

BC Works 2021 Sustainability Report

RioTinto



BC Works produces the lowest carbon aluminium in the world.

We see more opportunities for a net zero future as we strengthen our productivity in line with our ambitions to be the best operator and neighbor.

To be *Impeccable in ESG* means making a step-change in decarbonizing our operations in line with societal expectations.

It means considering the entire value chain, such as environmental impacts, water management, partnership with Indigenous Nations and local communities and volunteers, contribution to small businesses and to regional development, as well as the health and safety of our teams and their families.

This report shows what we’ve achieved together in 2021 and what more we can accomplish.



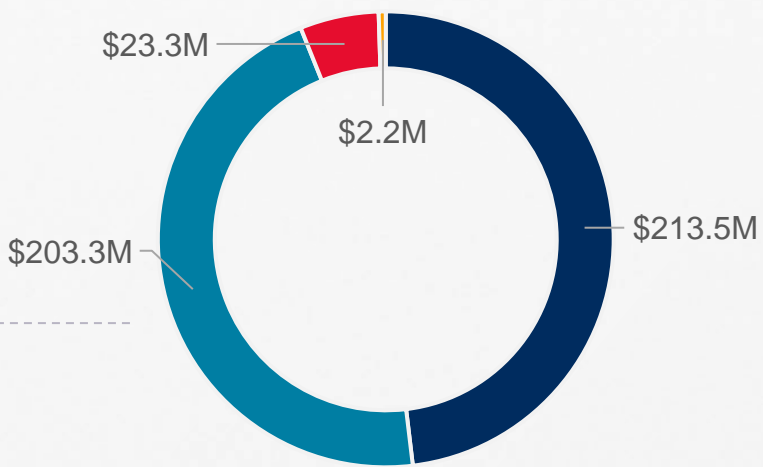
Sustainability is always a work in progress and changes will only be possible through empowered team members and ongoing engagement with our host communities.

BC Works believes our team members are the experts to drive the transformational change necessary to meet the innovation challenges in a carbon-constrained world. This is further emphasized by a new set of Values for Rio Tinto and BC Works: Care, Courage, and Curiosity

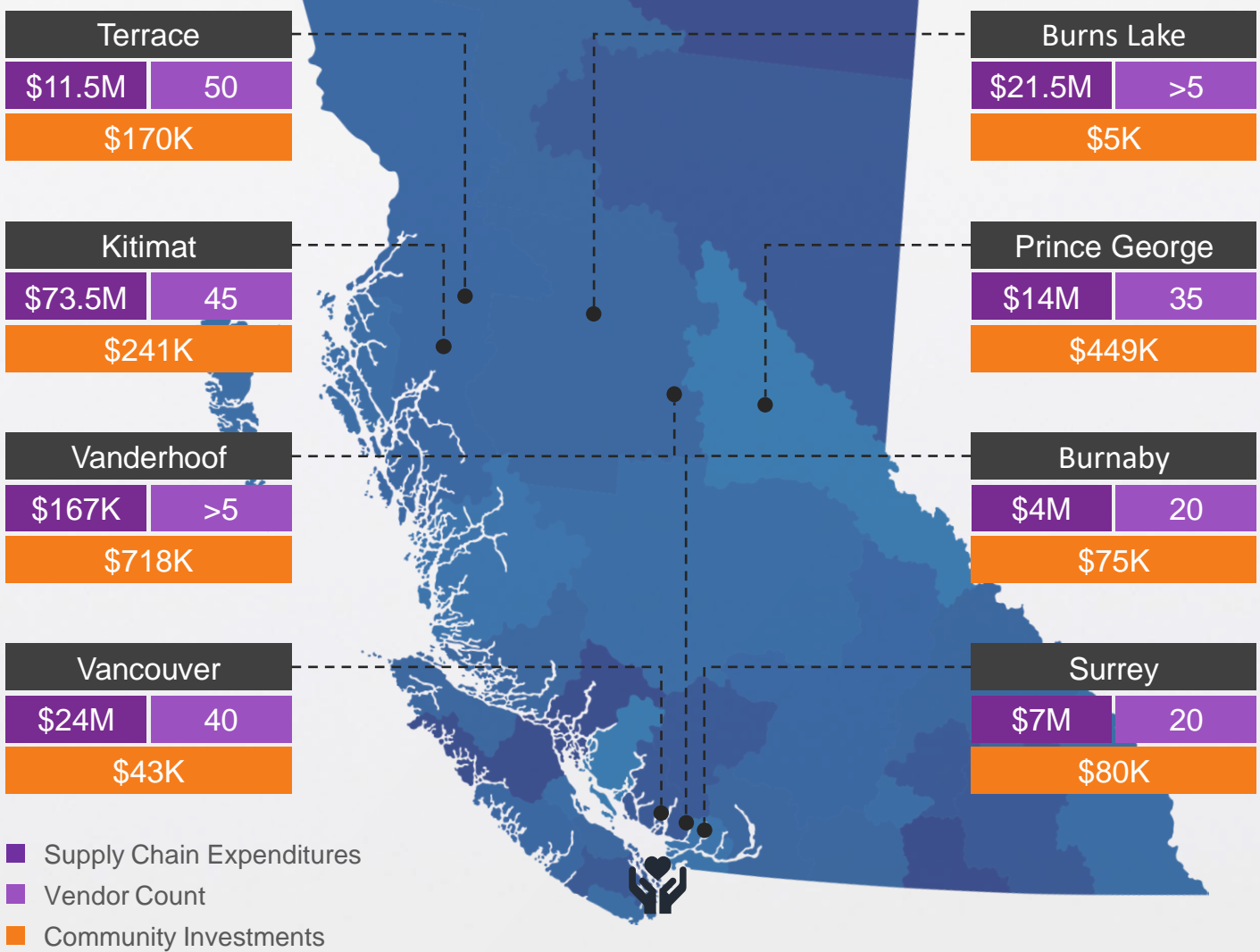
Claudine Gagnon, General Manager Communities & Communication, Atlantic Aluminium

Total annual benefits breakdown

- Employee Compensation
- BC Supply Chain Expenditure
- BC & Local Taxes
- Community Investments



Contributions made across British Columbia



Our Alignment to the UN SDGs

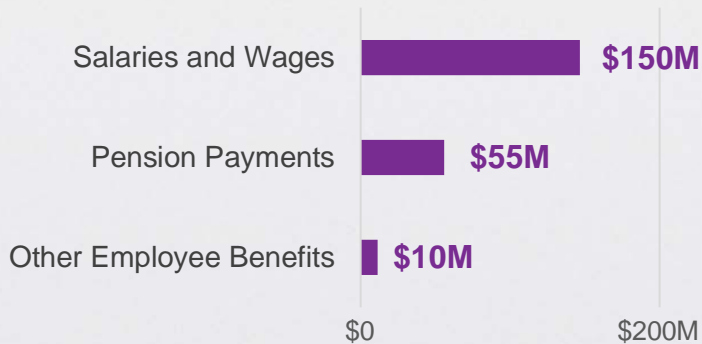


Our contributions

~\$440M

contributed to the BC
economy through BC Works

~\$215M in annual salaries,
benefits and pension payments



900+ BC employees

15% of leadership roles
held by female employees



Developing our people

24K
employee training hours

All time low
AIFR Score of 0.61
for 2021*

6 internships
opportunities provided

12 apprenticeships
supported

11.5 years
average tenure

BC supply chain investment

Category	BC Total	Northwest BC	Indigenous-Affiliated
Spend (\$)	\$203M	\$128M	\$19M
Suppliers (#)	306	141	12

~\$200M in direct spend in BC towards suppliers
and services with 300+ BC businesses

Summer internship at the Nechako white sturgeon conservation centre

Jordan Cranmer joined the Nechako Conservation Centre in Vanderhoof as a summer intern in 2019.

The Conservation Centre offers local youth an opportunity to gain experience in the field of conservation. Jordan's efforts to enhance the Centre's online presence and digital outreach resulted in CBC national press coverage and a feature in the McLean's magazine in 2021, reaching more than two million readers.

Currently pursuing a degree in Community, Population and Environmental Health at UNBC in Prince George, Jordan plans to continue to work with communities in the environment and conservation fields and will resume her post at the Conservation Centre in May 2022.



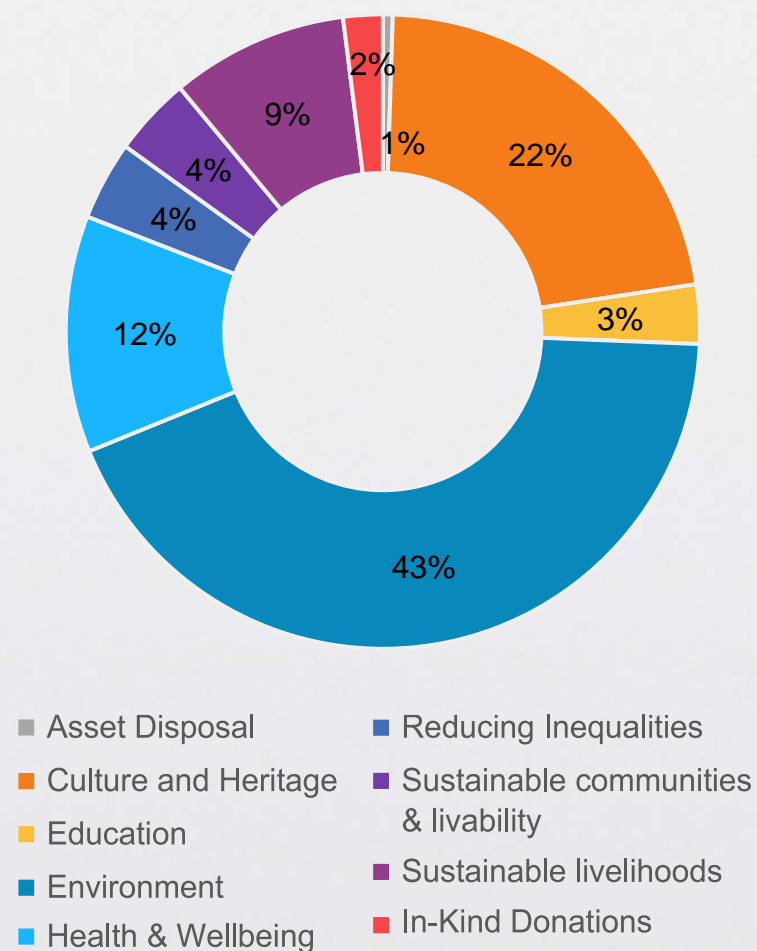
“I gained valuable experience in different facets of conservation, from field studies to community outreach and education, by working at the Conservation Centre. I especially valued the opportunity to learn about the importance of community engagement and positive relationships in conservation.”
- Jordan Cranmer

*Comparison of 0.08 in 2020, 0.31 in 2019, and 0.35 in 2018

Community commitment

\$2.2M

in total community contributions



~\$440K contributed to Indigenous organizations to support education, food security, and other community services

~\$410K contributed to organizations based in Kitimat and Terrace



“

I find now companies like Rio Tinto are starting to ask: How can we do better? How can we make this project, that is already here, work for a whole lot of people – not just Cheslatta people, but Canada in general.” – Chief Corrina Leween

Indigenous partnerships

- Collaborated with Haisla Nation, Cheslatta Carrier Nation, and Skin Tyee Nation on COVID response and recovery projects
- Hosted cultural awareness training for 84% of BC Works Senior Leadership team and 100% of the Community Engagement team
- Sponsored Indspire Indigenous scholarship programs
- Supported the Skin Tyee Nation traditional berry harvesting partnership
- Implement year one of the Cheslatta Carrier Nation New Day Agreement
- Expanded the New Day Reservoir Stewardship program
- Formed strategic partnerships with the First Nations Major Projects Coalition



Southside Working Group

The Southside Working Group (SWG), as part of Rio Tinto's Water Engagement Initiative (WEI), was formed to engage residents near the Nechako reservoir to identify opportunities and address challenges related to erosion, water quality, and other multi-value and resource management issues. Recommendations are regularly made to the WEI Main Table, a group of approximately 40 community members including residents, Indigenous Nations, and local government representatives to improve water management in both the Nechako reservoir and Nechako River.

Ultra low carbon advantage

Carbon Intensity/t Comparison



1x

Best in-class Emissions
Intensity RT Canada and
BC Works



8.6x
more

Global Most
Emissions Intensive

Source: Aluminium Association of Canada, May 2021

Emissions management

Emission Type	2018-2020 Emissions*
SO ₂ emissions	28.3 tonnes per day
Particulate matter	405.0 tonnes per year
Gaseous Fluoride emissions	172.9 tonnes per year
Polycyclic aromatic hydrocarbon (PAH)	0.9 tonnes per year

*Average emissions reported as 2021 values were not available at the time of publishing. However, annual smelter emissions are expected to be significantly lower, due to a halt in operations for a period of five months in 2021.

Environment

~\$955K contributed to environmental initiatives in the Nechako Watershed, including the sturgeon hatchery, tributary restoration and integrated watershed research

6,240 GWh
of renewable energy produced

2,238 GWh
excess energy contributed to the grid

Progress on SO₂ Environmental Effects Monitoring (EEM)

BC Works launched the **SO₂ Environmental Effects Monitoring (EEM)** program in 2014.

Research scope was expanded in 2021 to include **Vascular Plant Biodiversity and Cyanolichen Monitoring**. The EEM process is currently in Phase 3 and will continue through 2022.



Oolichan monitoring and harvest

For more than 35 years, the Haisla Nation and BC Works have collaborated on Oolichan population monitoring and studies. This has resulted in the largest known dataset of Oolichan recordings in the Pacific north coast. BC Works adjusts operations to stabilize flow out of the Kemano Powerhouse during the Oolichan harvesting season to minimize disturbance to the Oolichan and its natural habitat. In 2021, an estimated 25 tons of the 40 tons of Oolichan were caught and harvested by Haisla members. Oolichan is harvested for culturally significant and nutritional products including fresh, dried, smoked, salted, frozen whole fish and grease.



We may all have different focuses, be it environmental, technical, operations or maintenance, but common ground can always be found because everyone always agrees that the Oolichan come first.”

– Andy Lecuyer, BC Works
Environmental Senior Advisor Team Lead

Update on Kemano T2 Project

The tunnel boring machine (TBM) finished tunnelling in October and the tunnel will be filled with water in the second half of 2022

Certifications



Through UNBC's partnerships with industry, we can elevate the great work of our researchers and demonstrate how the discoveries they make in the lab and the field can be applied in real-world settings. Our ongoing collaborations with Rio Tinto are helping us gain a better understanding of the impact of climate change on the Nechako Watershed, evaluate the best technologies to assist older adults in northern and rural communities and empower young people across northern B.C. by instilling a spirit of entrepreneurship.

– Dr. Geoff Payne, UNBC President

UNBC partnership on climate change research

In 2019, a partnership emerged between the University of Northern British Columbia (UNBC) and Rio Tinto on the effects of climate change on atmospheric rivers and the impacts of climate change, specifically, on the Nechako watershed.

The partnership centers around the work of UNBC Environmental Science Professor Dr. Stephen Déry who was named the first NSERC/Rio Tinto Senior Industrial Research Chair in Climate Change and Water Security in 2019.

Today, our continued commitment to this invaluable partnership with UNBC means Rio Tinto can apply evidence-backed research on the climate impacts to the Nechako region and ultimately better plan for climate resilience within BC Works' operations

Aluminium Stewardship Initiative

The Aluminium Stewardship Initiative (ASI) is a global non-profit standards-setting and certification organization that defines standards for sustainability performance and material chain-of-custody for the aluminium value chain. ASI is the highest internationally recognized standard for environmental, social and governance practices across the lifecycle production of aluminium.

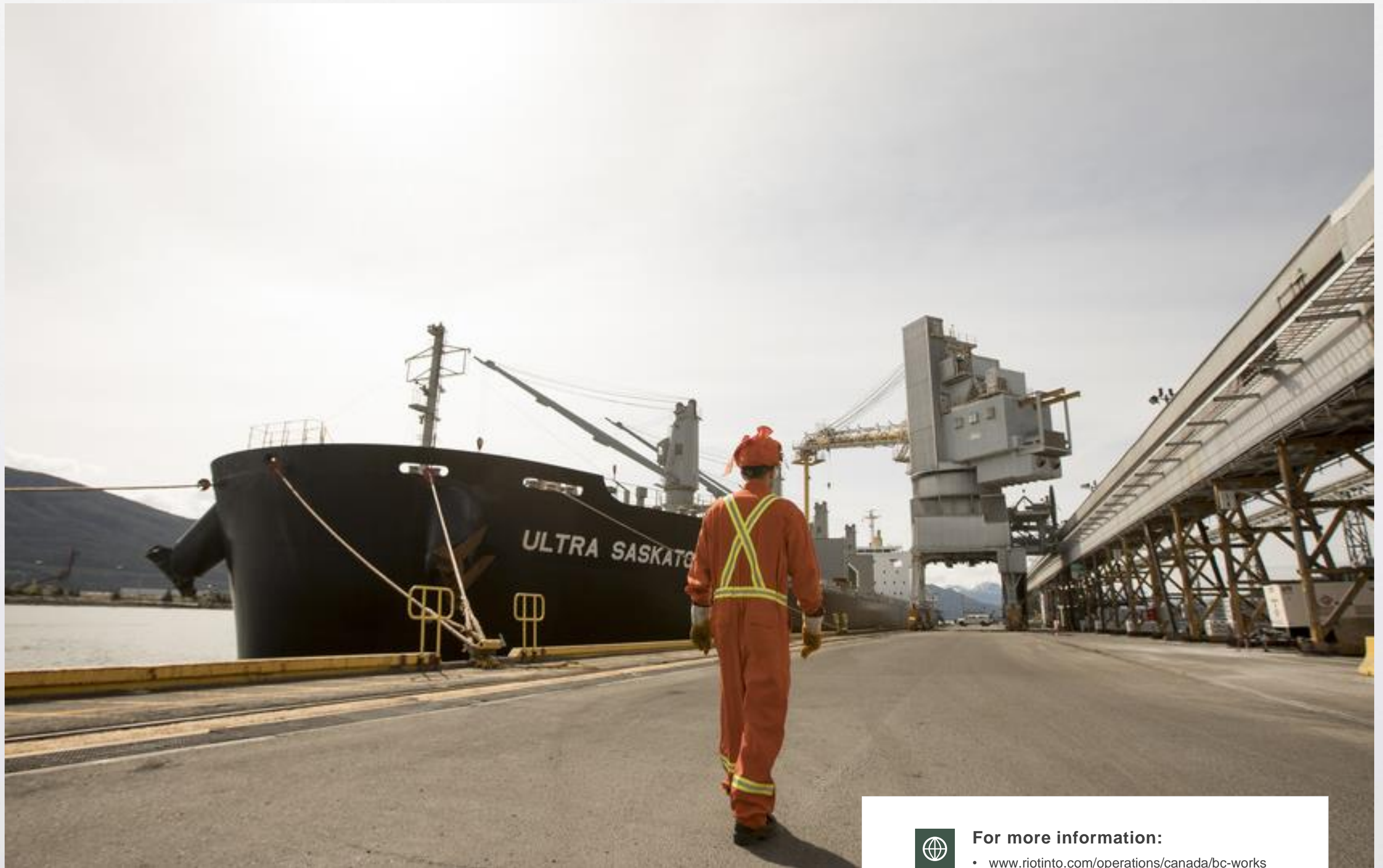
Rio Tinto is the first company in the world to receive the ASI Certification and renewed their Certification in 2021, showcasing our continued efforts to foster responsible production, sourcing and stewardship of aluminium.



Launch of START

Rio Tinto recently launched START, the first sustainability label for aluminium. START uses blockchain technology to provide key information about the site where the aluminium was responsibly produced using the following criteria:

- Carbon footprint
- Water use
- Recycled content
- Energy sources
- Community investment
- Safety performance
- Diversity in leadership
- Business integrity
- Regulatory compliance
- Transparency



For more information:

- www.riotinto.com/operations/canada/bc-works
- www.riotinto.com/operations/canada
- @RioTintoBCWorks (Facebook)