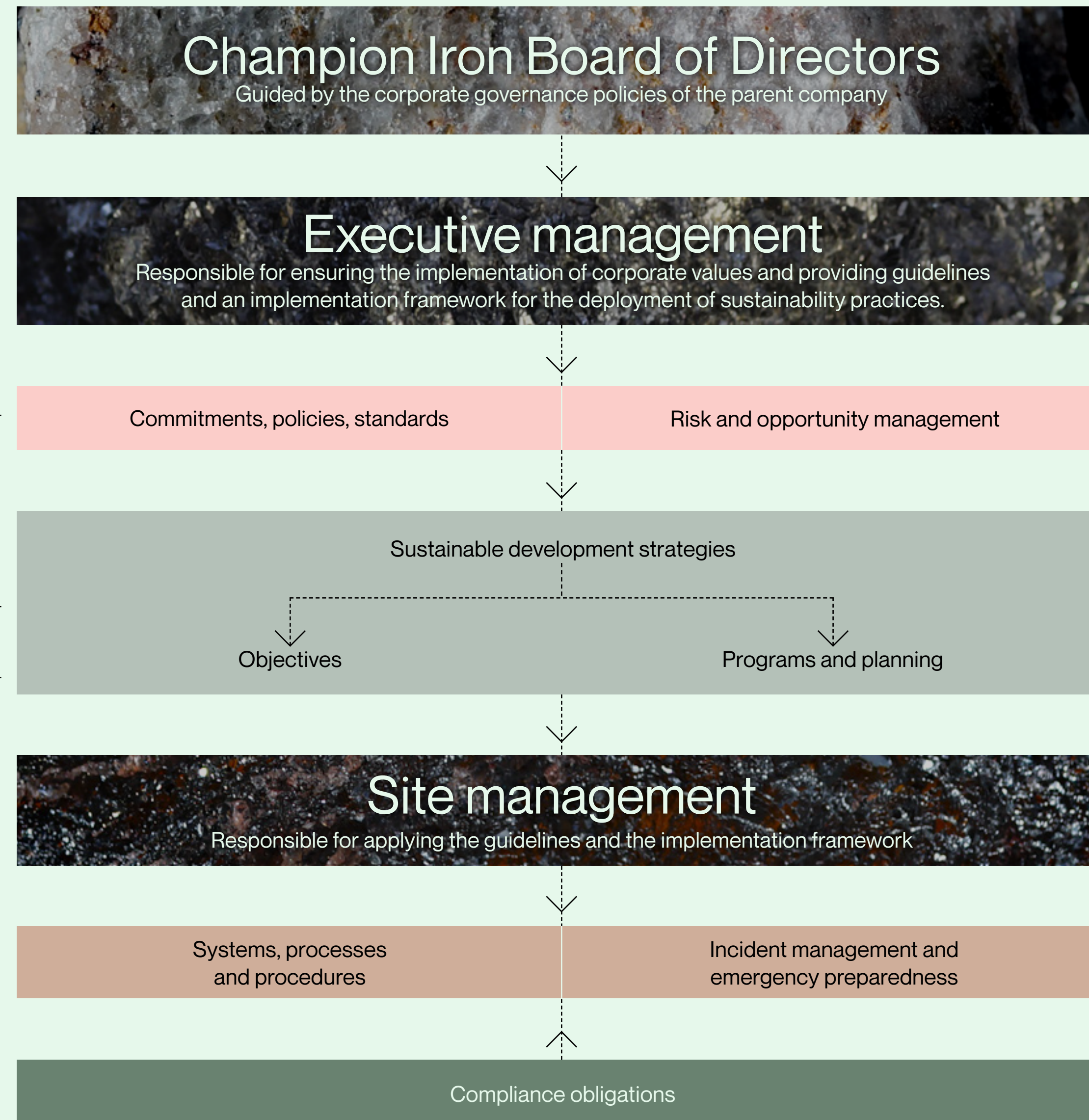


# The integrated sustainable development structure at Quebec Iron Ore



Approval

Material issues



Guidelines

Framework

Operational excellence

Monitoring and continuous improvement









# Roles and responsibilities

## Champion Iron Limited board of directors

Our board of directors is responsible for governing our business and ensuring that the appropriate corporate governance structures and systems are in place to achieve our objectives. It must ensure that the business is effectively led, controlled and monitored, including for our sustainable development.

The board continually strives to improve its understanding and mastery of sustainability topics through regular meetings and site visits in order to adjust the governance and accountability mechanisms across the company.

The board members oversee policies and commitments as well as the management of risks and opportunities for sustainable development.



## Executive management

Our CEO is responsible for ensuring the application of corporate values as well as establishing guidelines and the framework for implementing sustainability principles across the company. He must monitor progress in relation to the overall sustainability strategy and make sure to implement the necessary adjustments according to the changes observed.

Our Vice-President of Sustainable Production is responsible for defining and keeping the guidelines and framework up to date for implementing the company's sustainable practices. This includes corporate policies, commitments and standards, including those relating to occupational health and safety, the environment, communities, human rights,

diversity, and responsible sourcing. He must also deploy the risk and opportunity management systems as well as the sustainability performance audit and review programs, and must determine the strategies, objectives and programs to be implemented by integrating a long-term vision.

The executive management team is supported by several professionals whose main responsibilities are focused on overseeing our collective efforts in terms of corporate social responsibilities, which allow us to properly manage the environmental and social issues related to our activities.





# Site management

The mine site general manager is responsible for the application of the guidelines and the framework for implementing sustainable development in the operations for which they are responsible in order to ensure the achievement of the annual objectives. This must be done while ensuring the conformity of site operations with respect to legal obligations and those resulting from partnerships with our stakeholders.

The general manager must oversee the compliance of systems, processes and procedures with respect to organizational expectations in terms of sustainable development and ensure monitoring with regards to regulatory requirements and permits related matters. He must also ensure management of accidental incidents that may occur during operations in addition to reporting on the performance of the site for which he is responsible, in order to feed the audit and performance review process conducted by the executive management team and the board of directors.

# Stakeholders

Our internal and external stakeholders have concerns that are important to our business. That is why we employ a consulting process to identify and understand such topics which could become material issues for our company. It is by considering these issues that we can generate true value for our stakeholders.

The assessment of material issues from stakeholders allows our company to orient its strategies

in a coherent and relevant way, since they are taken into account when establishing annual objectives and sustainability programs, as well as the associated planning.

Monitoring progress against objectives and programs is not only part of our performance review process, it is also at the heart of our transparent disclosure process with our stakeholders.



# Framework processes





# Sustainability guidelines

## Policies and standards

Our sustainability guidelines are reflected in our corporate policies, which are used to establish specific corporate standards that are respected across the company. The policies define the company's strategic direction with respect to sustainability material issues and set out the principles and framework rules used for decision-making, the development of strategies and objectives, the

planning, and the implementation of the company's activities and programs. Quebec Iron Ore's sustainable development policies are available at [quebecironore.com](http://quebecironore.com).

The parent company's governance policies also contain policies associated with Quebec Iron Ore's sustainability approach, which are available at [championiron.com](http://championiron.com).



# Commitments

Our commitment to sustainable development is reflected in our internal policies and standards, which are reviewed on a regular basis to improve their consistency with our overall strategies.

We also consider industry best practices as well as initiatives from outside organizations in setting our sustainability commitments. Although we are not members of these organizations, the initiatives allows us to contribute to the effort of sustainable development on a global scale.

# Our external commitments

The United Nations’ 17 Sustainable Development Goals were adopted by world leaders in the fall of 2015 and came into force on January 1, 2016. These goals incorporate concerns such as the protection of the planet and the desire to give everyone the opportunity to live in security and with dignity.

Although a company like ours has a relatively modest operational reach in the global mining industry, we are not understating the impact we can have on communities. It is in

this context that Quebec Iron Ore intends to do its part by pursuing the United Nations goals which are most relevant to our activities.

Quebec Iron Ore carried out an evaluation exercise of the various goals and targets and our potential contribution to the achievement of each of them. Thus, we have identified 13 goals and 22 targets, which we intend to pursue specifically. These goals are presented on the next page. Our concrete contribution to achieve the targets is presented in Chapter 5.



# Goals and targets



## Good health and well-being



Ensure healthy lives and promote well-being for all at all ages.

## Quality education



Ensure equal access to quality education for all and promote lifelong learning opportunities.

## Gender equality



Achieve gender equality and empower all women and girls.

## Clean water and sanitation



Ensure access to water and sanitation for all.

## Affordable and clean energies



Ensure access to affordable, reliable, sustainable and modern energy.

## Decent work and economic growth



Promote inclusive and sustainable economic growth, employment and decent work for all.

## Reduced inequalities



Reduce inequality within and among countries.

## Sustainable cities and communities



Make cities inclusive, safe, resilient and sustainable.

## Responsible consumption and production



Ensure sustainable consumption and production patterns.

## Climate action



Take urgent action to combat climate change and its impacts.

## Life on land



Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss.

## Peace, justice and strong institutions



Promote just, peaceful and inclusive societies.

## Partnerships for the goals



Revitalize the global partnership for sustainable development.



# International Council on Mining and Metals (ICMM)

ICMM is a global industry association representing international mining and metallurgical companies. In May 2003, it established 10 principles that serve as a framework of good practice for sustainable development in the mining and metals industry, and which aim to contribute to the global transition to sustainable development.

Quebec Iron Ore supports the ICMM’s principles on sustainability practices and we strive to apply them in our operations. What we do to adhere to the ICMM principles is presented in Chapter 5.

## The ICMM’s 10 principles:

1	Apply ethical business practices and sound systems of corporate governance and transparency to support sustainable development.
2	Integrate sustainable development in corporate strategy and decision-making processes.
3	Respect human rights and the interests, cultures, customs and values of employees and communities affected by our activities.
4	Implement effective risk-management strategies and systems based on sound science and which account for stakeholder perceptions of risks.
5	Pursue continual improvement in health and safety performance with the ultimate goal of zero harm.
6	Pursue continual improvement in environmental performance issues, such as water stewardship, energy use and climate change.
7	Contribute to the conservation of biodiversity and integrated approaches to land-use planning.
8	Facilitate and support the knowledge base and systems for responsible design, use, reuse, recycling and disposal of products containing metals and minerals.
9	Pursue continual improvement in social performance and contribute to the social, economic and institutional development of host countries and communities.
10	Proactively engage key stakeholders on sustainable development challenges and opportunities in an open and transparent manner, effectively report and independently verify progress and performance.



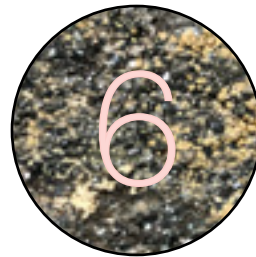
# Mining Association of Canada (MAC)

MAC promotes the growth and development of the mining and mineral processing industry in Canada for communities of interest. MAC's Towards Sustainable Mining (TSM) initiative requires mining companies to take concrete steps to meet their environmental and social commitments.

The TSM Guiding Principles are backed by a suite of nine protocols to measure mining companies' performances in key environmental and social areas. Quebec Iron Ore supports the TSM Guiding Principles and strives to implement them throughout its company.



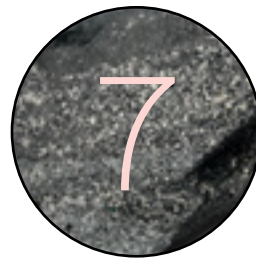
Indigenous and community relationships



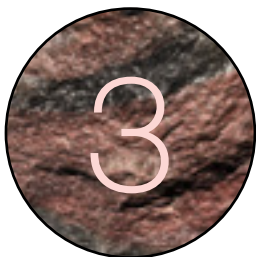
Crisis management and communications planning



Energy and GHG emissions management



Preventing child and forced labour



Tailings management protocol



Mine closures framework



Biodiversity conservation management



Water stewardship



Safety and health



## Risks and opportunities management

Quebec Iron Ore has developed a process to identify, assess and address risks and opportunities. This process makes it possible to understand the economic, social and environmental contexts in which the company operates and to identify the issues most likely to influence its performance as well as the needs, expectations and concerns of its stakeholders. The process also allows the company to determine the aspects of its activities that must be controlled in order to properly manage the risks and opportunities it faces.

Some of the main risks and opportunities associated with the life cycle of Quebec Iron Ore's activities, as identified in 2019, are presented below.

A detailed review is carried out regularly in order to implement or adjust mitigation measures and to improve our approach to risks and opportunities management on a continuous basis.









# Implementation framework

## Strategies

## Objectives

Our sustainable development strategies define all the company's choices and intentions for action in order to achieve our business objectives while integrating social and environmental aspects.

The strategies are aligned with Quebec Iron Ore's sustainability guidelines and take into account the material issues and the most significant risks and opportunities for our business.

Our sustainable development strategies are integrated into decision-making processes and will be reviewed on a regular basis. They are deployed according to three time scales:

- Short term (1-2 years)
- Medium term (3-4 years)
- Long term (5-10 years)

Our strategies are reflected in our annual objectives.

Quebec Iron Ore establishes sustainable development objectives aligned with our commitments, policies and risks in order to ensure positive results for our business and our stakeholders in the short and long terms. These objectives are revised on an annual basis and adjusted according to the performance observed.

Annual objectives are aligned to support sustainable development strategies.



## Programs



Quebec Iron  
Ore uses programs

to facilitate the implementation of actions aimed at achieving our objectives. The programs help improve our sustainability performance and are reviewed regularly to assess observed performance. For example, our employee bonus compensation program is linked to health and safety, environmental management or other sustainability principles through company-wide objectives. Thus, all of our employees and senior managers participate in the implementation of specific initiatives and practices aimed at achieving our sustainability objectives.



# Operational excellence

## System, process and procedures

Quebec Iron Ore uses systems, processes and procedures to ensure that its activities are executed in a controlled manner to meet its sustainability guidelines, achieve its objectives and adequately manage its material issues, its risks and opportunities, and its compliance obligations.

Quebec Iron Ore also updates and periodically evaluates the operational control methods it uses to ensure their effectiveness.

The company uses the principles and provisions of several recognized international standards

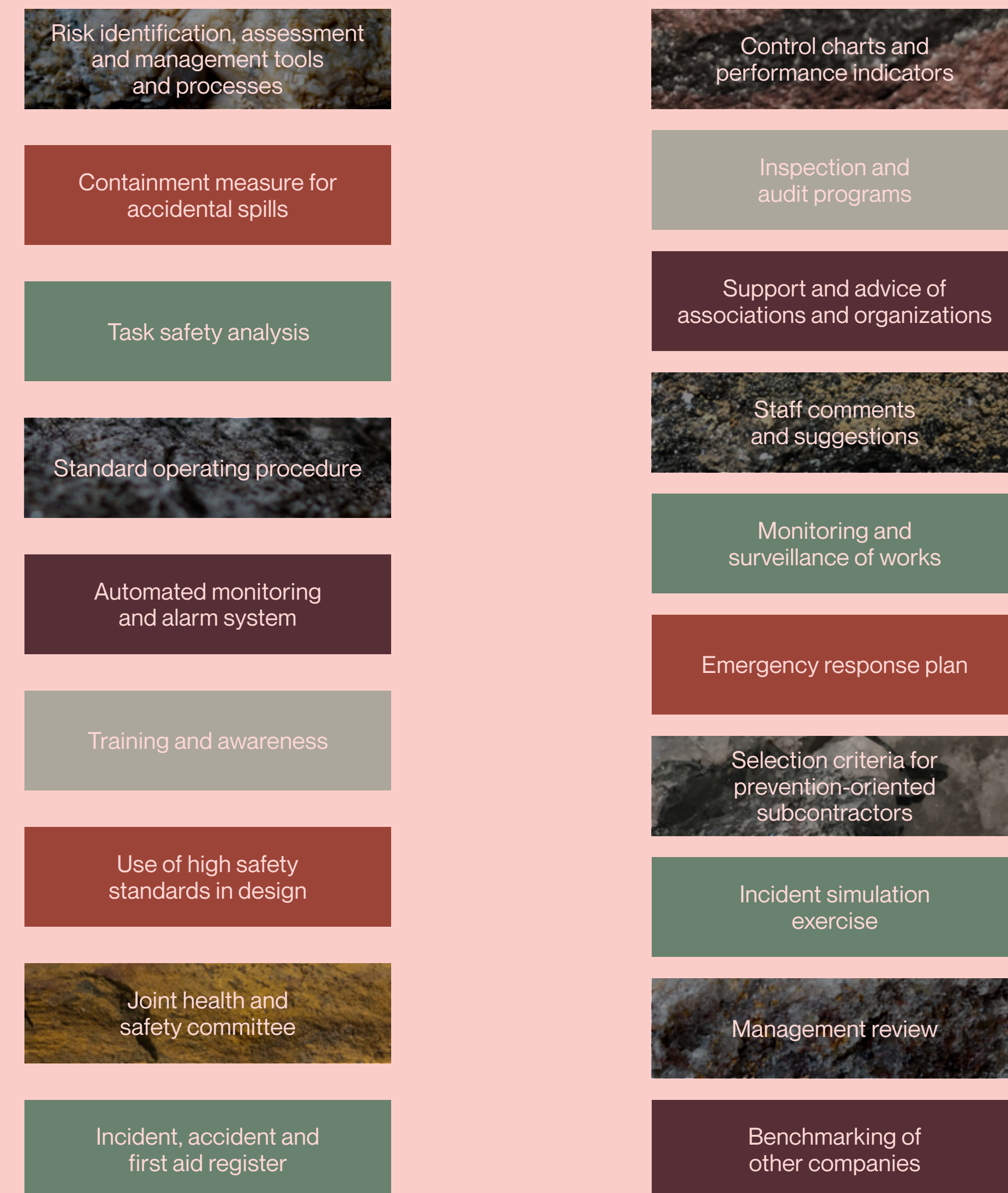
as a reference to establish the bases of systems dedicated to the control of certain aspects of sustainable development.

- ISO-14 001 for environmental management
- ISO-26 000 for the management of corporate social responsibility
- ISO-45 001 for occupational health and safety management
- ISO-50 001 for energy management
- TSM for the management of certain principles of sustainable development



# Incident management

In order to minimize the probability of incidents and mitigate the potential effects on employees, communities, the environment and our facilities, Quebec Iron Ore uses a series of preventive control measures.







Incident management approach

Despite the diligent efforts made by Quebec Iron Ore to avoid them, incidents can occur.

In the event of an incident, the Quebec Iron Ore team implements a robust management approach to take prompt action, minimize the effects of the incident, and put in place appropriate measures to prevent such an event from happening again. The approach is divided into six stages.

- 1 Identification of the incident and immediate actions to mitigate or even eliminate potential and actual effects on people, the environment and facilities without compromising human safety.
- 2 Internal and external reporting to the authorities concerned without delay and in accordance with regulatory requirements.
- 3 Complete incident reports and communication.
- 4 Investigation to identify the root causes and main contributing factors, and to establish the lessons learned from the event with a view to continuous improvement.
- 5 Development of corrective action plans to help prevent the recurrence of the same type of incident.
- 6 Efficiency monitoring.



# Emergency preparedness

Quebec Iron Ore recognizes the importance of developing and implementing comprehensive emergency preparedness and response plans designed to limit and control the potential or actual effects of emergencies on people, communities, the environment and facilities.

That is why we are developing plans and preparations adapted to the specific conditions of the mine site and making it possible to adequately manage a range of credible, albeit extremely unlikely, incident scenarios that could occur such as fires, blackouts, power outages, forest fires, and threats to people or property.

The plans include detailed instructions that allow the parties involved to act in order to:

- Maintain the health and safety of employees, subcontractors, visitors, response personnel and the public
- Reduce potential risks to people, property and the environment
- Minimize environmental impacts
- Guide the response personnel according to the measures to be taken and help them to implement these measures quickly and efficiently

- Inform citizens who could be affected by the event
- Contact the municipal authorities regarding civil security
- Recover from the situation as quickly and efficiently as possible to reduce costs and minimize the time required to return to normal activities

Emergency preparedness standards are updated regularly. This approach allows us to review and adjust how potential hazards are identified, assess the associated risks, and validate the control measures in place to minimize these risks.

Quebec Iron Ore ensures that the appropriate resources are available to respond to emergency situations that may potentially arise. A series of emergency scenarios are tested each year using simulation exercises to assess the adequacy and effectiveness of our emergency preparedness, including human and physical resources.

Emergency preparedness and planning is carried out internally as well as with external stakeholders who could potentially be involved, such as local public bodies, governments and communities located near our facilities.



# Compliance obligation management

Our ability to comply with compliance obligations stemming from regulations, permits granted to us, and agreements with stakeholders helps us maintain our social licence to operate as well as obtain the necessary authorizations for the development of our business.

We first make sure to identify our compliance obligations and understand how they apply to our business in order to manage them adequately. We continuously monitor and manage the compliance of our activities in order to comply with legal requirements such as monitoring mine effluents and other obligations such as those arising from agreements with Indigenous groups.

We have the appropriate mechanisms to manage the changes and novelties associated with our compliance obligations. Our legal and legislative monitoring process allows us to prepare for future changes and new regulations so that we can take the preparatory actions required to maintain our compliance. Developments and new activities of the company can influence our compliance with legal requirements and commitments with stakeholders, and lead to risks and opportunities that we make sure to include in activity planning.



# Performance audit and review

The year 2019 was our first full year of operation since the restart of the Bloom Lake mine in 2018. Following the start-up, we will audit our processes on a three-year basis in order to determine and provide the executive management team and the board of directors with information enabling them to determine whether the reference framework and sustainability guidelines are deployed in accordance with the planned provisions and if they have been properly set up and kept up to date. We will also conduct external compliance audits once every three years to verify that the requirements set out in applicable permits, laws and regulations are being met. The audits will also be used to update our policies, standards and management system.

A performance review is also carried out on a quarterly basis by the executive management team

and the board of directors to monitor and analyze the company's sustainability performance. This review deals in particular with elements such as progress in relation to annual objectives and the programs drawn up, as well as the status of activities in relation to compliance obligations and emerging risks and opportunities.

Management audits and reviews make it possible to assess the relevance, adequacy and efficiency of the systems and processes in place, to identify areas for improvement on a continuous basis, and to enable our executive management team and the board of directors to issue or adjust directives. Action plans can also be developed to respond to situations based on the criticality of the issues and the risks and opportunities involved.



# Sustainable development, a culture of continuous improvement

Quebec Iron Ore incorporates the sustainability principles into all phases of its value chain, from exploration to the decommissioning of mining sites. To do this, we rely on leadership that promotes our sustainable development and the establishment of a culture of continuous improvement that allows us to evolve our approach and continually enhance our processes and ways of doing things. This approach results in the following sequence:

- ① Plan
- ② Apply
- ③ Evaluate
- ④ Improve



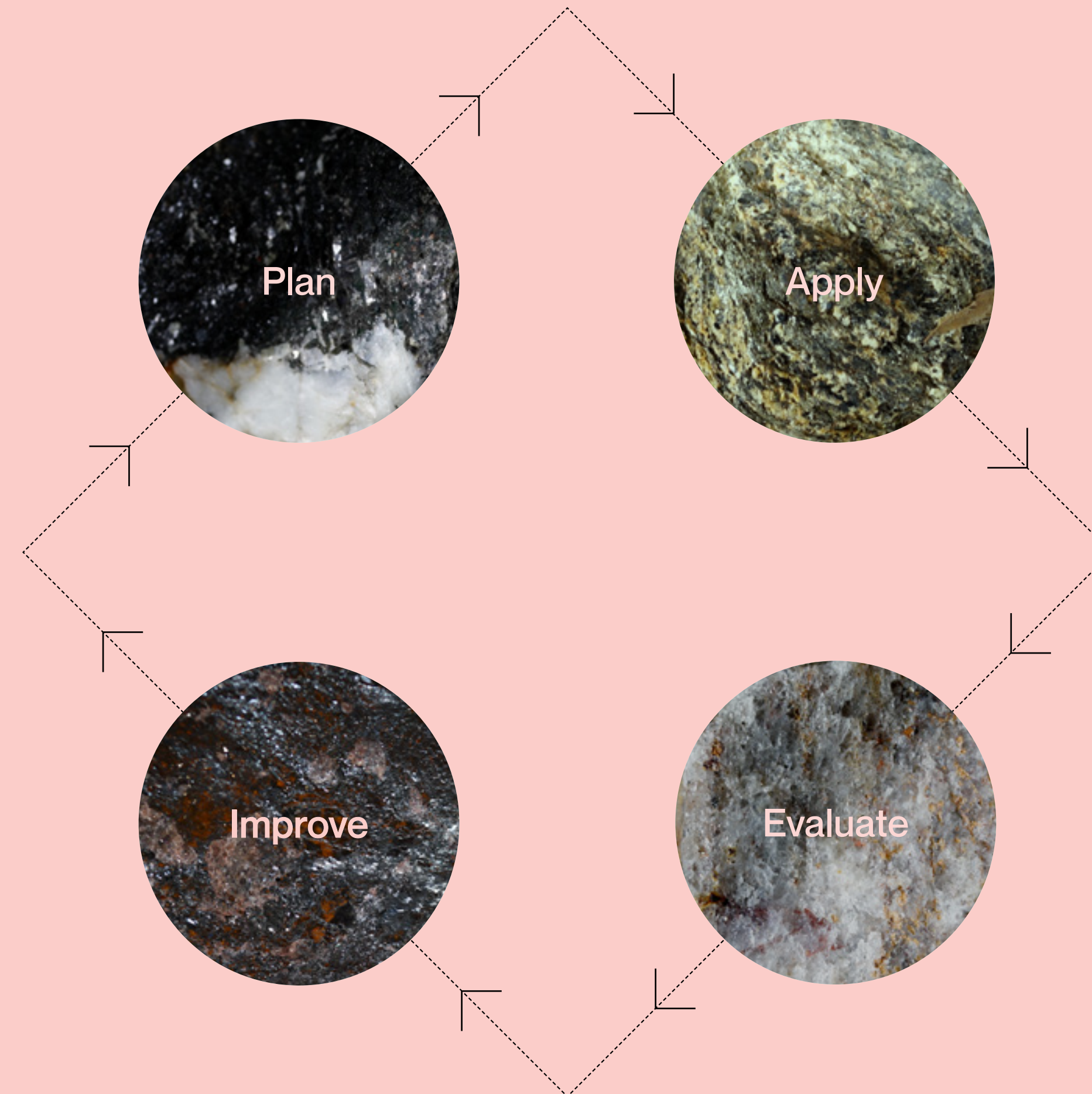
# Quebec Iron Ore's continuous improvement approach

## ① Plan

We plan and define the long-term direction of our sustainable development approach, including our strategies, which are deployed in our company-wide policies, commitments and objectives. The context in which we operate is constantly changing and, as a result, we continuously assess and respond to these changes to update our planning.

## ④ Improve

The root causes of the issues identified in the evaluation phase are studied to allow the implementation processes to be modified or the programs and objectives to be adjusted so that planning for the next cycle can be carried out on better foundations.



## ② Apply

Sustainable development is operationalized through the implementation of a management framework and guidelines. It is also deployed through programs that are consistent with the long-term orientation of the company and the material challenges associated with the stakeholders.

## ③ Evaluate

The sustainability performance review process is carried out through monitoring integrated into activities as well as through our governance and audit mechanisms. This helps to target trends, non-conformities, improvement opportunities, inefficiencies and other shortcomings that generate sub-optimal performance or prevent the achievement of expected results.









# Stakeholders

64  
65

Our stakeholders  
Our engagements with stakeholders



# From conversation to conservation

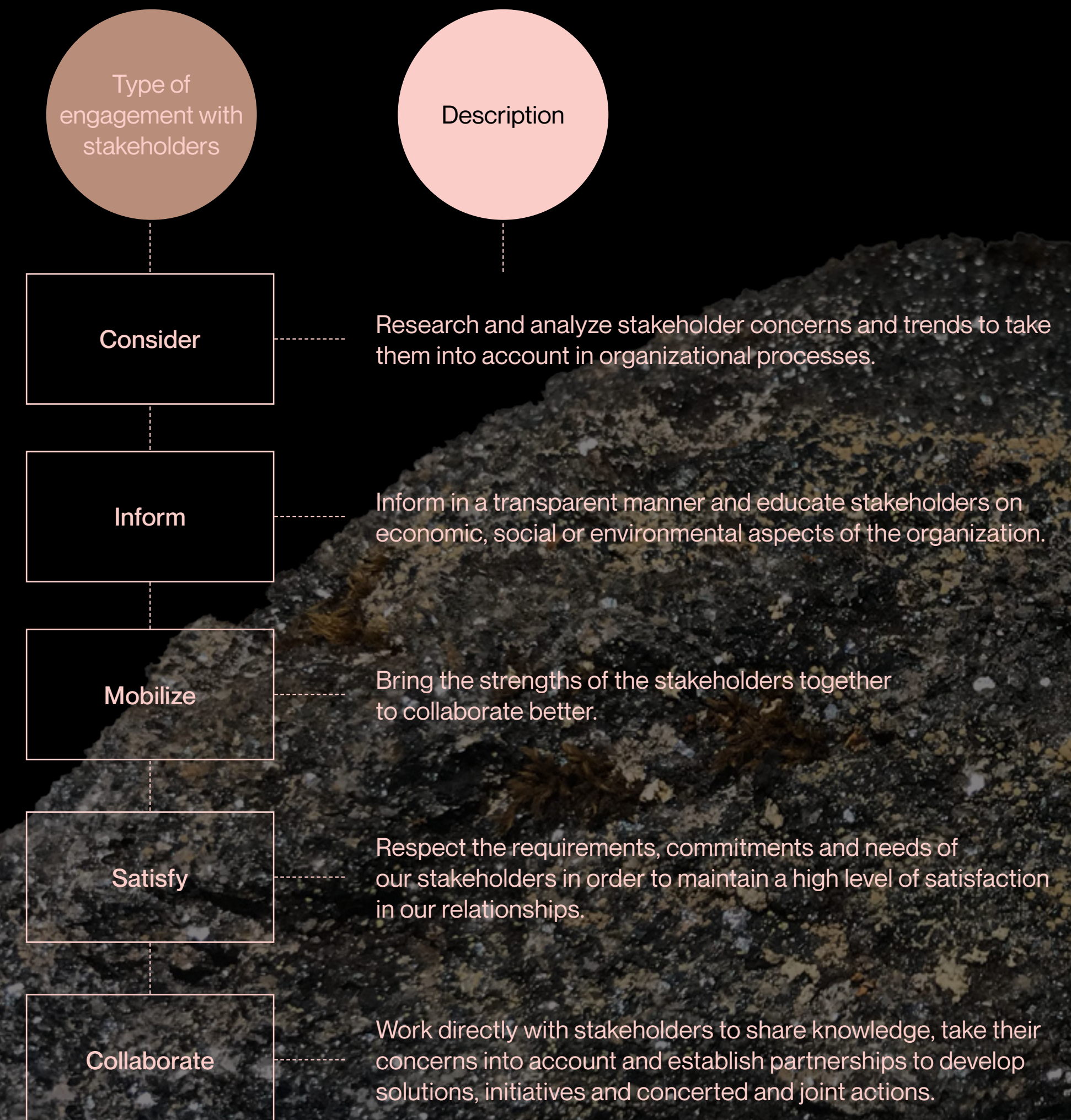


# Our stakeholders

We want to develop and maintain excellent relationships with our stakeholders. This allows us to make the right decisions and manage our material issues well.

The type of engagement we have with stakeholders is based on their potential and actual influence and impact on our organization, as well as their interest in it.

- Governments
- Investors
- Employees
- Clients
- Indigenous groups
- Media
- Local communities
- Society
- Shareholders
- Suppliers
- Union
- Non-governmental organizations
- Industry peers





# Our engagements with stakeholders





# Consider

## Civil society and non-governmental organizations

We research information relating to the concerns, interests, criticisms and trends of society and non-governmental organizations regarding the mining industry in general and Quebec Iron Ore in particular. Research is carried out using tools that allow media monitoring on subjects that affect the mining industry on a global, national and local scale.

We value constructive feedback and make it a point of consideration in decision-making and strategic planning, which allows us to improve our sustainability programs accordingly.

Most important topics for the civil society and non-governmental organizations in 2019<sup>(8)</sup>

- Social acceptability
- Management of our operations' potential environmental impacts
- Responsible consumption and production

## Industry peers

We monitor best practices and technologies used by other mining companies nationally and globally through participation in trade fairs, conferences and symposiums. These initiatives provide an opportunity to identify better ways of doing things and to better understand how we can contribute to the management of common challenges.

We are a member of the Quebec Mining Association and also sit on the board of directors of the association. We take into account the national and international information it provides about the mining industry. This allows us to assist in the communication of consistent messages from this industry and concerted efforts towards sustainable development.

Finally, we follow the evolution of our peers in the iron extraction industry through research reports produced by brokerage firms, participation in the process of disclosing their quarterly results, and information monitoring. This approach allows us to

understand and follow the evolution of the dynamics of the iron industry and emerging projects from peers that may have an impact on our business.

Most important topics for our industry peers in 2019<sup>(9)</sup>

- Health, safety and well-being of employees
- Management of our operations' potential environmental impacts
- Social acceptability
- Company's economic prosperity

<sup>(8)</sup> Based on the knowledge and understanding of our internal experts.

<sup>(9)</sup> Based on the 2019 stakeholders survey. It should be noted that several other topics are identified as being important by the stakeholders. Only the most important are mentioned herein.



# Inform

## Media

We engage with the media to inform them of matters of public interest. This can be done in the form of interviews, communications, site visits or question and answer sessions. Our approach is to give fair and transparent information.

Most important topics for the media in 2019 <sup>(8)</sup>

- Social acceptability
- Management of our operations' potential environmental impacts
- Responsible consumption and production

## Shareholders and investors

In addition to wanting performance, our shareholders and investors expect us to meet our financial and operational forecasts, to have the appropriate governance mechanisms, and to manage organizational risks adequately. This is why we share our financial and operational results with them, and communicate to them

the information relating to environmental management, health and safety, relations with communities, the remuneration of the board of directors, and other aspects related to governance and operational risk management on a regular basis.

Information is conveyed through communications, question and answer sessions, newsletters, annual reports, presentation tours and one-on-one meetings. We disclose information in a transparent, complete and rigorous manner and respect the corporate policies of the parent company at all times.

Most important topics for shareholders and investors in 2019 <sup>(8,9)</sup>

- Company's economic prosperity
- Energy and GHG emissions management
- Composition of the board of directors





# Mobilize

## Employees

Our people are the primary strength of our organization. We believe that the development of an organizational culture that gives meaning to their work, values them and, above all, empowers them in the company, is essential to mobilize them towards the achievement of our objectives and ensure the success of our company.

Senior managers meet with staff on a quarterly basis to inform them in person of the results obtained and the actions to come and give the staff the opportunity to discuss these aspects with them. It is an opportunity for employees to express their concerns and for the company to take them into account. It is also a moment for employees to make the link between their own actions and the achievement of company objectives thereby fostering their engagement.

We regularly conduct workplace climate surveys to understand how our people experience day-to-day work and assess the level of deployment of our corporate values

at all operational levels. By considering the point of view of our employees, we can target our efforts on the work environment while giving a say to those who are at the heart of the success of our company, an essential condition for their mobilization.

Committees bringing together employees of different functions and responsibilities are deployed to discuss questions and issues important to them, in order to implement adequate solutions and actions.

During major organizational changes, we communicate information transparently, and support and respect employee feedback.

Managers are given a four-hour period weekly to discuss topics of their choice outside of the mine site in order to promote team building and the development of healthy and harmonious relationships. We have also implemented an individual coaching program for managers, so that they can develop autonomy

and acquire the tools and means for individual success, that of their work group and, ultimately, that of the company.

Most important topics for our employees in 2019 <sup>(9)</sup>

- Health, safety and well-being of our employees
- Water management
- Remuneration

## Suppliers

In response to growing consumer concerns and expectations and in accordance with our fundamental values, we hope that the actors in our supply chain share our vision of sustainable development and contribute to our objectives, thereby allowing us to fully contribute to those of our customers in turn.

To ensure that they understand our expectations and standards, particularly in terms of ethics and sustainable development, we meet them regularly through symposiums

or conferences organized locally, site visits or individual meetings.

We can also better understand their views, concerns and perspectives to take them into account later. Through this exchange, we involve them and mobilize them to work with us in achieving our goals.

We reserve the right to carry out audits of suppliers to assess certain aspects of their operations, including environmental management and Occupational Health and Safety. This process aim at helping them to qualify, maintain or improve their business relationship with us.

Most important topics for our suppliers in 2019 <sup>(9)</sup>

- Health, safety and well-being of our employees
- Water management
- Respect for ecosystem support capacity







# Satisfy

## Clients

We are committed to providing a concentrate of superior quality that meets customer requirements and expectations. To do this, we meet with our customers on a regular basis to determine their satisfaction towards our products and help us identify improvements to be made. We use these meetings to identify their emerging needs and expectations in order to prepare for them and adapt our processes accordingly and pro-actively.

By focusing on innovation, we constantly strive to develop all avenues in order to optimize our operations and the products offered to customers, while reducing our environmental and social footprint and increasing the positive impact on our stakeholders.

We also share our knowledge and discuss the quality of our products and the risks associated with our customers on an ongoing basis.

This helps them better secure their supply chain and achieve their business goals.

Most important topics for our clients in 2019<sup>(9)</sup>

- Health, safety and well-being of our employees
- Company's economic prosperity
- Energy and GHG emissions management
- Precautionary principle
- Management of our operations' potential environmental impacts

## Governments

We diligently and rigorously submit to the government all the information and data required about our operations under applicable regulatory requirements. We do this through written reports or software packages provided by the different authorities.

Although unintentional and infrequent, any non-compliance with regulatory criteria relating to emissions into the environment or any situation that could potentially lead to it, is reported to the relevant government authorities verbally without delay in order to inform them and allow them to be involved quickly.

We talk with governments about future developments in our organization to allow them to express their points of view, thus allowing Quebec Iron Ore to take them into account in decision-making and strategic planning. We do this by various means that are best adapted to the context (provincial or national) via meetings and verbal or written exchanges.

We present our views on laws, policies and regulations to governments through, inter alia, relevant industry associations and external communications agencies.

When interacting with governments, we behave in accordance with the Quebec Iron Ore Code of Conduct and corporate policies of the parent company. We do not participate in any way, directly or indirectly, in party politics or make payments to individual political parties or politicians.

Most important topics for governments in 2019<sup>(9)</sup>

- Energy and GHG emissions management
- Water management
- Respect for ecosystem support capacity



# Collaborate

## Indigenous groups

Quebec Iron Ore recognizes the importance of establishing and maintaining mutually beneficial partnerships and constructive relationships with Indigenous groups. It is in this context that we are working closely with them and concluded an Impact and Benefits Agreement (IBA) in 2017 for our projects located in the Labrador Trough. This agreement provides for real participation by Indigenous groups, socio-economic benefits for them and measures regarding their traditional activities.

The monitoring and implementation of IBA commitments is carried out by a coordination committee. Also in operation are two subcommittees designed to promote the employability of Indigenous groups and the purchase of supplies from them, as well as a third that reports on environmental

matters to the groups. The committee and the subcommittees are made up of members of our organization and Indigenous groups, who meet and exchange actively and regularly.

Visits to the mine site by representatives of Indigenous groups are also organized to allow communities to appreciate the work carried out in the field, to better understand the approaches and means used to protect the environment, and to encourage discussions with employees and leaders of QIO who are on site.

Most important topics for the Indigenous groups in 2019 <sup>(8,9)</sup>

- Indigenous employment
- Contracts awarded to companies affiliated with Indigenous groups
- Management of our operations' potential environmental impacts





## Union

We are committed to respecting the right to freedom of association and unionization and the right to collective bargaining of our workers. Mechanisms and tools allowing workers to file grievances arising from different interpretations, the application or administration of collective agreements are in place.

We are committed to working honestly and openly with the union. Round tables and meetings allowing exchanges between employer and union representatives take place on a regular basis to promote constructive collaboration for the good of our employees and the organization. Union representatives

also sit on committees dealing with matters directly affecting employees, such as the Occupational Health and Safety committee.

Finally, we are committed to negotiating with the union in good faith while keeping in mind the prosperity of the business for our workers today, as well as those of tomorrow.

Most important topics for the Union in 2019<sup>(9)</sup>

- Health, safety and well-being of our employees
- Remuneration
- Human capital management and mobilization

## Local communities

Creating and maintaining strong ties with local communities is important to us. We use means of communications tailored to each community to understand their views and concerns and keep them informed about the business and its performance in a transparent manner. These means also allow us to keep an open dialogue with them about issues that affect them, to encourage their participation in the search for solutions with us or even to formally engage with them.

To do this, we organized information sessions with residents and local stakeholders, as well as meetings and presentations with representatives of local municipalities or their decision-making authorities. We also follow

up on our collaboration with the communities through committees made up of local economic and public actors.

Finally, we participate in socio-community events and actively encourage, through various types of contributions, local non-profit organizations. We support the development of local businesses by coaching, holding information meetings and networking. This allows the organization to contribute to the social and economic vitality of local communities.

Most important topics for local communities in 2019<sup>(9)</sup>

- Local economy
- Procurement
- Engagement with stakeholders









# Determination of material issues

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81  
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Important sustainability topics  
Our priorities  
Material issues



# Important sustainability topics

At Quebec Iron Ore, sustainable development is planned in conjunction with all internal and external stakeholders in order to enrich our business project and ensure the consistency of our decisions, strategies and actions.

Basically, our approach involves knowing and understanding our impacts on sustainable development and the aspects that are important to our stakeholders. This allows us to focus our efforts on prioritizing and implementing actions that truly meet the needs, expectations and concerns of stakeholders, in addition to properly

guiding the management of the main risks, challenges and opportunities in terms of sustainable development.

We establish and assess our company's material issues on a three-year cycle. The first year involves detailed research and intensive consultation to identify important topics with the help of our internal experts and external stakeholders. Executive management then validates these topics. The first year of consultation and research was carried out in 2019.

Considering the nature of mining operations, the topics are generally similar from one year to the next. Thus, the second and third years are based on the results of the first year, and the assessment is updated to reflect emerging issues.

This process complements the other forms of engagement with stakeholders already in place throughout the year.

In accordance with the guidelines of the Global Reporting Initiative (GRI) on material issues, we have determined the important topics

which must be included in the annual sustainability report based on the following two dimensions:

- topics that substantively influence the assessments and decisions of stakeholders
- topics that reflect the organization's significant economic, environmental and social impacts



# Methodology

## Step 1: Preparation and design

We analyzed best practices regarding the process of determining material issues and

we used the recommendations of the GRI to design the methodology for analyzing these issues.





# Methodology

## Step 2: Research and identification of important topics

A search for information was carried out in order to identify the sustainability issues important to the organization and its stakeholders.

The information collected in 2019 revealed 27 important topics. The information analyzed is based on the following elements.

- Real or potential economic, environmental and social impacts identified in impact studies previously carried out by recognized external experts.
- Concerns and expectations of stakeholders with a direct interest in the organization and the broader economic, social and environmental issues raised by other stakeholders, including society in general.
- Reference framework and internal guidelines for sustainable development.
- The main topics of sustainability reports from peers and competitors, as well as their good practices.
- Laws, regulations, strategic partnerships important for the organization and its stakeholders.
- How the organization can contribute to sustainable development.
- The consequences of economic, environmental and societal impacts on the organization itself.



# Methodology

## Step 3: Stakeholders' assessment of topics importance

### Topics that substantively influence the assessments and decisions of stakeholders

The list of important topics was used to conduct a survey or interview with internal and external stakeholders to identify the topics most important to them and thus contribute to the prioritization of material issues. We asked the parties to rate the importance of the topics by ranking them on a scale of 0 (no importance) to 4 (great importance), and to indicate their level of satisfaction with how we manage important issues. We also gave stakeholders the opportunity to provide feedback on the process and our business.

In the 2019 fiscal year, we consulted a total of 564 people from the following groups of stakeholders:

- Internal: employees, managers and union.
- External: Indigenous groups, suppliers, investors, clients governments, municipalities, associations, and industry peers.

This comprehensive and diversified consultation approach allowed for a wide range of opinions and ensured a balanced view of what influences stakeholder assessment and decisions.



## Topics that reflect the organization's significant economic, environmental and social impacts

First, we conducted a self-assessment of our business practices with internal stakeholders, inviting them to reflect on the status of our organization in relation to the sustainability principles. We then asked them to prioritize the important topics specifically according to their level of importance in terms of economic, environmental and social impacts resulting from the organization. Finally, we asked the internal stakeholders to comment on the significance of the impacts by ranking them in order of importance.

Their complete and detailed knowledge of Quebec Iron Ore operations, as well as the context of our industry and our company's place in it, allowed the internal stakeholders consulted to generate an accurate and reliable portrait of the QIO's economic, social and environmental impacts.



# Methodology

## Step 4: Review and prioritization

The results of the consultations were analyzed and made it possible to prioritize important sustainability topics.





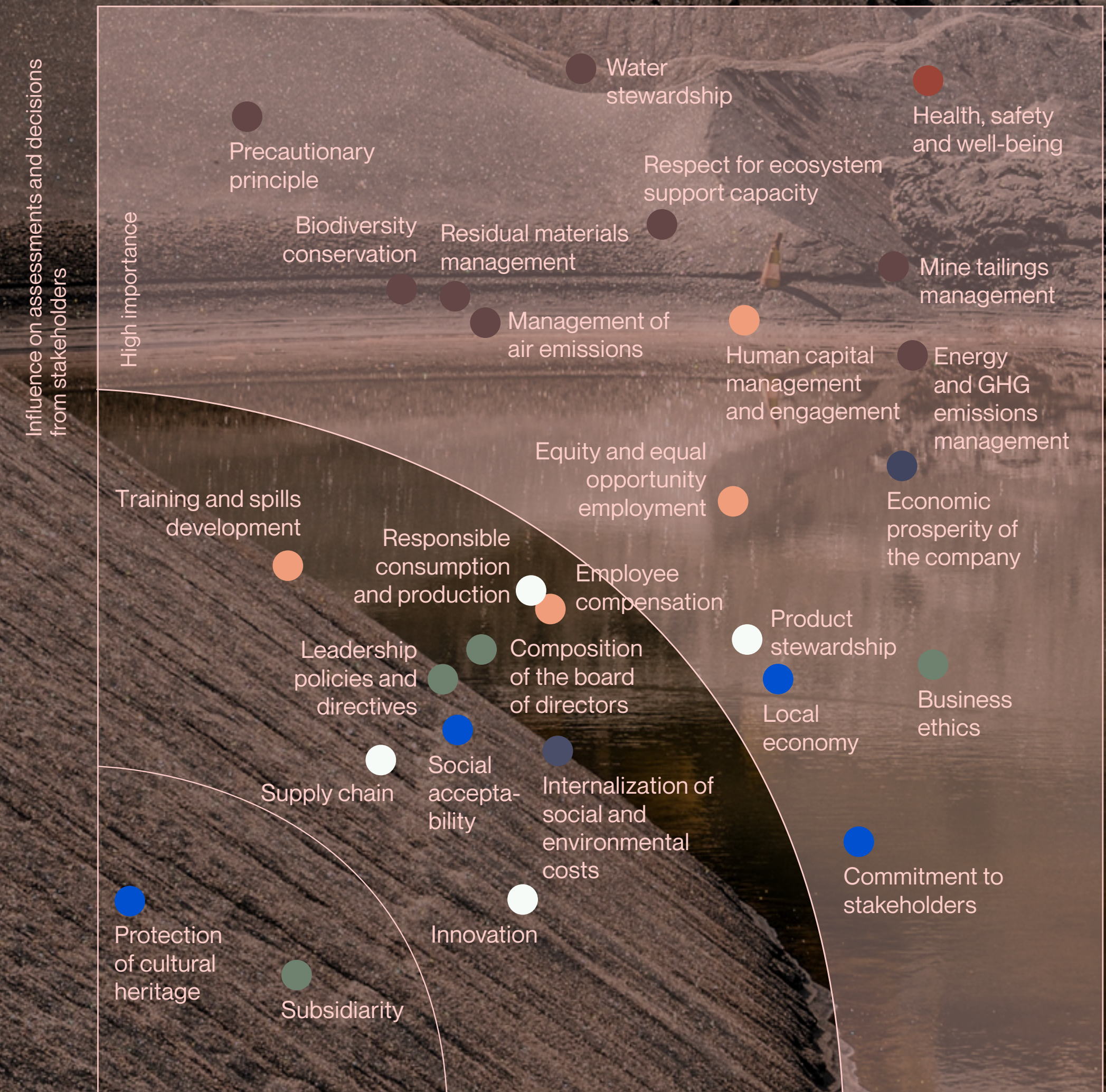
# Our priorities

The materiality matrix provides a visual representation of the classification of important sustainability topics from the process carried out in 2019. In all, 16 topics were identified as having reached the notification threshold, i.e. topics of high importance. These topics represent QIO's sustainability material issues, which fall under seven categories.

Given the interrelationships between certain issues, some of them will be grouped in the section dealing with QIO's performance in relation to material issues in Chapter 5. It should be noted that one of the priority issues is related to economic prosperity and that this is not treated in this report since the topic is already dealt with in the context of the commitments that the parent company maintains with its stakeholders on an ongoing basis.

<b>Legend:</b>			
Categories of material issues	● Governance	● Health, safety and well-being	● Product stewardship
	● Community	● Environment	● Economic
	● Human capital		

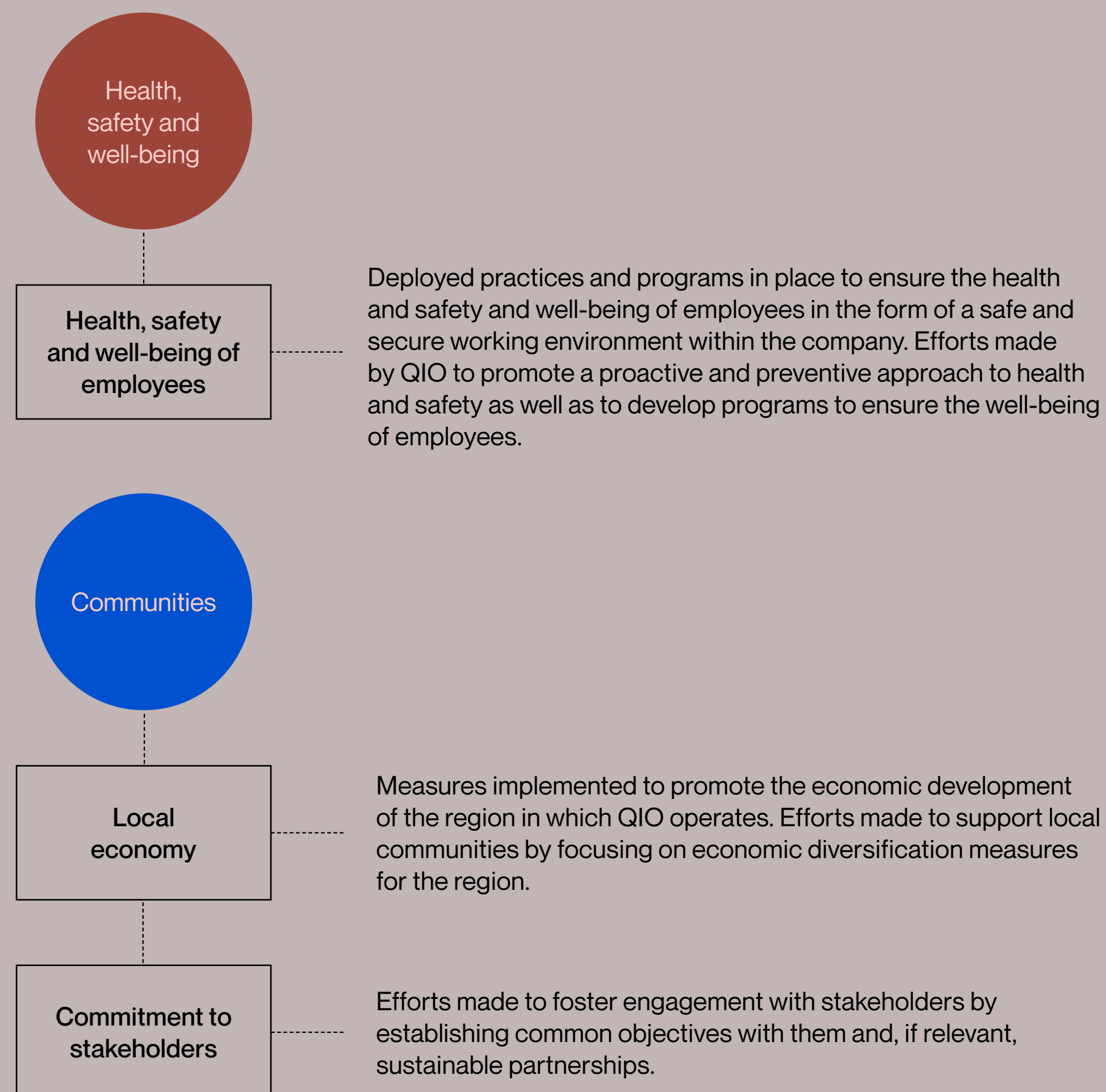
## Materiality matrix



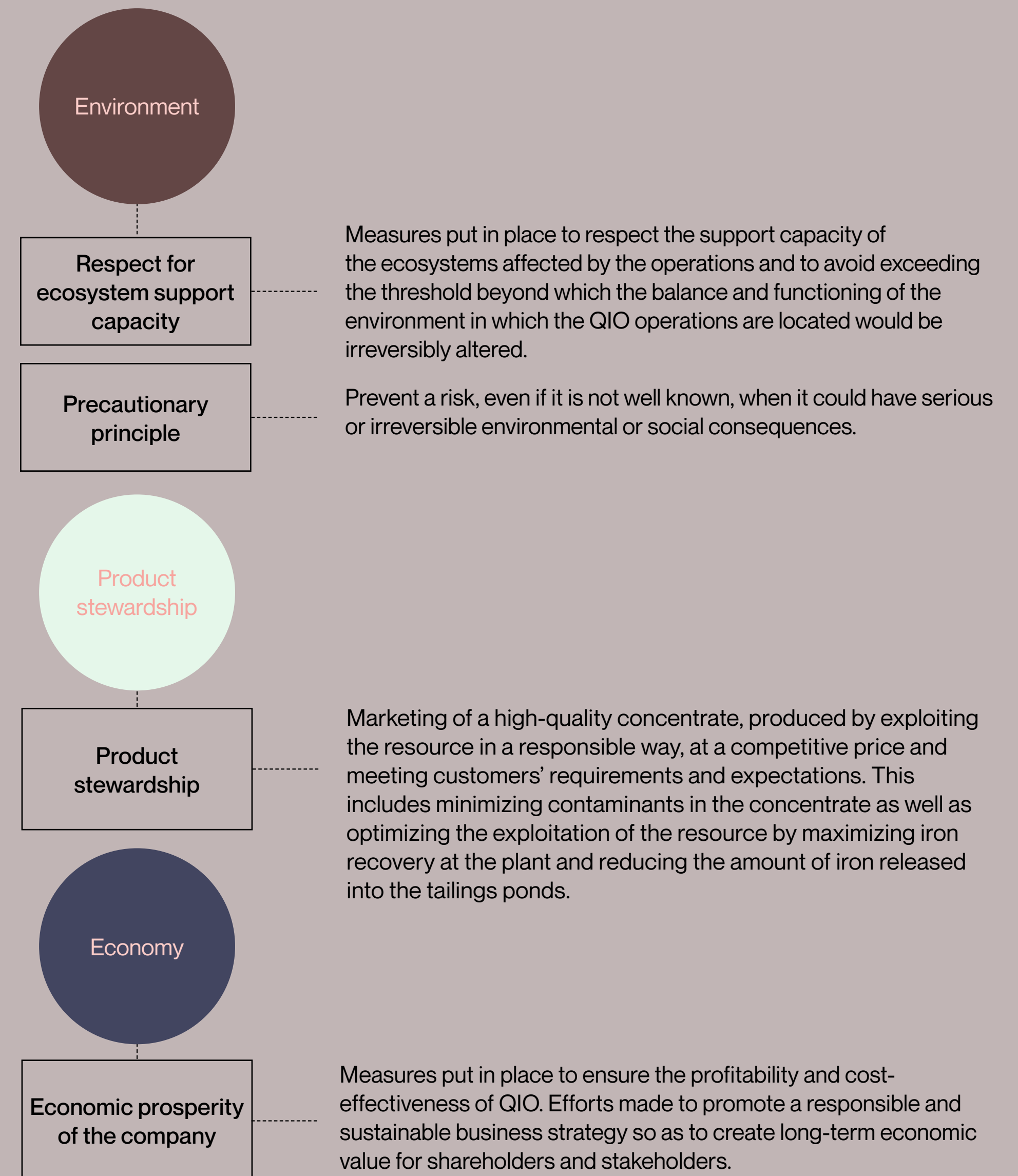
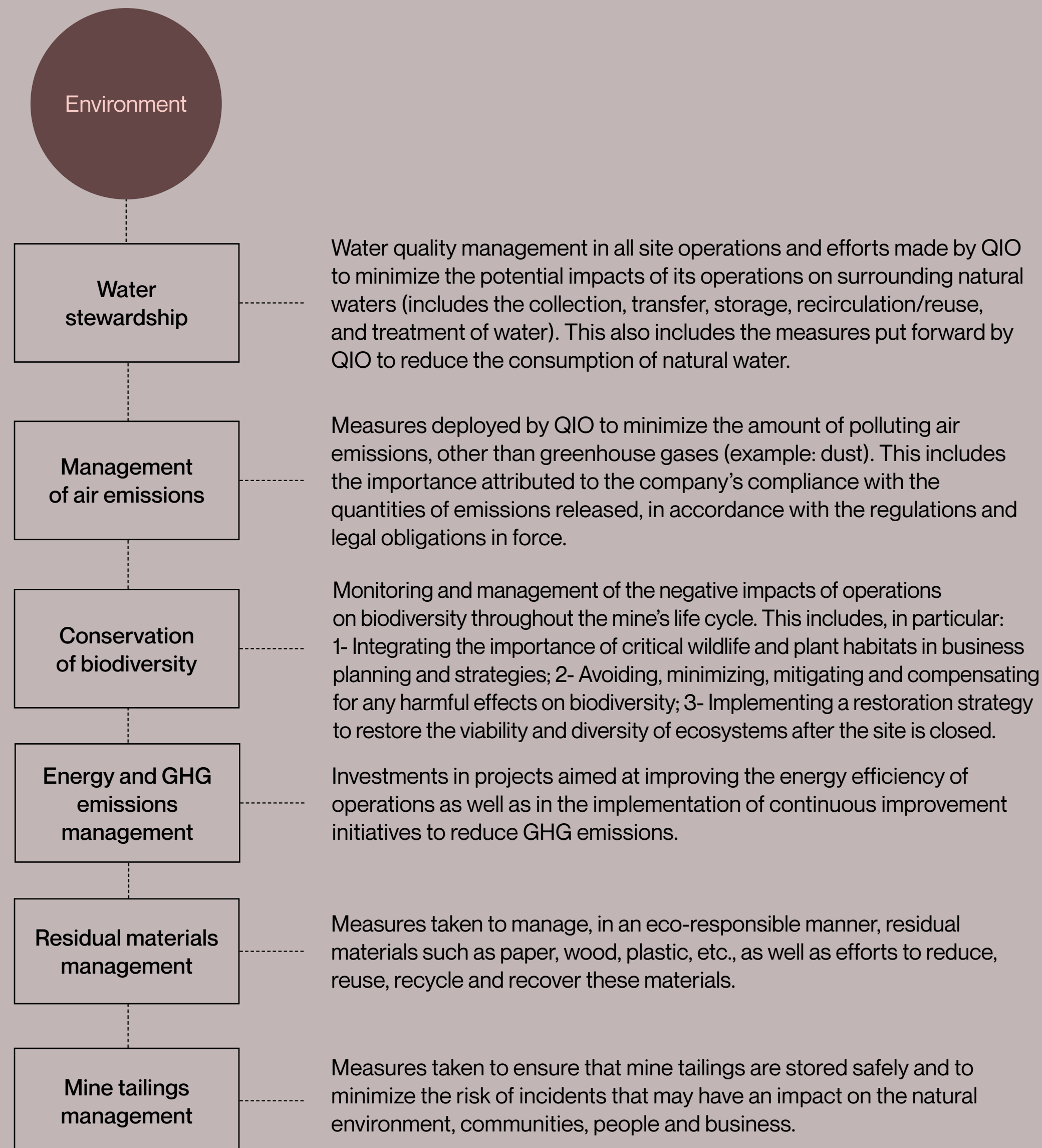
Significance of the economic, environmental and social impacts created by Quebec Iron Ore



# Material issues









## The three most important topics for stakeholders<sup>(9)</sup>



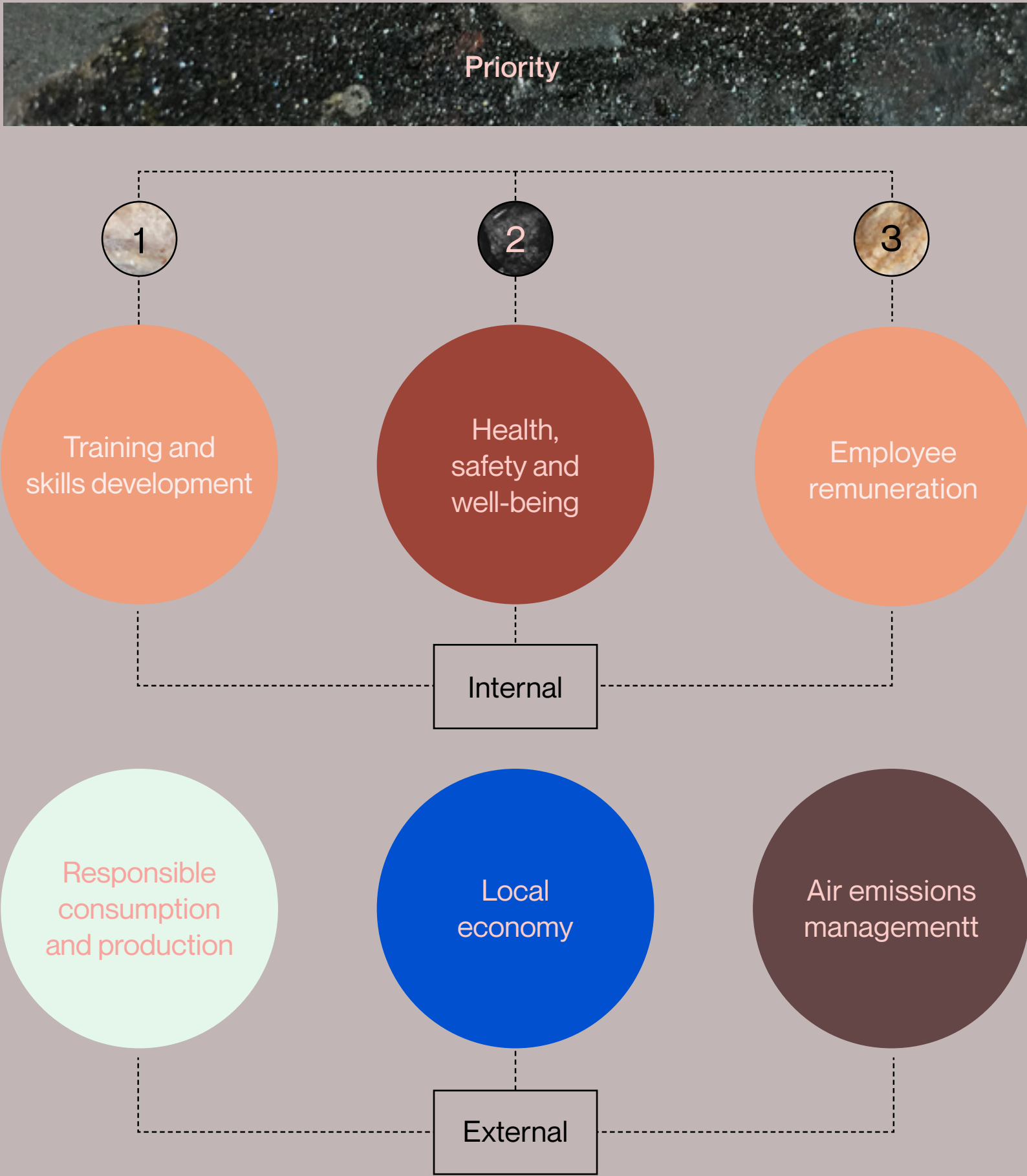
## The three topics that stakeholders believe we manage most effectively<sup>(9)</sup>







The three topics that stakeholders believe we manage least effectively<sup>(9)</sup>



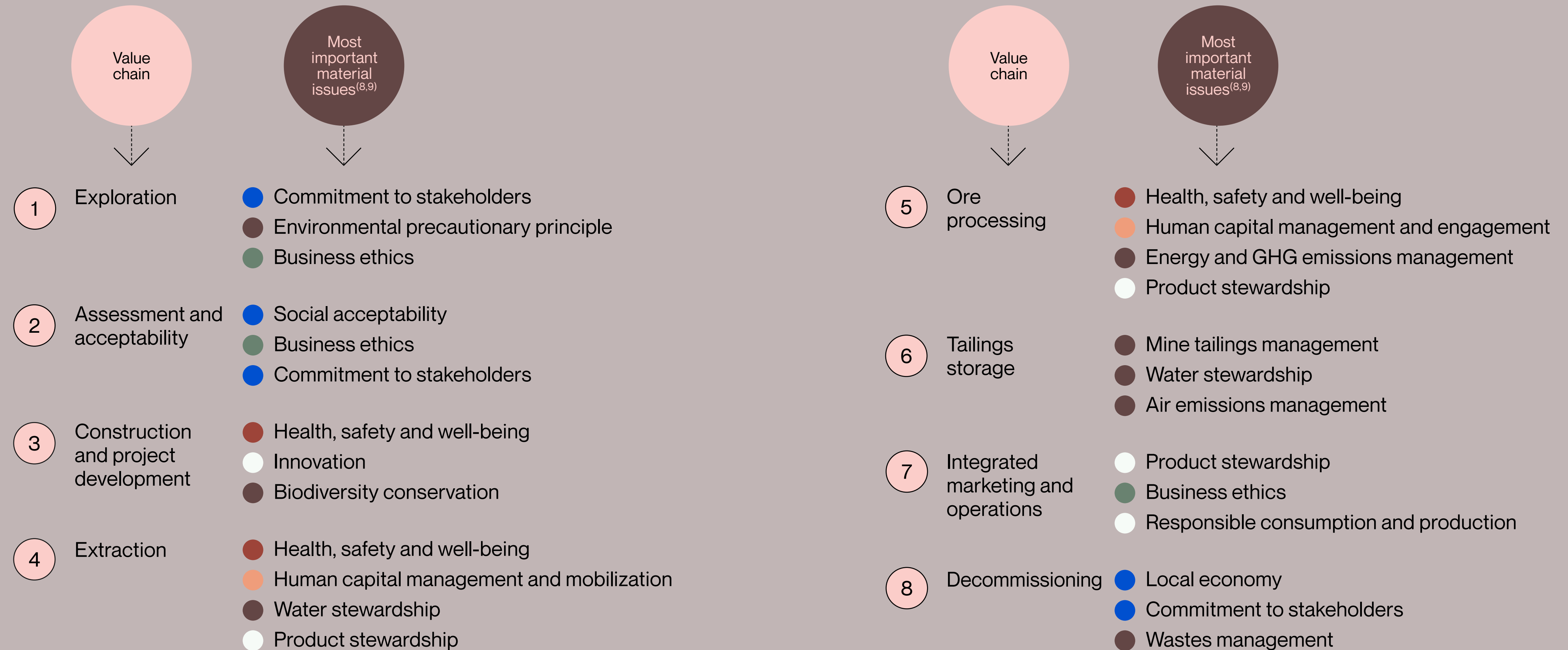


We integrate the most important material issues of our value chain<sup>(8,9)</sup> in the way we manage our business. This allows us to properly plan our risk management strategy and to

effectively respond to the needs and concerns of our stakeholders for the entire life cycle of our products, from exploration activities to site closure.

Legend:

- Governance
- Health, safety and well-being
- Product stewardship
- Community
- Environment
- Economic
- Human capital











# Performance 2019

89	Health, safety and well-being
106	Business ethics
120	Communities, Indigenous groups and human rights
137	Human capital and diversity
154	Energy consumption and climate change
169	Water stewardship
180	Management of mine tailings
194	Wastes and air emissions
207	Biodiversity and ecosystem conservation
223	Product stewardship



# Health, safety and well-being





# Health, safety and well-being

## Its importance for our stakeholders

## Its importance for us

It is important for our stakeholders that we work to implement means to minimize the risks of incidents related to the health and safety of our human capital and that we promote healthy working conditions for everyone.

We believe that the most important strength of our organization lies in our human capital, and we believe that the success of our business therefore depends on our employees' health. This is why we prioritize a safe workplace that minimizes the risks to the health and safety of our staff and encourage the development of programs that stimulate their well-being. We care that our employees return to their families in good health.



## Our approach

At QIO, the health, safety and well-being of staff is always on our mind. We believe that every employee must be actively engaged in our health and safety culture, which promotes proactive behaviour that goes beyond simply meeting regulatory requirements. We strive to make people care deeply about a preventive approach so that they voluntarily adopt to it.

We believe that all occupational injuries and illnesses can be avoided, particularly by making risk management central to our approach.

We have implemented an occupational health and safety (OHS) management system based on the provisions of the international standard ISO-45001. All QIO employees and sub-contractors as well as other persons entering the mining site must comply with the provisions of this system.

We also recognize that health and safety management systems and

processes are nothing without a sustained commitment from everyone in the organization. That is why we rely first on leadership that fully assumes its responsibilities and supports rigorous principles of occupational health and safety and the well-being of individuals. We also encourage the full and active participation of all our employees and business partners in the uncompromising application of the highest standards in occupational health and safety. In addition to striving to establish a healthy and safe work environment for all our employees and subcontractors, we also equip them with the necessary tools and training so that they take ownership of their health, safety and well-being.

Continuous monitoring and evaluation of our health and safety performance is an integral part of our approach and we encourage the reporting of all types of incidents in order to obtain a clear picture of our performance and thus be able to target relevant areas for improvement.





# Our strategies

Our approach rests above all on the individual and their behaviour. Our global strategy is to identify, develop and implement the means to make individuals feel shared responsibility for their health, safety and well-being and have them cultivate maximum leadership in this area, both at work and at home.

## Short term (2020–2021)

- Continue to lay the foundations of our OSH management system to keep fostering the development and maintenance of a culture of long-term health, safety and well-being for our employees.
- Put in place the appropriate means of managing the COVID-19 pandemic, including commitments with our stakeholders and the post-pandemic period.
- Implement the means to develop individuals' knowledge and skills in terms of health and safety by prioritizing the topics related to our top risks in this area.

## Medium term (2022–2024)

- Invest in initiatives focused on shared responsibility so to facilitate the convergence of all in applying safe and secure practices and strengthen the commitment and collaboration of individuals in achieving our health, safety and well-being objectives.
- Revisit training courses and programs to ensure that our employees are provided with the most recent relevant developments and encourage them to challenge our approaches, attitudes and beliefs in health and safety with a view to continuous improvement.

## Long term (2025–2030)

- Maintain efforts to continually strengthen our culture of health, safety and well-being.
- Transfer the expertise and knowledge acquired throughout the community in order to prepare our future OHS leaders of tomorrow.



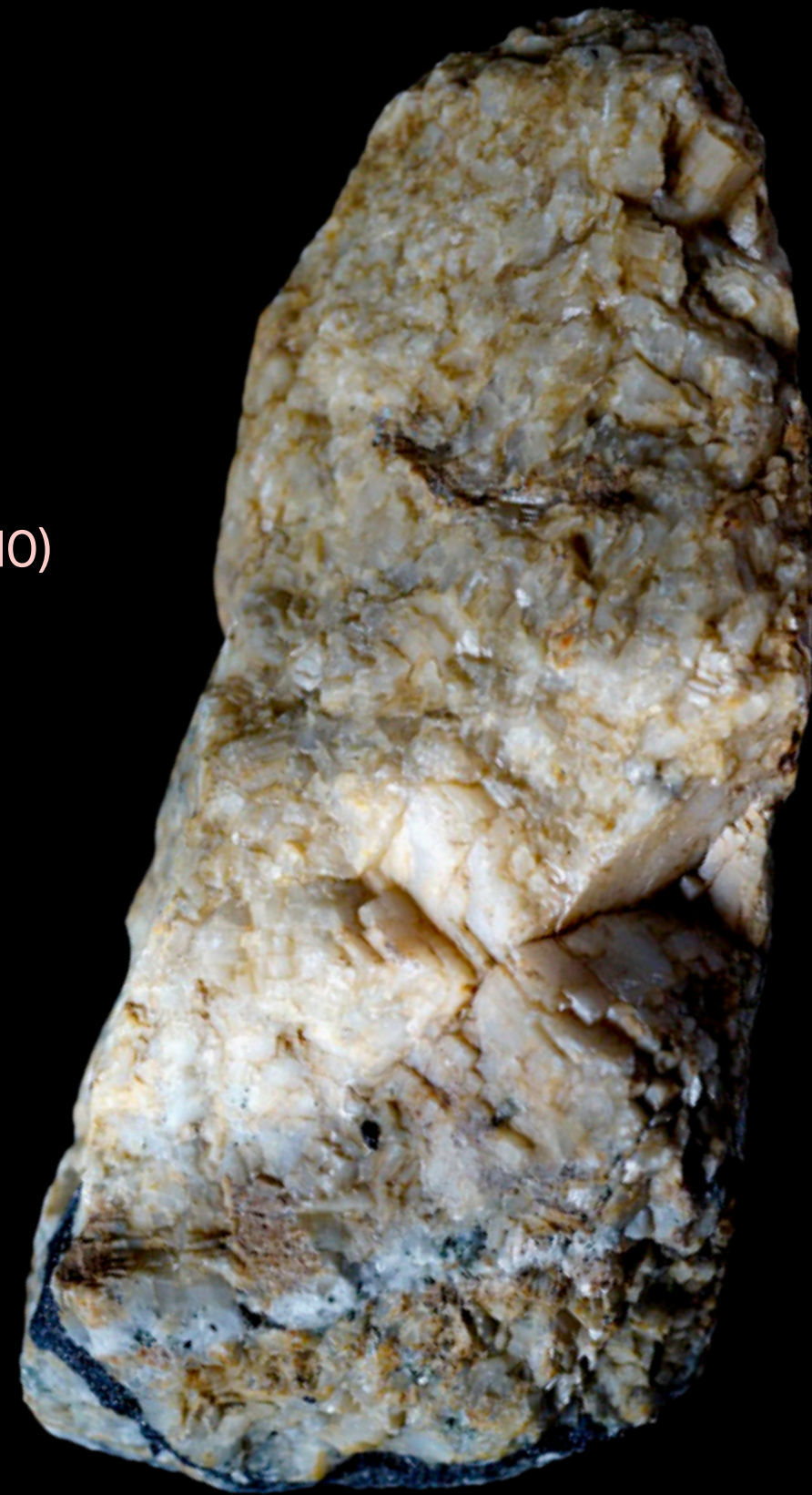
## Performance indicators for 2019

2.41<sup>(10)</sup>

Total frequency of  
recordable events

1.11<sup>(10)</sup>

Frequency of lost  
time accidents



<sup>(10)</sup> Values reported over 200,000 hours worked (excluding contractors and subcontractors), based on the international standard set by the Occupational Safety and Health Administration.





## Performance in 2019

In 2019, our total recordable injury frequency was 2.41 per 200,000 hours worked, while the lost time injury frequency was 1.11. The most frequent accidents were mainly associated with hand injuries. We will focus our efforts on preventing this type of accident in 2020.

Pursuant to workers' compensation claims accepted by Quebec's occupational health and safety board, the CNESST, no work-related illness was observed among QIO employees in 2019.<sup>(11)</sup>

<sup>(11)</sup> Statistics based on employees of QIO, thus excluding contractors and subcontractor data.





## Health and hygiene at work

The Bloom Lake Mine has its own occupational health service, which helps identify and eliminate hazards and minimize risks to workers' health. Service is provided on the mine site by qualified nurses 365 days a year, which facilitates access to service for our staff.

We strive to continuously improve our occupational health and hygiene risk assessments through monitoring and exposure controls to protect the long-term health of employees. We have also added the services of a company doctor to the occupational health service team to help us to this end in 2019.

The most common occupational diseases in the mining industry are

mainly associated with hearing loss and respiratory illness. QIO has implemented programs to manage these two issues: a hearing preservation program and a lung health program. These allow employees to know the state of their hearing and their lungs, to understand how they can be affected in the workplace, and to take appropriate measures to prevent the occurrence of additional or irreversible damage.

In 2019, audiometric tests were performed on our employees directly at the Bloom Lake Mine in accordance with the planned test schedules. Noise exposure level analyses were also carried out



at the site to target additional measures to be taken to improve the management of hearing hazards and risks in certain areas.

Likewise, we continued to develop our lung health program by purchasing a spirometric device and updating the list of required medical examinations to issue a pulmonary health certificate to staff. This ensures a good understanding for the employee and the employer of the lung health status of each

worker. In 2019, 75% of workers earned their certificate.

In addition, in a perspective of the continuous improvement of our eye health program, we have implemented a tool to perform fitting tests on protective goggles. These tests make it possible to determine, for each individual, the model of goggles offering the best protection and thus providing optimal efficiency. We reviewed our eyewear stocks during the year to meet everyone's personalized needs.



# Hazard assessment

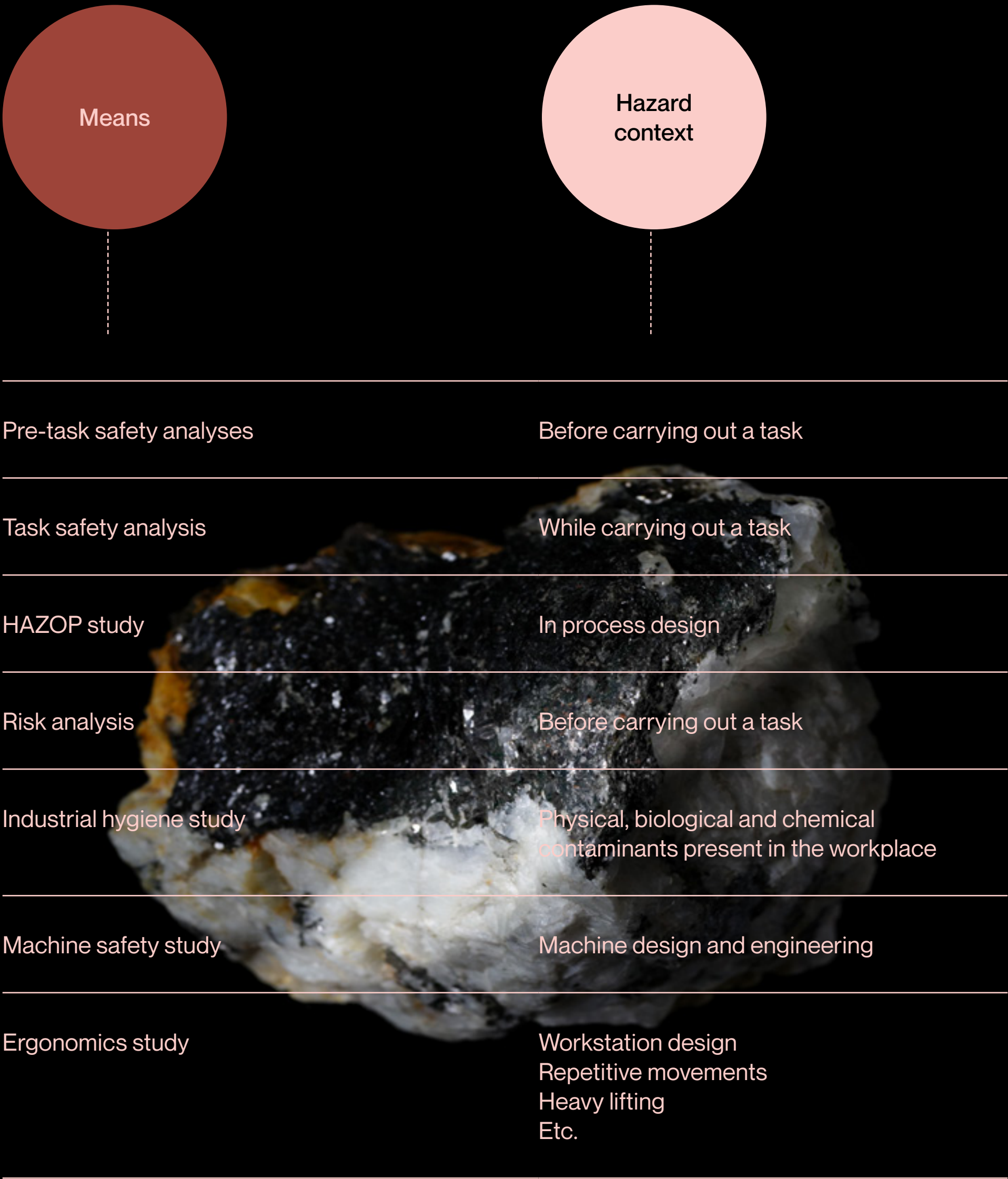
Our biggest security challenge is ensuring everyone makes the right decisions every day. Therefore risk assessment and proactive identification of hazards with a view to controlling risks and hazards are of paramount importance in helping everyone to this end. We use different means to detect the dangers we may face. These allow us to prioritize and direct the efforts to be deployed to control dangers.

In 2019, a total of 1,160 risk analyses were carried out by QIO employees, covering all our operational sectors. These analyses made it possible to identify the 23 priority risks on which efforts are now concentrated. Among these are working at height, working in confined spaces and machinery safety.

In addition, a total of 122 task safety analyses were performed to help identify the hazards associated with performing a job more easily and improve the way in which the task is performed while minimizing risks in the future.

In addition, we have trained all our employees in carrying out pre-task safety analyses. This tool is used to identify risks and dangers before starting a job, thus helping employees mitigate their exposure to dangers and risks to their health and safety beforehand. A total of 33,715 pre-task analyses were performed by our employees in 2019.

At Quebec Iron Ore, any worker can and must withdraw from any work situation that, in their opinion and in good faith, could cause injury or affect their health. This is done with the assurance of not being subjected to any reprisals.





## Inspection and audit

An inspection and audit program was implemented in 2019. This makes it possible to examine and verify the compliance of the working environment, equipment, tools and materials used with respect to established standards. Inspections and audits provide a valuable source of feedback on the effectiveness of our work methods and procedures, our engineering, our communications and on a variety of other aspects related to occupational health and safety. In 2019, the program focused mainly on maintaining cleanliness and good order in the workplace in order to improve this aspect in the daily life of our human capital.

## Reporting of incidents and dangers

Reporting incidents and dangers, even if they seem minor, is an important element of the QIO approach since it allows us to assess the risks to which our human capital is exposed and to take appropriate corrective measures before injuries or incidents occur. We strongly encourage the reporting of incidents and hazards from our employees and contractors.

## Investigation

At QIO, all high-potential incidents are the subject of an in-depth investigation in order to identify the corrective and preventive actions to be implemented and to minimize the risk of recurrence.

An incident is rarely the result of a single cause. It is very often the result of several factors combined. The incident investigation examines the facts and factors leading to an incident and identifies its root causes. This approach makes it possible to develop the appropriate measures to control risks.

A total of 297 investigations were conducted in 2019. These revealed that 17% of the events were related to cuts, 27% were due to inappropriate behaviour regarding the task at hand, and 38% caused material losses. This data already guides the prioritization of efforts to improve our OSH performance.

## Communications

Effective and mobilizing communication in occupational health and safety generally results in human capital's greater commitment to OSH. Good communication notably allows employees to know their roles and responsibilities, to participate in the deployment of our prevention culture and to strengthen their motivation. QIO uses various means to communicate with its human capital on matters related to health and safety: group performance reviews, discussions, information capsules, presentations, testimonials of good practices, information sessions and bulletin boards, sharing of prevention reflexes.



## Joint OHS committee

A joint OHS committee composed of workers and management representatives is in place to help maintain safe workplaces. It is a valuable tool that allows QIO employees to take part in the safety decision-making process.

The committee meets at least once per month and is responsible for monitoring and improving the QIO prevention program. The committee ensures:

- Assessment of occupational health and safety performance
- Appropriate recommendations are made
- Managers are supported in applying the prevention program
- Participation in risk assessment
- Participation in establishing health and safety training and information programs that meet the needs of the organization

## Training

The success of deploying a culture of health, safety and well-being is directly linked to individuals' awareness of the subject. Therefore it is important for QIO to properly train its human capital on different technical and behavioural aspects of OSH to raise awareness and increase its sense of responsibility. QIO began updating its OSH induction training program in 2019, which will run until 2021. We have also developed training on our emergency response plan so that everyone is conscious of their roles and responsibilities in such circumstances.





## Risk and opportunity management

At QIO, we strive to channel our efforts in the right direction. In 2019, we worked on the biggest OSH issues in order to mitigate the risks and seize the opportunities that could arise.

Various subcontractors are relied upon to work inside our facilities. They are responsible for carrying out their work by following the appropriate health and safety procedures and by complying with the requirements of QIO and the Quebec Occupational Health and Safety Act. However, with the future organic growth possibilities open to our company, we can anticipate a greater potential presence of

subcontractors at the mine site in the medium term. It is in this context that we seized the opportunity to improve the management of OSH for our subcontractors. In 2019, many efforts were made to ensure that QIO's OHS approach was followed by them. We have set up an administrative management tool to ensure that any subcontracting worker entering the site of the Bloom Lake Mine has the training, tools and prerequisites to do their job safely. Subcontractors are also subject to periodic evaluation of their OSH performance to ensure that they meet QIO expectations.

Moreover, our company benefits from the presence, within its ranks, of individuals with relevant knowledge and training in matters of intervention in an emergency context. However, emergencies are complex events that require an approach tailored to each situation. To properly mitigate the risks associated with emergency management, stakeholders must be prepared to respond effectively. To do this, QIO introduced a program

with simulation exercises to complement the training of stakeholders. Simulation exercises for first responders, including rescuers in confined spaces, were thus carried out on a monthly basis in 2019 in order to allow them to put into practice theoretical learning, to familiarize themselves with their roles and responsibilities, and validate the various procedures established in the emergency response plan.



# COVID-19

Although this report deals with the performance of 2019, we present some measures implemented as of March 2020 to limit the impact of the pandemic on our local and commuting employees, our partners and members of local communities. All of the measures deployed respected, if not exceeded, the requests and recommendations of the governments of Quebec and Canada and were gradually adjusted to improve their effectiveness and scope.

## Employee air transportation

- Non-essential trips were cancelled and forbidden.
- A first screening was carried out with all employees three days before their departure to review their state of health.

- All employees had to complete a health and travel questionnaire before boarding our planes.
- A health care professional took each person's temperature before boarding and confirm that there were no COVID-19 symptoms or risk factors.
- The number of planes used to transport employees has been doubled to meet the recommended social distancing standards.
- The 7- and 14-day work schedules have been replaced by 21-day work schedules to further reduce the flow of commuting employees.
- The planes were sanitized after each flight using a new, more stringent procedure.

- Only charter flights were used to change employee rotation (no commercial flights).

## Labrador community

- All employees and subcontractors boarded and disembarked directly from company buses specially authorized to enter the tarmac, thereby avoiding entering the terminal at the local airport in Labrador.
- The buses that commuted from the airport to the mine site did so without stopping in the communities of Labrador.
- We were actively seeking to isolate all Labrador contractors from our staff to avoid potential contamination from either side.

## Fermont Community

- A directive was issued by QIO for commuting employees who resided in QIO staff housing facilities to avoid frequenting any public space in the city of Fermont, including the shopping centre (grocery store, shops, services, etc.) in order to limit the potential spread of COVID-19 in the community.
- We worked closely with local health authorities to determine the best way to support broader government and community efforts in the fight against COVID-19.



## COVID-19 (cont'd)

### Aboriginal groups

- Nursing personnel were supplied by QIO to the community of Uashat mak Mani-utenam to provide support during the pandemic.
- A \$30,000 food bank has been provided to the same community to help the most vulnerable.

### QIO staff housing facilities

- Additional hygiene measures, including washing hands thoroughly, have been adopted in the cafeteria.
- The cafeteria seats have been rearranged to respect recommended social distancing.
- Markers have been added to the floor to reinforce social distancing in the cafeteria line.

- All food has been individually packaged in take-out portions to avoid buffet service.
- Community facilities have been closed (gymnasium, recreation area, etc.).
- The buses used to transport employees residing at the QIO staff housing facilities have been doubled to allow for one worker per double seat in order to maintain appropriate social distancing.

### Bloom Lake Mine site

- All employees residing in Fermont worked from home or did work aimed at helping the community of Fermont in the management of the pandemic.
- Large indoor gatherings were suspended.



- Thermometers were distributed to employees.
- A crisis management team was put in place on the site, which adapted the measures daily in response to the evolving situation.
- Medical support staff have been added to the site.
- Any employee showing symptoms of COVID-19 was isolated in a room and monitored by health personnel.
- Additional employees were dedicated to the daily disinfection of work areas, including railings, door handles and other surfaces.

- Disinfection stations have been installed on the site.
- Additional security officers have been deployed to ensure the proper management of external deliveries of goods to the site and see that the management protocol specially designed for COVID-19 for anyone wishing to enter the site is correctly followed.
- Hours of work have been shifted between employees to minimize their interactions.
- Working from home has been strongly encouraged, when possible.



# External commitments


## UN SDG

	Description	Target	What we do	
<div><div>3</div><div>GOOD HEALTH AND WELL-BEING</div><div></div></div> <div>Good Health and well-being</div>	Ensure healthy lives and promote well-being for all at all ages	Non applicable	We support the achievement of Goal 3, in particular by implementing occupational health and hygiene programs that aim to monitor and control our human capital’s exposure to risk: hazard assessment, inspection,	audit, incident reporting and investigation, joint OHS committee and training. Our approach seeks to protect the long-term health and well-being of employees.
<div><div>8</div><div>DECENT WORK AND ECONOMIC GROWTH</div><div></div></div> <div>Decent work and economic growth</div>	Promote inclusive and sustainable economic growth, employment and decent work for all	8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment.	We support the achievement of Goal 8 by putting in place strategies aimed at identifying, developing and implementing the means for people to be jointly responsible for their health,	safety and well-being and helping them cultivate maximum leadership in this area.



# External commitments (cont'd)

## ICMM MP

	Description	Target	What we do	
 <b>Health and safety</b>	Pursue continual improvement in the health and safety performance with the ultimate goal of zero harm.	<p><b>5.1 Continually improving health and safety</b> Implement practices aimed at continually improving workplace health and safety, and monitor performance for the elimination of workplace fatalities, serious injuries and prevention of occupational diseases, based upon recognised international standard or management system.</p> <p><b>5.2 Provide health and safety training</b> Provide workers with training in accordance with their responsibilities for health and safety, and implement health surveillance and risk-based monitoring programmes based on occupational exposures.</p>	<p>We support Principle 5, in particular by continuously monitoring and evaluating our performance in terms of occupational health and safety, specifically through audit and inspection programs. We encourage the reporting of all types of incidents in order to obtain a true picture of our performance and thus be able to target relevant areas for improvement.</p> <p>We also strive to establish a healthy and safe working environment for all our employees and subcontractors and to equip them with the necessary tools and training so that they take ownership of their health, safety and well-being.</p>	

## TMS SDP

<b>Safety and Health</b>	The purpose of the protocol is to guide institutions in assessing their health and safety performance against commitments and obligations, developing and implementing a plan, training, behaviour and culture, monitoring, reporting and performance.	Non applicable	The implementation of occupational health and safety processes and tools at the Bloom Lake Mine began as soon as the site was acquired in 2016.	We will ensure that the measures put in place comply with the TMS health and safety protocol.
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## Perspectives for 2020

We will focus our efforts in preventing hand injuries. We will also evaluate the results of the OHS programs and processes implemented since the start of operations in 2018. This will allow us to identify and understand the strengths of the measures adopted to date and where there may be room for improvement, and then adjust as needed or set up appropriate mentoring. We will also put in place all the measures necessary to minimize COVID-19 contamination and avoid the

negative impacts of the pandemic on our employees, their families and members of local communities. In 2020, we will carry out an OHS culture audit in order to assess the current situation and establish the areas to focus on with our human capital. On the occupational health and hygiene side, we will continue the work already started with the pulmonary health program by performing adjustment tests so that all staff can wear respiratory protective equipment effectively.









# Business ethics





# Business ethics

## Its importance for our stakeholders

It is important to our stakeholders that we clearly articulate corporate governance practices and act transparently when disclosing our reports on the Corporation’s performance, trends and results. Our stakeholders expect us to act in accordance with applicable laws and to implement anti-corruption policies and practices and to transparently disclose payments made to government and political bodies.

## Its importance for us

QIO’s reputation and the trust of those with whom we do business are among the most important assets of our business. This is why it is essential for QIO to conduct its business while respecting the highest standards of integrity, transparency and excellence. This helps ensure good business practices and appropriate behaviour with individuals both internally and externally, and maintain and protect QIO’s reputation as an ethical and law-abiding company.



## Our approach

We believe that when a company adopts and deploys ethical safeguards, everyone benefits. Being trustworthy, frank and consistent in our relationships with others fosters a positive work environment. An honest business inspires confidence in employees, customers, shareholders, suppliers and the wider community.

To support this approach, QIO and its parent company, Champion Iron Limited, use a variety of tools such as policies, training, charters, codes and procedures to foster and maintain a corporate culture that encourages ethical behaviour and compliance with our obligations. Whatever the field of activity or the level of responsibility, any employee, director and officer, as well as any subcontractor having a relevant contractual obligation, must respect our compliance obligations along with their applicable laws and regulations.



## Our strategy

Our strategy is based on raising awareness of business ethics and reaching all our employees. We are committed to increasing ethical behaviour and reducing unethical behaviour.

To increase ethical behaviour, we rely on the deployment of

corporate values, leadership and organizational culture. We also rely on communication and training for our staff.

To reduce unethical behaviour, we focus on the implementation of systems, directives, procedures, policies and codes of conduct.

## Performance indicators



<sup>(13)</sup> Details of the payment breakdown are available on page 114.



# Performance in 2019

QIO produced an Employee Code of Conduct in 2017 that set standards for the behaviour expected of all QIO staff in their daily activities and in their relationships with others. Although exhaustive, this code does not deal with all situations that may occur, but provides guiding principles to support a decision process consistent with QIO’s values, commitments and reputation. It outlines the key

responsibilities of QIO employees to shareholders of parent company Champion Iron Limited, as well as individuals and communities. All QIO employees and managers have an obligation to be aware of the Code and to agree to adhere to it. It should be noted that all QIO employees, officers and directors are also subject to the Code of Conduct of the parent company, Champion Iron Limited.

## Our main responsibilities towards the shareholders of the parent company, Champion Iron Limited

Conflicts of interest	Alleged or actual conflict between two interests must be avoided to prevent it from becoming impossible to fulfill our obligations to one party without harming the other.
Gifts	Gifts and entertainment should not be accepted if they can reasonably be considered extravagant, since they can create a favourable bias towards the person who gave them and prevent us from making informed decisions or doing business fairly.
Confidentiality	QIO employees and managers are responsible for the integrity and protection of business information and must take the appropriate measures to protect it.
Insider trading	Employees, officers and directors of QIO are prohibited from trading in Champion Iron Limited shares using privileged confidential information, manipulating the markets, defrauding and breaking the law.
Use of company assets	All actors in the organization must prevent any misuse, loss, unauthorized destruction, damage or theft of QIO assets.
Intellectual property	Information, technology and intellectual property, including, but not limited to, creative material, programs, design, inventions, developments, strategies, etc. developed by an employee while working at QIO are owned by the company and all employees cede to QIO the rights they may have to information, technology and intellectual property.
Public disclosure	QIO must provide the parent company Champion Iron Limited with adequate, factual and accurate information about the business to allow it to disclose the information to its shareholders, the financial community and the general public for the purpose of enabling them to make informed investments in the company. Any disclosure of material non-public company information to anyone outside the company is prohibited.
Financial controls and records	Our record keeping and reporting systems must always be rigorously maintained. All documents must be created in a timely manner, be accurate and complete, and contain reasonable transaction details. Employees, officers and administrators are prohibited from using, authorizing or tolerating the use of “off-book” accounting or any other device that could be used to distort data or reports. In addition, mineral reserves and resources must be defined, calculated and disclosed in accordance with applicable laws and regulations.



Our main major responsibilities  
towards individuals

Harassment and discrimination in the workplace	Harassment, discrimination, abuse, disrespect, disruption and any other unprofessional behaviour towards others are strictly prohibited and not tolerated.
Equal opportunities	We guarantee a fair working environment, which includes equal opportunities in hiring, promotion, training, remuneration and disciplinary measures.
Confidentiality and personal information	Any collection of personal information is limited to what is strictly necessary for commercial, legal, security or contractual purposes and must be carried out by legitimate and legal means with the consent of the person from whom the information is collected. Personal information is not used or disclosed for purposes other than those for which it was collected, unless an exception requires the consent of the person concerned or as required by law. We must comply with all related laws governing the disclosure of personal information, including the Act Respecting the Protection of Personal Information in the Private Sector of the province of Quebec.
Alcohol and drug abuse	QIO employees and managers must discharge their responsibilities in a professional manner and ensure that their job performance is not affected in any way by alcohol or drugs, including cannabis.
Health and safety	QIO has a duty to provide a healthy and safe workplace and adequate resources, notably through training programs, tools and incentives aimed at promoting occupational health and safety. All QIO employees, officers and directors have a responsibility to ensure that due diligence is performed.

Our main key responsibilities  
towards communities

Protection of the environment	We must protect the natural environment and minimize the impact of our activities on it. All QIO employees and managers must ensure that QIO's activities comply with environmental laws and regulations and must report any accidental contaminant spillage to environmental authorities without delay in accordance with the requirements of applicable laws.
Human rights	All employees and managers of QIO and third parties who provide goods and services to QIO must respect human rights at all times. Human rights violations are not tolerated.
Fair practices	We have a duty to work with the highest degree of integrity. We do not seek to profit from anyone by manipulation, misuse of inside information or any other unfair practice. We do not use deceptive or illegal means to obtain confidential information from competitors and we do not use this confidential information if we obtain it.

In 2019, we launched an online training and certification course on the QIO Employee Code of Conduct. In addition to reviewing the key topics of the Code, the process includes a mandatory test to ensure understanding of the concepts learned as well as a commitment to comply with the Code at all times. The test must be passed with a score of 100% for certification to be obtained. Training and certification must be renewed on an annual basis by all staff. The

same process applies to the parent company's Code of Conduct. Training and certification in the parent company's and QIO's codes of conduct will be mandatory starting in 2020.

All staff should also be familiar with various company policies and procedures that provide detailed advice, guidance and directives on specific situations that may arise in the course of their work and ensure that they make the right decisions and do the right things.



## Misconduct reporting

Everyone working for QIO has a duty to promptly report any situation in which our codes of conduct, their underlying policies or the law appear to have been violated. Champion Iron Limited will introduce a whistleblower policy for the parent company and its subsidiaries in 2020, which will apply to QIO. This policy will notably be accompanied by an anonymous reporting procedure that can be done through a platform administered by an independent third party.

In accordance with our Code of Conduct, anyone working for QIO who violates any law, the Code of Conduct or other policies or procedures may be subject to disciplinary action, up to and including termination of employment.

In 2019, we received two reports related to a potential Code violation, which were treated with the utmost diligence. No one was fired for violating the Code of Conduct.

## Fines and sanctions

QIO was not subject to any fine, sanction or prosecution in connection with business ethics in 2019.





# Parent company corporate governance policies

The parent company uses corporate governance policies to ensure the implementation of adequate internal mechanisms to position Champion Iron Limited and its subsidiaries so as to optimize results and shareholder value and ensure its long-term success. The policies are available on the Champion Iron Limited website.

The parent company’s corporate governance policies are based on an appropriate and diligent organizational structure and governance and accountability mechanisms to reduce risks and negative impacts on the company

and protect its interests. They also aim to ensure the disclosure of transparent, clear and concise information about our policies and programs, as well as our performance, trends and results to shareholders and other stakeholders. The parent company’s corporate governance policies include the following:

- Charter of the Board of directors
- Board performance evaluation policy
- Code of Conduct
- Charter of the Audit Committee
- Charter of the Remuneration and Nomination Committee
- Diversity policy
- Continuous disclosure policy
- Shareholder communication policy
- Share transaction policy
- Majority voting policy on the election of directors

Champion Iron Limited plans to introduce a whistleblower policy for the parent company and its subsidiaries in 2020.

Champion Iron Limited's Code of Conduct further requires that the parent company have a zero-tolerance policy towards corruption and that it undertakes to conduct business in a fair, honest, and open way, devoid of undue influence. Corruption and bribery are prohibited. No director, officer or employee may solicit, receive, offer, promise or provide anything of value to obtain an advantage in the course of their activities, in return for an act or omission on the part of a public official or any other holder of a public office in the exercise of their functions.

Champion Iron Limited was not subject to any fines, sanctions or prosecutions related to business ethics in 2019.

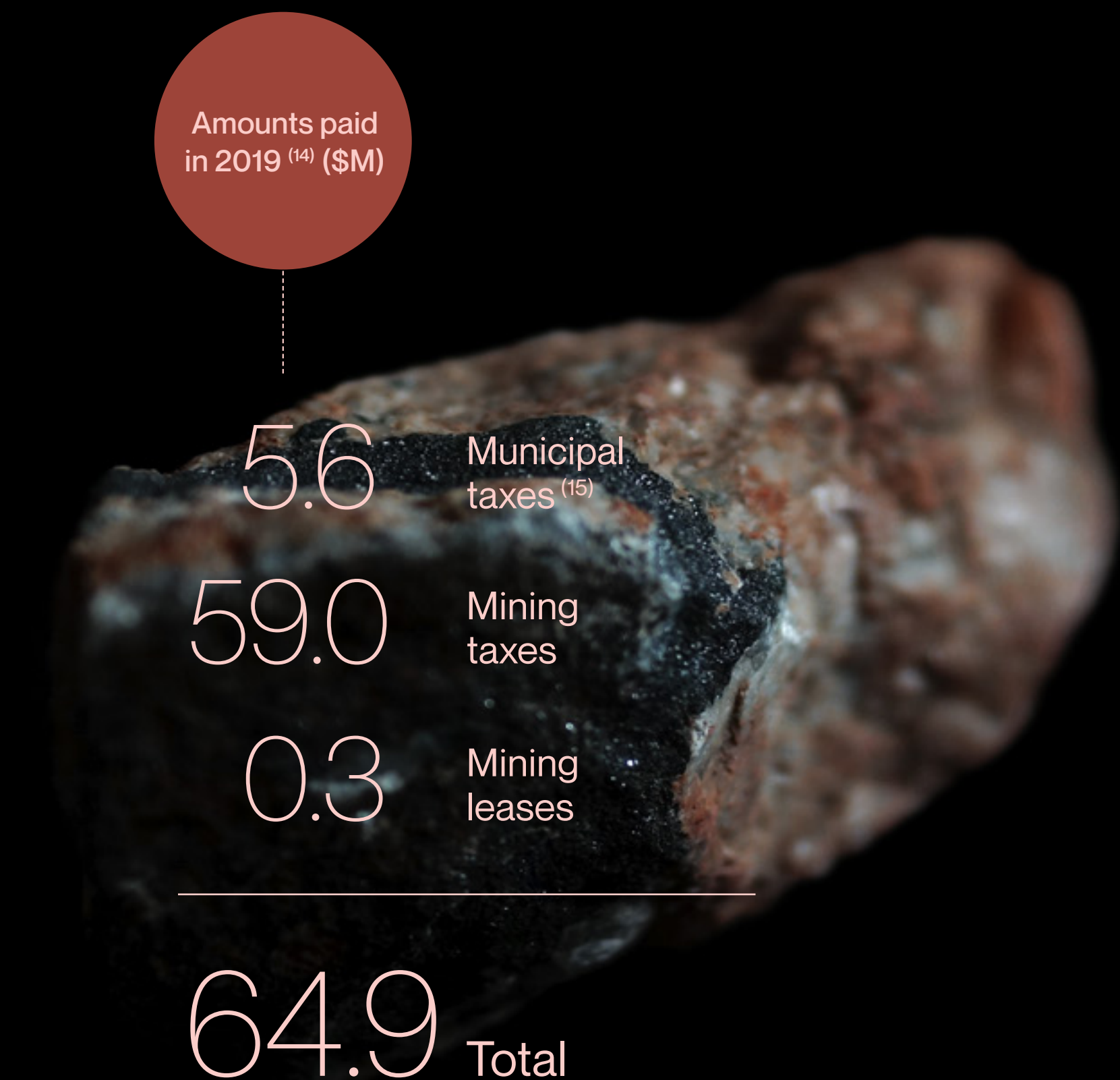


## Payments to governments

We support the objectives of the ICMM and GRI's Extractive Industries Transparency Initiative and its principles of transparency and accountability for government payments. Our commitment to act ethically in our payments to governments involves compliance with external reporting requirements in accordance with the Extractive Sector Transparency Measures Act in Canada and the Act Respecting Transparency Measures in the Mining, Oil and Gas Industries in Quebec.

The payments we made to the various levels of government in 2019 include mining taxes, municipal taxes and annual duties on mining leases. In 2019, we made payments to governments totalling \$64.9 million.

In addition to the amounts paid to the government, the parent company of QIO also concluded a transaction on August 16, 2019, with the Government of Quebec through its agent, Ressources Quebec Inc., allowing Champion Iron Limited to acquire the 36.8% minority interest held by the Quebec government in Quebec Iron Ore Inc. We consider ourselves fortunate to have been able to benefit from the support of the Quebec government, which invested \$45 million in the project to revive the Bloom Lake Mine in 2016 in exchange for this minority interest. Our parent company bought back the government's shares for a total cash consideration of \$211 million.



<sup>(14)</sup> Amount paid for the calendar year 2019 (January 1, 2019, to December 31, 2019)

<sup>(15)</sup> Excluding amount of \$14.9 million for arrears, transfer rights and interest arising before the year 2019



## Risks and opportunities

Businesses are facing increasing legal requirements related particularly to environmental protection and the fight against corruption. It is in this context that QIO set up a legislative and legal watch process in 2019. This approach allows the company to identify changes and innovation that may affect the company's activities

in order to plan and adjust processes, tools and procedures accordingly and in advance and thus ensure compliance with its obligations. Several changes at the Canadian or Quebec level were examined in 2019 and led to some minor adjustments for QIO, notably those related to the Extractive Sector Transparency Measures Act.

The Government of Canada also released the Canadian Minerals and Metals Plan in March 2019, which includes a vision, principles and strategic directions that affect the Canadian mining industry.

- Economic development and competitiveness;
- Advancing the participation of Indigenous peoples;
- The environment;
- Science, technology and innovation;
- Communities;
- Canada's global leadership.

A first action plan is expected from the Government of Canada in 2020. The following actions can already be considered:





- Reduction of the ecological footprint;
- A circular economy;
- Improved planning for mine closures;
- Better adaptation to climate change.

QIO is already aligned with these themes and is taking this opportunity to consolidate some sustainable initiatives already underway or to propel new ones.



# Commitments



## UN SDG

		Description	Target	What we do	
	Gender equality	Achieve gender equality and empower all women and girls	5.1 End all forms of discrimination against women and girls everywhere.	We support the achievement of Goals 5, 8, 10 and 16 in the following ways:  We make sure to consider the actual or potential subjective impacts of our activities and our strategic decisions on stakeholders, and we try to minimize the difficulties that our operations can cause to individuals and communities.  We use human capital management practices that are fair and equitable, regardless of race, gender, sexual orientation or any other ground of discrimination. QIO also ensures that measures are put in place to prevent harassment or reprisals against people.	We make a positive contribution to the progress of communities.  QIO takes measures to minimize, and eliminate if possible, the harmful effects of its activities on the health of its direct employees and subcontractors as well as on the environment and the biodiversity of the environments in which it operates.
	Decent work and economic growth	Promote inclusive and sustainable economic growth, employment and decent work for all	8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value.  8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment.	We have implemented mechanisms ensuring that the actions of individuals internally, their behaviour towards the external environment and the responsibilities of the company towards Champion Iron shareholders, individuals and communities are managed from an ethical, honest, non-discriminatory and legal manner.	
	Reduced inequalities	Reduce inequality within and among countries	10.3 Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard.		
	Peace, justice and strong institutions	Promote just, peaceful and inclusive societies	16.5 Substantially reduce corruption and bribery in all their forms.  16.b Promote and enforce non-discriminatory laws and policies for sustainable development.		



# Commitments (cont'd)

## ICMM MP

	Description	Target	What we do
	<b>Ethical business</b>  Apply ethical business practices and sound systems of corporate governance and transparency to support sustainable development.	<b>1.1 Legal compliance</b> Establish systems to maintain compliance with applicable law. <b>1.2 Preventing corruption</b> Implement policies and practices to prevent corruption and publicly disclose facilitation payments. <b>1.4 Assign accountability</b> Assign accountability for sustainability performance at the Board and/or Executive Committee level. <b>1.5 Disclose financial contributions</b> Disclose the value and beneficiaries of financial and in-kind political contributions whether directly or through an intermediary.	<p>We support Principle 1 by committing to conduct our operations and manage our risks in a responsible and ethical manner.</p> <p>We are putting in place mechanisms to adequately assume our ethical responsibilities to Champion Iron shareholders, individuals and communities, including those associated with the prevention of corruption.</p> <p>We are implementing processes to ensure compliance with the laws and regulations applicable to our activities, in particular those associated with our environmental practices and the disclosure of information and financial contributions.</p>
	<b>Stakeholder engagement</b>  Proactively engage key stakeholders on sustainable development challenges and opportunities in an open and transparent manner, effectively report and independently monitor progress and performance	<b>10.2 Support Extractive Industries Transparency Initiative</b> Publicly support the implementation of the Extractive Industries Transparency Initiative and compile information on all material payments, at the appropriate level of government, by country and by project.	<p>We support Principle 10 by supporting the ICMM Extractive Industries Transparency Initiative with regard to payments to governments.</p>



## Perspective for 2020

In 2020, we will continue to work to raise our level of business ethics by establishing an ethics committee that will be responsible for dealing with ethical matters in a timely, impartial and appropriate manner. The committee will also be responsible for reviewing ethics reports, discussing external law enforcement trends and regulatory changes. Also, the Employee Code

of Conduct will be adapted so that QIO's ethical requirements and expectations in regards to suppliers and subcontractors can be applied in a relevant and diligent manner. In addition, in order to support anyone who is not comfortable reporting ethical misconduct in person to a manager, we will set up a tool accessible to all staff to submit a report confidentially.









# Communities, indigenous groups and human rights





# Communities, Indigenous groups and human rights

## Its importance for our stakeholders

Stakeholders expect us to respect human rights. They also expect us to minimize our negative social and environmental impacts and to maximize the positive benefits we can bring to the local economy. It is important for stakeholders that we engage with local communities and Indigenous groups and create long-term partnerships with them.

## Its importance for us

Community support and social acceptability of our projects are necessary to ensure the stability and continuity of our operations throughout their entire life cycle. They are also essential to propel our approach to sustainable development and ensure respect for our corporate values. Establishing relationships of trust with local communities and Indigenous groups helps us mitigate the impacts of our mining activities appropriately and generate benefits for them.



Forging ties with  
the communities  
has shaped  
who we are.



## Our approach

Relations with local populations are essential for a socially responsible business. We are aware that the use of the territory remains a privilege granted to us by the host communities, and it is in this perspective that we are committed to developing and maintaining excellent relationships with them in order to ensure fruitful collaboration conducive to the creation of a climate of understanding, trust, transparency, and mutual respect.

We recognize our duty to minimize the negative impacts of our activities on local communities. We believe that understanding and addressing stakeholder concerns is essential to our ability to mitigate them. We are also seeking to ensure that our activities become a catalyst

for the sustainable development of the local economy for host communities and Indigenous groups. We are constantly trying to help create opportunities, value and sustainable growth for and with them that ideally will last beyond the life of the mine.

Community investments are part of our commitments and contributions to host communities. We support local initiatives related to health, culture, hiring, the environment, business support, and community development.

We consider that QIO has a responsibility to respect human rights in the context of its activities. We also recognize and respect the rights, cultures, interests and



aspirations of Indigenous groups, and are committed to building strong and lasting relationships with them.

The Bloom Lake site is located on the territory claimed by the Ashuanipi Corporation, which includes the communities of Uashat mak Mani-utenam and Matimekush–Lac John, and therefore lies within the vast ancestral Innu territory called Nitassinan. We are very proud to have reached an agreement on the repercussions and benefits of

our activities with the community of Uashat mak Mani-utenam in 2017, which also includes provisions providing benefits for the community of Matimekush–Lac John. We believe that this agreement lays the foundation for a solid and positive relationship that will contribute to the sustainable development of Indigenous host groups.



# Our strategies

Our strategies for relations with Indigenous communities and groups are based on three pillars:

- **Support human rights:** Integrate respect for human rights in general and the rights of Indigenous peoples in particular into everything we do.
- **Engage with communities:** Dialogue with communities, understand their concerns and priorities to take them into account on an ongoing basis and maximize collaboration with them.
- **Foster the local economy:** Contribute to local economic development through local hiring, sourcing and community investments.

## Short term (2020–2021)

- Meet members of Indigenous communities and groups to refine our understanding of their concerns regarding the impacts resulting from our activities, and mutually define success results and measures.
- Set up intercultural programs to help understand the customs, ideologies and realities of Indigenous groups and thus facilitate relationships and respect for their rights throughout the organization.
- Develop parameters to monitor local and Indigenous employment and supply to establish baselines and stimulate progress.

## Medium term (2022–2024)

- Work with Indigenous communities and groups to identify and participate in initiatives to support their own socio-economic development goals.
- Support local structuring initiatives aimed at generating ideas, trade, culture, innovation, productivity, social development, etc.

## Long term (2025–2030)

- Develop partnerships with Indigenous communities and groups aimed at creating sustainable value, including long-term social and economic benefits. We must aim to ensure these benefits extend beyond the life of the mine and try to assure communities that our presence on their territory gives them a more advantageous position with regard to their development and prosperity.



## Performance indicators for 2019

\$196 M

Sourcing from local suppliers <sup>(16)</sup>

\$3.5 M

Sourcing from Indigenous suppliers <sup>(17)</sup>

42

Local and Indigenous jobs <sup>(18)</sup>

\$5 M

Community investments



<sup>(16)</sup> Suppliers with a business unit in the Côte-Nord region of Quebec.  
<sup>(17)</sup> Indigenous businesses or businesses that are Indigenous partners.  
<sup>(18)</sup> Includes Indigenous contract workers, interns and regular employees.



# Performance in 2019

## Indigenous and human rights

The recognition of and unconditional respect for human and Indigenous rights are fundamental to the proper functioning of the organization and for the sustainable development of QIO and the host communities. We are inspired by the Universal Declaration of Human Rights principles of the United Nations Global Compact as well as the International Labor Organization Declaration on Fundamental Principles and Rights at Work. We are committed to applying them while first ensuring that we comply with the laws applicable in Quebec, in particular the Charter of Human Rights and Freedoms.

QIO undertakes never to tolerate or ignore at any time, in any context or under any pretext, behaviours, gestures or words that in any way infringe human and Indigenous rights or constitute discrimination or harassment. We are also committed to providing a workplace free from all forms of discrimination or harassment, a place where all individuals are treated with dignity and respect.

In 2019, we did not receive any reports related to a potential or actual violation of Indigenous or human rights related to Indigenous communities or groups.

## Commitment to communities

We recognize the importance of community members being well informed. This is why QIO strives to ensure effective communication with local stakeholders.

A social environment monitoring program is already in place with the adjacent municipality and Indigenous groups. The objective of this program is to ensure the implementation of coherent measures to mitigate the impacts of our activities on communities and generate lasting benefits for them. The results and effectiveness of the measures are monitored during the mine's operation, which allows us to adjust them progressively to ensure that the program objectives are properly met.

The follow-up approach is essentially based on the formation of committees with local and Indigenous stakeholders.

The purpose of these committees is to offer all key players in the communities concerned a platform for exchange and consultation, which allows us to:

- Share and better understand community issues, whether environmental, social or economic
- Identify opportunities to create value or potential benefits that can benefit communities in the short, medium and long term
- Stimulate the development of multi-partnership initiatives
- Share the results of our environmental, social and operational monitoring
- Adjust corporate objectives in order to meet common sustainable development objectives as much as possible
- Ensure a regular and continuous cycle of communication and exchange



## Performance in 2019 (cont'd)

For example, QIO met with cabin owners located in the vicinity of the Bloom Lake Mine twice in 2019 to present the first drafts of a concept for the potential expansion of storage areas of rock at the Bloom Lake Mine site (project not yet implemented by QIO). The objective of these meetings was to understand their concerns with regard to this type of project to include these concerns in the project approach and design thereafter. The concerns raised were mainly about the risks linked to air quality. Mitigation measures involving modifications to the approaches in the blasting, transport and storage of materials were retained and implemented for the remainder of project planning. Representatives of Indigenous groups were also an integral part of the discussions and participated jointly with QIO in the development of a compensation

measures plan for potential impacts to wetlands and fish habitats in the context of the project deployment. This approach made it possible to target measures that would optimize the benefits for Indigenous groups.

We also participate in socio-cultural events to allow our staff and members to learn more about each other and thus contribute to creating a meeting place favouring communication, sharing and collaboration. One of the local cultural events to which we contributed in 2019 was the Summer Solstice in Fermont, which aimed to foster cultural rapprochement between Indigenous groups, QIO employees and the host community of the city of Fermont. Several activities took place, including tasting traditional dishes, craft workshops and the performance of an Indigenous



musical group. A total of 223 employees and citizens visited the facilities. QIO also participated in other events such as the Fermont Taiga Carnival Challenge, the Innu Festival, the Cancer-Fermont half-marathon, as well as its fundraising campaign, the Indigenous Inter-Band Games, and the Christmas

event at the Vieux-Poste de Sept-Îles (Old Trading Post).

Relations with host communities and Indigenous groups are excellent. There were no significant disputes or litigation involving Indigenous communities or groups in 2019.



# Local employment

Employment is one of the ways in which local communities can benefit from our presence on their territory. According to the most recent demographic census data (2016), the population of the town of Fermont is nearly 2,500. The Indigenous groups of Uashat mak Mani-utenam and Matimekush– Lac John represent approximately 3,000 and 600 inhabitants, respectively.

QIO works with the communities to develop and hire as many of their members as possible. We even offer training on a variety of mining-related jobs to encourage local employment, even for the unskilled. For example, for certain positions, such as mining equipment operator, QIO offers training that combines theory, mentoring and practical exercises in simulators to give high quality employment opportunities to community members.

Despite its local and Indigenous hiring efforts, QIO must use workers at the regional and national levels to meet its labour needs. This hiring involves a staff commuting approach on rotating work schedules of 14 days spent at the mining site, followed by 14 days off at home. Employees who commute are housed at QIO facilities in the host community. Aware of the impacts that commuting can have on the community, QIO constantly tries to minimize the negative impacts and maximize the positive socio-economic impacts of such an approach.

In 2019, the number of local employees represented 4% of our operational workforce, and regional and provincial commuting employees represented 95%. A total of 100% of the senior management of the mining site (general managers and directors) were permanent residents of the province of Quebec.

**Local**  
(City of Fermont)

**Regional**  
(Côte-Nord region, excluding Fermont)

**Provincial**  
(Province of Quebec, excluding the Côte-Nord region)

**National**  
(Other Canadian provinces)

Number of employees

Proportion of employees (%)

21

4

45

9

427

86

7

1

**Total**

500

100

Hiring and retaining members of Indigenous communities was one of our top priorities in 2019. We also favour subcontractors who in turn promote Indigenous hiring. A total of 21 Indigenous workers were hired by QIO as contract workers, interns or regular employees as of December 31, 2019, with a peak of more than 70 members from Indigenous groups working at the Bloom Lake Mine site in the summer of 2019. We

understand that QIO is the largest mining employer of Indigenous people in the Labrador Trough.

We are also constantly seeking to increase employment and training for Indigenous people. We have adapted our selection approach to hiring so as to optimally highlight their strengths and potential contribution to QIO, to promote their hiring and especially their retention.



## Local sourcing

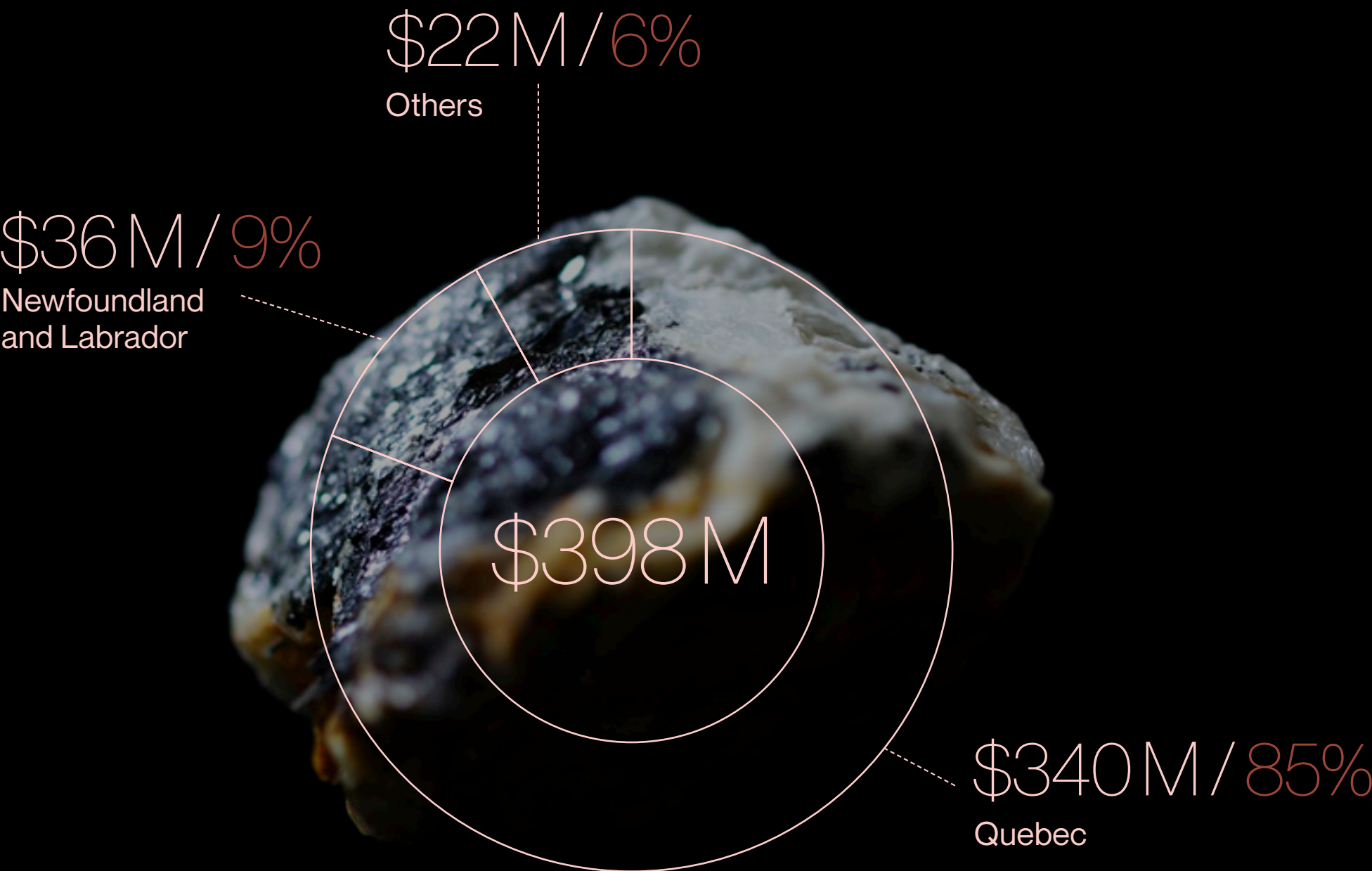
We recognize that our presence in the host community can attract, contribute, and create business opportunities. While respecting our QIO Code of Conduct and the one from our parent company, we try to favour and support local suppliers of goods and services, especially businesses from Indigenous groups or those that are associated with them or favour their interests. We rely on support for small and medium-sized local and Indigenous businesses to help them identify business opportunities, submit proposals for competitive services and develop their activities or long-term assets. We are also working with local chambers of commerce to help build the capacity of local businesses to work with the mine.

Over 50 local or regional companies have been doing business with QIO since the resumption of operations at the Bloom Lake Mine in 2018. In 2019, a total of \$398 million in contracts was awarded to companies having business units in the province of Quebec alone, which represents 85% of all contracts awarded by QIO. Almost 50% of the contracts, worth \$196 million, were awarded to companies with a business unit located in the Côte-Nord region, where the Bloom Lake Mine site is located. We have also awarded approximately \$3.5 million in contract values to Indigenous suppliers or Indigenous partners.





# Canadian provinces



Legend: Level 1 ● Value of contracts awarded by QIO in 2019 (in \$M)  
Level 2 ● Breakdown of the value of contracts awarded by QIO in 2019

# Côte-Nord region



Legend: Level 1 ● Value of contracts awarded by QIO in 2019 (in \$M)  
Level 2 ● Breakdown of the value of contracts awarded by QIO in the Côte-Nord region in 2019

<sup>(19)</sup> Including rail transportation (\$78.3 million) and port services (\$54.6 million) contracts.



## Community investments

At QIO, community investments go beyond local sourcing and hiring. They consist of self-managed contributions from communities that go towards projects and programs that enhance socio-economic development and create

benefits and lasting value that will continue after the mine closes. Our community investment spending in 2019 was more than \$5 million.

## Risk and opportunity management

The revival of the Bloom Lake Mine in 2018 required investments by QIO in the sum of \$326 million. Since then, mining operations have generated purchases of more than \$200 million annually, which will be recurring for the 20 years of mining operations currently planned. Opportunities for local suppliers and Indigenous groups will be a priority. We will seek to help these groups derive the maximum benefit from the mine, in particular by stimulating the growth of a pool of local labour, suppliers and equipment manufacturers, and by supporting initiatives aimed at creating long-term local value.





In 2019, we appointed two new managers to allow QIO to further deploy its corporate social responsibility initiatives. Their mandate is aimed exclusively at strengthening our relationships with local communities and stimulating the emergence of opportunities and benefits for them and Indigenous groups.

We also established a liaison office on the territory of the Uashat mak Mani-utenam Indigenous nation in 2019. This initiative aims to promote the creation of opportunities with Indigenous groups by setting up and pooling activities, meetings, exchanges, training, co-development, and co-creation. We can also maintain a closer link with the community by deploying a structure that facilitates communication. Finally, the office will allow us to improve collaboration efforts with Indigenous liaison officers to further boost the employability and professional supervision of members of the community.



# External commitments


## UN SDG

		Description	Target	What we do	
	Reduced inequalities	Reduce inequality within and among countries	10.2 By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status.	We support the achievement of Goal 10 by constantly seeking to increase employment and training for members of Indigenous groups. To do this, we	have adapted our selection approach to hiring, so as to optimally highlight their strengths and their potential contribution at QIO.
	Sustainable cities and communities	Make cities inclusive, safe, resilient and sustainable	11.7 By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities.	We support the achievement of Goal 11 through community investments. A total of more than \$5 million was dedicated to community investments in 2019.	
	Peace, justice and strong institutions	Promote just, peaceful and inclusive societies	16.B Promote and enforce non-discriminatory laws and policies for sustainable development.	We support Goal 16 by committing to never tolerate or ignore behaviours, gestures or words that in any way infringe on human and Indigenous	rights or constitute discrimination or harassment. We are also committed to providing a workplace free from all forms of discrimination or harassment.
	Partnerships for the goals	Revitalize the global partnership for sustainable development	17.17 Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships.	We support the achievement of Goal 17 by seeking to support the development of partnerships with local community	stakeholders and Indigenous groups in order to improve the socio-economic vitality of host communities.



# External commitments (cont'd)



## ICMM MP

	Description	Target	What we do
 <b>Decision-making</b>	Integrate sustainable development in corporate strategy and decision-making processes	<b>2.1 Integrate sustainability into decision-making</b> Integrate sustainable development principles into corporate strategy and decision-making processes relating to investments and in the design, operation and closure of facilities.	We support Principle 2 by including members of host communities and Indigenous groups in the design phase of our projects. This allows us to include their concerns and minimize the impacts our activities on them, as well as ensuring that they optimize the benefits thereto derived in case of subsequent implementation.
 <b>Human rights</b>	Respect human rights and the interests, cultures, customs and values of employees and communities affected by our activities	<b>3.1 Respect human rights</b> Support the United Nations Guiding Principles on Business and Human Rights by developing a political commitment to respect human rights, undertaking human rights due diligence and providing for, or cooperating in processes to enable the remediation of adverse human rights impacts that members have caused or contributed to. <b>3.4 Respect the rights of workers</b> Respect the rights of workers by: not employing children or forced labour; avoid human trafficking; not assigning hazardous/dangerous work to those under 18 years of age; eliminating harassment and discrimination; respecting freedom of association and collective bargaining; and providing a mechanism to deal with worker grievances.	<b>3.6 Respect Indigenous Peoples</b> Respect the rights, interests, aspirations, culture and natural resources-based livelihoods of Indigenous peoples in project design, development and operation; apply the mitigation hierarchy to address adverse negative impacts; and deliver sustainable benefits for Indigenous peoples. <b>3.7 Work to obtain free, prior and informed consent</b> Work to obtain the free, prior and informed consent of Indigenous peoples where significant adverse impacts are likely to occur, as a result of relocation, disturbance of lands and territories or of critical cultural heritage, and capture the outcomes of engagement and consent processes in agreements.  We support Principle 3 by committing to respect human rights at all times in the course of our activities and in particular the rights, cultures, interests and aspirations of Indigenous groups.  We also make sure to present our project concepts by sharing both the positive and negative impacts to the communities so that their members can have a clear picture before the project takes shape and is implemented. This consultative approach allows them to freely express their concerns in full knowledge of the facts and also allows QIO to take them into account in its planning.



# External commitments (cont'd)

## ICMM MP

	Description	Target		What we do
 <b>Social performance</b>	Pursue continual improvement in social performance and contribute to the social, economic and institutional development of host countries and communities	<b>9.1 Contribute to community development</b> Implement inclusive approaches with local communities to identify their development priorities and support activities that contribute to their lasting social and economic well-being, in partnership with government, civil society and development agencies, as appropriate.	<b>9.2 Support local economic opportunities</b> Enable access by local enterprises to procurement and contracting opportunities across the project life-cycle, both directly and by encouraging larger contractors and suppliers, and also by supporting initiatives to enhance economic opportunities for local communities.	We support Principle 9 through the establishment of a liaison office in the territory of one of the host Indigenous groups and the appointment of two new managers within QIO who are dedicated to strengthening community interests. These initiatives will strengthen our relationships with local communities and Indigenous groups, and stimulate the emergence of opportunities and benefits for them.
 <b>Stakeholders engagement</b>	Proactively engage key stakeholders on sustainable development challenges and opportunities in an open and transparent manner, effectively report and independently verify progress and performance	<b>10.1 Engage corporate stakeholders transparently</b> Identify and engage with key corporate-level external stakeholders on sustainability issues in an open and transparent manner.		We support Principle 10 by setting up committees with local communities and Indigenous groups with the aim of offering a platform for exchange and consultation that allow in particular to share and better understand community issues, to share results of our environmental, social and operational monitoring, and ensure a regular and continuous cycle of communication and transparent exchanges with the communities.

## TSM SDP

<b>Indigenous and community relationships</b>	The purpose of the protocol is to guide institutions in the evaluation of their performance in terms of relations with Indigenous groups and communities in relation to the identification of communities of interest, the process of exchange and dialogue with them, the management implications, and benefits and the feedback system.	We began our work on implementing the TSM protocol on Indigenous and community relations in 2019, which will take approximately two to three years to complete.
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## Perspectives for 2020

We will continue the work we have started with host communities and Indigenous groups by refining our conflict resolution mechanisms to ensure that we maintain frank and fruitful relationships with the communities. We will also put forward a training and awareness program on the rights of Indigenous peoples and their culture to encourage collaboration among

all and stimulate the maintenance of a safe working environment that is respectful of human and Indigenous rights. We will also work to implement measures that can benefit local employment and hiring by working directly with the communities, and we will establish ways to monitor our performance in this regard.









# Human capital and diversity





# Human capital and diversity

## Its importance for our stakeholders

## Its importance for us

Our stakeholders expect QIO to take initiatives to attract, develop and retain employees over the long term and to support their career development within the organisation. Stakeholders also expect us to act responsibly, in accordance with high ethical standards, and to implement measures to ensure non-discrimination and to promote equal opportunity for participation of groups at all hierarchical levels that are traditionally underrepresented, such as women, Indigenous peoples, people with disabilities, and members of visible minorities.

We believe that our most important asset is the potential of our human capital. That's why it is important to offer our employees a working environment that allows them to progress and achieve greater collective efficiency, in terms of production, profitability, social climate, and the development of individuals as citizens of the world. To make QIO the best possible business, it is important to provide career development opportunities, recognize the contribution of individuals, and support diversity and inclusion.





## Our approach

The job market has changed dramatically over the last 20 years, and we must consider the changes brought about by advances in information technology and their effects on the workplace and new generations. We believe a structural shift has occurred for employee visions of a desirable workplace. Employees that use to envision a desirable workplace with frameworks such as “knowing how to do the job” and “ensuring permanent employment,” now seek workplaces with frameworks such as “Why be invested?” and “How will it contribute to the well-being of society?”

It is in this context that we strive to offer all of our employees the chance to build a rewarding career and support them in their personal and professional development. We believe that our company’s success and its benefits for all stakeholders depend on our commitment to, and investment in,

talented collaborators. We aim to provide them with the resources, knowledge and support they need to reach their full potential.

We view our employees’ success as our own success. We use a human capital management approach based on four elements:

- Identification and selection of the best talent.
- Continuous development of this talent in all its forms, ranging from knowledge and know-how to soft skills and ability to project into the future.
- Implementation of innovative and dynamic incentive and recognition programs that inspire our human capital.
- Creation of a synergy of skills and ideas from various sources to ensure the business’s competitiveness and long-term success.



# Our strategies

The deployment of our human capital strategy is based on three pillars:

- Establish an innovative human capital management model that promotes the ability of each individual's empowerment.
- Develop the talent and leadership of our employees by strengthening their ability to see further into the future and have a positive influence on their workplace.
- Foster and maintain a diversified and inclusive work environment generating a cross-section of experience, ideas, and skill sets.

## Short term (2020–2021)

- Revisit employability activities with Indigenous and culturally diverse groups.
- Continue and finalize the implementation of human capital management tools and processes adapted to QIO's innovative approach.

## Medium term (2023–2024)

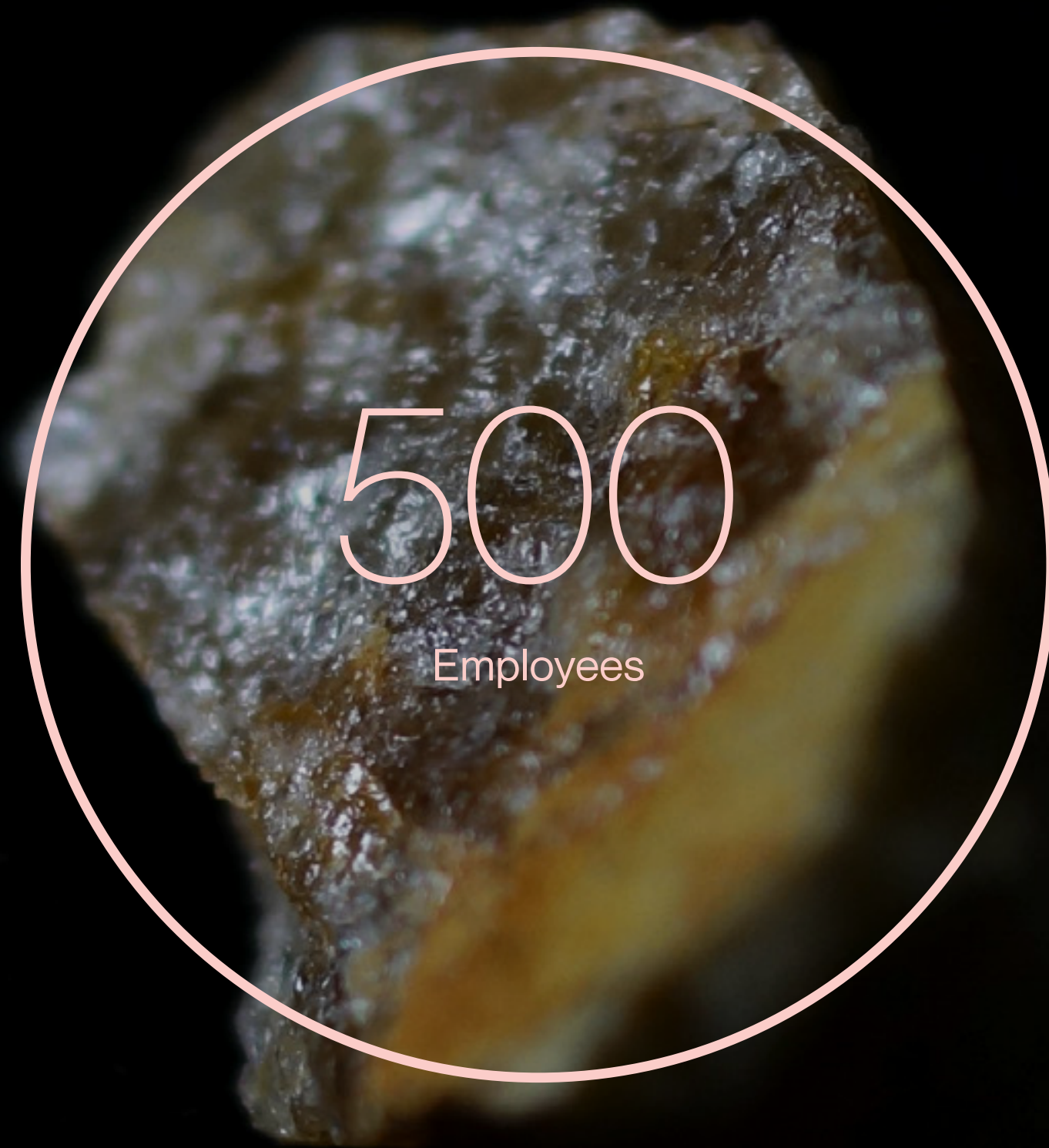
- Establish alliances with partners to facilitate the selection and development of the best talent, adapt and amplify approaches with culturally diverse communities and groups, and help maintain gender equity.
- Continue creating a climate that fosters learning and continuous development, taking into account the evolving needs of the organization, talent management and preparation for the next generation.
- Finalize the deployment of the personalized development approach for each individual according to their interests and for the benefit of their personal development.

## Long-term (2025–2030)

- Make partners and different departments as autonomous as possible in terms of human capital management processes and tools.
- Work to develop a training centre that benefits both QIO employees and members of cultural communities and Indigenous groups in order to build the human capital of tomorrow and improve the resilience of host communities.



## Performance indicators



\$65.8 M

Salaries and  
benefits

## Performance in 2019

### Equity and equality in employment opportunities and the promotion of diversity

We strive to foster an open and inclusive work environment and strongly support the principle that all individuals should have an equal opportunity to participate in the success of our business. We believe that a diverse workforce is essential to optimizing the business's overall performance and helps make the local economy more resilient.

We are inspired by the International Labour Organization Declaration on Fundamental Principles and Rights at Work, the principles of employment equity and, more specifically, the principles of equal employment opportunity as set out in the Quebec Charter of Human Rights and Freedoms. We also

intend to implement measures to maintain a diverse workforce that is representative of the host communities and to concretely encourage the participation and advancement of groups at all hierarchical levels that are traditionally underrepresented. These measures include the identification and removal of any discriminatory barriers to the recruitment, hiring, promotion and training of members of these groups.

We do not tolerate racial, sexual, professional, or any other type of harassment, and we prohibit discrimination in all its forms.



# Our workforce

We are proud to have received the Quebec Job Creator Award in the Champion category for the Côte-Nord region for the second consecutive year in 2019. This distinction highlights our efforts to generate quality jobs at the Bloom Lake Mine.

We hired a total of 97 people in 2019—6 women and 91 men. On December 31, 2019, our workforce totalled 500 direct employees at QIO. We also had 32 employees hired as contract workers, seasonal workers or interns.

A relatively even distribution of employees in the 25 to 59 age group ensures a good mix of vitality and experience.

QIO employees	2019
Executives / non-unionized	184
Unionized	316
Total	500

Others collaborators	2019
Contractual	15
Seasonal	11
Interns	6
Total	32

Age groups of new QIO employees	2019	
	Men	Women
20-24	6	
25-29	17	
30-34	14	
35-39	16	1
40-44	14	2
45-49	7	
50-54	5	3
55-59	11	
60-64	1	
65-69		
Total	91	6



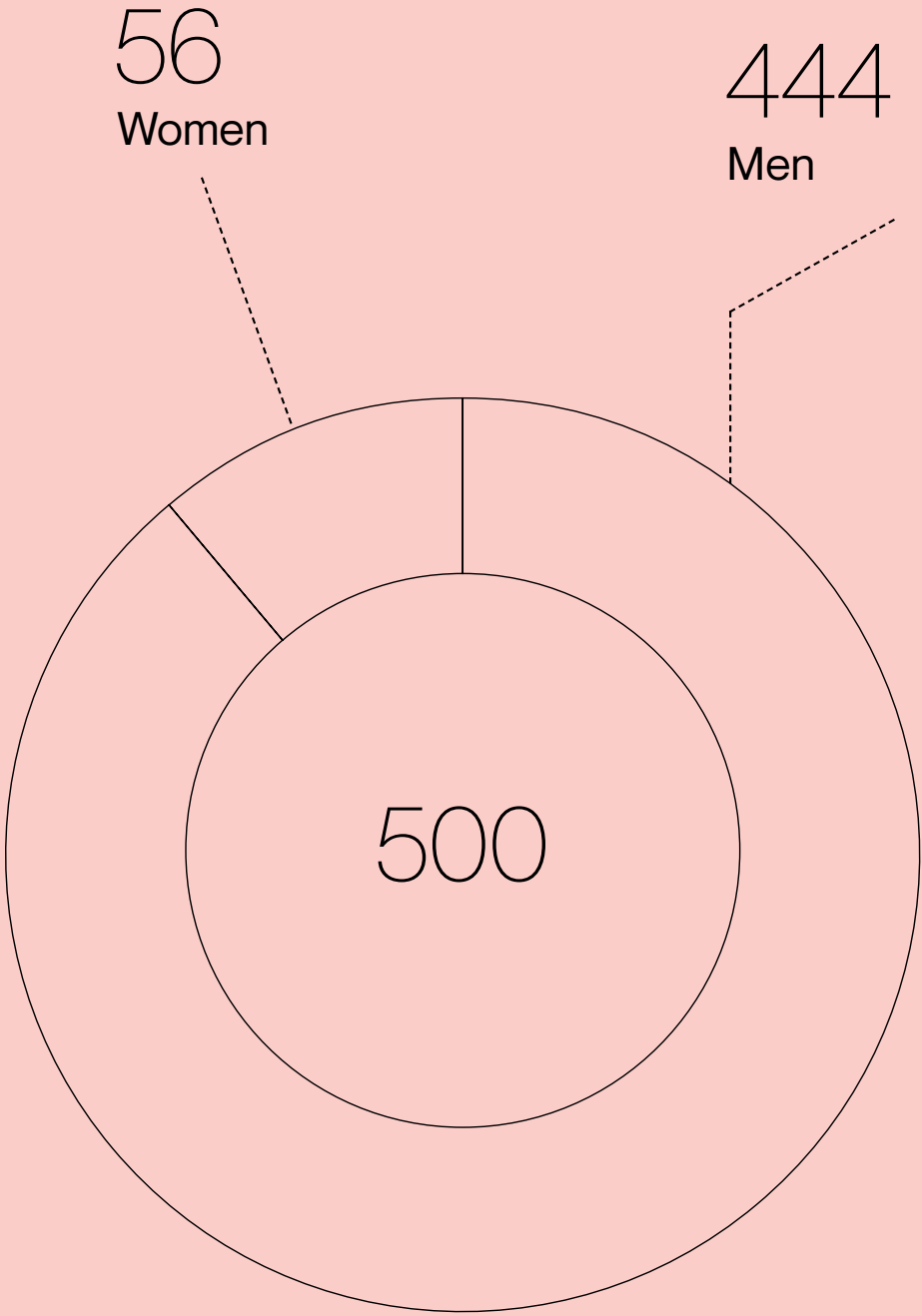




Female employment

Positions held by women represented 11% of the workforce in 2019, mostly in traditional administrative jobs. Some of these positions are associated with operations, including the operation of heavy machinery. To increase the proportion of women in the short and medium term, we're applying the following measures:

- ➔ Increase marketing showcasing the possibilities of non-traditional jobs aimed at young women through educational institutions, specialized job placement agencies and our recruitment partners.
- ➔ Give preference to equally qualified female candidates in the selection process, especially for management and leadership positions.





## Indigenous employment

Members of Indigenous groups represented 4% of QIO's workforce on December 31, 2019. When considering Indigenous jobs contracted out to the Bloom Lake Mine site, the number of Indigenous jobs exceeded 70 at some point during the year. However, maintaining employment and managing seasonal variations in some of our activities posed certain challenges regarding the employability of Indigenous individuals in 2019. We will continue to work towards optimizing their employment opportunities at QIO.

The year 2019 highlighted the need to change how we promote Indigenous employment. We found that the traditional one-on-one interview was not suitable for members of these groups, as their core values often prevent individuals from self promoting. As for the various selection tests and questionnaires, we found that they were not adjusted to their learning style. We have therefore replaced the conventional tests with a questionnaire to assess the candidate's ability to get started in the job. We've also traded one-on-one interviews for group activities, in which games allow Indigenous candidates to showcase their talents and help us identify job opportunities for them.



Group of participants in the cultural diversity pilot project

## Employment and cultural diversity

We implemented new measures to support diversity and inclusion in our workforce in 2019. First, we created a strategic alliance with the Club de recherche d'emploi de Montréal Centre-Ville (a job search club), which specializes in assisting immigrant professionals find jobs. We also conducted a pilot project

by inviting 23 immigrants for a two-day exploration exercise at the Bloom Lake Mine site. The project included presentations to participants and one-on-one meetings with mine managers to promote opportunities to hire people from diverse backgrounds. Two candidates who took part in the pilot project were later hired by QIO.



# Community life and union relations

We recognize and respect workers’ freedom of association and right to collective representation. This is essential to the proper functioning, development and sustainability of our business, our host communities, and the Quebec and Canadian societies we live in.

In total, 63% of our employees at the Bloom Lake Mine site are unionized. Relations between executive management and unionized employees are based on collaboration and an active search for solutions.

In 2019, 22 grievances and complaints related to subcontracting and financial claims, as well as disputed disciplinary notices and dismissals, were received. These have all been reviewed and, where appropriate, action has been taken in a timely and transparent manner.

Several measures were put in place this year to prevent complaints and grievances that can be avoided by simply implementing measures promoting and facilitating better communication.

Main topics of grievances and complaints	2019
Subcontracting and financial complaints	13
Appeal of disciplinary notice	5
Appeal of dismissal	4
Total	22

# Attracting talent

Our human capital keeps our business running. That’s why we’re working on attracting, developing and retaining the best talent. Hiring in the mining sector is a challenge, especially in the context of a labour shortage affecting several sectors of the Quebec economy. We strive to manage this labour shortage proactively by participating in mining job fairs and seminars. We have also established partnerships with recruitment firms and strategic relationships with public organizations.

In keeping with our commitment to implement measures to maintain a diverse workforce representative of our host communities, we use various means to attract and retain employees from various cultural backgrounds. We post the job opportunities available at QIO on social media platforms and use various means of local networking. We disseminate our employment opportunities as widely as possible in order to attract workers not only from within the mining industry, but also from other sectors with skills that are applicable or adaptable to our industry. This can further foster diversity and attract talent who previously may not have considered a career in the mining sector.



# Development and retention

Continuous human capital development is essential to creating a stimulating and rewarding work environment. It allows our employees to develop professionally and personally, and supports their retention at QIO. In addition to the refresher courses associated with each profession and the training required by occupational health and safety regulations, we rely on various types of training to encourage our human capital to improve their knowledge, behaviours and skills.

Category of personnel	Average number of training received per person in 2019
Management	2
Professional and engineering executives	74
Administrative, technical and clerical	3
Production	29

Moreover, our innovative approach focuses on coaching individuals to engage and inspire excellence in their roles, while providing them with the means to progress within our organization. We want to develop not only their knowledge, know-how and interpersonal skills, but also their advancement potential within our company.

In 2019, we implemented performance coaching for our managers, which aims to accompany them in their daily integration of learned concepts to maximize both their performance and our investment in them. Coaching helps highlight the procedures and the level of empowerment of our executives to help them achieve their personal and professional goals.

We also use psychometric tools to help us understand team dynamics and interpersonal relationships, as well as develop talent among executives and managers. These tests are used in the continuous

coaching process to promote better integration of the training received. The tests used are as follows:

- iQE/Effectuation: Group dynamics and collective work
- MPO: Management styles and behaviours
- TLC 360: Job evaluation

In addition, we strive to increase the leadership of our human capital by advocating the development of collaborative leadership based on a combination of talents and professional activities. This approach brings greater fluidity and agility to our teams, within which our leaders' soft skills takes precedence over a more directive approach. The job of QIO managers is not to have immediate knowledge of all aspects of our business, but rather to surround themselves with the right individuals while creating a motivating and inspiring work environment.

## Employee turnover

We monitor staff turnover in order to have a global understanding of the dynamics of, and changes in, our workforce. This monitoring includes voluntary resignations, involuntary layoffs, and retirements. In 2019, our staff turnover rate was 9%.

Age groups of employees having left QIO	2019	
	Men	Women
20-25	1	
25-29	5	
30-34	8	
35-39	7	
40-44	5	
45-49	4	
50-54	4	1
55-59	6	
60-64	2	1
65-69	2	
Total	44	2



## Compensation and benefits

We offer competitive wages and benefits in accordance with our compensation policy. Our compensation programs are designed to encourage productivity without neglecting our employer obligations or the health, safety and well-being of employees. This allows us to attract, reward and retain talented people.

The total compensation of unionized employees is established on the basis of the collective agreement in effect. The base salary of executive and non-unionized employees is established based on QIO's total compensation policy. The compensation policy for executives and non-unionized employees established the basic salary at \$24.15/hour for everyone (men and women), while the minimum wage decreed by the Government of Quebec was \$12.50/hour in 2019. In addition, different types of bonuses, annual bonuses and long-term incentives are available to executives. This allows QIO to share its success beyond basic compensation.

QIO also offers a modular group insurance program that allows all of its employees to choose the coverage best suited to their family situation, their needs and their development at different stages of their lives. The group insurance program offered by QIO is an important part of overall compensation and reflects our commitment to supporting our employees. Benefits paid by QIO to full-time employees include the following protections:

- Medical and dental care
- Life insurance
- Accidental death and dismemberment insurance
- Disability insurance

QIO has put in place a savings and pension plan to help its employees ensure their long-term financial security at retirement. The plan includes both corporate and employee contributions.

In 2019, we paid a total of \$65.8 million in wages and benefits to QIO employees.

## Performance management and development planning

Evaluating employee performance is an important step since it provides a fair view of the talent within our ranks. It also ensures the implementation of the appropriate human capital development plans to effectively maximize returns at all levels. The QIO approach is three-pronged. In addition to the traditional assessment of the employee's contribution carried out by the immediate supervisor,

the chosen approach includes an exchange on the employee's own perception of their performance with a colleague witness/guide. The process therefore allows the creation of a master development plan for the employee for the coming year, in collaboration with the human capital department, the coach and the immediate supervisor.



## Risks and opportunities

The collective agreement for QIO unionized employees will expire in 2020. The negotiation process for the next collective agreement to be concluded will make it possible to address potential and real labour relations issues that have emerged since the beginning of activities at the Bloom Lake Mine site, in particular to help maintain a positive and dynamic work climate.

The year 2019 served to prepare the employer and the union for the upcoming negotiation phase. Training on how to prepare for this type of process was attended by representatives of both parties. This approach is intended to promote a smooth negotiation process.





# External commitments

## UN SDG

	Description	Target	What we do	
<div><div>4</div><div>QUALITY EDUCATION</div><div></div></div>	<b>Quality education</b>	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	<b>4.4</b> By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship.	We support the achievement of Goal 4 by promoting the professional and personal development of individuals, and by encouraging the hiring and retention of human capital representative of host communities and Indigenous groups and their diversity.
<div><div>5</div><div>GENDER EQUALITY</div><div></div></div>	<b>Gender equality</b>	Achieve gender equality and empower all women and girls	<b>5.1</b> End all forms of discrimination against all women and girls everywhere. <b>5.5</b> Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life.	We support the achievement of Goal 5 by promoting equal employment opportunities. We also strive to attract female talent by marketing through educational institutions, specialized placement agencies and our recruitment partners. We give preference to equally qualified female candidates in the selection process, especially for management and leadership positions.
<div><div>8</div><div>DECENT WORK AND ECONOMIC GROWTH</div><div></div></div>	<b>Decent work and economic growth</b>	Promote inclusive and sustainable economic growth, employment and decent work for all	<b>8.5</b> By 2030, achieve full and productive employment and decent work for all women and men, including young people and persons with disabilities, and equal pay for work of equal value. <b>8.8</b> Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment.	We support the achievement of Goal 8 by committing to respecting the ILO Declaration on Fundamental Principles and Rights at Work as well as the principles of employment equity. We are also committed to implementing measures to maintain a diverse workforce representative of host communities and to make concrete efforts to encourage the participation and advancement of traditionally underrepresented groups within of the company, at all hierarchical levels.  These measures include the identification and removal of any discriminatory barriers to the recruitment, hiring, promotion and training of members of these groups. Finally, we recognize and respect workers' freedom of association and right to collective representation.



# External commitments (cont'd)


## UN SDG

	Description	Target	What we do	
	Reduced inequalities	<p>Reduce inequality within and among countries</p>	<p><b>10.2</b> By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status.</p> <p><b>10.3</b> Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard.</p>	<p>We support the achievement of Goal 10 by fostering an open and inclusive work environment and by strongly supporting the principle that all individuals should have an equal opportunity to participate in the development of our business, while developing their full potential.</p> <p>We believe that a diverse workforce representative of host communities is essential to optimizing our overall business performance and improving our competitiveness in today's global market.</p>
	Peace, justice and strong institution	<p>Promote just, peaceful and inclusive societies</p>	<p><b>16.B</b> Promote and enforce non-discriminatory laws and policies for sustainable development.</p>	<p>We support the achievement of Goal 16 by not tolerating any form of racial, sexual, professional or other harassment and by prohibiting discrimination in all its forms in the workplace.</p>



# External commitments (cont'd)

## ICMM MP

	Description	Target	What we do
<div> Human rights</div>	Respect human rights and the interests, cultures, customs and values of employees and communities affected by our activities.	<p><b>3.4 Respect the rights of workers</b> Respect workers' rights by: not employing child or forced labour; avoiding human trafficking; not assigning hazardous/ dangerous work to those under 18; eliminating harassment and discrimination; respecting freedom of association and collective bargaining; and providing a mechanism to address workers' grievances.</p> <p><b>3.5 Provide fair pay and working hours</b> Remunerate employees with wages that equal or exceed legal requirements or represent a competitive wage within that job market (whichever is higher) and assign regular and overtime working hours within legally required limits.</p> <p><b>3.8 Promote workplace diversity</b> Implement policies and practices to respect the rights and interests of women and support diversity in the workplace.</p>	<p>We support Principle 3 by not tolerating any form of racial, sexual, professional or other harassment, and by prohibiting discrimination in all its forms in the workplace. We recognize and respect workers' right to collective representation and freedom of association.</p> <p>We offer diversified and competitive total compensation to employees, including bonuses, annual bonuses and benefits that allow them to take care of their health and that of their families and that help them achieve financial security in retirement.</p> <p>We promote equal employment opportunities and foster an inclusive and diverse workplace. We strive to attract female talent by various means. We give preference to equally qualified female candidates in the selection process.</p>

## TSM SDP

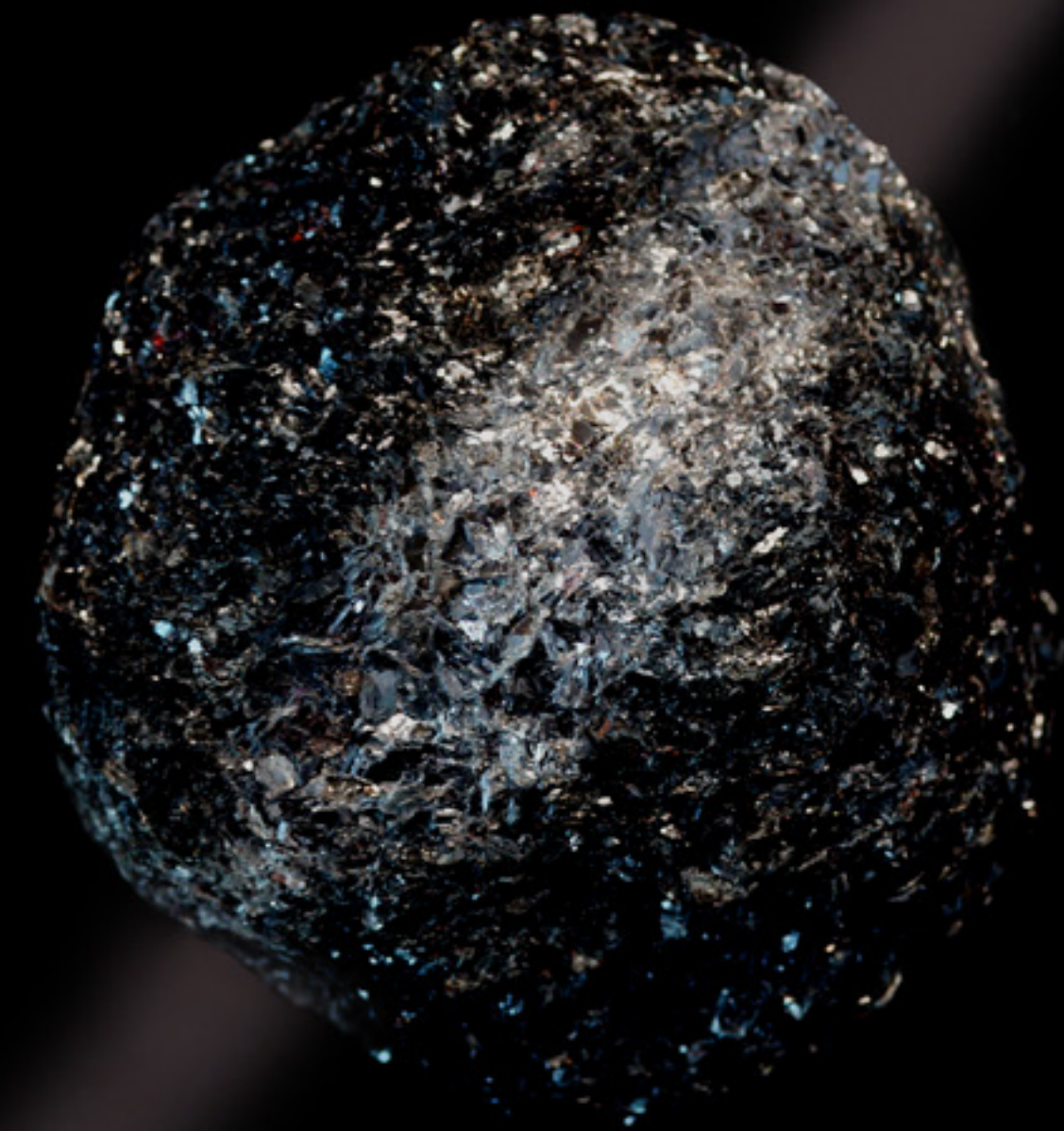
Preventing child and forced labour	The protocol seeks to ensure that mining companies commit to “respecting the rights of [their] workers and not engaging in practices of forced or child labour, as defined in ILO Conventions 29, 138 and 182.”	Non applicable	We adhere to the TSM protocols by respecting the commitment not to use forced or child labour, in accordance with ILO Conventions 29, 138 and 182.
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## Perspectives for 2020

We will continue our work on improving our human capital and its diversity, focusing our efforts mainly on the process of welcoming and integrating new employees and on the hiring and retention of members of Indigenous groups. We will also conduct a survey on the work environment with our human capital, to better understand our strengths and weaknesses of the existing

work dynamics. This understanding will allow us to identify the elements on which QIO needs to focus in order to maintain a stimulating work environment for its employees. We will work on the renewal of the collective agreement and deploy a specific training program for frontline supervisors. This program will also include training on Indigenous cultures.









# Energy consumption and climate change





# Energy consumption and climate change

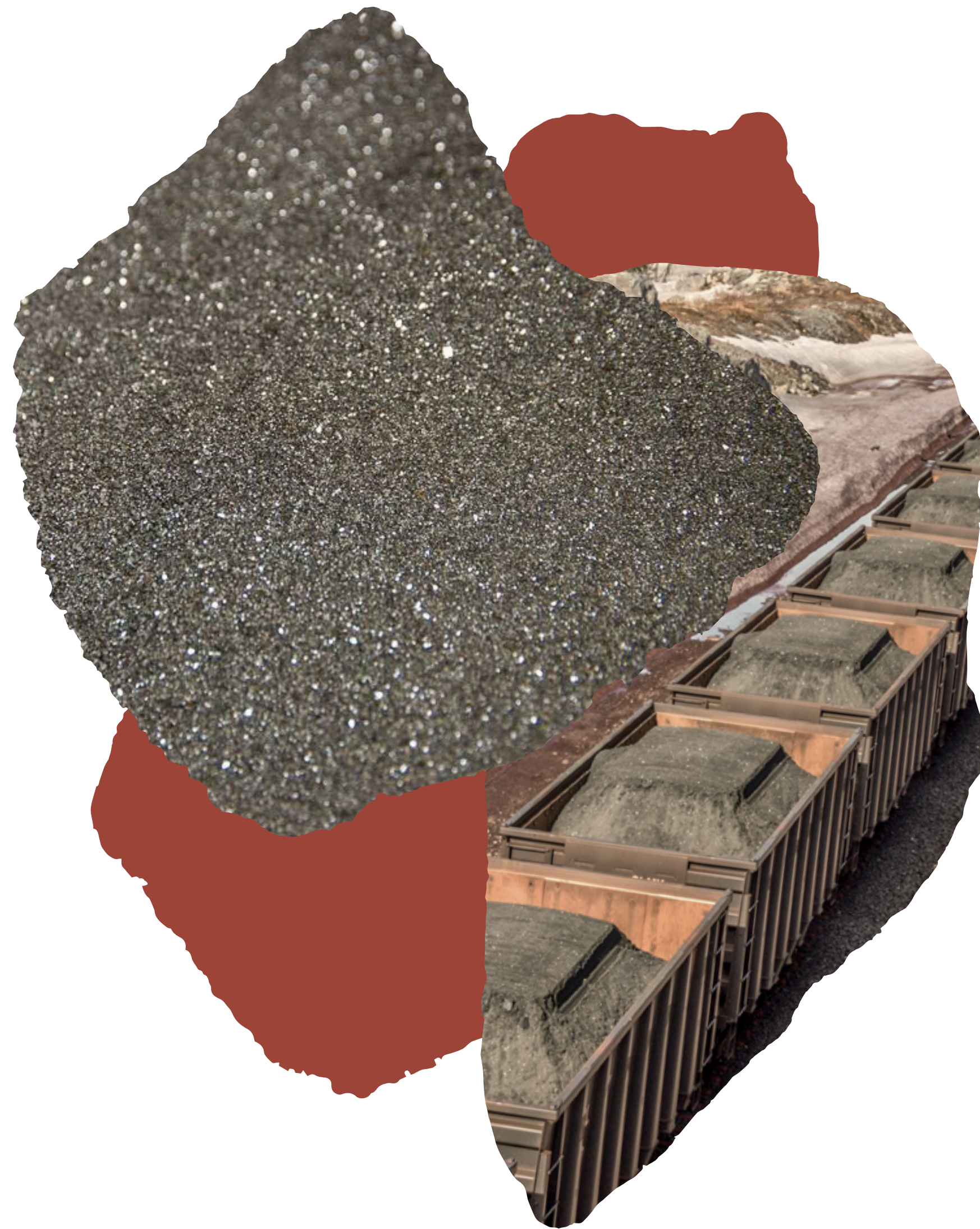
Its importance for our stakeholders

Its importance for us

Energy consumption is responsible for GHG emissions that contribute to climate change, which has measurable environmental, social and economic impacts on communities. Stakeholders expect us to invest in projects that improve our energy efficiency and reduce our GHG emissions.

Energy is an important input and represents significant costs for our business. We use energy throughout the value chain, mainly for the extraction and transport of ore, for the concentration of iron, as well as for water management. Climate change can have physical impact on our operations and assets, and potentially generates additional future costs.





## Our approach

Energy use is at the source of our carbon emissions. We recognize the importance of optimizing our energy efficiency to reduce GHG emissions from our operations, and we are leveraging innovation to implement low-emission technologies. We consider it very important to set up robust and reliable means of energy consumption and GHG emission measurements to intervene in a coherent and targeted manner to improve the energy efficiency of our value chain and ensure full and transparent disclosure of our energy consumption and carbon emissions.

Although we're relatively small within the global mining industry, we believe that our company must help support the transition

to a low-carbon economy, and we are committed to supporting policies that promote global efforts to fight climate change. We support the United Nations Framework Convention on Climate Change and Canada's commitments to the Paris Agreement, which aim by 2030 to reduce Canada's emissions by 30% compared to 2005 levels.

We recognize the importance of integrating climate change realities into our business and operational strategies, as well as into our decision-making. We give priority to assessing climate risks and opportunities in order to adapt our strategic planning and ensure the resilience of our assets.



# Our strategies

Our strategies are focused on the following two main pillars:

- ➔ Produce an iron concentrate in a responsible manner in terms of energy consumption while minimizing our carbon footprint.
- ➔ Position the company as well as possible to adapt to the physical impacts of climate change on our assets and adequately manage potential costs associated with them.

## Short term (2020–2021)

- ➔ Improve our energy efficiency by working on easily identifiable initiatives that allow quick, tangible savings in carbon emissions and costs.
- ➔ Set up a complete system for monitoring energy consumption as well as direct and indirect GHG emissions to plan interventions that offer the best potential for improvement in the medium and long term.
- ➔ Establish goals to reduce GHG emissions in the medium and long term.

## Medium term (2022–2024)

- ➔ Seize opportunities to advance innovation, improve management practices, and form new partnerships with suppliers, other stakeholders and R&D entities. These partnerships will help us develop energy-efficient methods, reduce GHG emissions, develop renewable energy projects and recover energy in the medium and long term.
- ➔ Revisit long-term goals based on emerging political, scientific and technological developments.

## Long term (2025–2030)

- ➔ Collaborate on far-reaching initiatives on a national or international scale, promoting the transition to a low-carbon global economy.
- ➔ Actively encourage non-governmental organizations or other bodies aiming to support, encourage or facilitate the transition to green economies.



## Performance indicators for 2019

2,060 TJ

Total energy consumed

272 MJ

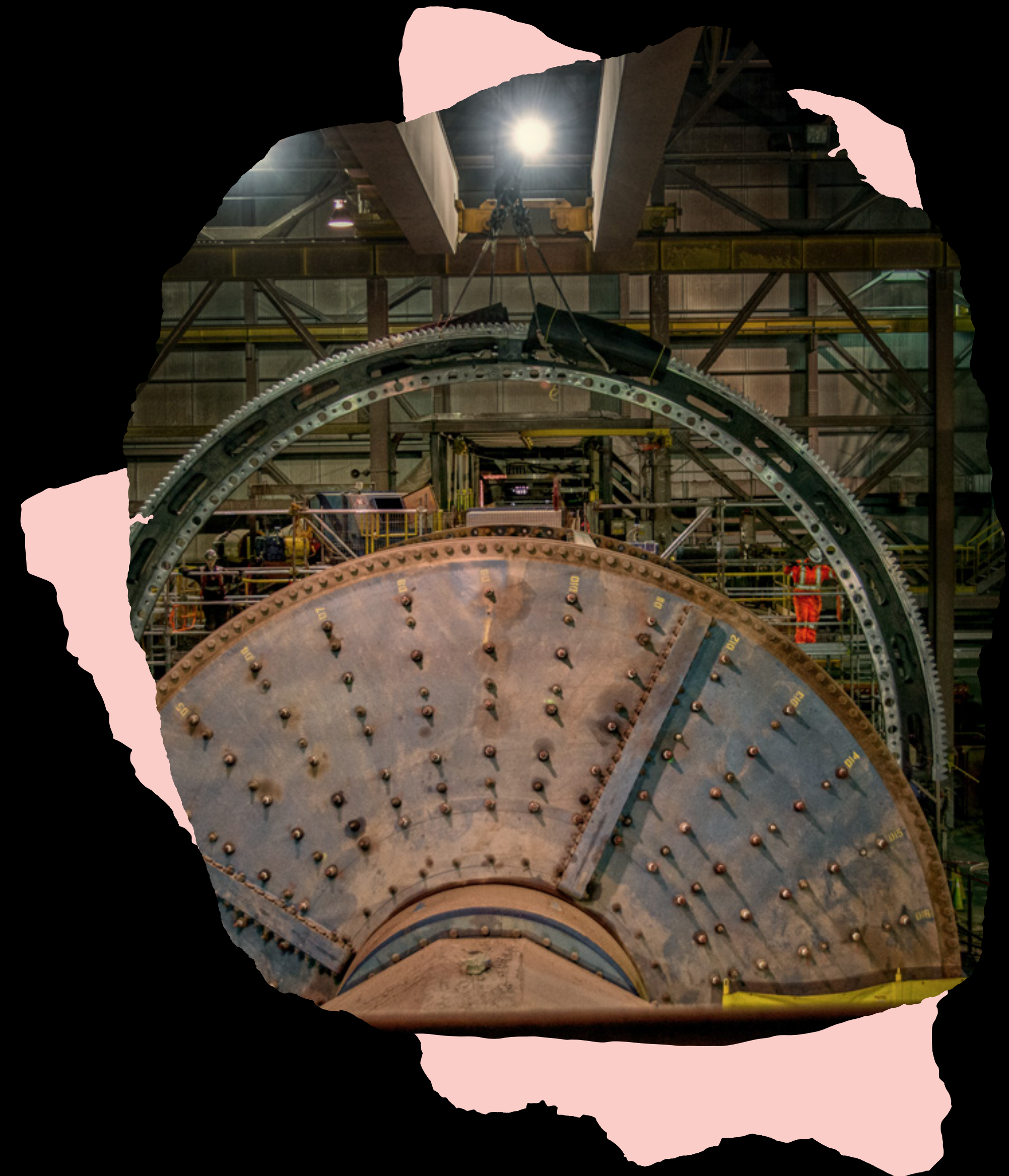
Energy consumed per tonne of iron concentrate produced

65,769 tonnes CO<sub>2</sub>e

Total direct GHG emissions

8.6 KG CO<sub>2</sub>e

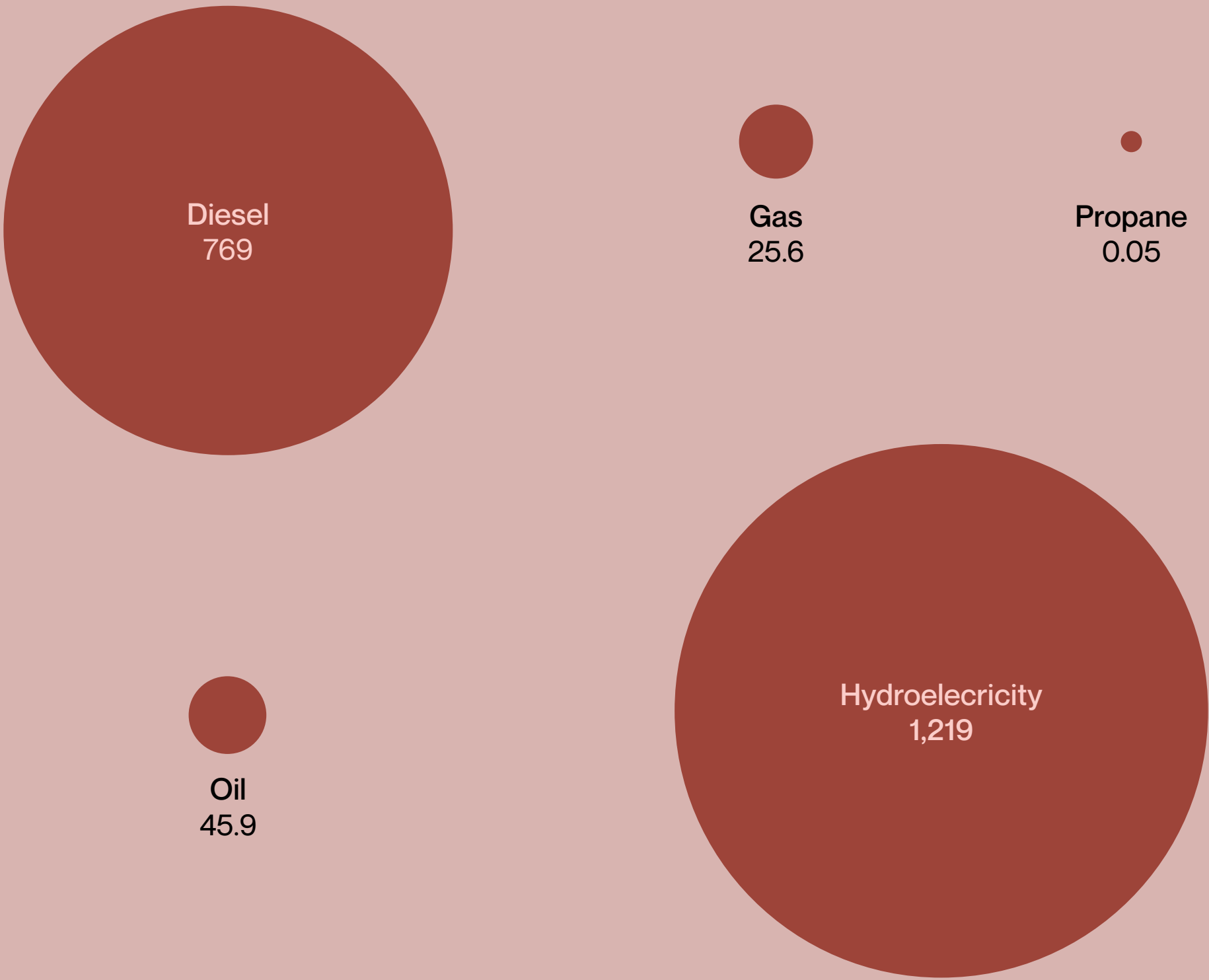
Direct GHG emitted per tonne of iron concentrate produced





# Energy consumption

(TJ)



In 2019, our operations consumed a total of 2,060 TJ of energy. A total of 59% (1,219 TJ) came from

renewable hydroelectric power, while 41% (769 TJ) came from fuel combustion.

# Intensity

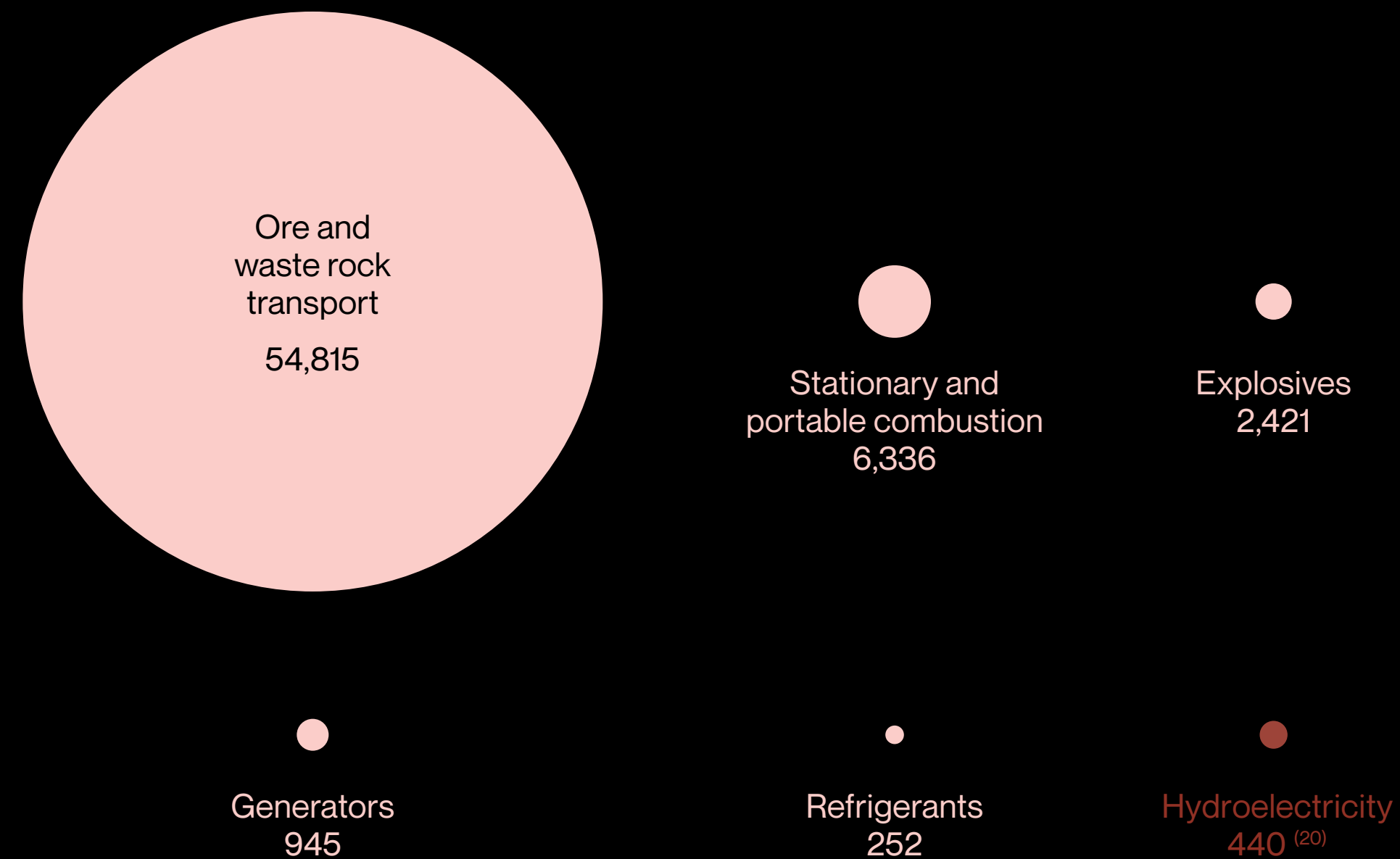
(MJ/tonne of iron concentrate produced)





## GHG Emissions

(CO<sub>2</sub>e tonnes)



Our GHG emissions calculations are based on the Greenhouse Gas Protocol (GHG Protocol) Accounting and Reporting standards. In 2019, a total of 64,769 tonnes of CO<sub>2</sub>e (99.3%) were emitted from direct source while 440 tonnes of CO<sub>2</sub>e were originating from indirect hydroelectricity source (0,7%).

### Légende:

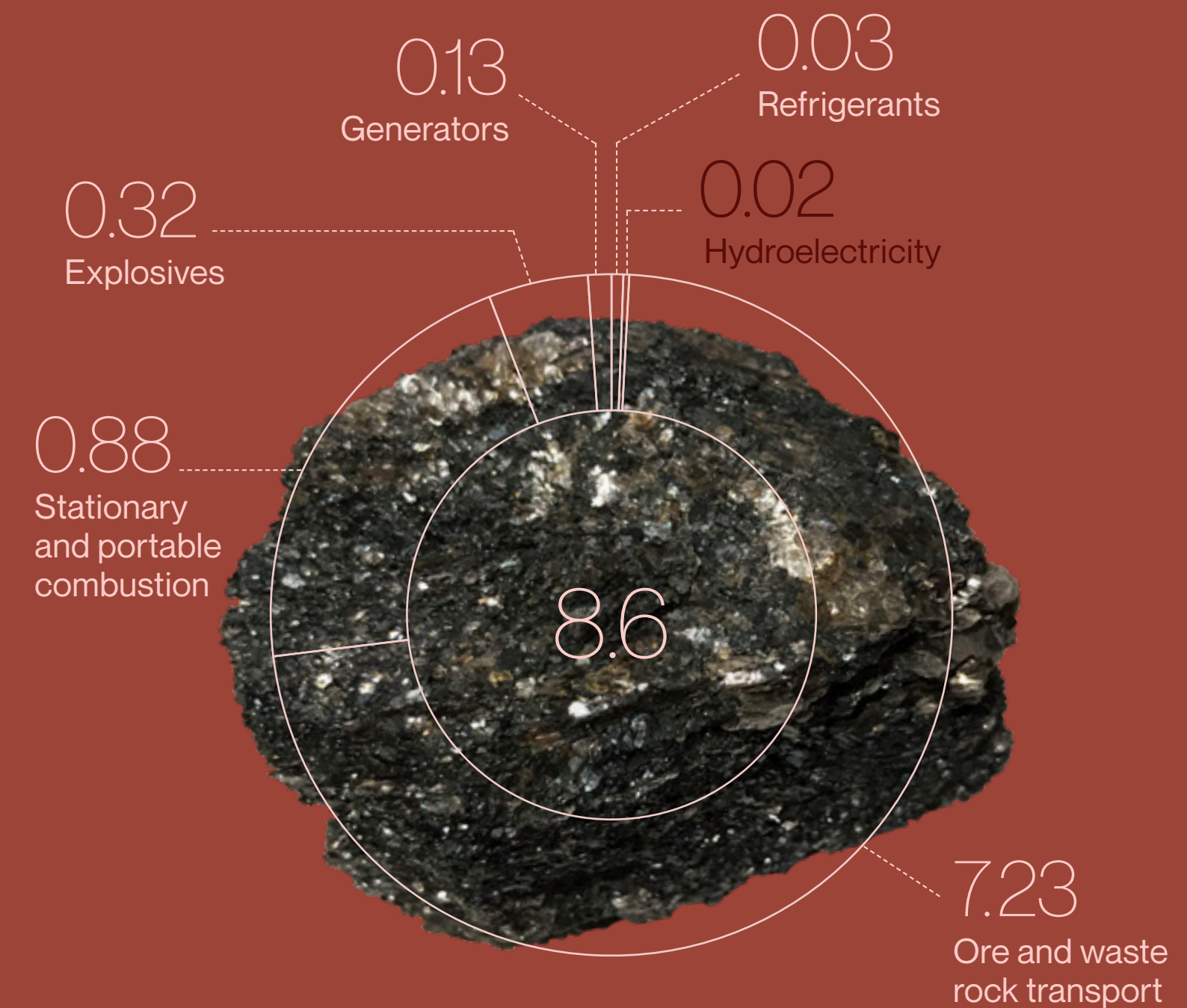
**Scope 1** ●  
Direct emissions

**Scope 2** ●  
Indirect emissions

<sup>(20)</sup> Emission factor of 1.3 g of CO<sub>2</sub>e / kWh based on the NATIONAL INVENTORY REPORT 1990 –2018: GREENHOUSE GAS SOURCES AND SINKS IN CANADA - Canada's submissions to the United Nations framework convention on climate change, PART 3, Environment and climate change Canada, 2020.

## Intensity

(kg CO<sub>2</sub>e / tonne of iron concentrate produced)



➔ **Scope 1**– Direct emissions: GHGs from sources owned or controlled by the reporting organization. Our main sources of Scope 1 emissions is fuel consumption for transportation of mining materials and heating (fixed and portable combustion).

➔ **Scope 2** – Indirect emissions: GHGs generated by sources owned or controlled by another organization. Our reported Scope 2 emissions are those associated with hydroelectricity purchased from external source.



## GHG savings

Electric boilers installed before restarting operations in 2018



We are taking steps to reduce GHG emissions by improving our energy efficiency and developing lower-carbon technologies. QIO replaced certain equipment that consumes some of the largest quantities of fuel in favour of renewable, low-

emission energy before restarting operations at the Bloom Lake Mine in 2018. First, oil-fired boilers were replaced by new ones powered by hydroelectric power.



Booster station used to pump tailings

Then, trucks used to move ore and tailings were partially replaced by a 3.5 km-long ore conveyor

infrastructure and a technology for pumping tailings in the form of pulp, both running on hydroelectricity.



# GHG savings (cont'd)

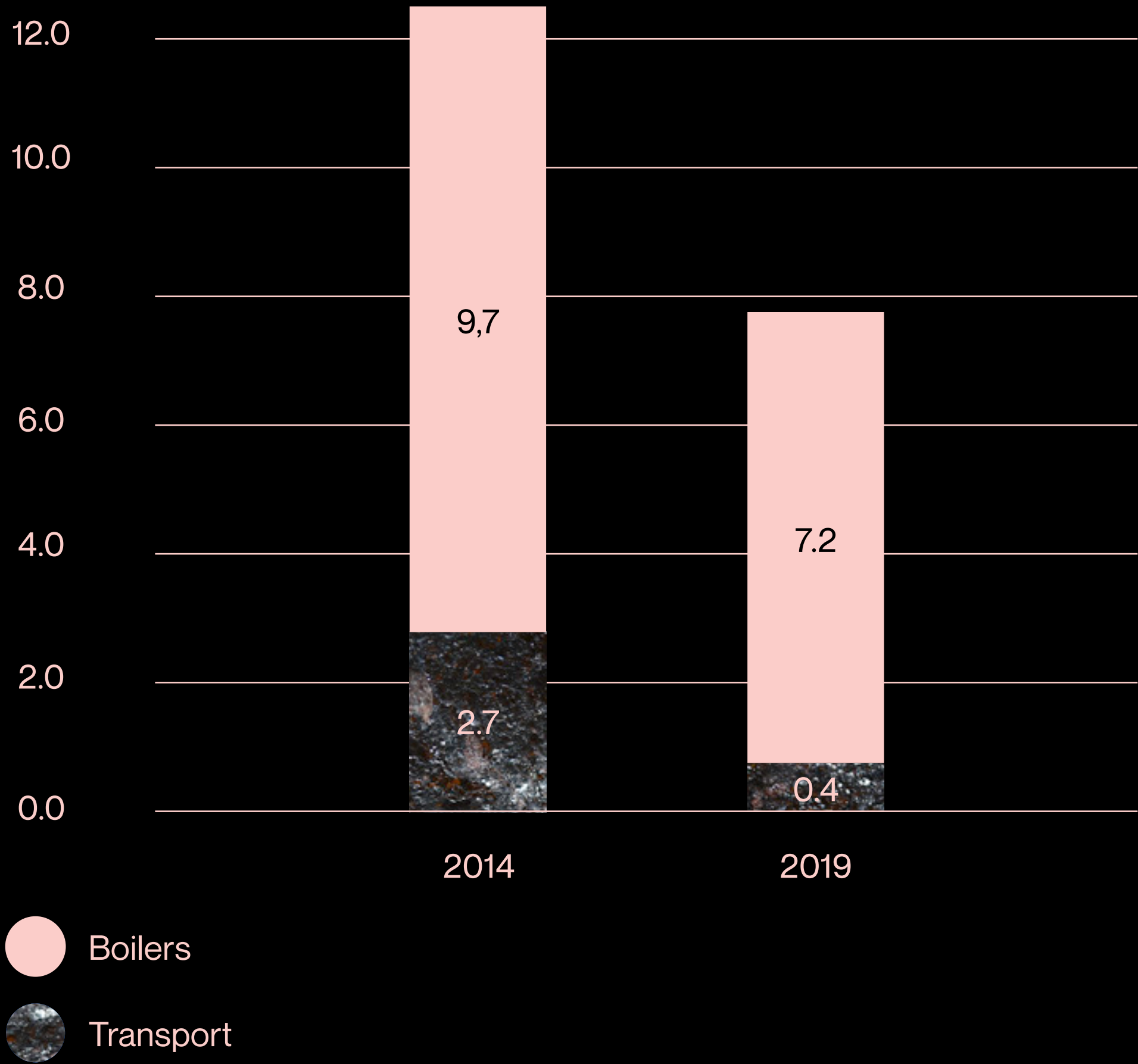
These technological changes have reduced the intensity of GHG emissions by 4.8 kg CO<sub>2</sub>e per tonne of iron concentrate produced. A total of 36,265 tonnes of CO<sub>2</sub>e emissions were thus saved on the annual production of ore concentrate in

2019,<sup>(21)</sup> thereby reducing annual GHG emissions by 36% thanks to the modifications made by QIO. We expect annual savings of the same order on a recurring basis over the 20-year life of the mine.

<sup>(21)</sup> From January 1, 2019 to December 31, 2019

## Intensity of GHG emissions before (2014) and after (2019) technological modifications made by QIO

(kg CO<sub>2</sub>e emitted / tonne of iron concentrate)





# Risk and opportunity management

## Legislation

New regulations and programs have already been introduced, or will be shortly, in several countries that have signed the Paris Agreement. This is the case in countries with which we do business, such as China, and in the Middle East and Europe. Financial requirements linked to current or future legislation often generate GHG emission costs that must be considered in commercial decision-making processes, including those linked to indirect emissions located up and down the value chain (Level 3 of the GHG Protocol), as much for our organization as for our customers.

The province of Quebec, the territory on which the Bloom Lake Mine is located, implemented a carbon emission rights cap-and-trade system (SPEDE) on April 1, 2013, which has been linked since January 1, 2014, to that of California. This union created the Western Climate Initiative (WCI) regional carbon market, the largest carbon market in North America.

Furthermore, regulatory changes can represent opportunities for technological advancement. Some levels of government offer incentives for implementing energy-efficiency initiatives and renewable or cleaner energy sources. The potential additional costs associated with emissions can therefore be offset by improved energy efficiency and technological innovation. For example, changes to reduce GHG emissions from mining operations at the Bloom Lake Mine have already provided our company with several financial benefits. Indeed, the significant reduction in GHG emissions from technological changes implemented before the restart in 2018 means that the mine is no longer considered a large emitter under Quebec regulations and has therefore not been subject

to the SPEDE since 2019. Since QIO's emissions are below the threshold, they are not subject to emission rights. In addition, our company received an emission credit of 19,613 tonnes of GHG on the SPEDE in 2019. Finally, our operations' lower carbon emissions place the company in a more favourable position with customers who want to clean up their carbon emissions across their supply chain, and foster the opportunities to consolidate and increase our customer base in the future.

We continue to assess all the implications of new regulatory requirements and monitor the evolution of energy supply options and low carbon technologies to take advantage of sustainable opportunities for our company and our business partners.



## Risk and opportunity management (cont'd)

### Physical impacts

In 2019, we carried out a multi-risk resilience analysis associated with climate hazards that could affect our mining operations and related infrastructure in the context of ongoing climate change. This study was carried out by an independent external firm using an approach that meets the guidelines of Infrastructure Canada's Climate Lens and ISO-31000 standards.

The study revealed that, in the long term, the most significant risks requiring controls and adaptation measures on our assets are linked to an increase in the frequency of extreme or chronic climatic events, such as forest fires, heat waves and extreme precipitation events. The study also revealed that these risks

are already significantly reduced by the measures currently integrated into existing processes and infrastructure design. The design criteria for dikes, basins, weirs and spillways were made by increasing the intensity-duration-frequency data of various meteorological events according to the recommendations of the research report by Mailhot et al. (2014)<sup>(22)</sup> and to take modelled climatic hazards into account. The intensity of short-term showers considered was therefore increased by 18%. Similarly, average annual precipitation has increased by 8% and snowmelt by 8.7%.



<sup>(22)</sup> Mailhot, A., G. Panthou and G. Talbot. 2014. Recommendations on the increases to be considered for the Intensity-Duration-Frequency (IDF) curves for 2040-2070 and 2070-2100 for all of Quebec. Phase II. Research report (R1515). INRS Research Centre on Water, Earth, and Environment, Quebec.





# External commitments


## UN SDG

		Description	Target	What we do	
	<b>Responsible consumption and production</b>	Ensure sustainable consumption and production patterns	<b>12.2</b> By 2030, achieve the sustainable management and efficient use of natural resources.	We support the achievement of Goal 12 by establishing sustainable energy consumption initiatives. Our transition to renewable and very low GHG emissions, such as hydroelectricity as well as our strategies to improve our	energy efficiency, support a responsible consumption and production approach.
	<b>Climate action</b>	Take urgent action to combat climate change and its impacts	<b>13.1</b> Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.	We support the achievement of Goal 13 by implementing measures that have enabled us to save GHG emissions by 36% in 2019 compared to 2014. We have also implemented adaptation	measures in the face of climatic hazards in retaining structures to mitigate the risks associated with extreme precipitation from climate change.



# External commitments (cont'd)

## ICMM MP

	Description	Target	What we do	
 <b>Environmental performance</b>	Pursue continual improvement in environmental performance issues, such as water stewardship, energy use and climate change	<b>6.5 Improve energy efficiency and reduce GHG emissions.</b> Implement measures to improve energy efficiency and contribute to a low-carbon future, and report the outcomes based on internationally recognized protocols for measuring CO <sub>2</sub> equivalent (GHG) emissions.	We are making efforts to comply with Principle 6 by improving our energy efficiency and contributing to the transition to operations emitting lower quantities of GHGs. In addition, we	report on GHG emissions based on the international GHG Protocol for the purposes of this report.

## TSM SDP

<b>Energy and GHG emissions management</b>	The purpose of the protocol is to guide establishments in assessing their performance in terms of energy and GHG emissions management compared to energy consumption and GHG emissions management systems, related reporting systems and performance targets.	Non applicable	We have already implemented several elements related to the TSM protocol on energy management and GHG emissions, in particular with regard to the production of disclosure reports on our GHG emissions, which are audited by an external firm according to the ISO 14064-3: 2006 standard. We will continue to implement other elements of the protocol in the future.	
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## Perspectives for 2020

We will continue to work to reduce the carbon footprint of our assets and integrate planning for climate change risks into our business strategies and decision-making. We will also work to refine our direct energy consumption measurement system based on the provisions of the international standard ISO-50001 and to plan contributions to

global efforts in the fight against climate change. In addition, we will seek to reduce the carbon footprint upstream of our activities by adapting our procurement policy so that it includes aspects that encourage energy efficiency and the reduction of greenhouse gas emissions from our suppliers of goods and services.









# Water stewardship





# Water stewardship

## Its importance for our stakeholders

The communities with which we share watersheds care about having adequate and sufficient quality water to support health, recreation and tourism, and quality of life, and preserving the environment and wildlife habitats.

## Its importance for us

Water is an essential input for our operations since it is used, in particular, in the iron ore concentration process and for the management of mine tailings. Its use involves water-retaining structures, which must be managed with protective measures against accidental discharges that can be caused by extreme floods resulting from exceptional precipitation events and melting snow. Water treatment facilities must also be used to discharge surplus treated water into the environment.

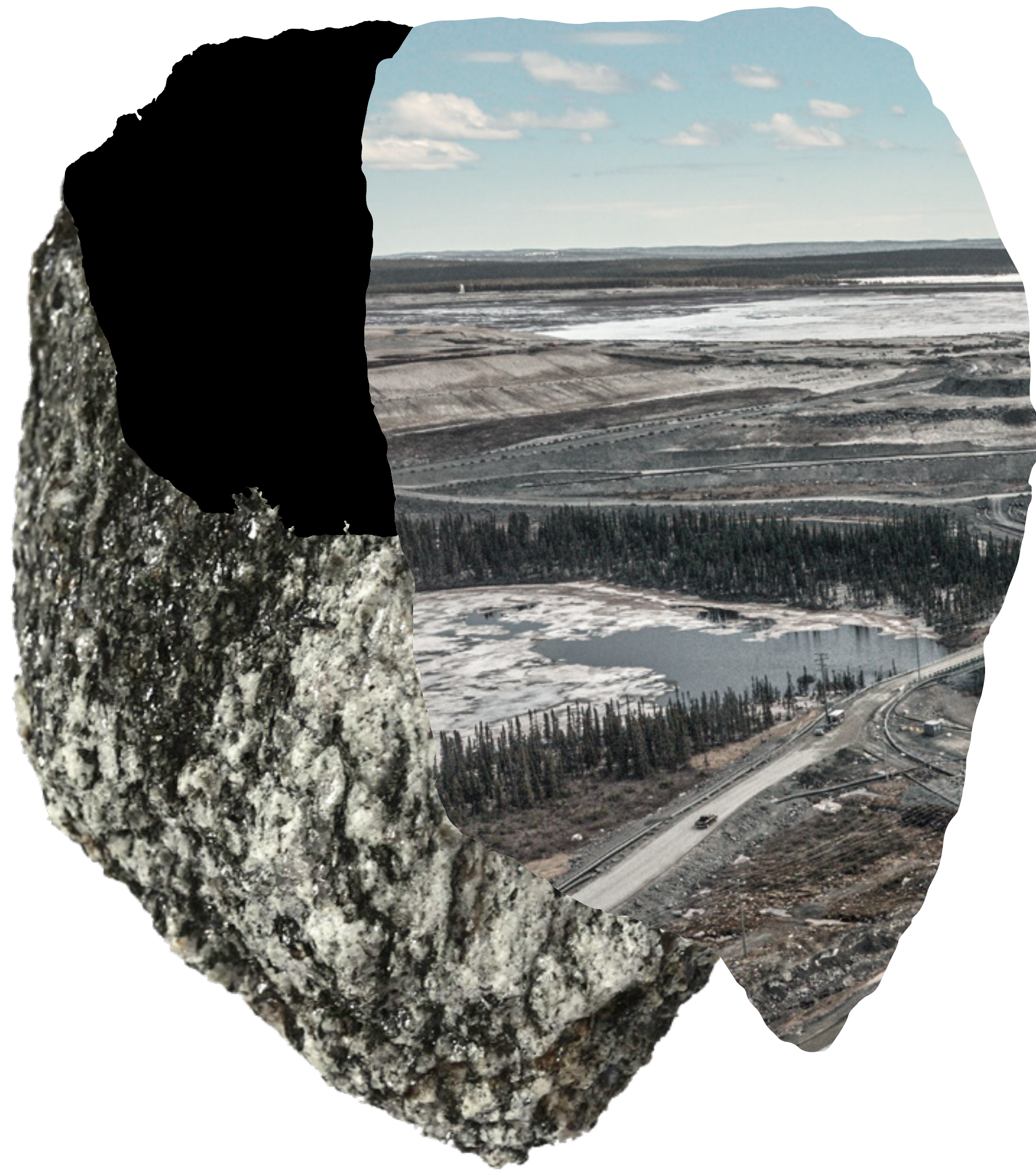


## Our approach

We recognize that water is an essential resource for life and that it constitutes a common public good, the quality and sustainability of which must be maintained for the benefit of its users and the preservation of the environment. We also recognize that the risks associated with water are complex and require a concerted approach by its users.

Our water management approach is based on fair and sustainable use involving local stakeholders in the implementation of adequate water management measures that meet our operational needs, but without compromising its use on a watershed scale throughout the

mining life cycle. We believe above all that the sustainable use of water requires working to reduce our own impacts on water in our value chain. We also consider the need to understand the water-related risks that are shared between users so that partnerships and collective actions are implemented to deal with them. It is with this perspective that we collect data on water to establish and understand the water balance of our operations and our effects on the resource. By sharing this information with stakeholders and consulting with host communities and local water users, we can understand their priorities and collaborate with them to develop integrated solutions that minimize the impacts and mitigate the risks associated with our collective water use.





# Our strategies

## Short term (2020–2021)

- ➔ Assess and understand the current state of the host watershed, groundwater, infrastructure, bodies involved in water management, and the detailed uses made of it at the watershed scale.
- ➔ Perfect existing water management practices to continually improve the efficiency and effectiveness of its use. More specifically, this must be done

with the aim of reducing our natural water consumption and maximizing the reuse and recycling of water, as well as reducing the quantity and improving the quality of treated mine wastewater discharged into the environment.

- ➔ Foster innovation to improve practices and tools for monitoring water management infrastructure to increase prevention of water-related incidents.

## Medium term (2022–2024)

- ➔ Assess water risks to the business, host communities and surrounding ecosystems at the watershed scale.
- ➔ Assess the impact of our business on water users.
- ➔ Assess how climate and social change may affect these risks over the next 20 years.

## Long term (2025–2030)

- ➔ Develop collaborations and partnerships with the local community, the public sector, and private companies to mitigate the risks shared by all water users and increase the sustainability of water management throughout the watershed.



## Performance indicators for 2019

95%

Reused or recycled mining wastewater

82 litres

Water taken from surrounding lakes per tonne of iron concentrate produced



Significant water incidents <sup>(23)</sup>

<sup>(23)</sup> Event having a serious environmental impact involving medium- or long-term effects on the water resource in the watershed and requiring a rehabilitation intervention.

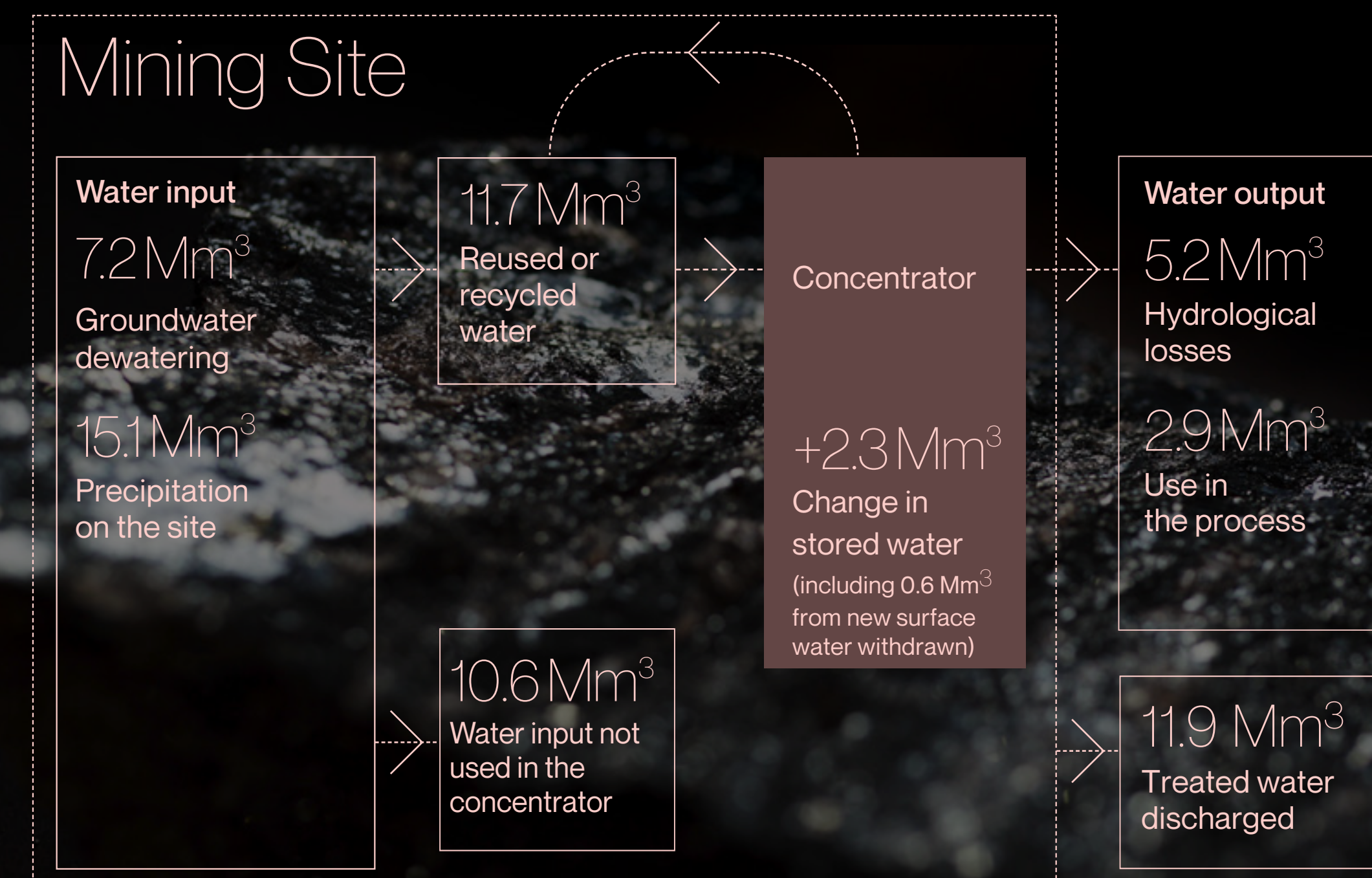




## Water balance for 2019

Understanding our operational water balance is essential to improve the effectiveness and efficiency of our water management practices and enable better decision-making. In 2019, 95% of our total water consumption was from reused and recycled water from rain and melted snow that fell

on the site and was collected by infrastructure. A total of 82 liters of water taken from surrounding lakes was used per tonne of iron concentrate produced (representing approximately 5% of the total water consumed per tonne of iron concentrate produced).





## Water quality

### Mining waste water

All precipitation and snowmelt water in contact with mining infrastructure is captured using a network of ditches over 35 km in length located on the outskirts of the mining facilities. The ditches are connected to 39 transit water basins and 12 water retention basins that can safely contain and manage from a 1:100-year to a 1:1,000-year recurrence flood event for a 24-hour period of rain combined with a spring melt of 1:100-year event spanning 30 days. A total of more than 30 km of pipeline also allows the water to be transferred and managed adequately and securely.

The Bloom Lake Mine is characterized by a natural water regime generating excess water within the site. These surpluses are processed using a state-of-the-art processing unit. Monitoring the

surplus of treated mining waste water confirms its quality before it is discharged into the surrounding natural receiving environment, immediately upstream from Lake D.

Lake D covers an area of 55 km<sup>2</sup> and is a habitat for lake whitefish, which represents the dominant species, followed by northern pike. The low presence of other species, such as the longnose sucker, pike, lake trout, and monkfish have also been observed. None of the species present in Lake D has special status or is a threatened or vulnerable species. None is likely to be so designated under the Act Respecting Threatened or Vulnerable Species of Quebec or the Species at Risk Act in Canada. Lake D and the nearby downstream bodies of water and their associated habitats are not designated as protected areas nationally or internationally.

Treatment basins in the Bloom Lake Mine water treatment unit





## Water quality (cont'd)

Monitoring of the mining waste water effluent includes a physicochemical characterization and biological testing to determine its toxicity. A total of 11.9 M m<sup>3</sup> of water was discharged into natural surface water in 2019 with 100% compliance with the physico-chemical quality criteria to be met in addition to having shown no toxicity for all of the biological tests carried out on rainbow trout.<sup>(24)</sup>

### Groundwater

In 2019, groundwater quality monitoring was carried out twice a year in observation wells distributed upstream and downstream of mining facilities, i.e. during the spring flood and low water levels in summer. Monitoring consists of

a physicochemical characterization of target parameters. The objective is to monitor their concentrations to determine whether there is a development indicating any contamination over time or compared to the initial baseline established before the construction of the mining infrastructure. In light of the results obtained for 2019, no contamination trend was observed in the concentrations of the parameters measured in the monitored groundwater compared to the previous campaigns or to the initial reference state.

<sup>(24)</sup> A bioassay performed on daphnia magna showed toxicity in November 2019 but this seems likely to be associated with an analytical artifact from the laboratory rather than a real toxicity. Repeating the same type of test on the same sample did not reveal any toxicity to daphnia magna.

## Opportunity and risk management


To mitigate the potential risks associated with water, we are improving the robustness of our protection measures against accidental discharges into the environment linked to exceptional floods. Since the acquisition of the Bloom Lake Mine site in 2016, we have invested more than \$10 million in its water management by improving the infrastructure for collecting precipitation water in contact with the site.

In addition, the accuracy of the water balance was refined in 2019, which allows management decisions to be based on a more solid predictive model and thus helps to improve water planning and our efficiency of use. This advance will identify new opportunities to reduce our water consumption and further optimize the use we will make of it in the future.




# External commitments

## UN SDG

	Description	Target	What we do	
	Clean water and sanitation	Ensure access to water and sanitation for all	6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing the release of hazardous chemicals and materials, halving the proportion of untreated wastewater, and substantially increasing recycling and safe reuse globally.	We support the achievement of Goal 6 by setting up infrastructure aimed at maintaining the quality of the treated mining waste water that we discharge into natural surface waters, as well as by efforts aimed at improving the efficient use of water in our operations, in particular by maximizing recycling and reuse.

## ICMM MP

	Environmental performance	Pursue continual improvement in environmental performance issues, such as water stewardship, energy use and climate change.	6.2 Implement water management practices Implement water management practices that provide for strong and transparent water governance, effective and efficient water management in operations, and collaboration with stakeholders at a catchment level to achieve responsible and sustainable water use.	We support Principle 6 by implementing a water management approach based on equitable and sustainable use that involves collaboration with water users at the watershed scale.	We are continuously improving the effectiveness and efficiency with which we manage water in our operations through a predictive water balance model whose precision is refined on an ongoing basis.
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## TSM SDP

Water stewardship	The purpose of the protocol is to guide establishments in the evaluation of their performance in terms of water stewardship in relation to water governance, management of water intended for operations, basin planning, and water yield and reporting.	Non applicable	We started work on implementing the TSM water stewardship protocol in 2019, which will take approximately two to three years to complete.
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## Perspectives for 2020

In 2020, we will continue the work started on water stewardship by focusing our efforts on identifying detailed current and future uses of water at the watershed scale. This approach will allow us to better

understand our interactions and potential impacts on other users and establish action plans to be implemented from a global perspective at the watershed scale.









# Management of mine tailings





# Management of mine tailings

Its importance for our stakeholders

Its importance for us

Stakeholders want the tailings storage activities to be carried out safely and in such a way as to minimize the risks of potential incidents on the natural environment, communities, the local economy, workers, and the company’s reputation and finances.

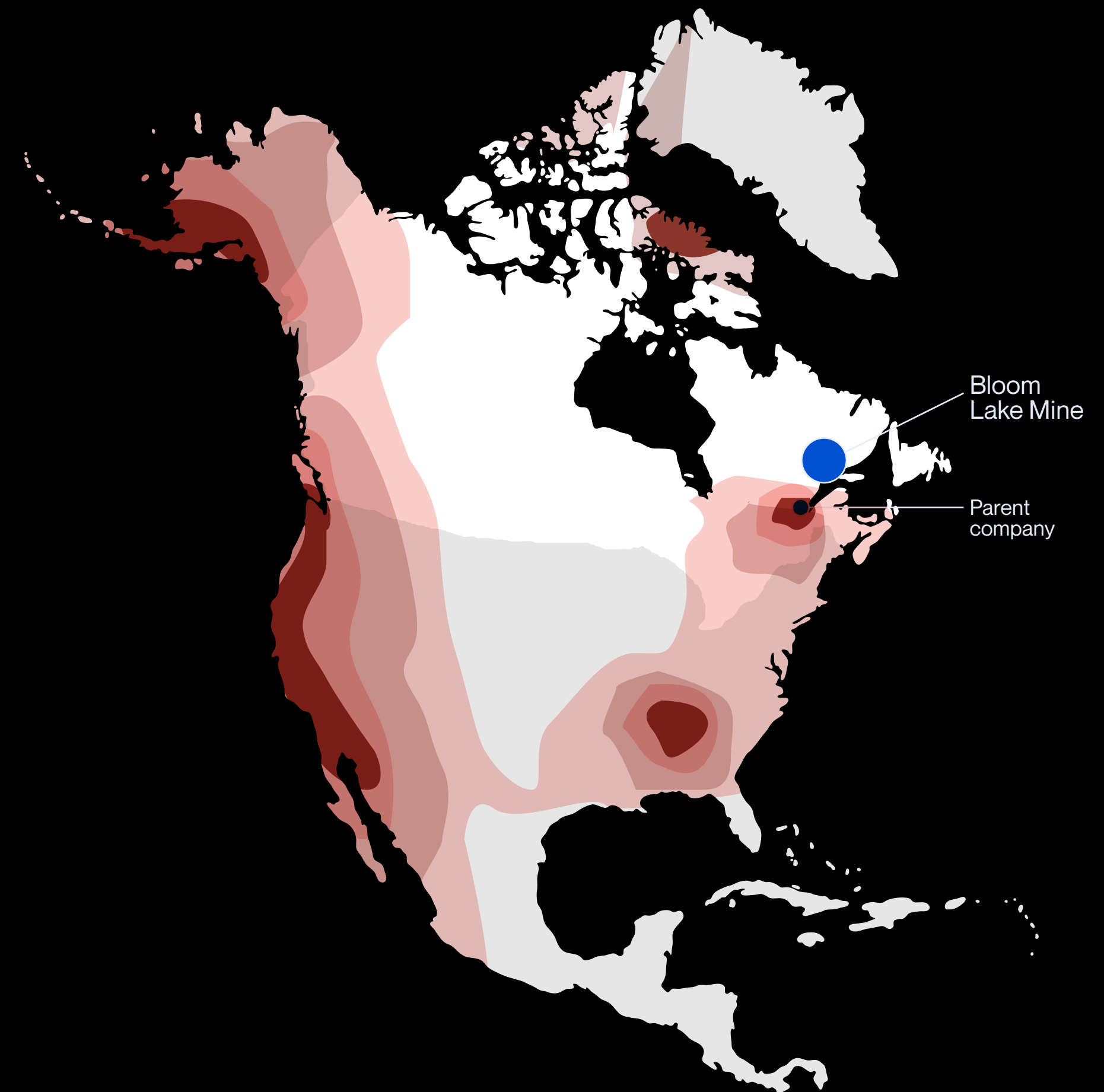
The iron ore concentration process generates mine tailings that must be stored according to the highest safety standards and using stable containment structures. Tailings storage operations also require reliable conveying equipment to minimize environmental, social, and operational risks, and continuous construction to support the planned storage infrastructures.



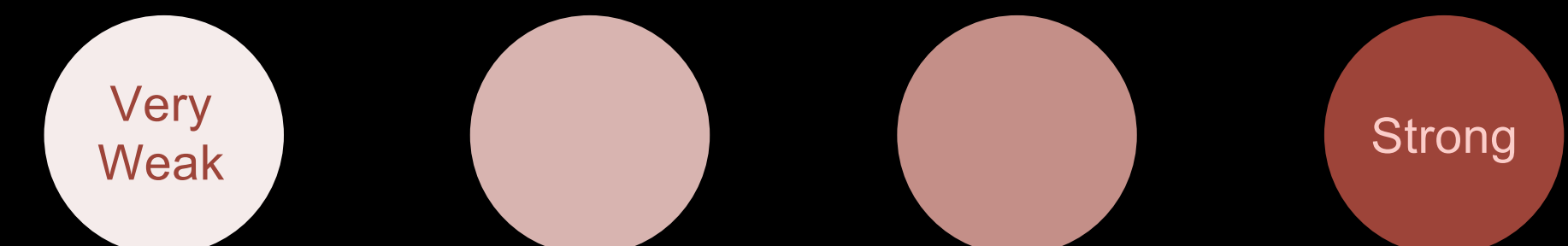
## Our approach



The Bloom Lake Mine is located in the centre of the Canadian Shield, one of the most stable geological regions on the planet. Thus, the infrastructures built on the site benefits from an extremely solid and stable rock foundation.

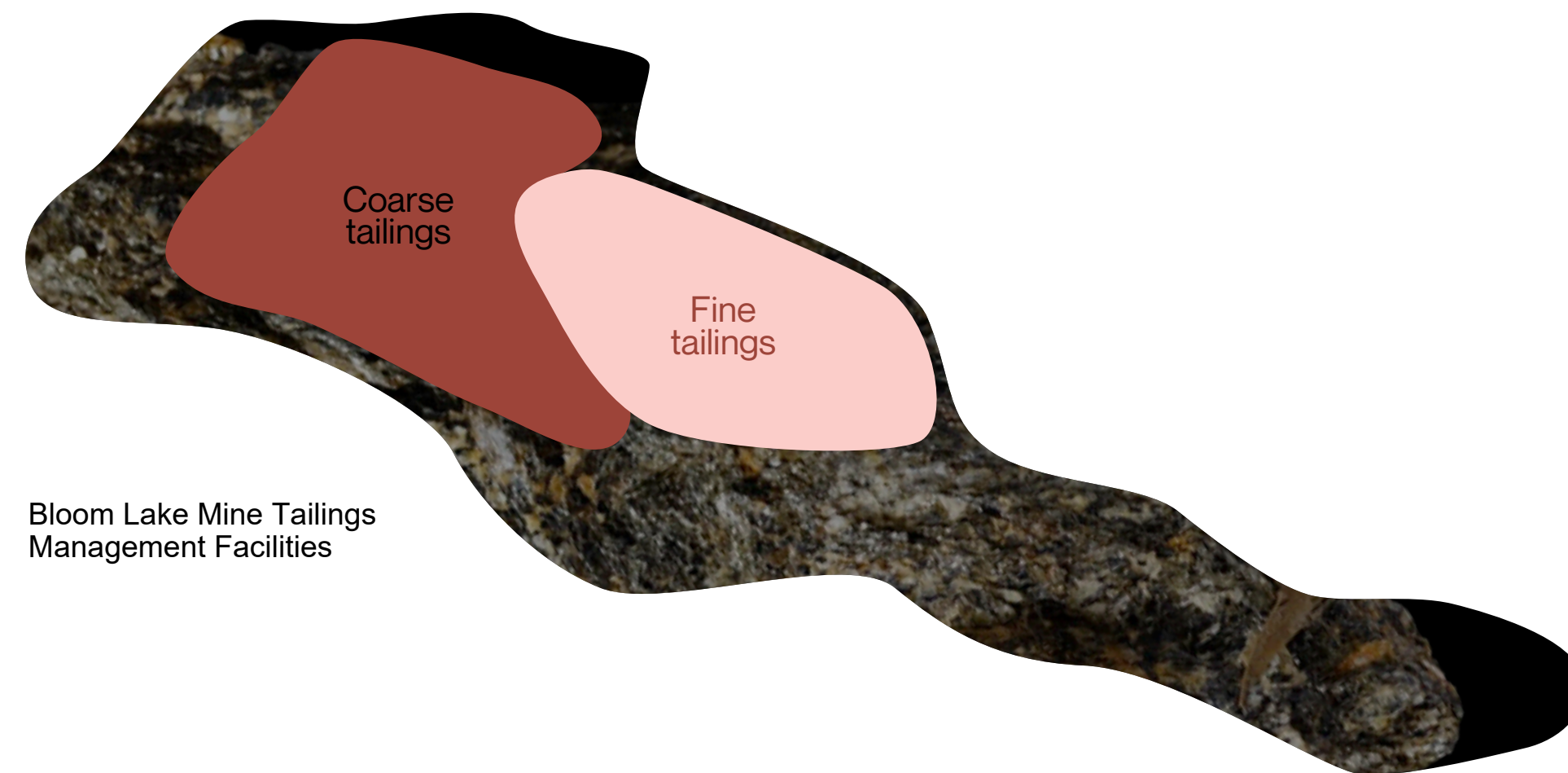


Seismic Activity





## Our approach (cont'd)

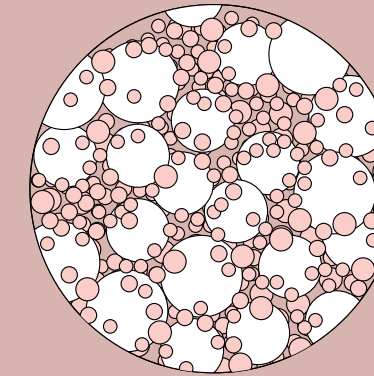


Bloom Lake Mine Tailings  
Management Facilities

At QIO, safety comes first. We have implemented an innovative approach which consists in separating mine tailings into fractions of fine tailings (silt-clay type) and coarse tailings

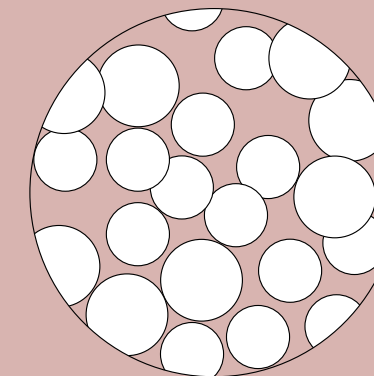
(sand type). The benefits of this approach are based on how each material retains water and settles over time.

### Mixed tailings



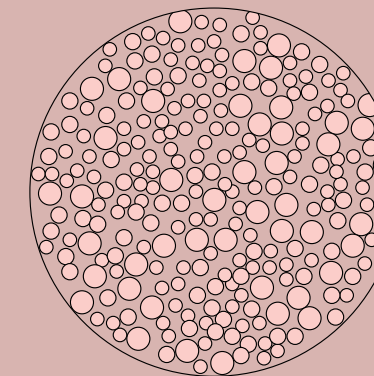
Mixed tailings, made up of unseparated fine and coarse tailings, are more susceptible to liquefaction, which represents a greater risk of instability when stored in a pile in the tailings pond.

### Coarse tailings



Coarse tailings alone provide good drainage and therefore increased stability when stacked for storage. Thanks to QIO's approach, most mine tailings at Bloom Lake, or 88% of tailings produced, can thus be stored and managed as coarse tailings with stable, self-draining and non-liquefiable behaviour.

### Fine tailings

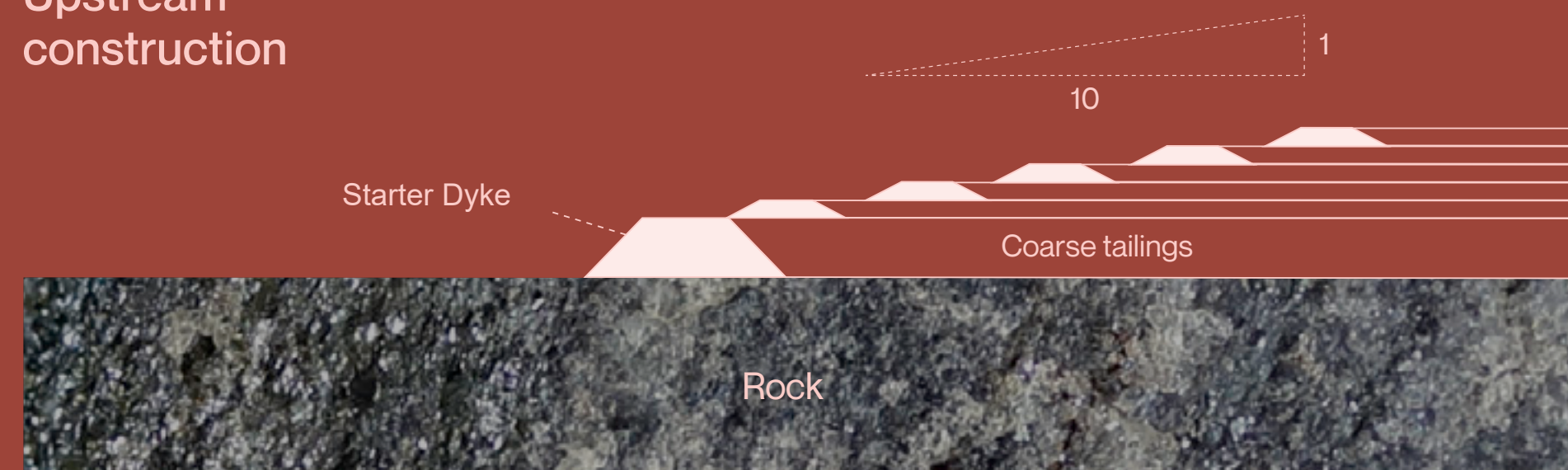


Fine tailings, on the other hand, retain water and generate liquefiable sludge. QIO's tailing separation approach significantly reduces the volume of potentially unstable materials to be stored. Thus, only 12% of the total quantity of tailing stored at Bloom Lake is in the form of fine tailing.

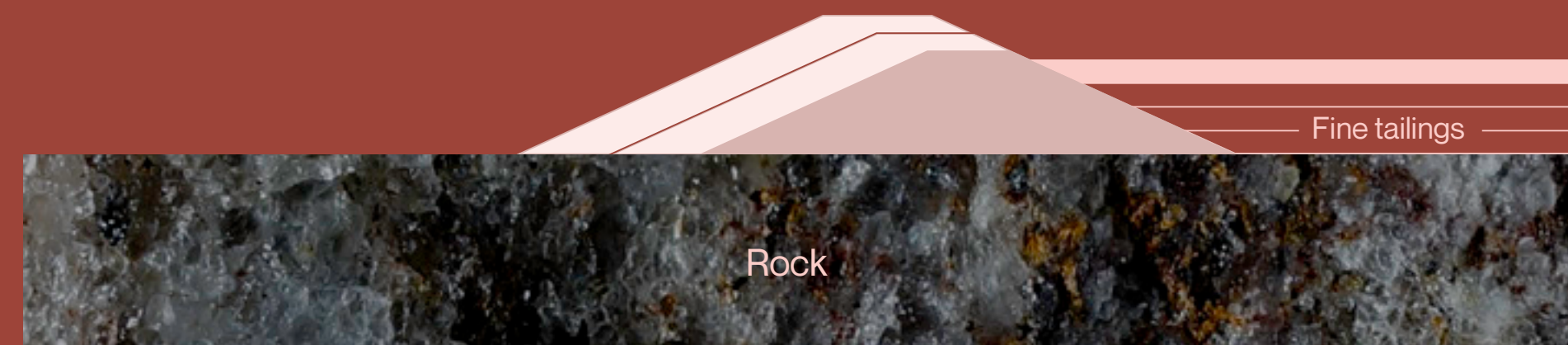


Coarse tailings

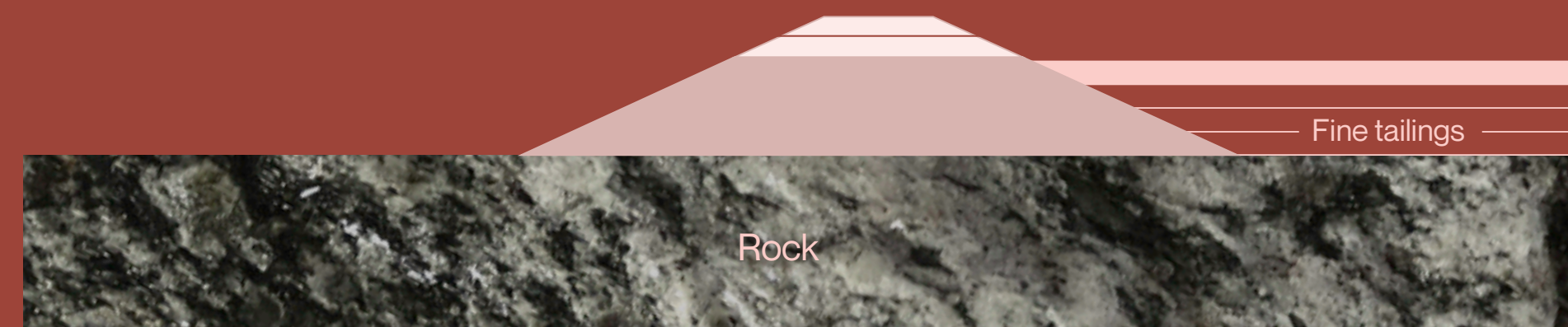
## Upstream construction



## Downstream construction



## Centerline construction



Fine tailings

## Our approach (cont'd)

QIO chose an upstream construction technique for the storage of coarse tailings. This technique begins with the construction of a starting dam on which dams can be raised upstream on a material that is self-draining and very stable. This approach has proven very safe for the storage of coarse tailings alone. In addition, QIO opted for a strategy based on the use of a 10:1 slope for the majority of the retaining dams. This results in a very stable and durable infrastructure with a risk of failure considerably reduced compared to traditional approaches.

As a precaution, QIO only uses downstream and centerline construction techniques for the storage of fine tailings. As a result, no dike is built over the fine tailings already stored. These techniques are considered the safest for this type of material.

A structure monitoring program completes QIO's tailings management approach. Firstly, this program is based on systematic visual inspections performance at regular intervals by experts, designers, and other specialists. Instruments installed in specific areas of the structures also make it possible to monitor the behaviour of the structures continuously and remotely via a telecommunications system. Monitoring makes it possible to identify potential risks requiring preventive action in order to avoid safety issues or concerns.



# Our strategies

Quebec Iron Ore's tailings management strategies are based on four pillars:

- ➔ **Safe infrastructure:** Design, build, and maintain structures that are stable over the long term and capable of containing all the tailings inside the facilities while ensuring that we have robust emergency response plans.
- ➔ **Strict design criteria:** Build infrastructure that meets national legislative requirements and stringent standards, as well as commitments to stakeholders.
- ➔ **Proactive risk management:** Plan the deposition of tailings and monitor the structure's behaviour to allow quick detection of potentially critical situations and take preventive action to avoid environmental, social, and financial consequences for stakeholders.

- ➔ **Sustainable post-closure approach:** Work in concert with stakeholders to establish a post-operation social and environmental plan that is in line with the expectations of communities and their future uses of the territory.

## Short term (2020–2021)

- ➔ Although the general approach and overall master plan for managing tailings have already been established for the entire duration of operations planned over 20 years, the detailed management plans and tools that feed our risk-based approach must be refined to consider the information and knowledge acquired since the restart of operations in 2018.

- ➔ Carry out an exhaustive design review of the initial works at the tailings site to properly characterize the initial conditions in order to include them in the design of future construction works and thus minimize safety risks.

## Medium term (2022–2024)

- ➔ Revisit the technological approach used for the surveillance and monitoring of structures to seek to improve it and further enhance our proactivity in terms of risk management.
- ➔ Revisit the post-operation rehabilitation with stakeholders to ensure consistency with the expectations of the host communities and to take into account new environmental technologies.

## Long term (2025–2030)

- ➔ Work with local economic and public actors in order to develop an integrated emergency management and preparedness system with and for the host community. This includes the strategic development of expertise and partnerships within the community that can be used to optimize the response to various types of emergencies that may arise.



## Performance indicators for 2019





## Quantity of tailings

The year 2019 is the first full year of operation for the Bloom Lake tailings management facilities. The Bloom Lake Mine produced 12.6 million tonnes of mine tailings. A total of 8.2 million tonnes were securely stored according to the planned filling strategy, while 4.4 million tonnes were recycled as construction materials in the site's containment infrastructure.

## Quality of tailings

Chemical analyses and leaching tests are performed annually on representative samples of fine and coarse mine tailings from the Bloom Lake site to determine their acid-generating potential and the leachability of metals from tailings under conditions representative of those of the field.<sup>(25)</sup> A review of the results of the 2019 campaign revealed that under applicable regulatory provisions, the Bloom Lake tailings showed no potential for acid generation, due to their very low sulfur content. In addition, they are considered to be of low risk in terms of their leaching potential under conditions representative of the Bloom Lake mine site.

<sup>(25)</sup> USEPA leach test SW-846 Test Method 1312: Synthetic Precipitation Leaching Procedure <https://www.epa.gov/hw-sw846/sw-846-test-method-1312-synthetic-precipitation-leaching-procedure> and of Environment and Climate Change Canada Equilibrium Extraction (CTEU-9) - Investigation of Test Methods for Solidified Waste Evaluation.

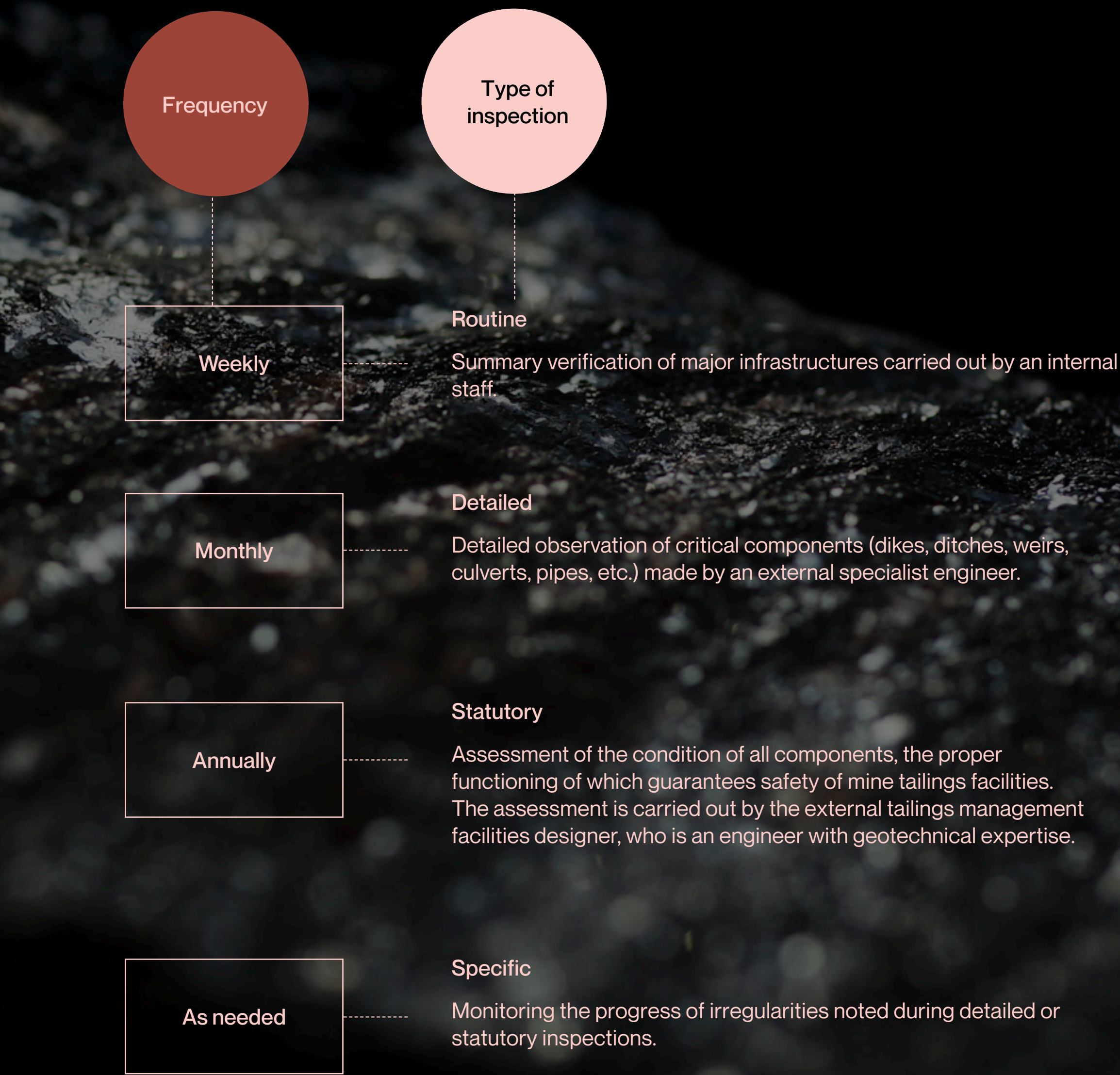


# Monitoring program

All retaining structures are subject to systematic visual inspections throughout the year, i.e. routine, detailed, statutory, and specific inspections. The purpose of inspections is to identify problems and conditions of potential detectable risk in order to intervene proactively using corrective or preventive measures, or monitor the progress of a situation.

For 2019, 100% of the internal and external monitoring program for the tailings retaining infra-structures was respected.

In addition, a total of 64 piezo-meters were installed on the retaining structures to provide data through a telemetry system. They provide remote and real-time information about whether a measurement represents an anomaly compared to the expected readings, thereby allowing a quick response to manage a potential risk, if necessary. Combined with observations made during inspections carried out in 2019, the data obtained from the instruments reveal that, in general, the structures of the Bloom Lake Mine tailings pond are behaving in accordance with the planned design parameters.





## Emergency response plan

The emergency response plan for the Bloom Lake Mine site includes a section dedicated to managing the highly unlikely event of a failure of a tailings pond containment structure. The management approach for such an event focuses on safeguarding the health and safety of employees and members of the community, protecting the natural environment, and ensuring effective communication with the relevant stakeholders.





# Risk and opportunity management

## Recycling and reuse of mine tailings

The drainage properties of the coarse tailings generated at Bloom Lake allow them to safely be used to build the containment dikes of the tailings management facilities. Indeed, given their geotechnical properties and, above all, the fact that they drain better than mixed tand fine tailings, it is advisable to use coarse tailings in the construction of such infras- tructures.

This approach makes it possible to take advantage of several opportunities. First, it reduces the consumption of natural resources from the operation of borrow pits by recycling and reusing mining tailings generated on the site itself. This, in turn, makes it possible to reduce transport of the material by truck and therefore fuel consumption and associated GHG emissions. At the same time, it saves costs associated with the purchase and transport of materials. Finally, the use of mine tailings in the construction of

containment structures makes it possible to reduce the amount of tailings to be stored inside the facilities and thus reduces its encroachment on wildlife habitats and its impact on the ecological landscape.

## Restoration plan

A plan to restore the Bloom Lake Mine site, including the post-mining rehabilitation of the tailings site, was approved by the Quebec government in 2019. As part of the

planned work, certain areas of the mine tailings pond will be converted to wetlands, while residual areas will be fully vegetated. A financial guarantee of more than \$51 million has been provided to the government to cover the costs of all work planned for the entire site. A review of the restoration plan will be conducted on a five-year basis. We will take advantage of the next review to further take into account the vision of the host communities in the post-exploitation plan.



# External commitments

## ICMM MP

	Description	Target	What we do	
 Environmental performance	Pursue continual improvement in environmental performance issues, such as water stewardship, energy use and climate change.	<b>6.3 Effectively manage tailings</b> Design, construct, operate, monitor and decommission tailings disposal/storage facilities using comprehensive, risk-based management and governance practices in line with internationally recognized good practice, to minimize the risk of catastrophic failure.	We support Principle 6 by implementing strategies for the establishment of safe infrastructures designed and built in compliance with good practices, requirements, and standards in this area as well as through a tailings management approach based on proactive risk management.	We have also developed a post-operation restoration plan in accordance with regulatory requirements, which is approved by competent authorities. We have made financial provisions for the performance of the related work to fulfill our long-term environmental and social responsibilities.

## TSM SDP

Tailings Management Protocol	The purpose of the protocol is to guide establishments in their performance evaluation in terms of mine tailings management in relation to their policies and commitments, their management system and preparedness for emergency situations, the distribution of accountability and responsibility, the annual review, and their operations, maintenance and monitoring manual.	Non applicable	We started work to implement the TSM Tailings Management Protocol in 2019, and it will take approximately 2 to 3 years to complete.	
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## Perspectives for 2020

We will continue the work on safe mine tailings management, focusing our efforts on the continuous improvement of our management system. We therefore intend to work on refining our short- and medium term filling plans. We will continue to implement preventive measures identified as part of the inspections carried out. Finally, we will align

certain elements of our tailings management system with TSM requirements, particularly with regard to our internal communication processes, our emergency response plan, and our Operation, Maintenance and Surveillance Manual for tailings.









# Wastes and air emissions





# Wastes and air emissions

## Its importance for our stakeholders

Stakeholders expect us to make efforts to reduce at source, reuse, enhance or recycle wastes and air emissions generated by our activities. They also expect us to manage the business in an eco-responsible manner and in compliance with applicable regulations and our legal obligations relating to residual materials and air emissions.

## Its importance for us

Our activities generate wastes and hazardous wastes as well as air emissions from the combustion of fuels as well as from blasting, hauling, handling and storage of materials on the mine site. In order to respect its commitment to protect the environment and minimize pollution, it is important for QIO to reduce at source the production of residual materials and atmospheric emissions by minimizing use of energy and natural resources, and by applying the 4R principles throughout its cycle of activities.



## Our approach

QIO advocates an approach of prevention at the source with the ultimate goal of avoiding, reducing or controlling the production and emission of wastes or any type of air pollutant into the environment. To do this, prevention, mitigation and corrective actions are integrated into the company's operational processes. We are prioritizing the means used to manage the production of wastes in the following order:

- Priority 1: Reduction or elimination at the source
- Priority 2: Reuse or recycling on site
- Priority 3: Reuse or recycling of materials outside the site
- Priority 4: Recovery and processing when possible
- Priority 5: Processing on-site or responsible disposal off-site
- Priority 6: Operational control like controlled storage

This approach reduces their potential impacts on human health and ecosystems, and minimizes our consumption of resources.



# Our strategies

## Short term (2020–2021)

- Implement means of communication and performance review for wastes and atmospheric emissions in order to encourage progress and facilitate the mobilization and participation of all in the ongoing improvement of the related systems.

## Medium term (2022–2024)

- Deploy necessary leadership to establish partnerships and create business opportunities with local stakeholders according to a more sustainable management approach.
- Encourage technological initiatives and green energies to minimize air emissions from combustion.

## Long term (2025–2030)

- Encourage the creation of a local hub that brings expertise, manpower and equipment to the site to create synergies that could trigger other synergies and partnerships within the territory.





## Performance indicators

0.49 kg

Wastes generated per tonne of iron concentrate produced

0.11 kg

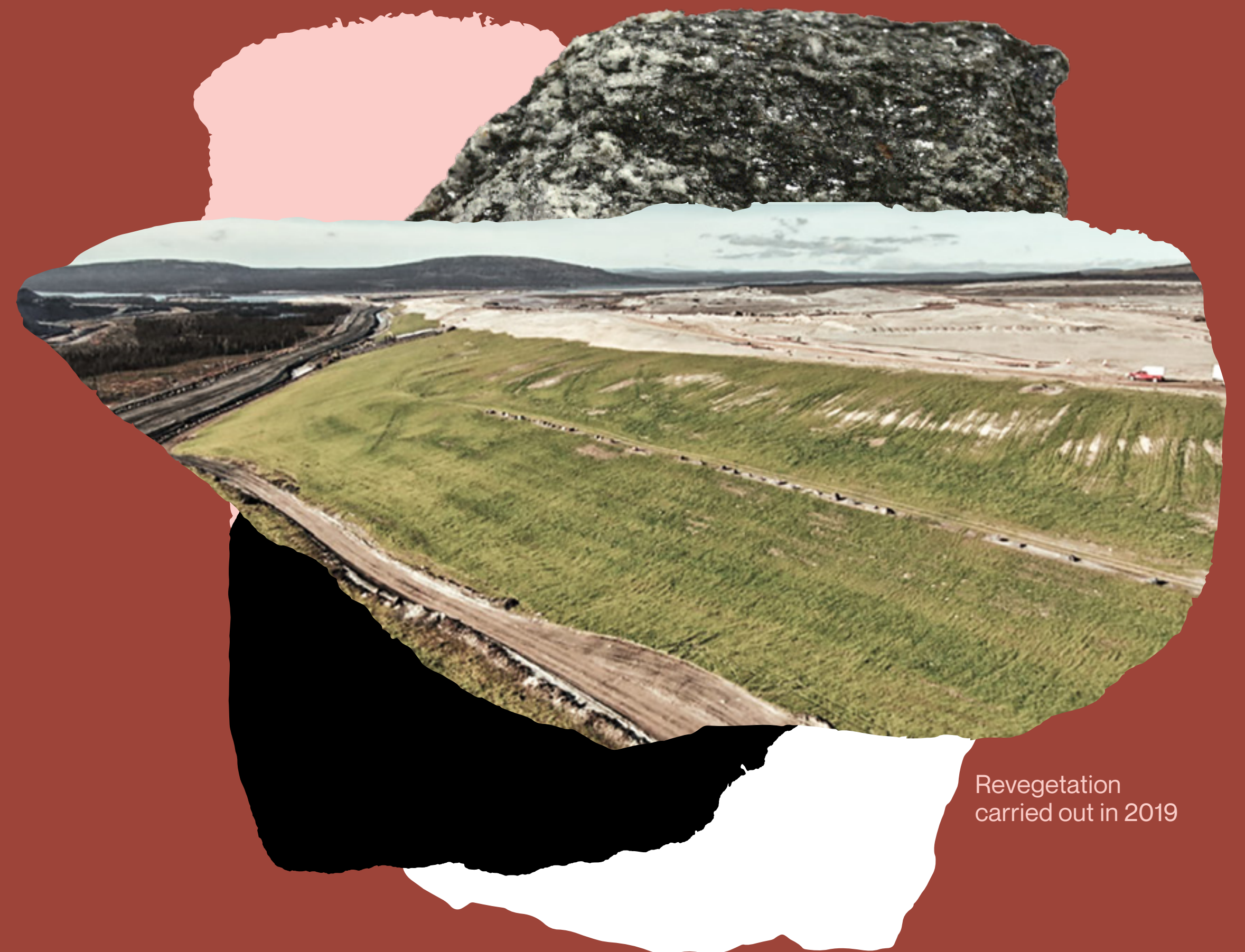
Hazardous wastes generated per tonne of iron concentrate produced

90 tonnes

Nitrogen oxide (NO<sub>x</sub>) emissions

91 tonnes

PM<sub>2.5</sub> fine particle emissions



Revegetation carried out in 2019



# Performance in 2019

## Wastes

The main waste generated at the Bloom Lake Mine site includes scrap metal, sludge, inert industrial waste and wood. In 2019, the total wastes produced by our activities was 3,733 tonnes.

Despite the fact that there is no recycling infrastructure in the host community, in 2019, QIO implemented a recycling and reuse program that allows the main types of waste to be recycled or reused off-site: paper, cardboard, rubber, plastic membranes, scrap, tires,

and wood. In total, 48% of residual materials produced on-site in 2019 were recycled or reused/upcycled off-site. Industrial and domestic waste as well as sludge and soil are responsibly disposed of off-site and in accordance with the regulations in force.





# Hazardous wastes

The main hazardous wastes generated include oily water, used oil, and rags soiled by hydrocarbons. Our facilities have rigorous residual hazardous wastes management systems to prevent contamination of the environment. In 2019, a total of 855 tonnes of residual hazardous materials were produced by our activities.

Used oil, used oil filters, aerosols, batteries, empty contaminated containers, and antifreeze are recycled or reused/upcycled off-site. In total, 30% of these materials were recycled or reused/upcycled in 2019.

		2019 (tonnes)
Recycled or upgraded off-site	Waste oils	216
	Used oil filters	16
	Aerosols	1
	Batteries	19
	Antifreeze	5
	Contaminated empty containers	2
Responsible off-site disposal	Oily water	388
	Rags soiled with hydrocarbons	109
	Contaminated water	53
	Contaminated sludge	11
	Used grease	6
	Contaminated fuel	4
	Other	25
	Total:	855



# Waste rocks



The operation of the Bloom Lake mining pit requires the removal of waste rocks to allow safe access to iron ore. These rocks, whose iron content is zero or too low to be considered for mining, are stored in areas specially designed for containment while minimizing environmental risks.

A total of 14 million tonnes of waste rock was excavated at the Bloom Lake Mine site in 2019. Of this number, 1.6 million tonnes were reused as aggregate for the construction of access roads and other infrastructure. The difference (12.4 million tonnes) was stored on-site in a controlled manner.

It should be noted that tailings from the ore concentration process are also iron-poor materials and are contained at the Bloom Lake tailings management facilities. The management of these materials is the subject of a complete and detailed section entitled “Management of mine tailings,” which is included in this report and will not be dealt with in this section.

# Air emissions

	2019 (tonnes)
Carbon monoxide (CO)	48
Nitrogen oxide (NO <sub>x</sub> ).	90
Sulfur dioxide (SO <sub>2</sub> )	9
Particles < 10 microns (PM <sub>10</sub> )	584
Particles < 2.5 microns (PM <sub>2.5</sub> )	91

Air emissions associated with mining can include coarse dust particles (diameter less than 10 microns [PM<sub>10</sub>]) and fine particles (diameter less than 2.5 microns [PM<sub>2.5</sub>]), which are generated by various sources, such as vehicle traffic on the roads, unloading of materials, storage of mine tailings, blasting, and crushing.

The emissions also include gases generated by the combustion of fuels from mobile or stationary sources, the most important of which are carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>) and nitrogen oxide (NO<sub>x</sub>).

For more information on air emissions from QIO, it is possible to consult the National Pollutant Release Inventory of Canada, available to the public, in which additional data concerning our air emissions are disclosed.



# Air emissions (cont'd)

We monitor our emissions and continually look for ways to reduce them while ensuring that we meet applicable standards. As an example, we revegetated an area of 10 hectares on the surface of the Bloom Lake tailings storage facilities in 2019. This measure

is not only part of the progressive restoration approach in place at the mine, but also helps to minimize fugitive emissions of dust particles from wind sources. It is very effective and allows responsible operational control.

# Risks and opportunities



QIO relies on a robust environmental management system to internalize its prevention processes at the source. The latter helps identify preventive and corrective actions, as well as mitigation measures to be implemented. It also helps identify and implement improvement opportunities and encourage the participation and mobilization of all employees in prevention efforts.

In addition, discussions aimed at finding ways to improve management of wastes at the local level took place with some local actors in 2019. A mandate for detailed characterization of the residual materials generated by QIO and these actors was carried out in 2019 to identify areas for improvement that can benefit both our activities and the community. The results obtained will be analyzed in 2020.



# Commitments


## UN SDG

	Description	Target	What we do
<div><div>11</div><div>SUSTAINABLE CITIES AND COMMUNITIES</div><div></div></div> <div>Sustainable cities and communities</div>	Make cities inclusive, safe, resilient and sustainable	<b>11.6</b> By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management.	We support Goals 11 and 12 by putting forward measures that prioritize prevention at the source with the ultimate goal of avoiding, reducing or controlling the production and emission of wastes or any type of air pollutant into the environment. To do this, we take environmental aspects into account in the design, development, replacement of materials, use of products and technologies, and in the preservation of materials and energy resources. We also continually strive to reduce our consumption of resources to avoid waste.
<div><div>12</div><div>RESPONSIBLE CONSUMPTION AND PRODUCTION</div><div></div></div> <div>Responsible consumption and production</div>	Ensure sustainable consumption and production patterns	<b>12.4</b> By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment. <b>12.5</b> By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.	



# Commitments

## ICMM MP

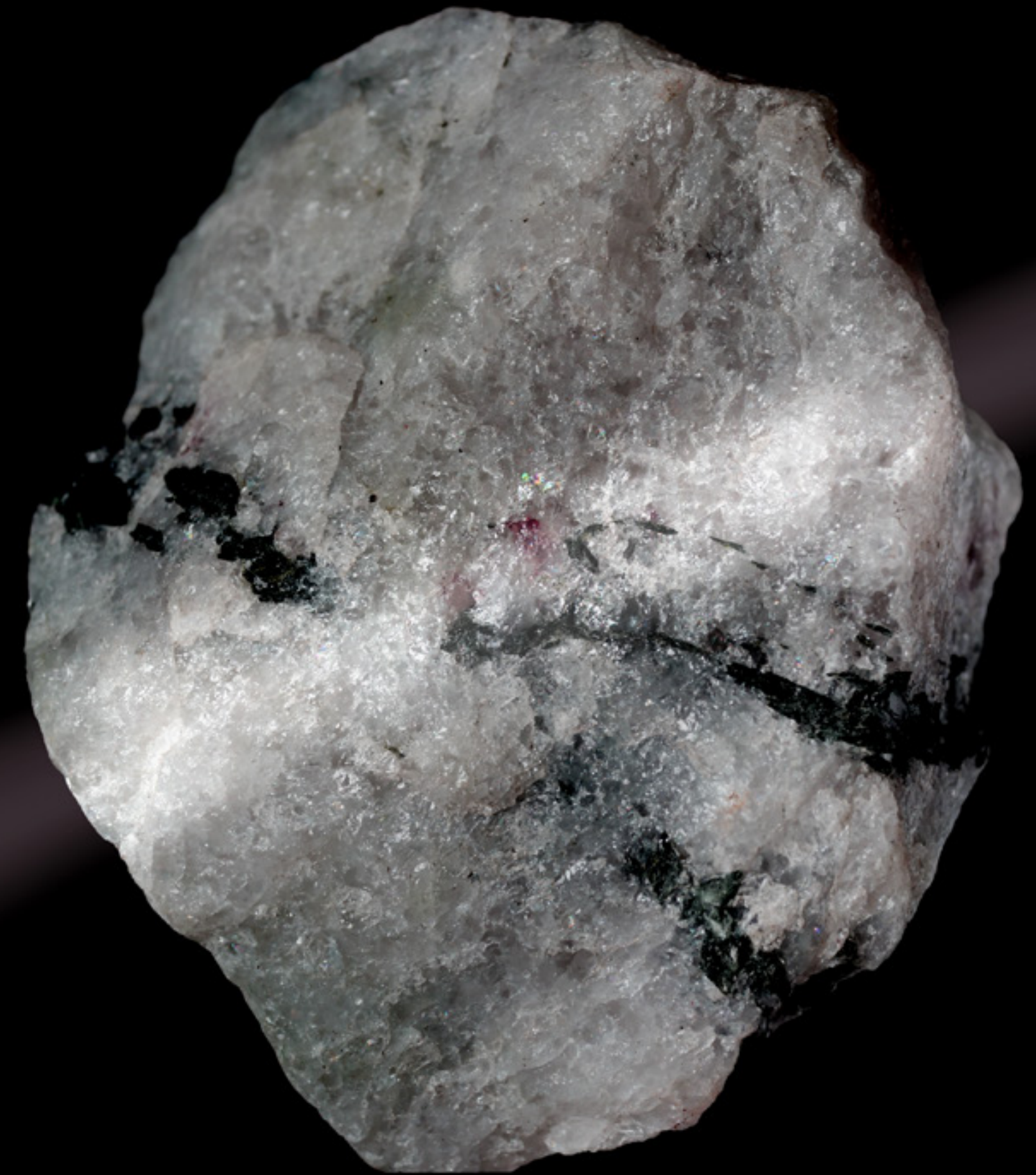
	Description	Target	What we do
<div></div> <div>Responsible production</div>	Facilitate and support the knowledge base and systems for responsible design, use, reuse, recycling and disposal of products containing metals and minerals	<p><b>8.1 Recover, reuse and recycle</b> In project design, operation and decommissioning, implement cost-effective measures for the recovery, reuse or recycling of energy, natural resources and materials.</p> <p><b>8.2 Assess product hazards</b> Assess the hazards of mining products in accordance with the United Nations Globally Harmonized System of Risk Classification and Labelling or equivalent relevant regulatory systems, and communicate through safety data sheets and labelling where appropriate.</p>	<p>We support Principle 8 by using an approach aiming to avoid, reduce or control the creation, emission or discharge of any type of pollutant or waste, by applying practices and techniques, as well as by using materials, products, services and energies according to prevention principles. We also use a WHMIS hazardous waste management system and implement measures in accordance with the applicable laws and regulations.</p>



## Perspective for 2020

In 2020, we will continue to improve our wastes and air emissions management, in particular by refining our tools for monitoring fugitive dust emissions. We will also

evaluate the possibilities of working with certain local actors in order to find possible solutions or improvements for the management of wastes that benefits a maximum of stakeholders.









# Biodiversity and ecosystem conservation





# Biodiversity and ecosystem conservation

## Its importance for our stakeholders

## Its importance for us

Stakeholders expect us to adequately monitor the negative impacts our activities may have on biodiversity. It is also important for them that we respect the support capacity of surrounding ecosystems to avoid exceeding the threshold beyond which natural environment functions and balance would be irreparably altered. Similarly, stakeholders expect us to integrate biodiversity conservation management into our planning, strategies and action plans.

The Bloom Lake Mine is located in the Canadian boreal forest, which is home to animals, plants and other natural resources upon which local communities depend. It is important for QIO to act responsibly and fairly towards future generations and to preserve biodiversity and the support capacity of surrounding ecosystems so future generations can fully enjoy them.



## Our approach



We recognize our activities can have negative impacts on flora, fauna, soil, water and air. We feel that the best approach to protect and conserve biodiversity is to consider environmental aspects as early as possible when developing our strategies and planning. We

believe environmental issues should be part of design data and strategies just like other technical and financial elements. At QIO, this is based on the sequence Understand, Avoid, Reduce, Compensate.





We first ensure we understand the distribution, abundance and location of important aspects of biodiversity, both in the place where our activities are situated and in the environment in which they progress. It is vital for QIO to have knowledge of land uses and biological resources present in the region, including rare, threatened, endangered species or species of special value for Indigenous groups and local communities. This allows us to properly manage the associated regulatory requirements, avoid or reduce potential effects on biodiversity, and respond to concerns from the community or other stakeholders.



For QIO, the best way to preserve biodiversity is to avoid the impact at the source based on known biodiversity issues. We make sure to consider potential impacts in advance so we can integrate choices that allow us to avoid them as much as possible during the subsequent implementation of our projects and operations.



Only as a last resort, we implement compensatory measures to provide a positive counterpart if negative impacts persist and cause a loss of biodiversity. These measures aim to offset the proven loss with another ecological gain that must be at least equivalent to the loss caused, or even lead to a net gain.



In situations where the negative impacts on the environment cannot be fully avoided, we make sure to implement measures to minimize them, in particular by using infrastructures and technologies or targeted technical adjustments.



QIO advocates a precautionary approach guaranteeing that, where there is a risk of serious or irreversible damage, the absence of full scientific certainty is not used as a pretext to postpone the adoption of effective measures aimed at preventing impacts on the environment and biodiversity.

We also commit to not carry out our activities on World Heritage Sites and to respect all legally designated protected areas, in particular by ensuring they are not incompatible with the value for which they have been designated.





# Our strategies

Our biodiversity and ecosystem conservation strategies are based on integrating the importance of critical wildlife and plant habitats into business planning and strategies.

## Short term (2020–2021)

- Implement a management system for the important aspects of biodiversity associated with our activities, including, in particular, their monitoring and follow-up, the establishment of objectives and action plans, as well as awareness programs.
- Based on current knowledge of important aspects of biodiversity, implement risk assessment measures to identify the possible effects of our activities on them, and determine how to conserve and, if possible, improve them.

## Medium term (2022–2024)

- Contribute to the conservation of biodiversity in sectors outside the site with host communities and Indigenous groups or other public or private organizations.
- Promote conservation of biodiversity among industry peers or other industries impacting the environment.

## Long term (2025–2029)

- Seek to contribute to a better scientific understanding of biodiversity protection that can benefit communities and society in general.



## Performance indicators for 2019





## Performance in 2019

### Special status species

QIO has carried out several field inventories and consulted various wildlife and plant studies of the Bloom Lake Mine area. Potential and designated special status species have been identified. This knowledge enables QIO to implement its sequential approach, which consists of Understanding to Avoid, Reduce and Compensate for the potential impacts of its activities on biodiversity.

### Flora

In total, 13 species of plants with special status are likely to be found in the sector, but they have low potential presence, with the exception of three species whose potential is medium, namely the brown-edged pussytoes, the

pulvinate pussytoes and the glacier sedge. There would seem to be no vascular species with special status in Quebec or on the List of Species at Risk in Canada in the area of the mine.

With regard to species of traditional interest, up to 7 species of trees, 20 species of shrubs, 10 herbaceous plants and 2 mossy taxa traditionally used by Indigenous groups have been identified in the area of Bloom Lake Mine. Among these are Bartram's serviceberry, wild raspberry, lowbush blueberry, northern blueberry, velvetleaf blueberry, dwarf bilberry, bog bilberry, and small cranberry. Cloudberry, an herbaceous plant growing mainly in peaty areas, is another woody species present at the site.







## Fauna

Among the fish species identified in the site area are the brook trout, lake trout, lake whitefish, northern pike, round whitefish, burbot, white sucker, red sucker, lake chub and longnose dace. No threatened or vulnerable fish species, or likely to be so designated under Quebec's Act Respecting Threatened or Vulnerable Species or Canada's Species at Risk Act, has been listed. No special status is assigned to the species present around the Bloom Lake Mine site.

Although 8 species of amphibians and reptiles could be present on the site or in the periphery, no species with special status has been observed to date. The inventories confirmed the presence of a species of micromammal with a special status, the rock vole. They also made it possible to confirm the presence of bats with a special status, namely the northern myotis and the red bat.

As for mammals, 37 species visit the area of the Bloom Lake site.

The woodland caribou is present within a 50 km radius. Following the recommendations of the Committee on the Status of Endangered Wildlife in Canada, the woodland caribou was listed as threatened in Canada under the Species at Risk Act in 2003. In addition, it was designated vulnerable in Quebec in 2005 under the Act Respecting Threatened or Vulnerable Species.

Finally, with regard to birds, the region is often visited by 13 at-risk species, two of which have been observed around the site: the bald eagle and the rusty blackbird. Note that according to the Quebec government, only one mention of species at risk is present in the database of the Quebec Natural Heritage Data Centre, the bald eagle. The other special status species most likely to frequent the nesting study area are the olive-sided flycatcher and the common nighthawk.



## Avoid and reduce

The operations at the Bloom Lake Mine are still young. As they continue, it will involve greater use of the land over time until a maximum is set by government authorities. QIO implements measures in advance to avoid and minimize the potential impacts of these future activities.

- Planning the location of access roads and storage areas as to avoid disturbing waterways and wetlands as much as possible.
- Operating so that there is no encroachment within a 60 m riparian buffer strip.
- No deforestation during the bird nesting period, which is between April 1 and July 15 of each year, to avoid impacts on avian fauna.
- Minimizing the encroachment of machinery in wildlife and plant habitats.

As part of its current operations, QIO employs an environmental management system that establishes the measures to be used to better control and reduce impacts on the environment and biodiversity. Here are some examples of the measures used by QIO in the course of its operations.

- Installing culverts in waterways only during low-flow periods and as quickly as possible in order to minimize potential impacts on aquatic habitats.
- Carrying out work in the water from June 1 to September 15 in the waterways and bodies of water home to salmonids such as brook trout, lake trout and lake whitefish.

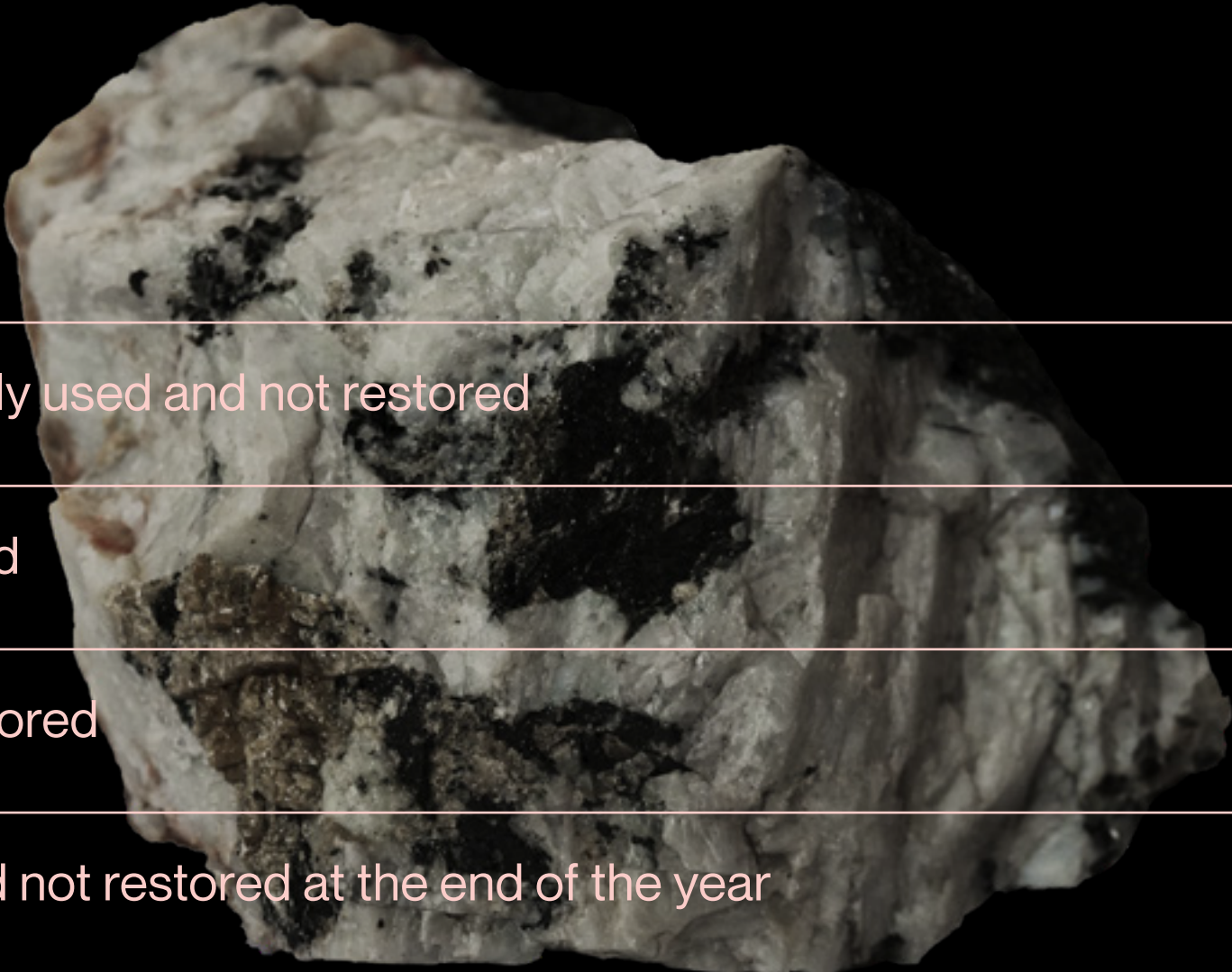
- Carrying out development work likely to affect the hydraulicity of waterways outside the snowmelt period, i.e. from April 15 to June 15.
- Using infrastructure allowing for adequate management of hazardous wastes, including, in particular, measures to protect against leaks.
- Establishing a rapid response procedure in the event of accidental spills in order to better manage such events and thus minimize the related impact on ecosystems.
- Employing control charts and performance indicators to stay abreast of how critical systems are performing and prevent failures that may impact the environment.
- Preserving a layer of organic soil excavated in the context of mining operations to put it back when the site is restored.
- Monitoring all equipment and machinery to ensure they are in good working condition in an attempt to prevent any leakage of fuel, oil or grease, and to ensure that their exhaust and antipollution system are in good condition.
- Using dust suppressants to limit dispersion of dust from road traffic in the surrounding natural environment.
- Restoring disturbed areas as quickly as possible.



# Disturbed and restored areas

We seek to design, build, operate and eventually close our operations in a way that minimizes the risks to biodiversity. At the end of 2019, the Bloom Lake Mine had a total footprint of 1,247 hectares (ha). This excludes 53 ha restored by

revegetation, including 22 ha revegetated in 2019. The areas that have not yet been restored will increase over time until mining areas are closed and become available for restoration.



	2019 (hectares)
Area previously used and not restored	1,173
New area used	96
New area restored	22
Area used and not restored at the end of the year	1,247



# Compensate

To compensate for habitat losses caused by the implementation of the Bloom Lake Mine project, one of the compensation projects aimed at offsetting damage caused to fish on the mine site was implemented by QIO in 2018, which has been authorized by the governments of Quebec and Canada.

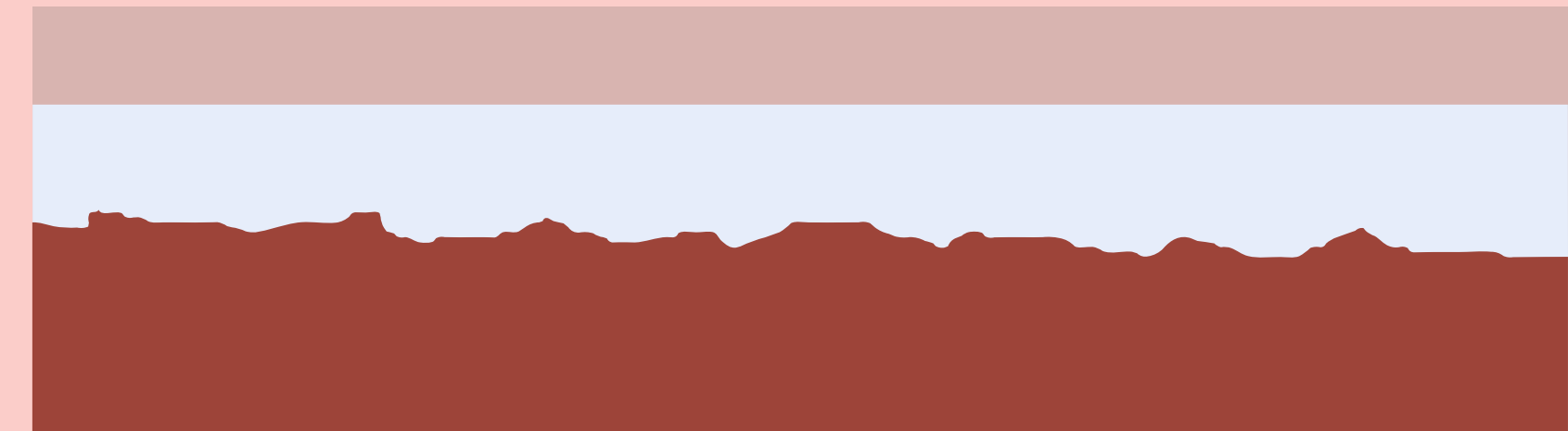
As part of this project, improvements to fish habitat in the outlet of Lake Perchard were made over 1,200 metres within the waterway. This waterway runs through the town of Fermont, which is located near the Bloom Lake Mine and borders wooded areas, a residential area and an urban park. It is easily accessible to the population due to the presence of several street crossings and pedestrian bridges along its route but was rarely used by sport fishermen in the past due to its low productivity for fishing.

We also commit to not carry out our activities on improving the habitat of brook trout, particularly in relation to the species' reproductive ability. Brook trout, also known as speckled trout, is the favourite freshwater fish species among Quebec sport fishers.

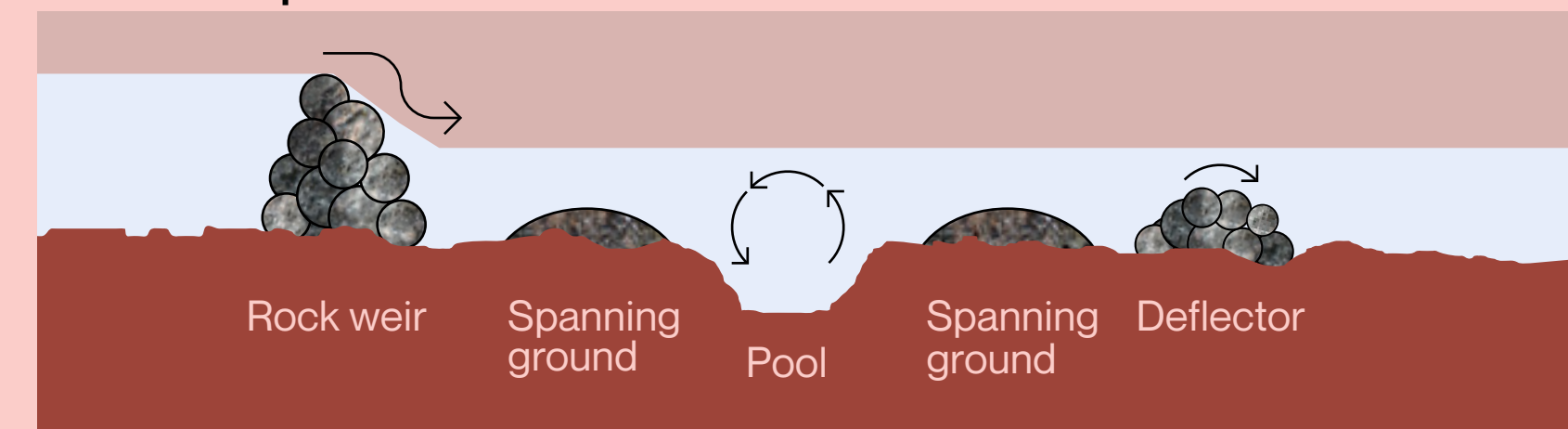
The work done consisted of laying out:

- 16 rock weirs to locally diversify the water flow pattern and fish habitat.
- 3 pools to provide staging areas and shelter for fish in shallow stream segments.
- 12 spawning grounds totalling a functional area of 160 m<sup>2</sup> to increase the spawning potential in the waterway.
- 2 rock deflectors to locally modify the orientation or speed of the current.
- Removal of debris to facilitate the free movement of fish.

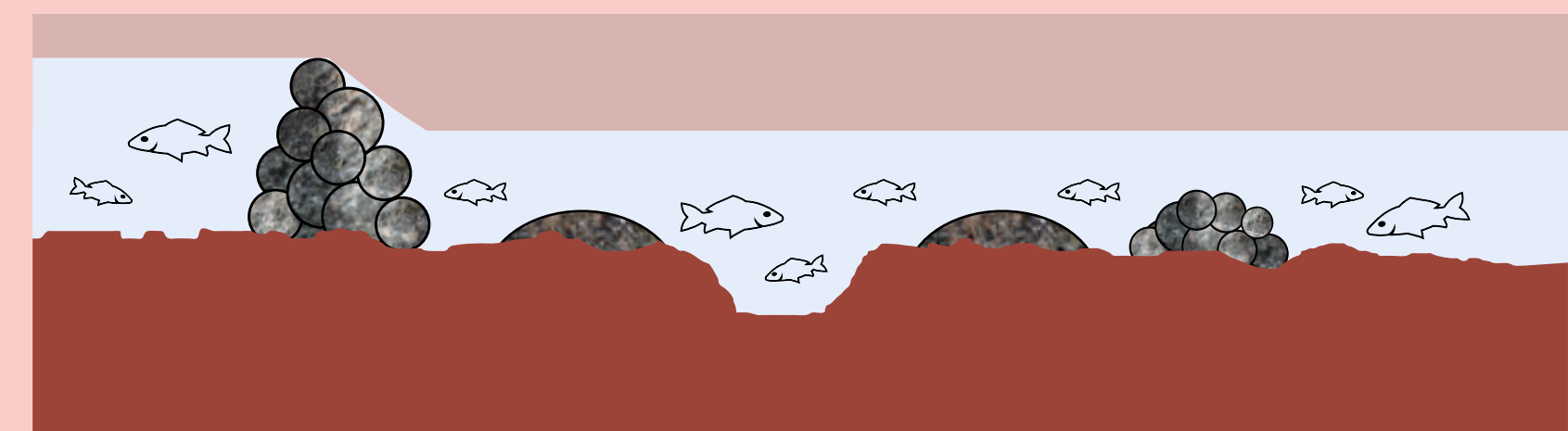
Before



Work completed



After





Before



After



During the monitoring carried out in the summer of 2019, brook trout were observed at various places in the developed section. The project

will stimulate this species in the waterway in addition to providing a more abundant resource for fishing within the community.

## Risks and opportunities

Losses of biodiversity generally cause a reduction in ecological services, i.e. the benefits that natural ecosystems provide. This commonly generates costs that are absorbed by society and ultimately by companies like QIO in the form of royalties or fees.


The Quebec government has determined environmental discharge objectives (EDOs) to be met for effluents from treated mining wastewater before it is released into the receiving aquatic

environment. These EDOs do not constitute legal standards to be met, but rather establish the concentrations of the various elements released into the receiving environment that should not be exceeded to respect the surrounding ecosystems' carrying capacity. QIO will be able to take advantage of the EDOs established by the government to implement opportunities to ensure preservation of the biodiversity of the ecosystems in the area of the Bloom Lake Mine.




# Commitments

## UN SDG

	Description	Target	What we do	
<div><div><div>15</div><div>LIFE ON LAND</div><div></div></div><div>Life on land</div></div> <div>Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss.</div> <div>15.1 By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements.</div> <div>15.5 Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of endangered species.</div> <div>We support Goal 15 by putting in place measures to preserve biodiversity and restore disturbed areas as quickly as possible. We are also adopting measures to try to avoid potential impacts on biodiversity at the source and, when this is not possible, we endeavour to mitigate the impacts using measures implemented within our operations.</div>				

## ICMM MP

<div><div><div>7</div><div>CONSERVATION OF BIODIVERSITY</div><div></div></div><div>Conservation of biodiversity</div></div> <div>Contribute to the conservation of biodiversity and integrated approaches to land use planning.</div> <div><div>7.1 Avoid World Heritage Sites and respect legally designated protected areas</div><div>Neither explore nor develop new mines in World Heritage Sites, respect legally designated protected areas, and design and operate new operations or changes to existing operations to be compatible with the value for which such areas were designated.</div><div>7.2 Apply mitigation hierarchy with ambition of no net loss</div><div>Assess and address risks and impacts to biodiversity and ecosystem services by implementing the mitigation hierarchy, with the ambition of achieving no net loss of biodiversity.</div><div>We support Principle 7 by avoiding to conduct our activities on World Heritage Sites and to respect all legally designated protected areas. In addition, we take environmental aspects into account as early as possible when developing our strategies and planning. This is done using an approach that is based on the sequence Understand, Avoid, Reduce, Compensate.</div></div>
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## TSM SDP

<div>Biodiversity Conservation Management</div>	<div>The purpose of the protocol is to guide organizations in evaluating their commitment and obligation to report, their corporate communications in biodiversity conservation, their planning and implementation of biodiversity conservation, and their reporting on the subject.</div>	<div>Non applicable</div>	<div>We started our work to implement the protocols on biodiversity conservation by carrying out the flora and fauna inventories. We will continue to put it into effect in the coming years.</div>
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## Perspectives for 2020

In 2020, we will continue to work on biodiversity conservation, in particular by advancing the integration of biodiversity in the planning stages of construction work. We will also deploy an awareness program aimed at informing employees of the potential and real effects of QIO activities on biodiversity and their

responsibilities for ensuring biodiversity conservation. We will also advance the implementation of the biodiversity conservation system by implementing risk assessment measures and the means to manage them adequately in order to conserve biodiversity and, if possible, bring a positive net gain.









# Product stewardship





# Product stewardship

## Its importance for our stakeholders

It is important for our stakeholders that QIO markets a quality iron concentrate, produced by exploiting the resource in a responsible manner, at a competitive price, and in a way that meets customer requirements and expectations. Stakeholders also expect us to implement measures to ensure environmentally and socially responsible and sustainable production methods, including adopting an eco-efficient approach.

## Its importance for us

The Bloom Lake Mine is located in the Labrador Trough, home to one of the highest-quality iron deposits in the world. It is important for QIO to exploit this resource optimally and strategically to market a product so as to derive the maximum competitive advantage and commercial value. At the same time, it is vital for QIO to exploit its resources in a way that considers the environmental, social and economic contexts in which the company operates, in order to create optimal long-term value for stakeholders and stimulate economic prosperity for the company.



## Our approach

It is important for QIO to use iron resources sustainably. This begins with an operational approach aimed at recovering the maximum amount of iron from each tonne of high-quality ore that we extract from the ground. It is through the concentration process that we get the most out of its value. This optimizes the profitability of our operations while reducing the amount of mine tailings generated, which also minimizes our ecological footprint.

We seek to supply our steelmaking customers with an ore that meets not only their technical needs but also the growing expectations and requirements due to climate change. We are focused on producing high-quality concentrate to benefit from a strategic

advantage in the current market since it allows steelmakers to decrease the quantities of reducing agents (such as coke) used in blast furnaces, the use of which can produce GHGs. We believe that we must stay abreast of the needs, trends and targets for cutting greenhouse gas emissions in the different countries where our customers are located. We work with our customers and their research groups to develop products to be integrated with the emerging strategies of steelmakers. This approach allows QIO to consolidate and maintain a competitive position in the market for sustainable steel production.



# Our strategies

Our strategies are developed with the ultimate goal of ensuring the responsible production of high-quality iron concentrate, enabling long-term partnerships with our customers.

## Short term (2020–2021)

- ➔ Foster innovation to continuously improve the process control tools and practices in order to optimize the exploitation of the resource.
- ➔ Perfect existing quality management practices so as to increase the iron recovery of the ore extracted while maintaining the high purity of the iron concentrate produced.

## Medium term (2022–2024)

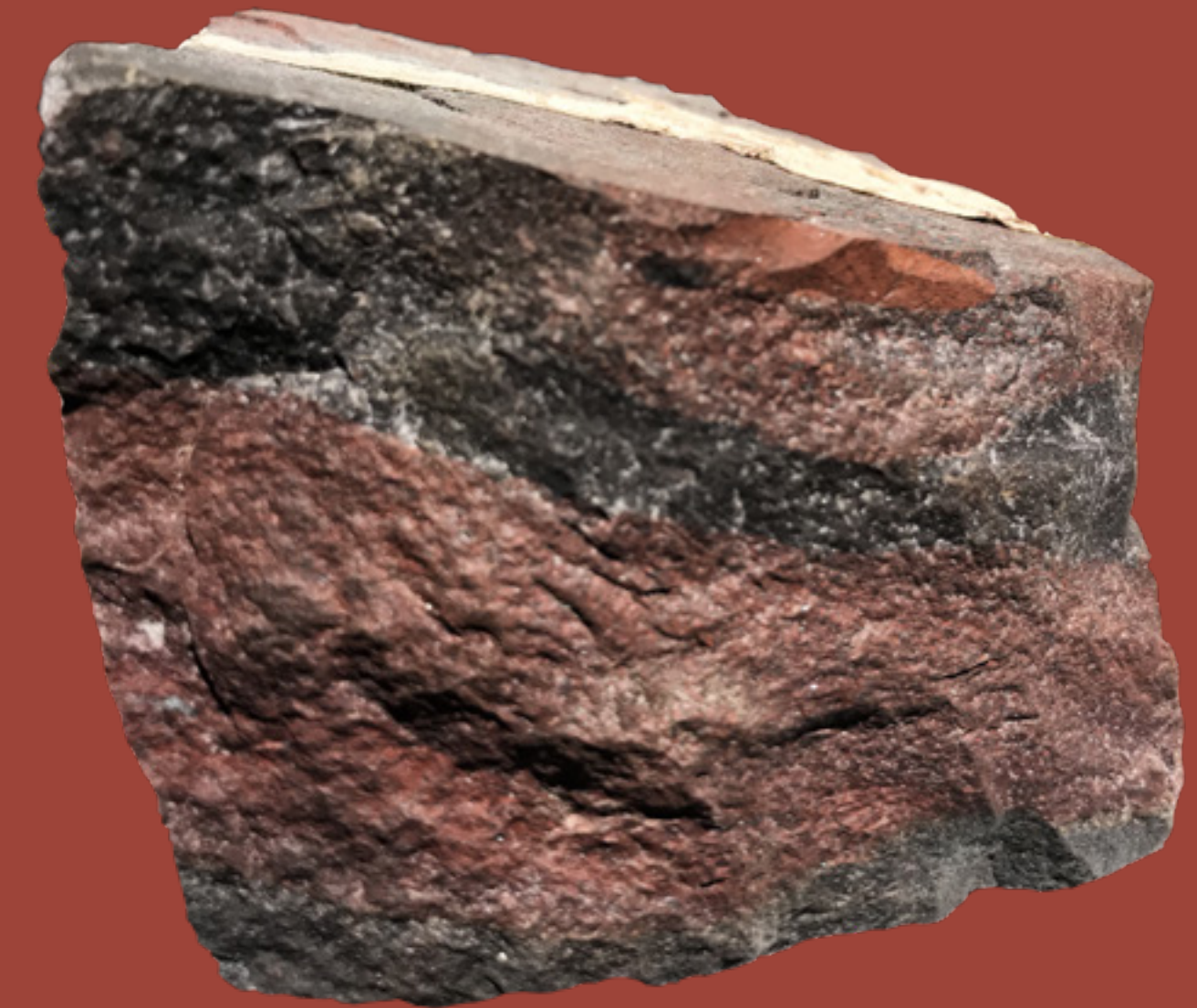
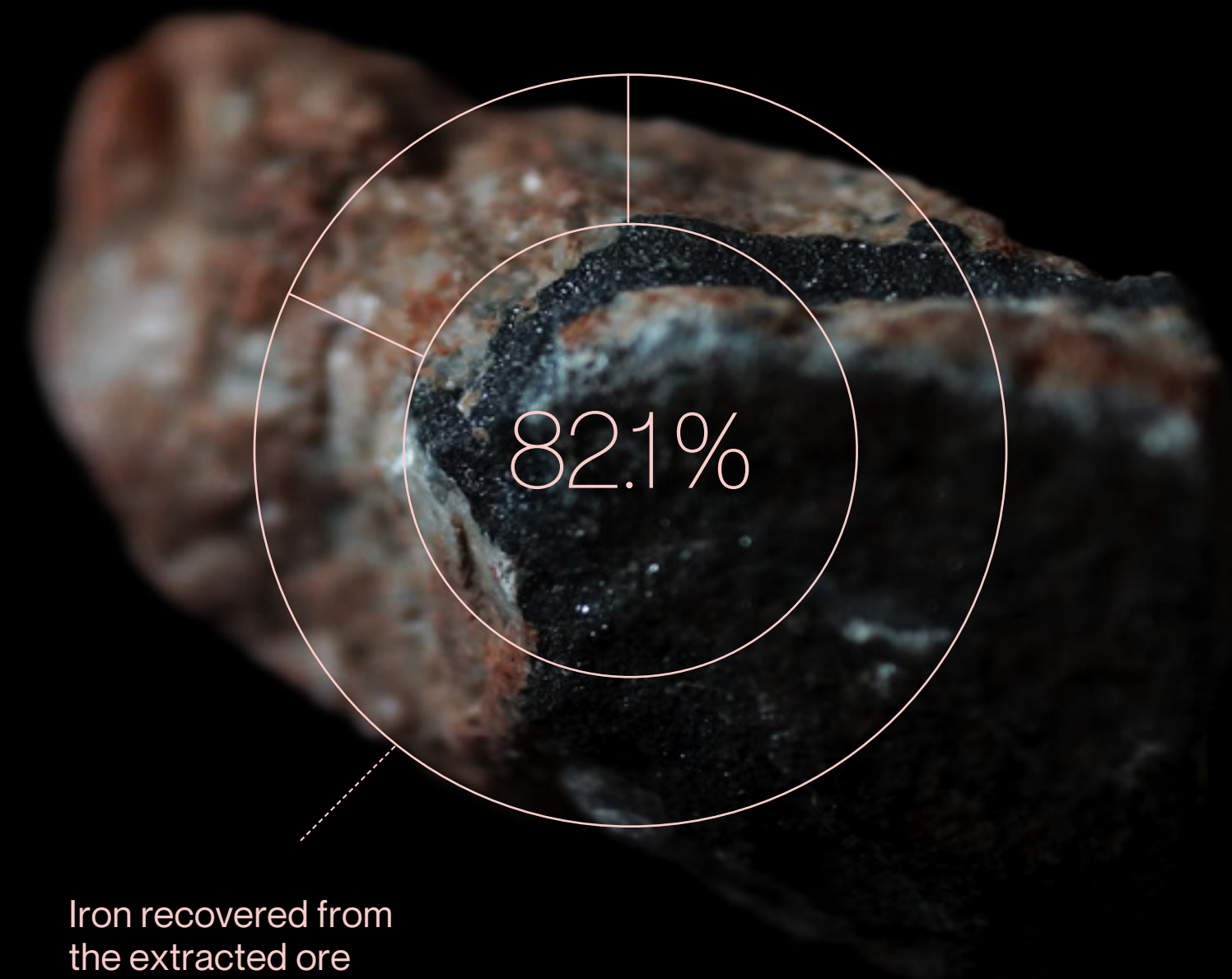
- ➔ Evaluate other production approaches that can add value to our product and strengthen its competitive advantage in the markets.
- ➔ Evaluate potential impacts of legislative changes on the demand for our product in the countries where our customers are located in order to identify risks and opportunities and derive the best benefits.

## Long term (2025–2030)

- ➔ Develop collaborations and partnerships with international organizations aimed at developing a product that meets current needs and preparing for those that will emerge in the future.



## Performance indicators for 2019





## Performance in 2019

2019 was the first full year of commercial operation since resuming mining activities at the Bloom Lake Mine site in February 2018. The focus was to stabilize our operations both operationally and in terms of management processes. A multidisciplinary team has been assembled to develop and implement opportunities to improve the efficiency of our activities. Efforts focused mainly on stabilizing the tonnage produced on a daily basis as well as implementing control procedures and optimizing iron recovery equipment.

The efforts made have achieved an iron recovery rate of 82.1%, which represents an increase of 2.9% compared to that observed following the start of activities in 2018. This improvement in iron recovery results in an increase of more than 250,000 tonnes of iron concentrate produced per year, a quantity that would have otherwise been transported to the mine tailings facilities. In addition, this performance was achieved without significantly affecting the purity of our concentrate, which enabled us to meet the high purity specifications for 98.1% of deliveries to our customers.

## Risk and opportunity management




To mitigate the potential risks linked to the recovery of iron, we are investing in improving our plant recovery circuit. Since the acquisition of the Bloom Lake Mine site in 2016, we have invested more than \$75 million in the development and installation of a new recovery circuit that, to date, has resulted in increased iron recovery of over 11%.

A new management and visualization system for operational data was implemented at the Bloom Lake Mine site in 2019. This provides operators with direct access to quality data and thus enables them to make quick and fair decisions, thus fostering stability and operational optimization.



# Commitments



## UN SDG

		Description	Target	What we do	
	<b>Responsible consumption and production</b>	Ensure sustainable consumption and production patterns	<b>12.2</b> By 2030, achieve sustainable management and efficient use of natural resources <b>12.5</b> By 2030, significantly reduce waste generation through prevention, reduction, recycling and reuse	We support Goal 12 by seeking to optimize the recovery of iron from the ore extracted in order to use the resource responsibly. In doing so,	we can reduce the amounts of generated tailings that are stored at the site and minimize the corresponding environmental and economic impacts.
	<b>Fight against climate change</b>	Take urgent measures to fight climate change and its impacts	<b>13.2</b> Integrate climate change measures into national policies, strategies and planning	We support Goal 13 by seeking to produce and market a high-quality iron concentrate, which contributes	to the reduction of carbon emissions in the steel process.
	<b>Partnerships for the achievement of objectives</b>	Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development	<b>17.7</b> Promote the development, transfer dissemination and diffusion of environmentally sound technologies to developing countries on favourable terms, including on concessional and preferential terms, as mutually agreed.	We support Goal 17 by working with our customers as well as research groups to develop products that will	integrate with our customers' emerging strategies to reduce greenhouse gas emissions.



# Commitments (cont'd)

## ICMM MP

	Description	Target	What we do	
	Decision-making	<p>Integrate sustainable development into corporate strategy and decision-making processes.</p>	<p><b>2.1 Integrate sustainability into decision-making</b> Integrate sustainable development principles into corporate strategy and decision-making processes relating to investments and in the design, operation and closure of facilities.</p>	<p>We support Principles 2 and 8 by integrating corporate strategies focused on the production of iron concentrate in a responsible manner and by seeking to develop products that minimize environmental, economic and social impacts by reducing carbon emissions and generation of mine tailings.</p>
	Responsible production	<p>Facilitate and support the knowledge-base and systems for responsible design, use, reuse, recycling and disposal of products containing metals and minerals.</p>	<p><b>8.1 Recover, reuse and recycle</b> In project design, operation and decommissioning, implement cost-effective measures for the recovery, reuse or recycling of energy, natural resources and materials.</p>	



## Perspectives for 2020

In 2020, we will continue our work on product stewardship by focusing our efforts on increasing iron recovery and developing a higher purity iron concentrate. We will strive to improve our management of the distinct and synergistic effects of various operational

parameters in order to optimize the iron concentration process. We will also evaluate new products and processes that could allow us to become more competitive in the markets, while enhancing our eco-efficiency and sustainability.









# Appendix A

GRI content  
index



# Organizational profile

GRI index	Reference year	Description	Location	Page number	Notes
102-1	2016	Name of the organization	Introduction	1	Quebec Iron Ore Inc.
102-2	2016	Activities, brands, products and services	Chapter 1	21	
102-3	2016	Location of headquarters	Chapter 1	22	
102-4	2016	Location of operations	Chapter 1	22	
102-5	2016	Ownership and legal form	Chapter 1	21	Quebec Iron Ore Inc. was founded in 2015 as a subsidiary company of Champion Iron Limited (100% ownership), which was as at December 31, 2019, a public company listed on the Toronto Stock Exchange (CIA.TO) and the Australia Stock Exchange (CIA-ASX).
			Appendix A	234	
102-6	2016	Markets served	Chapter 1	21	
102-7	2016	Scale of the organization	Chapter 1	19	
102-8	2016	Information on employees and other workers	Chapter 5	128, 142, 143, 144	
102-9	2016	Supply chain	Chapter 5	129, 130	
102-10	2016	Significant changes to the organization and its supply chain	Introduction	5	Champion Iron Limited acquired the 36.8% residual equity interest held by the Quebec government in Quebec Iron Ore Inc. for a total cash consideration of \$211 million. With this restructuring, Champion Iron has had 100% ownership of the Bloom Lake Mine since August 16, 2019.
					There was no significant change in the supply chain.
102-11	2016	Precautionary principle or approach	Chapter 5	211	



# Organizational profile (cont'd)

GRI index	Reference year	Description	Location	Page number	Notes
102-12	2016	External initiatives	Chapter 2	45, 46, 47, 48	
			Chapter 5	102, 103, 116, 117, 132, 133, 134, 149, 150, 151, 165, 166, 177, 191, 203, 204, 220, 229, 230	
102-13	2016	Membership of associations	Chapter 3	66	QIO is a member of the Quebec Mining Association and also sits on the Board of directors of the association.

# Strategy

GRI index	Reference year	Description	Location	Page number	Notes
102-14	2016	Statement from senior decision-maker	Introduction	4, 5, 6, 7, 8, 9	



# Ethics and integrity

GRI index	Reference year	Description	Location	Page number	Notes
102-16	2016	Values, principles, standards, and norms of behavior	Chapter 1	24, 25, 26, 27, 28	
			Chapter 5	108, 109, 110, 111, 113	

# Governance

GRI index	Reference year	Description	Location	Page number	Notes
102-18	2016	Governance structure	Chapter 2	38	

# Stakeholder engagement

GRI index	Reference year	Description	Location	Page number	Notes
102-40	2016	List of stakeholder groups	Chapter 3	64	
102-41	2016	Collective bargaining agreements	Chapter 5	142, 145	
102-42	2016	Identifying and selecting stakeholders	Chapter 4	64	
102-43	2016	Approach to stakeholder engagement	Chapter 3	64, 66, 67, 68, 70, 71, 72	
102-44	2016	Key topics and concerns raised	Chapter 3	66, 67, 68, 70, 71, 72	



# Reporting practice

GRI index	Reference year	Description	Location	Page number	Notes
102-45	2016	Entities included in the consolidated financial statements	Chapter 1	21, 22	
102-46	2016	Defining report content and topic Boundaries	Introduction	15, 16	
102-47	2016	List of material topics	Chapter 4	81	
102-48	2016	Restatements of information	Appendix A	237	No restatements were made as this is the first ustainability report.
102-49	2016	Changes in reporting	Appendix A	237	No changes from previous reporting periods in the list of material topics and topic boundaries as this is the first sustainability report.
102-50	2016	Reporting period	Introduction	15	
102-51	2016	Date of most recent report	Appendix A	237	No other report exists, as this is the first sustainability report.
102-52	2016	Reporting cycle	Introduction	15	
102-53	2016	Contact point for questions regarding the report	Introduction	16	
102-54	2016	Claims of reporting in accordance with GRI Standards	Introduction	15	
102-55	2016	GRI content index	Appendix A	234 to 248	
102-56	2016	External assurance	Introduction	15	



# Management approach

GRI index	Reference year	Description	Location	Page number	Notes
103-1	2016	Explanation of the material topic and its Boundary	Chapter 4	82, 83	
			Chapter 5	90, 107, 121, 138, 155, 170, 181, 195, 208, 224	
103-2	2016	The management approach and its components	Chapter 5	91, 92, 108, 109, 123, 124, 139, 140, 156, 157, 171, 172, 182, 183, 184, 185, 196, 197, 209, 210, 211, 212, 225, 226	
103-3	2016	Evaluation of the management approach	Chapter 2	38, 40, 41, 42, 44, 58, 59, 60	
			Chapter 5	91, 92, 108, 109, 123, 124, 139, 140, 156, 157, 171, 172, 182, 183, 184, 185, 196, 197, 209, 210, 211, 212, 225, 226	



# Economic indicators

GRI index	Reference year	Description	Location	Page number	Notes
201-1	2016	Direct economic value generated and distributed	Introduction	2, 19	
			Chapter 5	114, 130, 141, 147	
201-2	2016	Financial implications and other risks and opportunities due to climate change	Chapter 5	163, 164	
201-3	2016	Defined benefit plan obligations and other retirement plans	Chapter 5	147	
201-4	2016	Financial assistance received from government	Chapter 5	163	
202-1	2016	Ratios of standard entry level wage by gender compared to local minimum wage	Chapter 5	147	
202-2	2016	Proportion of senior management hired from the local community	Chapter 5	128	
203-1	2016	Development and impact of infrastructure investments	Chapter 5	131	QIO operations are still young. We provide information on our 2019 socio-economic contributions to the communities, and we will continue to do so on a yearly basis.
203-2	2016	Significant indirect economic impacts	Appendix A	239	QIO operations are still young. We have not attempted to estimate the indirect economic benefits that flow to local and regional communities due to our operations and development activities.
204-1	2016	Proportion of spending on local suppliers	Chapter 5	129, 130	



# Economic indicators (cont'd)

GRI index	Reference year	Description	Location	Page number	Notes
205-1	2016	Operations assessed for risks related to corruption	Appendix A	240	QIO owns one operation. Significant risks including corruption risks are identified if occurring through the quarterly risks assessment review. The process provides a well-structured avenue to escalate significant risks to the board.
205-2	2016	Communication and training about anti-corruption policies and procedures	Chapter 5	110, 111	In 2019, all new hires had to read and commit to comply with QIO's Employee Code of Conduct. The training program was completed in 2019 and will be mandatory in 2020.
205-3	2016	Confirmed incidents of corruption and actions taken	Chapter 5	112	
206-1	2016	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	Chapter 5	112	



# Environmental indicators

GRI index	Reference year	Description	Location	Page number	Notes
301-1	2016	Materials used by weight or volume	Appendix A	241	The materials used are the following: ore, waste rock, explosives, chemicals, lubricants, rubber. The amount of raw material used is 34.4 million tonnes.
301-2	2016	Percentage of materials used that are recycled input materials	Appendix A	241	Recycled input materials: 20.2%
302-1	2016	Energy consumption within the organization	Chapter 5	158, 159	
302-3	2016	Energy intensity	Chapter 5	159	
303-1	2018	Interactions with water as a shared resource	Chapter 5	174	
303-3	2018	Water withdrawal	Chapter 5	174	
303-4	2018	Water discharge	Chapter 5	174	
304-1	2016	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Appendix A	241	No protected areas in or adjacent to the mining site. No areas of high biodiversity value outside protected area.
304-2	2016	Significant impacts of activities, products and services on biodiversity	Chapter 5	214, 215, 216	
304-3	2016	Habitats protected or restored	Chapter 5	216	
304-4	2016	IUCN Red List species and national conservation list species with habitats in areas affected by operations	Chapter 5	214, 215	
305-1	2016	Direct (Scope 1) GHG emissions	Chapter 5	160	



# Environmental indicators (cont'd)

GRI index	Reference year	Description	Location	Page number	Notes
305-2	2016	Energy indirect (Scope 2) GHG emissions	Chapter 5	160	
305-4	2016	GHG emissions intensity	Chapter 5	160	
305-5	2016	Reduction of GHG emissions	Chapter 5	161, 162	
305-6	2016	Emissions of ozone-depleting substances (ODS)	Appendix A	242	Ozone depleting substances are not material to QIO's operations.
305-7	2016	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	Chapter 5	201	
306-1	2016	Total water discharge by quality and destination	Chapter 5	175	
306-2	2016	Total weight of waste by type and disposal method	Chapter 5	183, 184, 187, 198, 199, 200	
306-3	2016	Total number and volume of significant spills	Appendix A	242	<p>Significant spills are those reported under categories 3, 4 and 5 according to QIO's classification scheme:</p> <ul style="list-style-type: none"><li>• Category 3 - Moderate: Incident causing a moderate and reversible environmental impact involving short-term effects and requiring moderate remediation.</li><li>• Category 4 - Serious: Incident having caused a serious environmental impact involving medium-term effects and requiring significant remediation.</li><li>• Category 5 - Catastrophic: Incident having caused a disastrous environmental impact implying long-term effects and requiring a major remediation.</li></ul> <p>No category 3, 4 or 5 incidents occurred in 2019.</p>



# Environmental indicators (cont'd)

GRI index	Reference year	Description	Location	Page number	Notes
306-4	2016	Transport of hazardous waste	Appendix A	243	855 tons of hazardous waste were transported offsite to an authorized location not owned by QIO or to suppliers, all within the country.
306-5	2016	Identity, size, protected status and biodiversity value of waterbodies and related habitats significantly affected by the organization's discharges of water and runoff	Chapter 5	175	
307-1	2016	Monetary value of significant fines and non-monetary sanctions	Chapter 5	112	
308-1	2016	New suppliers that were screened using environmental data	Appendix A	243	No new suppliers selected using environmental data in 2019.



# Social indicators

GRI index	Référence year	Description	Location	Page number	Notes
401-1	2016	New employee hires and employee turnover	Chapter 5	142, 146	
402-1	2016	Minimum notice periods regarding operational changes	Appendix A	244	Minimum notice period is one week. Depending on the nature of the operational change, this can extend to several weeks based on the degree to which the change may affect employees.
403-1	2018	Occupational health and safety management system	Chapter 5	91	
403-2	2018	Hazard identification, risk assessment, and incident investigation	Chapter 5	96, 97	
403-3	2018	Occupational health services	Chapter 5	95	
403-4	2016	Worker participation, consultation, and communication on occupational health and safety	Chapter 5	97, 98	
403-5	2016	Worker training on occupational health and safety	Chapter 5	98, 99	
403-6	2016	Promotion of workers' health	Chapter 5	95	
403-7	2016	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Chapter 5	91, 92	
403-8	2016	Workers covered by an occupational health and safety management system	Chapter 5	91	
403-9	2016	Work-related injuries	Chapter 5	94, 96	



Social indicators (cont'd)

GRI index	Reference year	Description	Location	Page number	Notes
403-10	2016	Work-related ill health	Chapter 5	94	Pursuant to workers' compensation claims accepted by Quebec occupational health and safety board, the CNESST, no work-related illness was observed among MFQ employees in 2019.
404-1	2016	Average hours of training per year per employee	Chapter 5	146	We don't collect this information by gender as we treat male and female employees equally.
405-1	2016	Composition of governance bodies and breakdown of employees by category	Chapter 5	142, 143	Number of female employees: 56 Ratio of female employees: 11%
			Appendix A	245	Ratio of female managers: 6% Number of female board directors: 1
405-2	2016	Ratio of basic salary and remuneration of women to men	Appendix A	245	Our basic salaries are not differentiated by gender (1:1).
406-1	2016	Incidents of discrimination and corrective actions taken	Chapter 5	112	
407-1	2016	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Appendix A	245	No incident associated to the right to freedom of association and collective bargaining was reported in 2019, nor were operations or significant suppliers considered to have significant risk for incidents associated to the right to freedom of association and collective bargaining.
408-1	2016	Operations and suppliers at significant risk for incidents of child labour	Appendix A	245	No incident of child labour was reported in 2019, nor were any operations or significant suppliers considered to have significant risk for incidents of child labour.
409-1	2016	Operations and suppliers at significant risk for incidents of forced or compulsory labour	Appendix A	245	We do not engage in, or condone, forced or compulsory labour. No incidents of forced or compulsory labour were reported in 2019, nor were any operations or suppliers considered to have significant risk for incidents of forced or compulsory labour.
410-1	2016	Security personnel trained in human rights policies or procedures	Appendix A	245	No human rights training provided to security personnel in 2019. Planned for a near future.



Social indicators (cont'd)

GRI index	Reference year	Description	Location	Page number	Notes
411-1	2016	Incidents of violations involving rights of Indigenous peoples	Chapter 5	126	
412-1	2016	Operations that have been subject to human rights reviews or impact assessments	Appendix A	246	No human rights review conducted in 2019. Planned for a near future.
412-2	2016	Employee training on human rights policies or procedures	Appendix A	246	All 2019 new employees trained on human rights through the Employee Code of Conduct.
412-3	2016	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	Appendix A	246	No significant investment agreements undertaken in 2019.
413-1	2016	Operations with local community engagement, impact assessments, and development programs	Chapter 5	126, 127	Our single operational unit has commitments with the local community.
413-2	2016	Operations with significant actual and potential negative impacts on local communities	Chapter 4	81, 82, 83	We give specific examples relevant to this throughout the report.
414-1	2016	Percentage of new suppliers that were screened using human rights criteria	Appendix A	246	No new suppliers screened using human rights criteria in 2019.
415-1	2016	Political contributions	Chapter 4	70	No political contribution in 2019.
419-1	2016	Non-compliance with laws and regulations in the social and economic area	Chapter 5	112	



# Additional indicators – Mining and metals sector

GRI index	Reference year	Description	Location	Page number	Notes
MM1	2013	Amount of land disturbed or rehabilitated	Chapter 5	217	
MM2	2013	Sites identified as requiring biodiversity management plans according to stated criteria, and sites with plans in place	Chapter 5	218, 219	The Bloom Lake Mine site has a biodiversity management plan.
MM3	2013	Total amounts of overburden, rock, tailings and sludges and their associated risks.	Chapter 5	187, 201	
MM4	2013	Number of strikes and lockouts exceeding one week’s duration	Appendix A	247	In 2019, there were no strikes or lockouts.
MM5	2013	Total number of operations taking place in or adjacent to Indigenous Peoples’ territories, and number and percentage of operations or sites where there are formal agreements with Indigenous peoples’ communities	Chapter 5	123	
MM6	2013	Number and description of significant disputes relating to land use, customary rights of local communities and Indigenous peoples	Appendix A	247	In 2019, there were no litigations relating to land use or the customary rights of local communities and indigenous peoples.
MM7	2013	The extent to which grievance mechanisms were used to resolve disputes relating to land use, customary rights of local communities and Indigenous peoples, and the outcomes	Appendix A	247	In 2019, there were no litigations relating to land use or the customary rights of local communities and Indigenous peoples.



# Additional indicators – Mining and metals sector (cont’d)

GRI index	Reference year	Description	Location	Page number	Notes
MM8	2013	Number of company operating sites where artisanal and small-scale mining takes place on or adjacent to the site, the associated risks, and the actions taken to manage and mitigate the risks	Appendix A	248	In 2019, there were no company operating sites where artisanal or small-scale mining occurs, either on or adjacent to the site.
MM9	2013	Sites where resettlement took place, the number of households resettled in each, and how their livelihoods were affected in the process	Appendix A	248	In 2019, there was no resettlement.
MM10	2013	Number and percentage of operations with a closure plan	Chapter 5	190	In 2019, we had a closure plan for the single operational unit we possess.





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