

**ENVIRONMENT, SAFETY
AND SOCIAL DATA REPORT
2020**

CEO'S STATEMENT

This is the fourth report presenting our Company's performance against a number of environmental, safety and social standards. In addition to providing an overview of our performance, the report also confirms our commitment to transparency and a recognition of the Company's impact locally, regionally and on the broader global environment.

The Company has always been committed to extracting resources responsibly and our strategy on sustainability is an intrinsic part of everything we do. Recently, to formalize this commitment we have published our approach to climate change. The approach includes the integration of climate change and energy issues and impacts into our decision making and strategic planning. Over the next years, we will be setting progressive and realistic targets with an identified pathway to achievement.

First Quantum is committed to continuous improvement through its environmental, safety and social management systems, which are subject to regular external audits. I hope you will find the information presented herein both informative and useful, and I look forward to reporting on our environmental, safety and social performance in future years.



Philip K. R. Pascall
Chief Executive Officer

Front Cover: West Lunga River – West Lunga National Park, Zambia



The Company is committed to extracting resources responsibly and our sustainability strategy guides us in everything we do. Recently, we reviewed our approach to climate change and published our Climate Change Statement on the Company website. Over the next few years, we will be setting progressive and realistic targets with an identified pathway to achievement. 11



FOREWORD

DATA COLLECTION AND STANDARDS

Greenhouse Gas and Water Data have been collected in accordance with the Greenhouse Gas Protocol (WRI, WBCSD) and the Water Accounting Framework (Minerals Council of Australia, 2014) respectively. In addition to the data presented for the 2020 calendar year, some historic data has been restated. The Company will restate data when more accurate figures are available, such as the publication of updated coefficients used in the calculation of emissions figures or updated methodologies to improve accuracy. FQM sources emission factors from the International Energy Agency (IEA) annually. Therefore the current years emission factors are based on the most recent available emission factors.

A separate GRI Content Index Report will be made available on our website. The GRI Content Index Report will provide additional links and data.

A summary of the GRI disclosures listed in this report are as follows:

- **GRI 302-1:** Energy consumption within the organization;
- **GRI 302-3:** Energy intensity;
- **GRI 303-1:** Total water withdrawal by source;

- **GRI 303-3:** Percentage and total volume of water recycled and reused;
- **GRI 304-1:** Operational sites in protected and high biodiversity areas;
- **GRI 304-2:** Significant impacts of activities on biodiversity;
- **GRI 304-4:** Endangered species in operational areas;
- **GRI 305-1:** Direct Greenhouse Gas (GHG) emissions (Scope 1);
- **GRI 305-2:** Indirect Greenhouse Gas (GHG) emissions (Scope 2);
- **GRI 305-4:** Greenhouse Gas (GHG) emissions intensity;
- **GRI 305-7:** NOX, SOX, and other significant air emissions;
- **GRI 306-2:** Total weight of waste by type and disposal method;
- **GRI 403-2:** Rates of injury, severity rates and number of work related fatalities;
- **GRI 411:** Rights of indigenous peoples;
- **GRI 412:** Human rights assessment;
- **GRI 413-1:** Operations with local community engagement, impact assessments and development programs;
- **GRI 413-2:** Operations with significant actual and potential negative impacts on local communities.

ABBREVIATIONS AND ACRONYMS

- **KT (kilotonne)** - a thousand (10³) tonne;
- **MT (megatonne)** - a million (10⁶) tonne;
- **ML (megalitre)** - a million (10⁶) litres;
- **GJ (gigajoule)** - a billion (10⁹) joules;
- **TJ (terajoule)** - a million million (10¹²) joules;
- **Ha** - hectare;
- **Cu-eq (copper equivalent)** - a measure to normalize the production of several mined commodities into a single 'copper-equivalent' figure. To calculate a copper equivalent, commodities are scaled by the number of equivalent units of copper they represent in value. Relative commodity prices are averaged over a period;
- **CO₂e-eq (carbon dioxide equivalent)** - a measure to normalize the impact of different GHGs in terms of the amount of CO₂ that would create the same amount of warming.

Some photos contained in this report were taken prior to the COVID-19 pandemic. The wearing of masks or social distancing was not required at the time.



SUSTAINABILITY

CONTEXT

The Company has adopted a cautionary approach in all of its business activities due to the risks and potential impacts associated with developing and operating large mines. This commitment is best illustrated in the Company's sustainability strategy, environment, social and safety policies, and practice. We recognize environmental management as a corporate priority and ensure that all potential impacts or consequences on the environment are given proper assessment and consideration. Furthermore, the Company commits to develop, implement and continually update our environmental management systems to manage, reduce and where possible prevent environmental pollution relating to our activities, products and services. In our social policy, we commit to building relationships that are based on transparency, mutual trust and respect. Importantly, the Company also commits to listening and communicating with stakeholders and local communities directly and openly about our activities, issues and future plans. Finally, in our safety policy, we commit to including safety and health considerations as an integral part our activities. We also commit to take all reasonable and practicable measures to ensure that potentially hazardous agents and conditions in the work place are identified and managed in a safe manner.

STRATEGY

First Quantum Minerals Limited is committed to making positive steps in sustainable development at its worldwide operations.

Our strategy on sustainability is built around four key pillars:

- Economically viable investments;
- Technically appropriate operations;
- Environmentally sound practices;
- Socially responsible actions.

To deliver on our strategy, we have established a number of policies, practices, management systems and reporting commitments, including:

- Sound corporate governance practices;
- Comprehensive Code of Conduct, which applies to all permanent employees and contractors (including security contractors), and is part of mandatory training requirements for full-time and part-time employees. The Code of Conduct* references an internal Whistle-blower Policy* and provides contact details for raising concerns;
- Environment, Health, Safety and Corporate Social Responsibility Committee (the EHS&CSR Committee) of the Board;
- Integration of safety metrics into executive compensation;
- Environmental Policy*;
- Human Rights Policy*;
- Grievance mechanisms and procedures at every operation;
- Environmental management system based on the ISO 14001:2015 standard at all operations;
- Health and safety management system based on the OHSAS/BSI 18001:2015 standard at all operations;
- Reporting on the safety and security of our tailings storage facilities*;
- Tax transparency and contributions to governments reporting*.

GOVERNANCE

Environmental, Safety and Social management oversight is provided by our Group Environmental and Safety Managers, who report directly to the Chief Operating Officer (COO). On-site responsibility for adherence to our safety and environmental policies, and compliance with our safety and environmental management systems (including commitments to reduce energy use, emissions, water and waste) rests with the business units. Furthermore, we provide governance and risk management oversight through:

- The development of risk management methodologies and the assignment of adequate resources to manage and appropriately mitigate risks across our operations;
- Ensuring sustainable development policies, practices and monitoring mechanisms to track our performance;
- The provision of a confidential whistleblowing hotline on which to register breaches of the Code of Conduct and unethical behavior. All registered breaches are reported to the audit committee;
- Board and Independent Committee level review of our governance and risk management programs through the Audit Committee, Compensation Committee, Nominating and Governance Committee and the EHS&CSR Committee to support its work.

Detailed information on the Company's principal risks and corporate governance model, which includes further information on executive compensation can be found in the Annual Information Form* and the Management Information Circular*.

MATERIALITY

When deciding on what aspects to disclose and the materiality of those aspects, the Company considered the following:

- Direct economic, environmental and social impacts of our activities;
- Expectations and feedback of our stakeholders. Our stakeholders include but are not limited to local communities, employees, civil society organisations, non-governmental organisations, government and regulators, investors, analysts, customers, suppliers and media;
- Priorities identified by the board of directors;
- Risks identified through our group business risk registers;
- Regular review of our legal and regulatory requirements;
- Environmental and Social topics of international concern and regular reviews of growing industry reporting standards and norms.

In 2020, the Company commissioned an independent review of the materiality of our environmental, social and safety disclosures. The review included an analysis of our existing disclosures, a priority ratings review and a disclosure gap analysis. Within the environment, social and safety data, the following topics are considered material to our business:

- Energy;
- Emissions / Air / Climate Change;
- Water;
- Waste
- Biodiversity / Land Use;
- Health and Safety;
- Local Communities / Community;
- Environmental Management.

*All relevant policies and Environmental, Social & Governance ("ESG") reporting can be found at www.first-quantum.com



BOUNDARY

Our disclosure focuses on environment, social and safety aspects that are considered to be of material significance to our Company and our stakeholders. The disclosure includes information and data on activities at our operations, closed properties, development projects, supporting offices and global exploration where we have financial and operational control. A summary of our reporting boundary is provided in the adjacent table. More detail on the specific reporting topics are provided in the report.

	Energy Consumption	Energy Intensity	Absolute Scope 1 Greenhouse Gas Emissions	Absolute Scope 2 Greenhouse Gas Emissions	Greenhouse Gas Emission Intensity	Downstream Scope 3 Greenhouse Gas Emission Intensity	Air Emissions	Waste	Water Withdrawal and Discharge	Water Reuse	Water Intensity	Biodiversity / Land Use	Safety	Governance	Local Communities / Community	Environmental Management	Tailings
Operating sites																	
Çayeli	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	
Cobre Las Cruces	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
Cobre Panama	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Guelb Moghrein	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
Kansanshi	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Pyhäsalmi	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
Ravensthorpe	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓
*Sentinel	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Closed properties **Bwana Mkubwa, Copper Range, Lac Dufault Mines, Samatosum, Sturgeon and Winston	✓		✓	✓			✓	✓	✓				✓	✓		✓	✓
Projects Haquira and Taca Taca	✓		✓	✓									✓	✓		✓	
Supporting offices Johannesburg, London, Ndola, Perth and Toronto	✓			✓									✓	✓		✓	
Exploration	✓		✓	✓									✓	✓		✓	

*Includes data from Enterprise.
**The Bwana Mkubwa asset was sold to Shamrock Mining Limited in October 2020.



CLIMATE CHANGE POSITION STATEMENT

The Company recently published its Climate Change Position Statement. The statement ensures that climate change and energy issues are a central consideration in all of our decision making and planning.

THE COMPANY COMMITS TO:

- Identify and manage climate-related physical and financial risks and opportunities. We will invest appropriately to improve the climate resilience of our operations;
- Use less energy, improve efficiency and reduce wastage and emissions by continually challenging the status quo, leveraging our innovative culture and new technologies as they become commercial;
- Prioritise the use of renewable energy sources for new and existing operations where they are achievable;
- Support the transition to a low carbon economy by mining the metals required to deliver this global initiative as responsibly as we can;
- Work towards reporting to an appropriate framework on our climate-related financial risks and opportunities;
- Increase the transparency of our climate change reporting and communications, including continuing to disclose our data across a selection of ratings agencies and platforms;
- Report on our performance across a range of industry accepted metrics including Scope 1 and 2 emissions, GRI and CDP;
- Improve our understanding of lifecycle emissions for the copper, nickel, gold and cobalt value chains and consider partnerships with suppliers and customers to reduce our value chain emissions;
- Set tangible targets and implement real projects to implement change as a strategic priority of the Company. We consider targets focusing on the absolute emission levels and carbon intensity of our operations as the most appropriate measures of our performance at this time;
- Integrate an internal carbon price and the expected determinant impacts on commodity prices in the evaluation of our new projects.



ENERGY CONSUMPTION

2018 – 2020

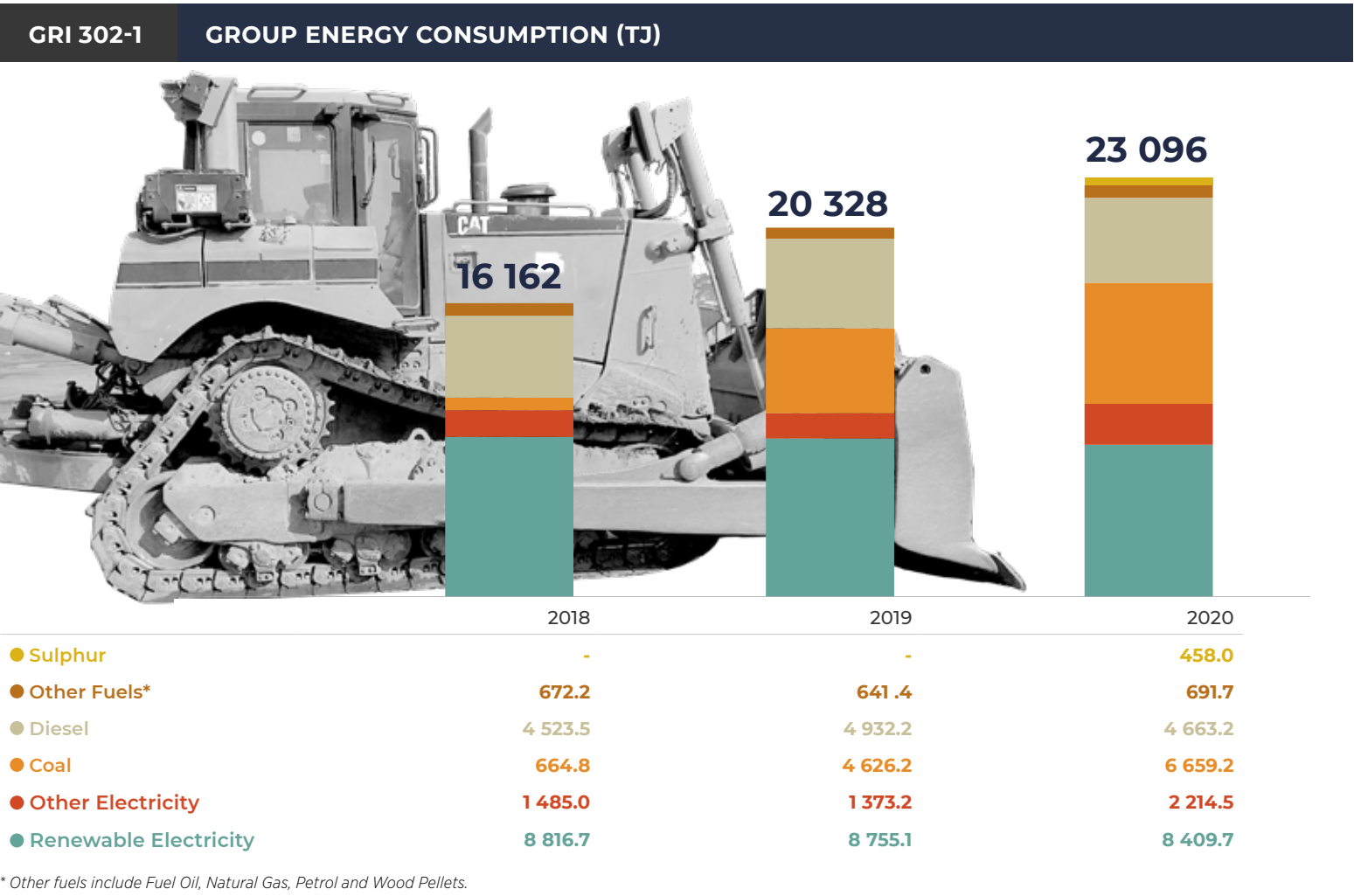
Mining, mineral processing and smelting activities, and transportation require significant amounts of energy. First Quantum is committed to minimise energy consumption by continually challenging the status quo, improving efficiencies and reducing wastage. In 2020, overall group energy consumption increased. The increase was principally attributed to increased mining and processing activities at Cobre Panama in its first full year of production, and the restart of mining and processing activities at Ravensthorpe. The contribution of renewable energy to our overall consumption dropped slightly in 2020. This was due to the greater contribution of non-renewable power sources in the Zambian national grid and increased activities at Cobre Panama.

METHODOLOGY:

- In 2020, the Company reported energy in terms of electrical power consumption. In previous years, energy was reported by converting fuel to power. This method did not reflect the efficiencies in the energy generation and made a comparison between bought power and self generated power difficult. All of the data presented in this report reflects the new methodology.
- The UK Government GHG Conversion Factors for Company Reporting conversion factors were used for all fuel to energy conversions.
- Where specific power generation efficiency factors were not known for on-site power generation, a 40% efficiency factor was applied to allow for generation losses to determine real energy consumption.
- Energy associated with the electrical power sold by Cobre Panama is excluded.
- Scope 2 Energy consumption is measured in megawatt hour (MWH) as it is consumed on site and converted to GJ in accordance with the above-mentioned conversion factors.

ANNUAL ENERGY CONSUMPTION PER SITE (TJ)

Çayeli	2019	72.8	147.9	27.9	-	248.6
	2020	86.7	111.0	28.5	-	
Cobre Las Cruces	2019	319.1	484.5	193.8	-	997.5
	2020	338.5	550.5	203.7	-	
Cobre Panama**	2019	261.2	119.5	6 303.6	-	6 684.3
	2020	192.5	41.8	7 630.9	-	
Guelb Moghrein	2019	-	0.5	802.6	-	803.1
	2020	0.1	0.3	862.0	-	
Kansanshi	2019	4 264.3	257.8	1 515.2	-	6 037.2
	2020	4 049.0	738.1	1 575.4	-	
Pyhäsalmi	2019	99.7	121.4	16.1	-	237.2
	2020	84.2	93.6	13.1	-	
Ravensthorpe	2019	-	-	108.0	-	108.0
	2020	-	-	403.3	458.0	
Sentinel	2019	3 738.1	226.0	1 226.2	-	5 190.3
	2020	3 658.8	666.9	1 289.3	-	
Other*	2019	-	15.5	6.4	-	22.0
	2020	-	12.3	8.0	-	



36%
OF ALL ENERGY CONSUMED IS FROM RENEWABLE SOURCES

13.40%
ANNUAL INCREASE OF TOTAL MINE PRODUCTION (TONNE CU-EQ)

25.5
ENERGY INTENSITY GJ/TONNE CU-EQ

AN ADDITIONAL
1 502^{TJ}
OF ELECTRICITY WAS SOLD TO THE PANAMANIAN GOVERNMENT FROM THE COBRE PANAMA POWER PLANT

KEY

- Renewable Electricity
- Other Electricity
- Hydrocarbon Fuels
- Sulphur

*Other includes projects, closed properties and support offices.
**Electricity sold from coal consumption at Cobre Panama is excluded from this number.



PURCHASED ELECTRICITY CONSUMPTION

2018-2020

Where available, each site purchases electricity directly from independent electricity suppliers. Typically, these are large scale utility companies servicing thousands of clients across a national electricity grid. The energy we generate on site is not included in the purchased electricity consumption, but is included in the overall energy consumption. Where independent power is not available, our sites generate their own power.

In 2020, purchased electricity consumption increased marginally. As with previous years, close to 80% of our purchased group electricity is generated by renewable energy.

METHODOLOGY:

- Electricity generation by source values were obtained from 2020 International Energy Association's (IEA) World Energy Statistics. Where data was not available, it was conservatively assumed that electricity generation have a 50:50 split between coal and gas.
- Mauritania Source improvements (AFREC 2015).

10 624^{TJ}

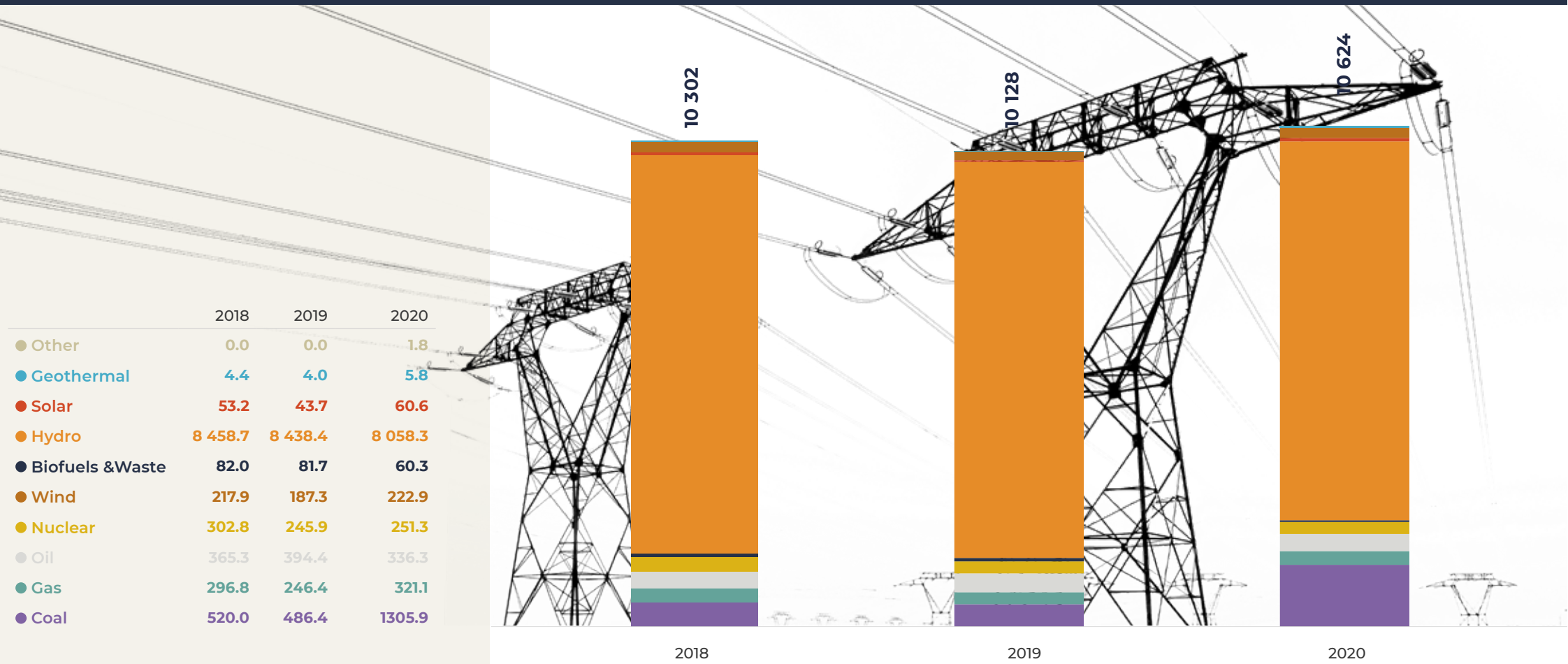
TOTAL ELECTRICITY CONSUMPTION FOR 2020

79% OF PURCHASED ELECTRICITY CONSUMPTION IS FROM RENEWABLES

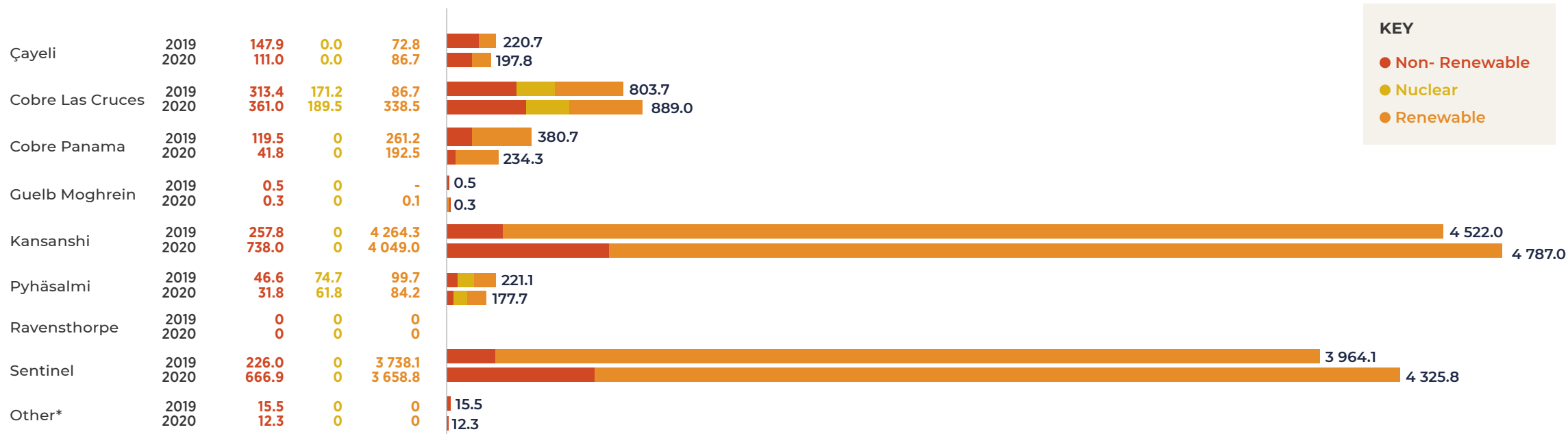
76% OF THE GROUPS PURCHASED ELECTRICITY CONSUMPTION IS HYDRO-ELECTRICITY

↑ 5% INCREASE IN ELECTRICITY CONSUMPTION

PURCHASED GROUP ELECTRICITY CONSUMPTION (TJ)



PURCHASED SITE ELECTRICITY CONSUMPTION (TJ)



*Other includes projects, closed properties and support offices. Note that electricity sold from coal consumption at Cobre Panama is excluded from this number.



EMISSIONS

2018 – 2020

SCOPE 1 AND SCOPE 2

Greenhouse Gas emissions are generated during the direct combustion of fuels on site (Scope 1) and by independent suppliers of electricity (Scope 2). Given the scale of our operations and the quantities of energy required, our Greenhouse emissions are considered significant. The Company has a core commitment to minimise energy consumption by continually challenging the status quo, improving efficiencies and reducing wastage. In 2020, our Scope 1 Greenhouse Gas emissions increased by around 14% due to increased power requirements in Panama and the start-up of Ravensthorpe.

Our Scope 2 emissions increased by around 24% in 2020. The increase is attributed to the greater contribution of coal on the Zambian grid. In recognition of the need to identify and integrate climate change and energy issues into our strategic planning, we will be setting progressive and realistic emissions targets with an identified pathway to achievement.

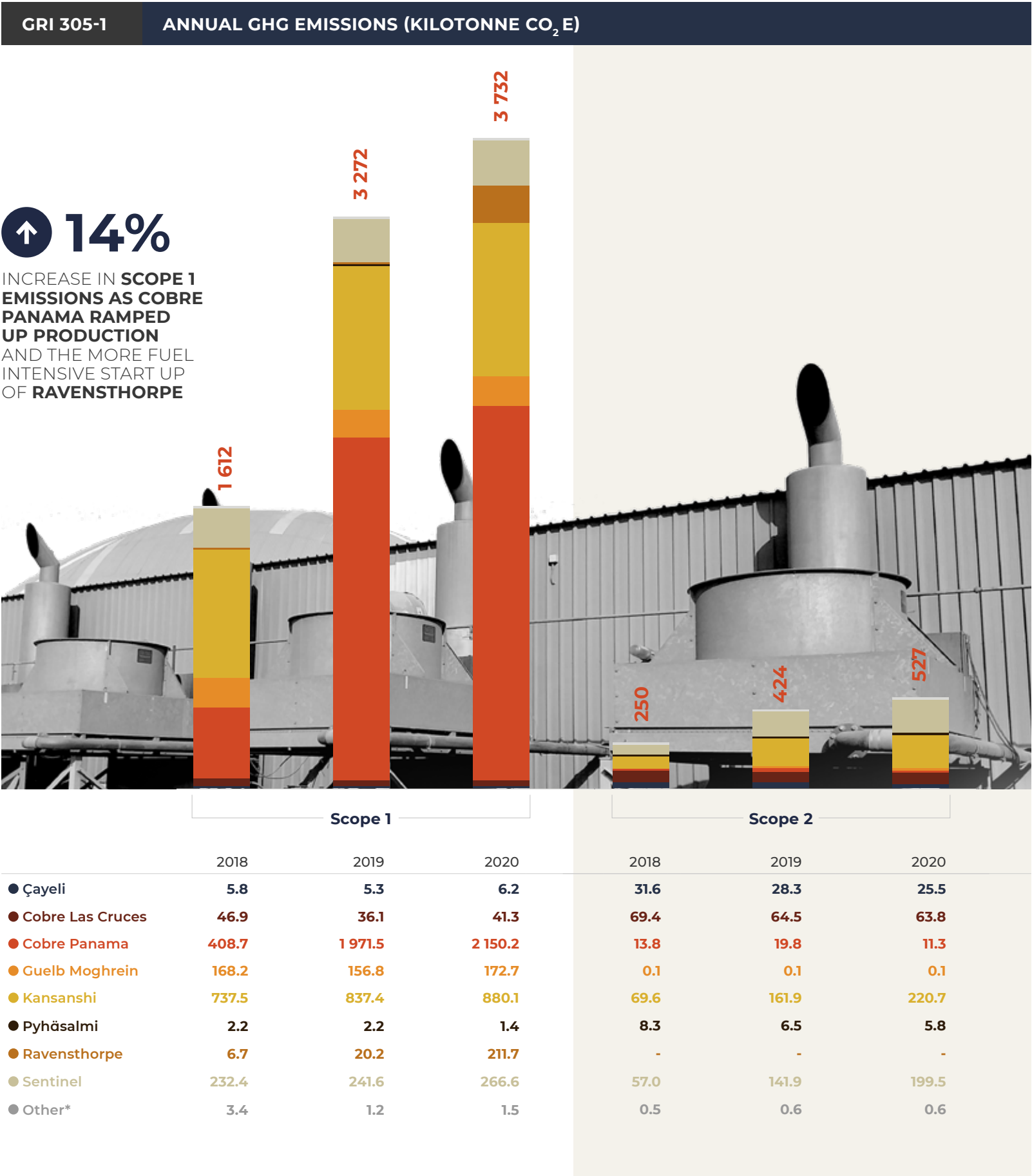
NO_x AND SO₂

Nitrous Oxide (NO_x) and Sulphur Dioxide (SO₂) emissions are monitored at a number of fixed emission points at our operating sites. The Company's SO₂ and NO_x emissions were up by 19% and 23% respectively in 2020. The increase in SO₂ was as a result of the start-up of the Ravensthorpe Process Plant and increased operating hours at the Kansanshi Smelter. The increased NO_x emissions was as a result of the Ravensthorpe start-up and slightly higher emissions at the Panama Power Plant.

METHODOLOGY:

- All our carbon emissions are calculated in accordance with the Greenhouse Gas Protocol; A Corporate Accounting and Reporting Standard (WRI, WBCSD, 2001).
- Scope 1: For the conversion of Fuels to GHG, we have used the 2020 United Kingdom Government Greenhouse Conversion Factors.
- Scope 2: The 2020 International Energy Association's (IEA) World Energy Statistics coefficients were used to calculate emissions from National Energy Grid. Emissions from previous years are restated as more accurate annual factors are released.
- Scope 2: All Scope 2 data is location based.
- The data provided was collected by our staff and represents the best effort of our teams.

**Other includes projects, closed properties and support offices.*



INNOVATION DRIVING SUSTAINABILITY

A number of infrastructure investments and energy savings initiatives have been implemented at our Zambian operations in recent years. It is estimated that these projects have resulted in savings of over 1.1 million tonnes of CO₂e annually. These savings provide further evidence of our commitment to continual improvement and resource optimization.

The construction and operation of the Kansanshi smelter has reduced our greenhouse gas emissions by approximately 1 million tonnes of CO₂e annually. Without the Kansanshi smelter, this concentrate would have been shipped to smelters around the world. Not only has the Kansanshi Smelter significantly reduced the volume of material to be shipped and the resultant Scope 3 emissions, but it has also replaced the use of smelters in Asia, which typically rely heavily on fossil fuel, with Zambian, predominantly, renewable power. Further emissions have been saved as a result of the capture of SO₂ and the production of sulphuric acid from smelting activities used in copper production.

First Quantum leads the industry in the implementation of several mining technologies which improve energy efficiency and reduction of emissions, including trolley assist electric mining fleets combined with in-pit crushing and conveying. Investment in these technologies in recent years at Sentinel and Kansanshi have resulted in emissions savings excess of almost 100,000 tonnes of CO₂e annually.

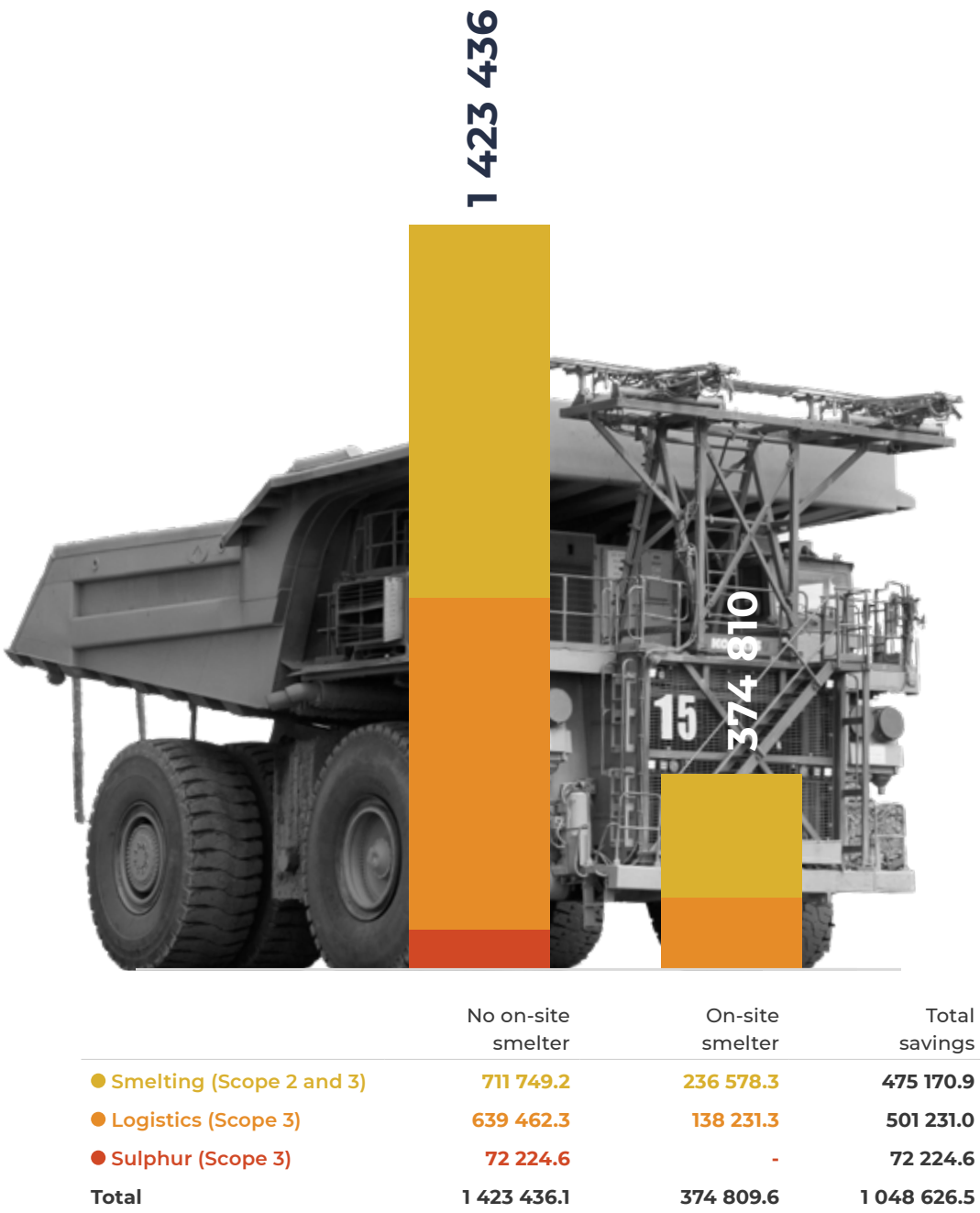
ONGOING MINING INNOVATION

The following are examples of some of the technologies being rolled out at First Quantum's operations:

- **COMMINATION OPTIMISATION**
Large comminution circuits and smart thinking in equipment layouts ensures process flexibility, improved productivity and lower energy intensity.
- **BLAST OPTIMISATION AND MATERIAL TRACKING**
Our proprietary Artificial Intelligence tool aims to track blasting material to reduce grade dilution and drive efficient utilization of resources.
- **KANSANSHI HIGH PRESSURE ACID LEACH**
The Kansanshi High Pressure Leach is among the few copper autoclaves operating in the world today. Originally designed to treat gold ore, it has been successfully converted to treat copper concentrates resulting in less trucking and associated costs. The High Pressure Leach has also allowed for optimal balancing of the Kansanshi Smelter with the cathode production capacity of the mine.

- **GOLD RECOVERIES**
Pioneering technology in copper mines using gravity gold recovery to augment gold premiums in copper concentrate streams. Improves the overall productivity of the mine and energy intensity of operations.
- **IMPROVED CONCENTRATE GRADES**
Two Jameson cells were installed in the Kansanshi sulphide circuit in June 2017. Jameson cells have since been installed at Sentinel and Cobre Panama. In 2020 one of the Kansanshi units was converted to a Concorde cell. The higher recoveries improve the overall productivity, and energy intensity of operations.
- **ISACONVERT**
Pioneering technology built and commissioned at Kansanshi Smelter as a commercial-scale pilot. Reduced emissions compared to conventional batch Peirce-Smith converters and able to provide strong and uniform sulphur dioxide to acid plants.

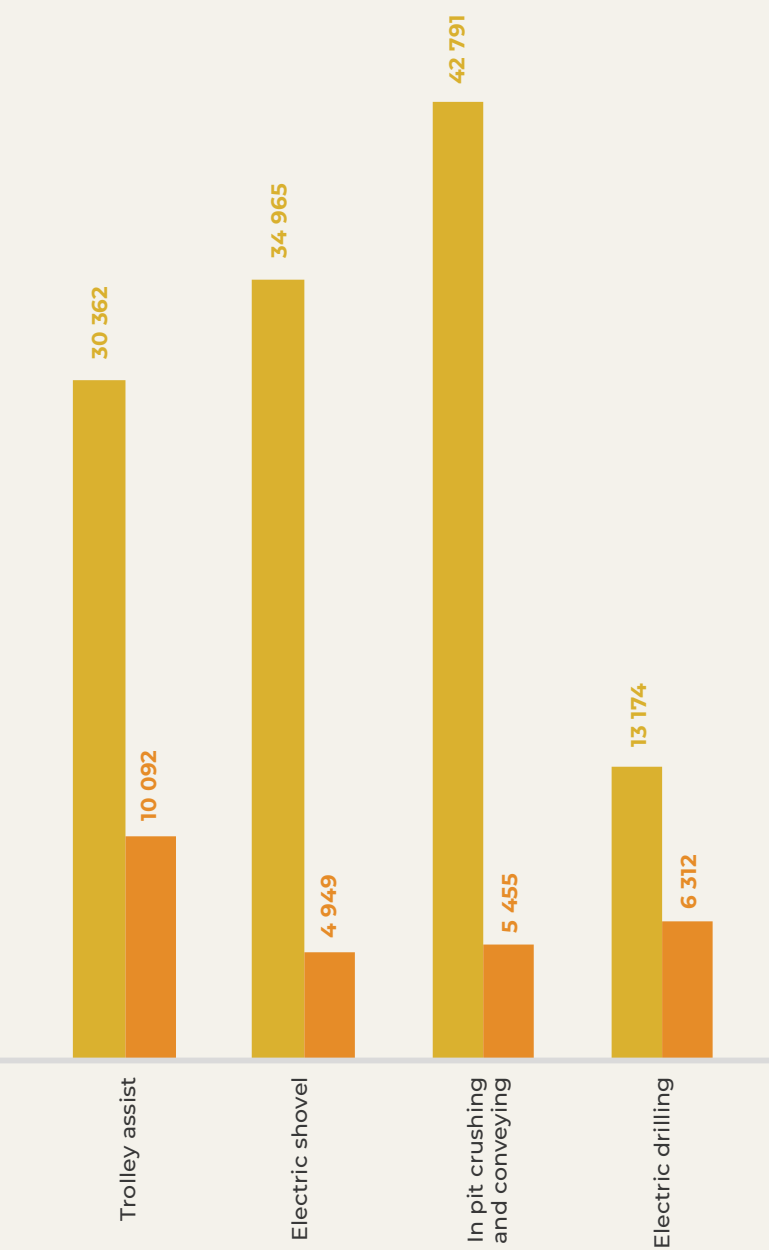
ESTIMATED ANNUAL AVOIDED CO₂E EMISSIONS FROM THE KANSANSHI SMELTER (TONNE)



OVER
1 000 000
TONNES OF CO₂E SAVED ANNUALLY THROUGH THE OPERATION OF THE KANSANSHI SMELTER

ALMOST
100 000
TONNES OF CO₂E SAVED ANNUALLY WITH THE IMPLEMENTATION OF MINING EFFICIENCIES AT SENTINEL

ESTIMATED ANNUAL AVOIDED CO₂E EMISSIONS FROM MINING EFFICIENCIES (TONNE)



Mining efficiencies	CO ₂ e Conventional	CO ₂ e Efficiencies	CO ₂ e Savings
Trolley assist	30 361.6	10 092.0	20 269.6
Electric shovel	34 965.4	4 949.0	30 016.4
In pit crushing and conveying	42 790.9	5 454.8	37 336.1
Electric drilling	13 173.8	6 312.0	6 861.8
Savings	121 292	26 808	94 484



ENERGY AND EMISSIONS INTENSITY

2020

CU-EQ INTENSITY (TONNE CO₂E/TONNE CU-EQ)

Our Scope 1 and 2 CO₂e emissions per tonne of copper Cu-eq decreased in 2020. The decrease was attributed to a combination of improved production at a number of our sites and more efficient power utilisation at Cobre Panama as the mine operated for the first full year of operation. The improvements were in spite of the COVID-19 related disruptions at Cobre Panama, as it was placed on preservation and safe maintenance for much of the second quarter. The restart of Ravensthorpe operations required a higher use of diesel and other fuels as the processing plant was brought up to full operating capacity.

For the first time, the Company has provided estimates of downstream Scope 3 emissions per tonne of Cu-eq for each operating site. Downstream Scope 3 emissions typically include all of the emissions associated with producing a final product.

These emissions are therefore associated with the transportation, smelting and refining of copper concentrate, and copper anodes to produce copper cathode. The estimated Scope 3 emissions are not associated with any upstream activities or supply chain emissions.

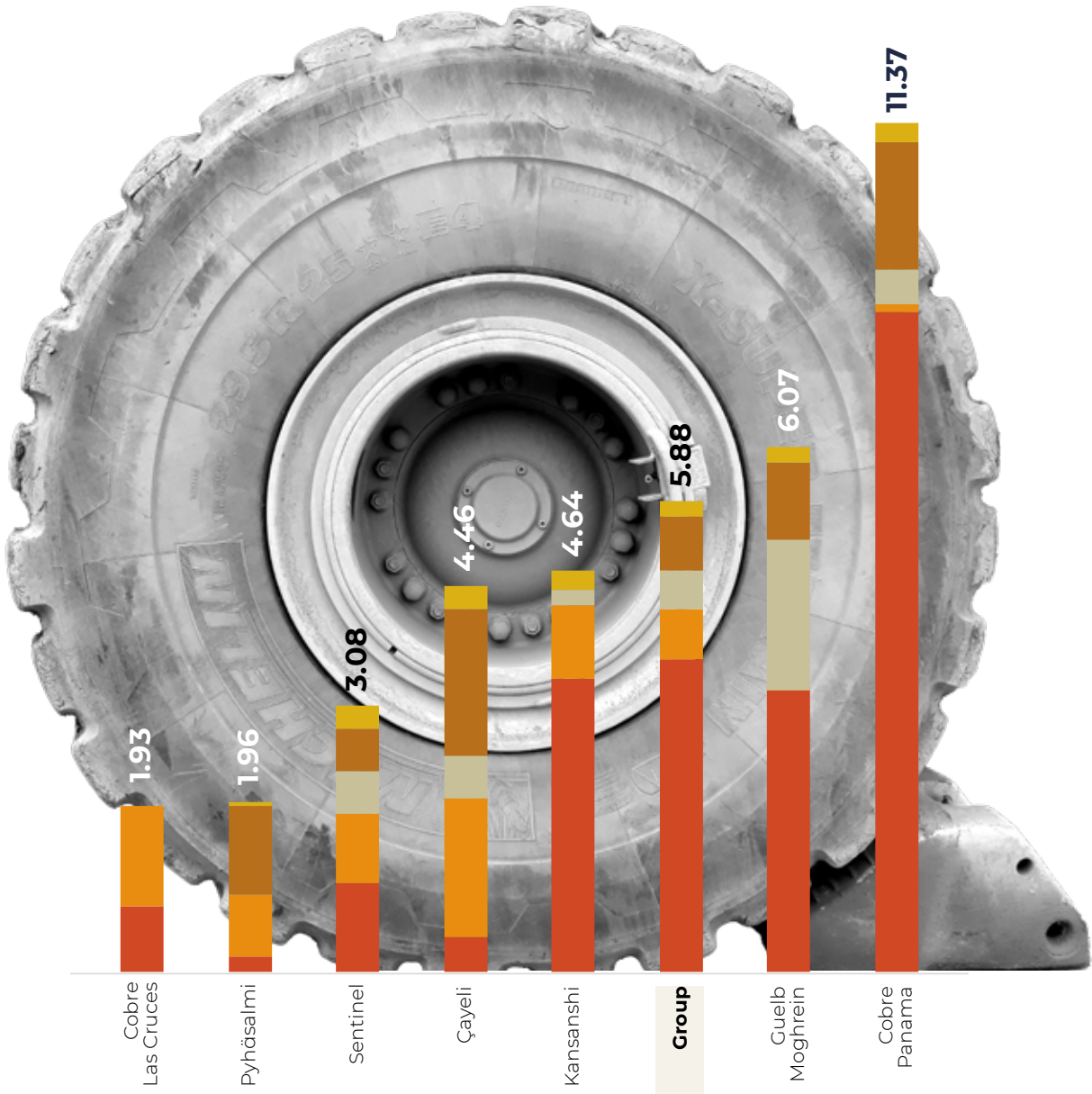
The Copper Intensity (Tonne CO₂e/Tonne Cu-eq) for all of First Quantum's operations are compared with global copper mines in the curve in the top right.

METHODOLOGY:

- Scope 1 and Scope 2: Only emissions from our operating sites and not our closed properties, projects, exploration activities and supporting offices were included. Emissions associated with smelting Sentinel concentrate at Kansanshi are included as Kansanshi emissions. Emissions associated with the power sold by Cobre Panama are excluded.
- Scope 3: Our Scope 3 emissions represents all known downstream activities outside of our financial and operational control to produce London Metal Exchange (LME) A Grade Copper Cathode. Copper Cathode produced on site has no further Scope 3 emissions. Downstream logistical, smelting and refining activities associated with the production of LME A Grade Copper Cathode from copper concentrate, blister copper and copper anode are considered. While every effort has been made to improve the accuracy of our Scope 3 Downstream emissions, they remain estimates based on activities outside our financial and operational control. Scope 3 emissions provided do not include emissions from upstream activities or our supply chain.
- Scope 3 Freight: All emissions associated with the transportation of copper concentrate, blister copper and copper anode by road, rail and sea were included under freight. This excludes the transportation of copper concentrate from Sentinel to Kansanshi. Port handling activities were not considered. The 2020 United Kingdom Government Greenhouse Conversion Factors for Company Reporting were used to calculate freight emissions. Distance were estimated based on known final destinations.
- Scope 3 Smelting: This includes all emissions associated with smelting of copper concentrate, blister copper and copper anode at facilities where we don't have financial and operational control. Emissions associated with smelting of copper concentrate at Kansanshi were included in Scope 1 and 2 above. Power and fuel consumption associated with smelting processes were calculated from a number of widely accessible industry references.
- Scope 3 Refining: This includes all emissions associated with refining of copper anode to final LME A Grade Copper Cathode at facilities where we don't have financial and operational control. Power consumption was estimated based on a number of widely accessible industry references. Emissions were calculated by using IEA country factors in countries where the refining occurred.
- Cu-eq: All non copper by-product commodities were scaled by the number of equivalent units of copper they represent in value. Relative commodity prices were averaged over the reporting period. Data for Ravensthorpe is not provided as it has been normalised to Nickel and not Cu-eq.

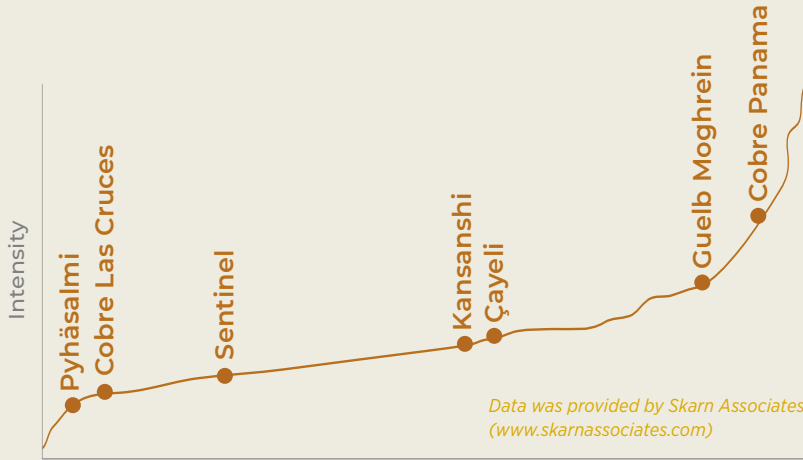
GRI 305-4

CU-EQ INTENSITY (TONNE CO₂E/TONNE CU-EQ)



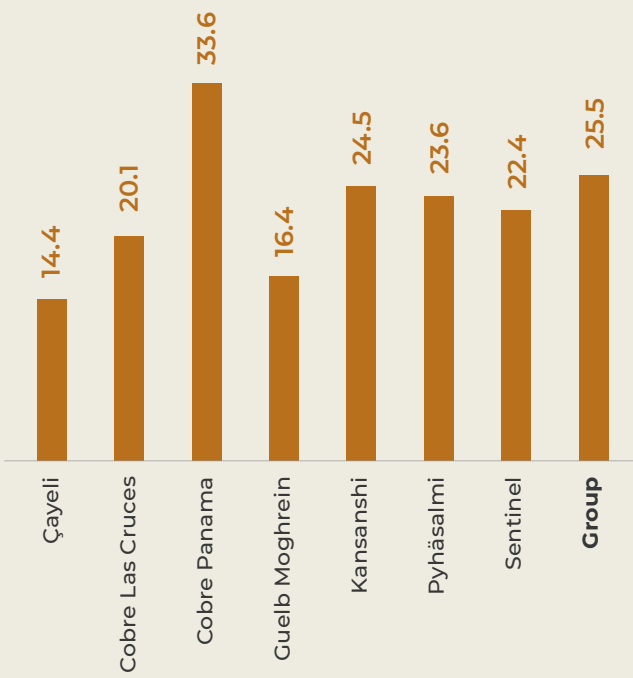
	Scope 1	Scope 2	Scope 3 Freight	Scope 3 Smelting	Scope 3 Refining	Total
Cobre Las Cruces	0.76	1.17	0.00	0.00	0.00	1.93
Pyhäsalmi	0.18	0.71	0.01	1.03	0.04	1.96
Sentinel	1.06	0.79	0.49	0.48	0.26	3.08
Çayeli	0.41	1.62	0.47	1.70	0.26	4.46
Kansanshi	3.39	0.85	0.20	0.00	0.20	4.64
Guelb Moghrein	3.28	0.00	1.70	0.92	0.17	6.07
Cobre Panama	9.20	0.05	0.42	1.49	0.21	11.37
Group	4.02	0.60	0.42	0.63	0.20	5.88

GLOBAL COPPER MINES CU EQ INTENSITY (TONNE CO₂E/TONNE CU-EQ) CURVE



302-3

ENERGY INTENSITY (GJ/TONNE CU-EQ)



METHODOLOGY:

- For the conversion of fuels to energy, we have used the United Kingdom Government Greenhouse Conversion Factors for our Company Reporting.
- Country electricity generation source values were obtained from the International Energy Association's (IEA) Emission Factors for 2020.
- It was conservatively assumed that electricity generation of all other activities (exploration and projects) have a 50:50 split between coal and gas.

*Group only includes operating sites.



WATER

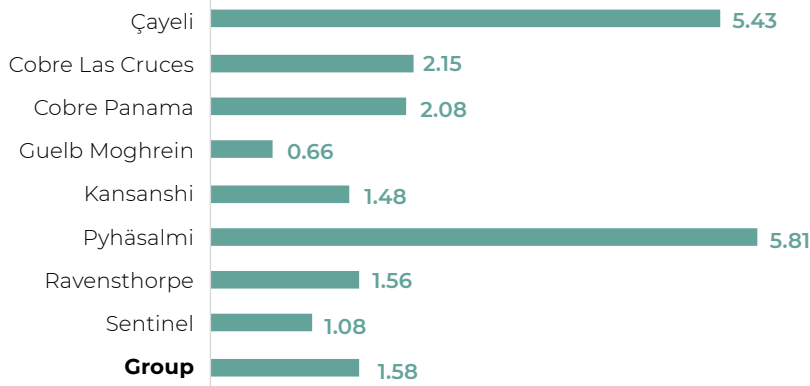
2020

Large quantities of water are essential for almost all mining and mineral processing activities. Our water consumption is considered to be a material aspect across all of our operations. First Quantum has a core commitment to minimise water withdrawal and discharge by adopting new technologies, continually improving efficiencies and on site water reuse. Water reuse increased by 1% in 2020, while group water withdrawal and discharge remained very similar to 2019.

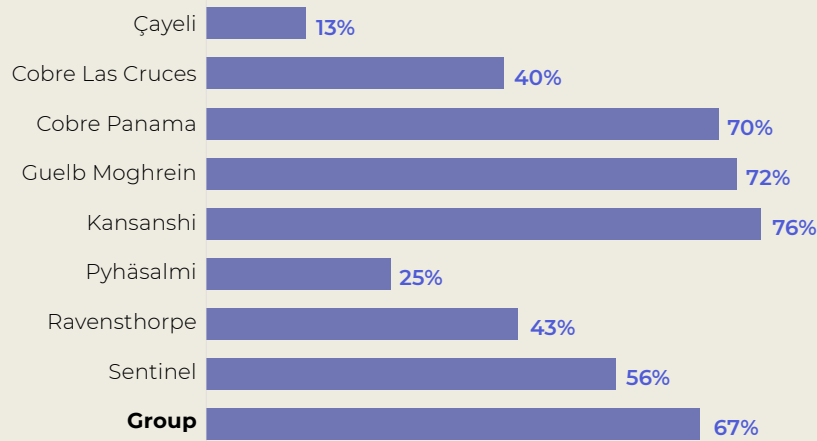
METHODOLOGY:

All water withdrawal, discharge and re-use is measured in accordance with the Water Accounting Framework (WAF) for the Minerals Industry of Australia (Minerals Council of Australia, 2014). All definitions and categories have therefore been aligned with the requirements and specifications of the WAF. The volumes provided were collected by our staff and represent the best effort of our teams.

WATER M³ WITHDRAWAL PER TON OF ORE MILLED



WATER REUSE



GRI 303-1 WATER INPUT AND OUTPUT (MEGALITRE)

ESTIMATED WATER INPUT

706 588

TOTAL WATER INPUT**

27%	SURFACE WATER	189 056
	Precipitation and runoff	158 858
	Rivers and streams	27 671
	External surface water	2 527

6%	GROUNDWATER	41 514
	Renewable	31 648
	Non-Renewable	2 613
	Ore entrainment	6 667
	Aquifer	586

67%	SEA WATER	474 277
	Cooling water for Cobre Panama	468 517
	Process water for Ravensthorpe	5 516
	Çayeli	243

0,2%	3RD PARTY WATER	1 741
	Contract/municipal	25
	Waste water	1 716

ESTIMATED WATER OUTPUT

717 567

TOTAL WATER OUTPUT**

19%	SURFACE WATER	134 217
	External storage	3 890
	Rivers and streams	130 327

4%	GROUNDWATER	30 718
	Aquifer (seepage and re-injection)	30 718

66%	SEA WATER	472 512
	Discharge (ocean)	827
	Discharge (estuary)	471 685

0,005%	SUPPLY TO 3RD PARTY WATER	34
	Municipality	3
	Organisations	31

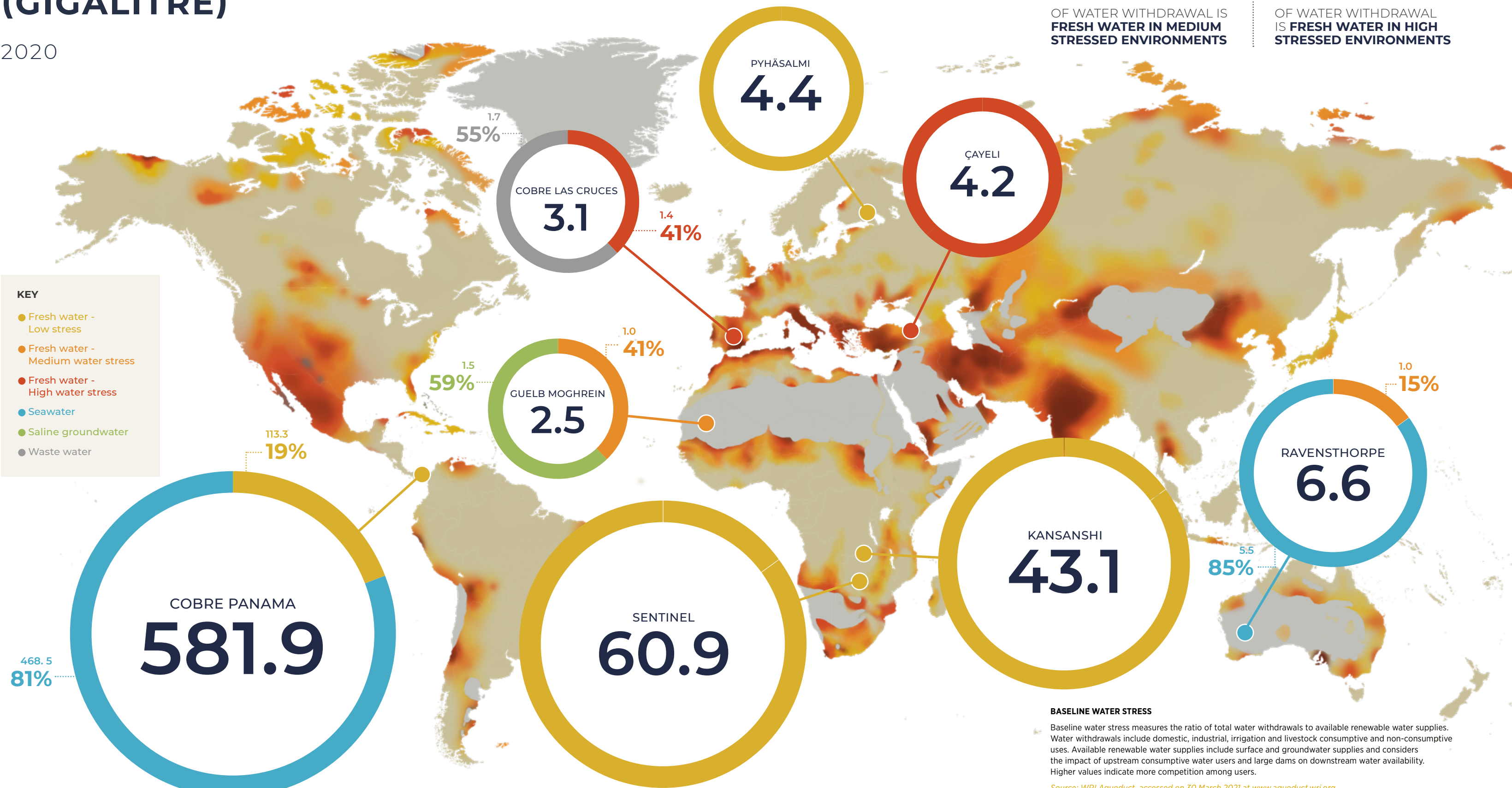
11%	OTHER	80 085
	Evaporation	25 677
	Entrainment	53 261
	Task loss	1 148

**Total refers to all sites.



WATER WITHDRAWAL (GIGALITRE)

2020



0.29%
OF WATER WITHDRAWAL IS
FRESH WATER IN MEDIUM
STRESSED ENVIRONMENTS

0.79%
OF WATER WITHDRAWAL
IS FRESH WATER IN HIGH
STRESSED ENVIRONMENTS

BASELINE WATER STRESS
Baseline water stress measures the ratio of total water withdrawals to available renewable water supplies. Water withdrawals include domestic, industrial, irrigation and livestock consumptive and non-consumptive uses. Available renewable water supplies include surface and groundwater supplies and considers the impact of upstream consumptive water users and large dams on downstream water availability. Higher values indicate more competition among users.

Source: WRI Aqueduct, accessed on 30 March 2021 at www.aqueduct.wri.org.



WASTE

2019-2020

First Quantum generates the following waste at its operations:

- **Hazardous waste** - including used lubricants, batteries, hydrocarbons and process related chemicals;
- **Non-Hazardous waste** - including organic matter, wood, construction rubble and plastics;
- **Re-used waste** - including waste oil and scrap metals.

All waste is managed in accordance with national waste management regulations, site specific permits and relevant international protocols. In line with our environmental policy we continue to look at ways of reducing, reusing or recycling waste. Both hazardous and non-hazardous waste decreased in 2020. The decrease is attributed to improvements in waste management and a reduction in waste generating activities. All waste is measured by our in house teams on site. The increase in storage of Non-Hazardous Waste in 2020 is as a result of travel and logistical constraints related to COVID-19.

GRI 306-2 HAZARDOUS AND NON-HAZARDOUS WASTE PER SITE (TONNE)

		Hazardous	Non-Hazardous
Çayeli	2020	151.6	726.6
	2019	181.3	1056.5
Cobre Las Cruces	2019	531.0	742.0
	2020	710.0	889.4
Cobre Panama	2020	2 281.7	90 416.5
	2019	2 729.6	85 020.5
Guelb Moghrein	2020	746.3	435.6
	2019	617.1	346.8
Kansanshi	2020	1 827.8	26 934.0
	2019	2 803.5	28 412.1
Pyhäsalmi	2020	44.6	238.6
	2019	49.3	406
Ravensthorpe	2020	80.2	1 092.8
	2019	-	82.7
Sentinel	2020	1 393.9	17 248.8
	2019	1 342.0	20 585.0
*Other	2020	350.0	7.9
	2019	776.9	101.2

*Other includes projects, closed properties and support offices.

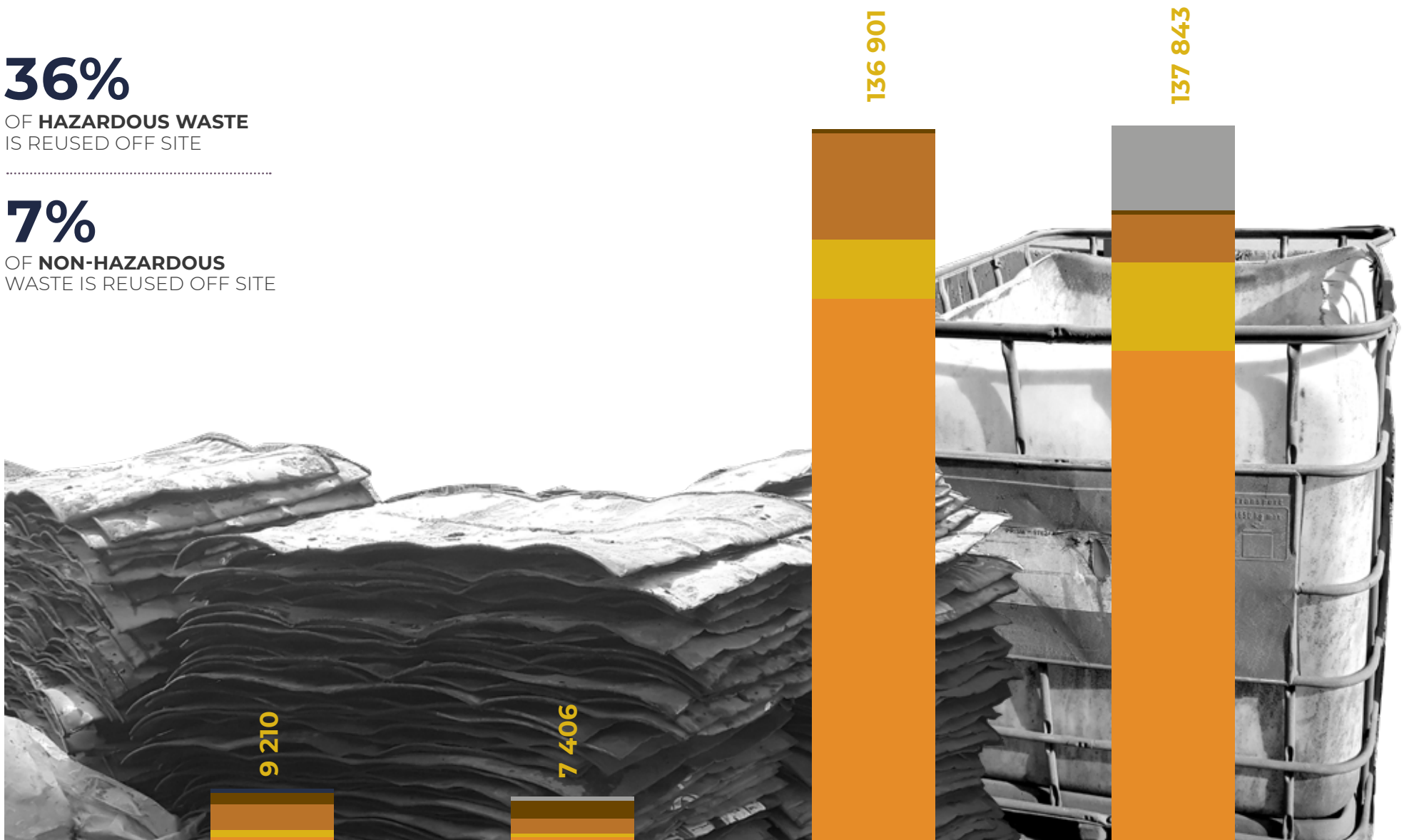
GRI 306-2 MANAGEMENT OF HAZARDOUS AND NON-HAZARDOUS WASTE (TONNE)

36%

OF HAZARDOUS WASTE IS REUSED OFF SITE

7%

OF NON-HAZARDOUS WASTE IS REUSED OFF SITE



	Hazardous		Non-Hazardous	
	2019	2020	2019	2020
● Other	104.5	-	-	-
● Stored	54.9	30.6	-	17 025.0
● Incineration	1 992.1	3 329.9	181.9	189.1
● Reuse	4 801.9	2 658.7	20 827.4	9 021.0
● Landfill off site	1 892.2	844.3	11 112.4	17 317.6
● Landfill on site	341.7	238.7	104 776.7	94 290.1
● Composting/ Bioremediation	22.7	304.0	2.3	-



ENVIRONMENTAL INCIDENTS

2018-2020

First Quantum believes that an effective Environmental Management System (EMS) is key to sound environmental practice and to reducing environmental risk. The Company has implemented EMSs at all of its operations. The EMSs, which are aligned with the ISO14001: 2015 standard, are subject to annual external compliance audits.

The Company has established EMS compliance targets for selected sites to further reduce environmental risk across the group. As part of the EMS, the Company has implemented a five tier environmental incident classification system. Incidents with no measurable impact are recorded as Level 1 incidents, while incidents with far reaching environmental impacts are recorded as Level 5 incidents.

All operations are required to record and report incidents monthly according to the classification. A serious Level 4 or Level 5 incident is communicated to the CEO and the Environmental, Health and Safety and Corporate Social Responsibility Committee immediately.

In 2020 overall incidents were up by 6%. Level 3 incidents were marginally down and there were no Level 4 or 5 incidents reported over the period. The biggest increase in incidents were in levels 1 and 2. These are minor spills within and outside containment areas. In addition to a number of group wide initiatives to reduce the number of level 1 and 2 incidents, reducing the level 3 incidents at Kansanshi in 2021 remains a corporate priority.

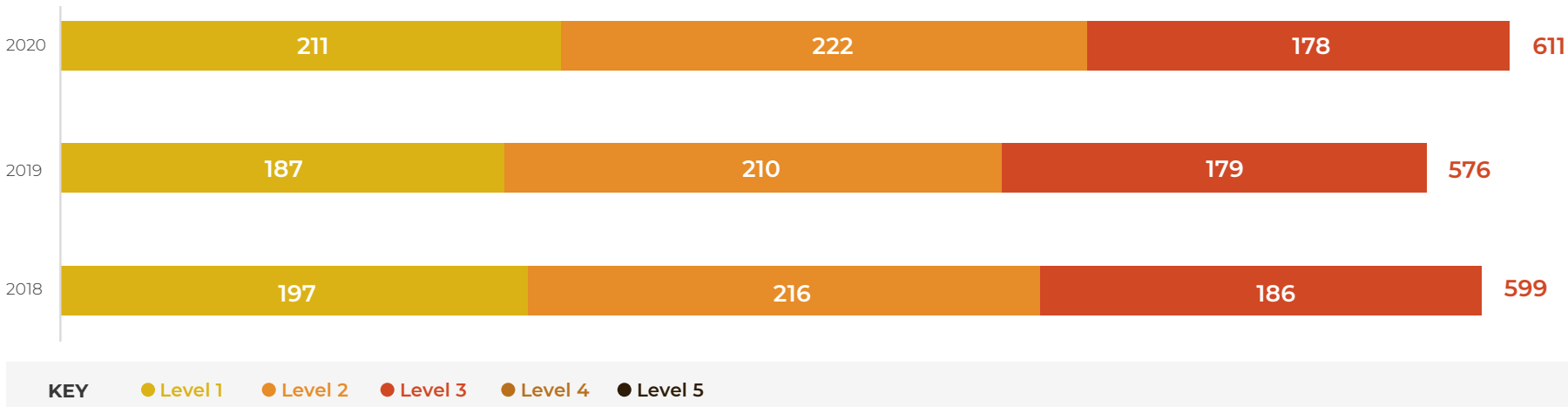
0
SERIOUS OR MATERIAL
LEVEL 4 OR LEVEL 5
INCIDENTS IN 2020

↓ 4%
DROP IN LEVEL 3
INCIDENTS SINCE 2018

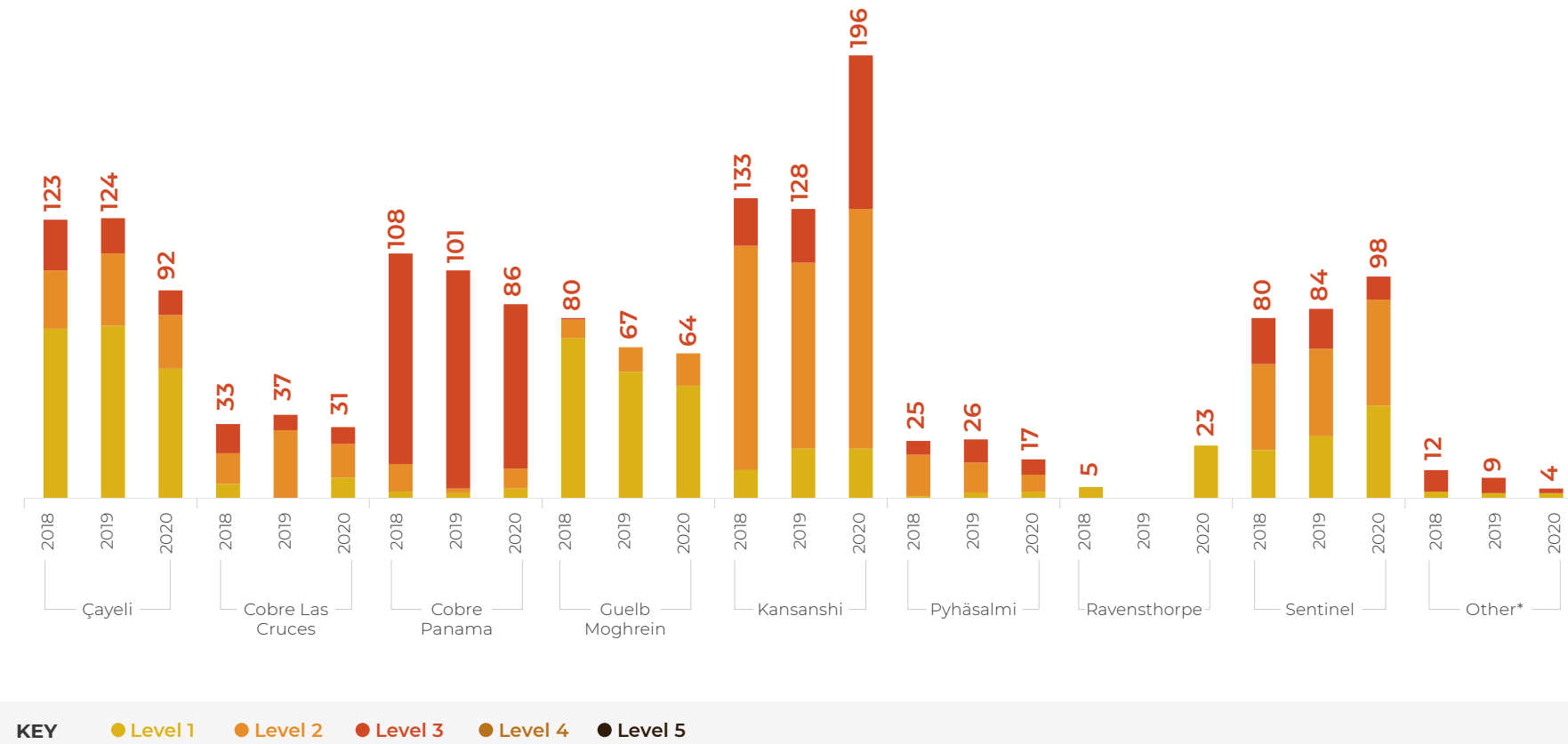
TARGET OF REDUCING
LEVEL 3 INCIDENTS BY
↓ 5%



NUMBER OF ENVIRONMENTAL INCIDENTS



TOTAL NUMBER AND SEVERITY OF ENVIRONMENTAL INCIDENTS PER SITE



*Other includes exploration, projects, closed properties and support offices.



COBRE PANAMA BIODIVERSITY



Atelopus varius

BIODIVERSITY

The mining industry has the potential to have a big impact on biodiversity. While this impact is often negative, we believe that many of our current interventions have the potential to have lasting positive impacts on the biodiversity on a local and regional scale. All of our operating sites, closed properties and exploration activities have plans focusing on limiting the potential impact of our activities or enhancing the positive impacts on biodiversity. For this disclosure, we have focused on our three largest sites, namely Cobre Panama, Sentinel and Kansanshi.

GRI 304-1	GRI 304-2	GRI 304-3	2020 TOTAL LAND DISTURBANCE AND MINING CONCESSION AREAS						
Operating Site	Çayeli	Cobre Las Cruces	Cobre Panama	Guelb Moghrein	Kansanshi	Pyhäsalmi	Ravensthorpe	Sentinel	Total
Total area under license (Ha) end 2020	9 074	3 200	12 955	8 100	9 434	412	3 389	95 000	141 564
Total Disturbance end 2020	17	1 056	2 799	1 406	5 831	219	2 454	6 813	20 595

NOTES
Baseline surveys and subsequent work on the site revealed a number of species of concern (SoC) within and immediately adjacent to the project footprint. Terrestrial fauna SoC include 4 amphibian species, 15 bird species, 2 reptile species, and 10 mammal species. Marine SoC include three fish species, a crustacean, 2 marine mammals and 4 species of marine turtles. The current flora SoC list includes 51 species.

COBRE PANAMA

The Cobre Panama Mine lies entirely within the Mesoamerican Biological Corridor of the Panama Atlantic (MBCPA) and the Golfo de los Mosquitos Forests Important Bird Area. The region supports very high biodiversity and is also home to the Santa Fe and Omar Torrijos National Parks. In recognition of the sites high biodiversity and biological sensitivity combined with some gaps in scientific knowledge in the area, Cobre Panama has made the following commitments:

1. The Company has developed and implemented a Biodiversity Action Plan (BAP). The BAP enables continuous collection of information on flora and fauna in the project area and the integration of new knowledge into bio-diversity management practices over the life of mine and beyond;
2. To have a net positive impact (NPI) on biodiversity in Panama and to be a world leader in biodiversity management;
3. To follow both national regulations, as described in its Environmental and Social Impact Assessment (ESIA), and international best practices for biodiversity management, such as those described in the International Finance Corporation's Performance Standard 6 (PS6), the Business and Biodiversity Offset Program's (BBOP) Standard on Biodiversity Offsets, and the International Council on Mining and Metals (ICMM) Good Practice for Mining and Biodiversity;
4. To implement three core biodiversity management activities including Protected Area Plan, Reforestation Program and Species-level Conservation Plans. The three core biodiversity plans are described in more detail on this page.

PROTECTED AREA PLAN

Cobre Panama has committed to support three protected areas in the MBCPA. The areas are the Santa Fe National Park (72,636 ha), Omar Torrijos National Park (25,275 ha) and a protected area to be established in the District of Donoso and its coastal marine zone (> 150,000 ha). The main objectives of the protected area plan are:

- Reduce indirect settlement pressures, and subsequent habitat loss, in the area surrounding the Cobre Panama project;
- Conserve habitat for species populations that may be impacted by the project to ensure their long-term recovery from the Company's direct impacts and their long-term viability;
- Compensate for the loss of natural habitat (both temporary and permanent) in the project footprint.

REFORESTATION PLAN

Cobre Panama has committed to reforestation of 10,475 ha (7,375 ha outside the mine footprint and 3,100 within the mine footprint) using three distinct programs.

- The Agroforestry Program focusses on providing benefits to communities, while also improving ecological conditions by increasing native tree cover. The program will focus on areas outside the mine footprint;
- The Ecological Restoration Program will conduct reforestation inside protected areas and other locations that can be permanently protected with the goal of restoring native forests with structural and compositional diversity. The program will focus on areas outside the mine footprint;

- The Footprint Rehabilitation Program will be focused on the stabilization and rehabilitation of the mining footprint. Clearing of the project footprint will occur over a number of years.

SPECIES-LEVEL CONSERVATION PLANS

Cobre Panama has committed to implementing a number of species level management plans. Species-level management plans have been developed with the aim of addressing the management needs of individual species for which the protected areas and reforestation plans may not be sufficient. Each species action plan describes a portfolio of actions aimed at ensuring a net positive impact on species viability. During the development and implementation of these species action plans, Cobre Panama is currently partnered with the following independent organisations:

- Smithsonian Tropical Research Institute (STRI) of Tropical Investigations (Panama Amphibian Rescue and Conservation) – assisted with developing facilities at two sites to provide for the long-term care and breeding of the four amphibian SoC;
- Sea Turtle Conservancy – monitoring and research of sea turtles both within and adjacent to the site as well as remote populations;
- Peregrine Fund - promotes the conservation of the Harpy Eagle;
- Missouri Botanical Gardens.



ZAMBIA BIODIVERSITY

US\$4.3 M

INVESTED IN CONSERVATION
AND WILDLIFE ACTIVITIES IN THE
WEST LUNGA MANAGEMENT AREA
SINCE 2014

THE WEST LUNGA MANAGEMENT
AREA SUPPORTS UP TO

50 ENDEMIC
PLANT SPECIES

SUPPORTING SOCIAL AND ECOLOGICAL DEVELOPMENT

In 2010, Kalumbila Minerals Limited, a 100% owned and operated subsidiary of First Quantum Minerals, developed the Trident Project (which includes the Sentinel Mine and Enterprise Development Project) adjacent to the West Lunga Management Area (WLMA). Kalumbila Minerals established the Trident Foundation soon after mining activities commenced with the mission of supporting social and ecological development in north-western Zambia through health, education, agriculture, local business development, livelihood support, and wildlife and biodiversity conservation initiatives.

WEST LUNGA CONSERVATION PROJECT

The 11,750 km² West Lunga Management Area (WLMA), situated in north-western Zambia encompasses the West Lunga National Park, Chibwika Ntambu, Musele Matebo, Lukwakwa and Chizela Game Management Areas. The area is important from both a hydrological and ecological perspective. The WLMA forms the core of the Kabompo watershed which is the largest tributary of the Upper Zambezi and also feeds into the headwaters of the Kafue River system with extensive wetlands and floodplain habitat. From a botanical perspective, the WLMA hosts up to a thousand species, of which over 50 are endemic. The area also supports large tracts of dry-evergreen *Cryptosepalum* forests, unique to this part of Zambia. The WLMA once supported large populations of a multitude of large mammal species including elephant, buffalo, sable, roan, Lichtenstein's hartebeest, lion, leopard and wild dog. Unfortunately, most mammal species have been severely impacted by illegal hunting over the last 50 years and today remnant populations survive by hiding in the extensive forest. In addition to illegal hunting, the WLMA faces a multitude of ecological threats from in-migration, commercial timber exploitation, unsustainable agricultural practices, encroachment and poor governance.

In 2014, the Trident Foundation and the Zambia Wildlife Authority (ZAWA, now the Department of National Parks and Wildlife) developed a Memorandum of Understanding (MoU) to guide the implementation and execution of a project (known as the West Lunga Conservation Project) to provide logistical, technical, financial and managerial support for the WLMA.

Since the signing of the MoU, the Trident Foundation has invested US\$4.3 million in conservation and wildlife activities through the West Lunga Conservation Project. The investment has primarily focussed on supporting the Department of National Parks and Wildlife's (DNPW) conservation management activities on the ground, which has included recruiting, training, equipping and paying wildlife rangers, vehicle maintenance and transport support, infrastructure development and communications. A number of conservation related livelihood programmes have also been developed in surrounding communities including the creation of a Community Game Reserve in Ntambu Chiefdom, a honey out-grower programme and a Community Tourism Camp.

In 2020, negotiations began for contract terms that aim to devolve managerial control of some of the WLMA's protected areas to the West Lunga Conservation Project, in partnership with DNPW and Community Business Units. The overall objective of the various partnerships is to restore the WLMA to its full ecological potential and create an environment where wildlife and conservation based economies can thrive. This will generate equitable benefits for surrounding communities that aim to reverse the trends of unsustainable land use and place a positive value on the preservation of the resource.

Revenue generation will be facilitated through community game ranching for the supply and sale of meat, tourism (consumptive and non-consumptive), honey production, and non-timber forest product value chain enhancements.

In 2021, the West Lunga Conservation Project plans to implement the following activities in the WLMA:

- Signing a management agreement with DNPW and local communities;
- Establishing the Ntambu Community Forest Management Agreement (CFMA) to provide a legal framework for community business units to commercially utilize their natural resources;
- Community Resource Board (CRB) inception and training in surrounding communities to manage the CFMAs;
- CRB leadership and management workshops;
- Employment of a project team including a Field Operations Manager, Finance and Administration and Livelihood field officers;
- Ntambu Community Game Reserve management, establishment and wildlife stocking;
- Community Business Unit training to manage tourism, game ranching, fish, non-timber forest product trading and carbon offset provisions;
- CGR Investigation along the south bank of the Kabompo River to curb encroachment and illegal activity;
- Expansion of market linkages for farmers;
- Explore carbon offsetting and trading opportunities;
- Establishment of a fisheries management plan;
- Formalizing relationships with donors like WWF and the Nature Conservancy as well as seeking additional partnerships and funding.

Visit <https://www.westlunga.org> for more information



SAFETY

2018-2020

In line with our overall safety objective of recording no fatalities, the Company launched the 12 THINK Fatal Dangers initiative in 2018. The initiative highlighted the twelve main safety hazards that employees are exposed to and then focused attention and resources on mitigating the risks associated with these hazards. As with our safety policy and the original THINK campaign, the initiative was applicable to all operations, employees and contractors. While these are not our only hazards, the initiative aims to raise employee awareness and reduce the number of incidents associated with these hazards by making employees better able to identify and manage the risks posed by these hazards. Further safety initiatives in 2020 included ongoing strengthening of the Health and Safety Management System (HSMS) and increased attention on emergency response preparedness and contractor/supplier management. The HSMS is compatible with the OHSAS 18001 (migrating to ISO 45001) standard and has been implemented at all of our sites. Independent auditing has shown a steady improvement in adoption and performance of the standard in recent years. In addition to adhering to our site protocols and safety standards, all contractors are provided with an induction and the required safety training to ensure that they are able to perform their work in a safe and efficient manner.

DEFINITIONS:

- **Fatalities includes contractors and employees;**
- **Near Miss Frequency Rate (NMFR)** = total near misses recorded x 200,000 / hours worked;
- **Total Recordable Injury Frequency Rate (TRIFR)** = total injuries recorded (LTI+NLTi) x 200,000 / hours worked;
- **Lost Time Injury Frequency Rate (LTIFR)** = lost time injuries x 200,000 / hours worked;
- **Severity Rate** = lost days x 200,000 / hours worked;
- **LTIFR and Severity Rate include contractors.**

NUMBER OF FATAL INCIDENTS



2018



2019



2020

WORK RELATED INJURIES GRI 403-2: NMFR, TRIFR, LTIFR

	2018	2019	2020
● NMFR	197.00	231.00	158.00
● NMFR - Employees	242.00	281.00	192.00
● NMFR - Contractors	127.00	152.00	92.00
● TRIFR	0.28	0.31	0.32
● TRIFR - Employees	0.26	0.35	0.38
● TRIFR - Contractors	0.35	0.26	0.21
● LTIFR	0.06	0.05	0.06
● LTIFR - Employees	0.05	0.05	0.07
● LTIFR - Contractors	0.09	0.05	0.03

KEY

● NMFR - Near miss frequency rate ● TRIFR - Total recordable injury frequency rate ● LTIFR - Lost time injury frequency rate



12 THINK FATAL DANGERS INITIATIVE

-  Confined Space
-  Working at Heights
-  Falling Objects
-  Mobile Equipment
-  Ground Control
-  Hazardous Material Management
-  Moving Equipment
-  Energy Isolation
-  Loss of Containment
-  Explosives & Blasting
-  Fires & Explosions
-  Human Behaviours



TAILINGS STORAGE FACILITIES

First Quantum manages 22 Tailings Storage Facilities (TSF), of which 10 are active and 12 are closed. The Bwana Mkubwa asset including the TSF was sold in October 2020. The Company has recognized potential TSF failure as one of its most significant risks. All our TSFs have been designed in accordance with the guidelines of the Australian National Committee on Large Dams (ANCOLD) and the Canadian Dam Association (CDA) Guidelines, and operated in accordance with additional relevant national operating guidelines.

DAM SAFETY MANAGEMENT

In an effort to further reduce the risk, operational controls are in place at each of our TSFs including:

- TSF management reviews are reported directly to the EHS&CSR Committee;
- Quarterly or annual inspection, risk review and reports by independent dams specialist;
- Appointment of competent persons at the mine to manage the facility with all reporting directly to the Mine Manager;
- Use of approved operating manuals prepared for each TSF;
- Initiation of dam breach and inundation studies at all active and closed TSFs. The results of the dam breach studies will be used to improve the early warning system and response plan in the event of a TSF failure;
- Use of Emergency Response Plans for each TSF. Public sectors will be engaged to assess the capability of the Emergency Preparedness and Response Plan. This will include transparency and education of local authorities and collaboration with national emergency response agencies;
- Regular inspection by the day to day operators with oversight from senior management;
- Close monitoring of the volume of water held in the TSF with particular attention to embankment freeboard and drainage;

- Regular surveys and levelling on all embankments;
- Use of drones for aerial surveillance;
- The installation of sophisticated instrumentation including piezometers (to measure the presence and level of the phreatic surface), slope indicators and settlement gauges to provide a detailed picture of the developing embankment;
- Interpretation of piezometric and associated data by external consultants on an annual basis or more frequently if determined by site conditions;
- Embankments regularly inspected for erosion, seepage and slumping;
- Groundwater quality monitored via peripheral water monitoring bores;
- Group technical staff regularly inspect the TSFs and review the operations with mine management. Recommendations are prepared to improve all aspects of the operation of the facilities.

First Quantum has disclosed information on all of its active and closed tailings storage facilities as requested by the Church of England Pensions Board. This information is available on the Company website www.first-quantum.com.

RISK REVIEW



LOCATION AND NUMBER OF TSFs OWNED AND OPERATED BY FIRST QUANTUM

COUNTRY	ACTIVE	CLOSED
Australia	1	
Canada		8
Finland	1	
Mauritania	3	
Panama	1	
Spain	1	
United States of America		3
Zambia	3	1
Total	10	12



TAILINGS STORAGE FACILITIES

TSF DESIGN & CONSTRUCTION METHODS

First Quantum's Tailings Storage Facilities (TSFs) are designed in accordance with the guidelines of the Australian National Committee on Large Dams (ANCOLD), the Canada Dam Association (CDA), and European Union Legislative Directives. The TSF guidelines used depend on the location and jurisdiction.

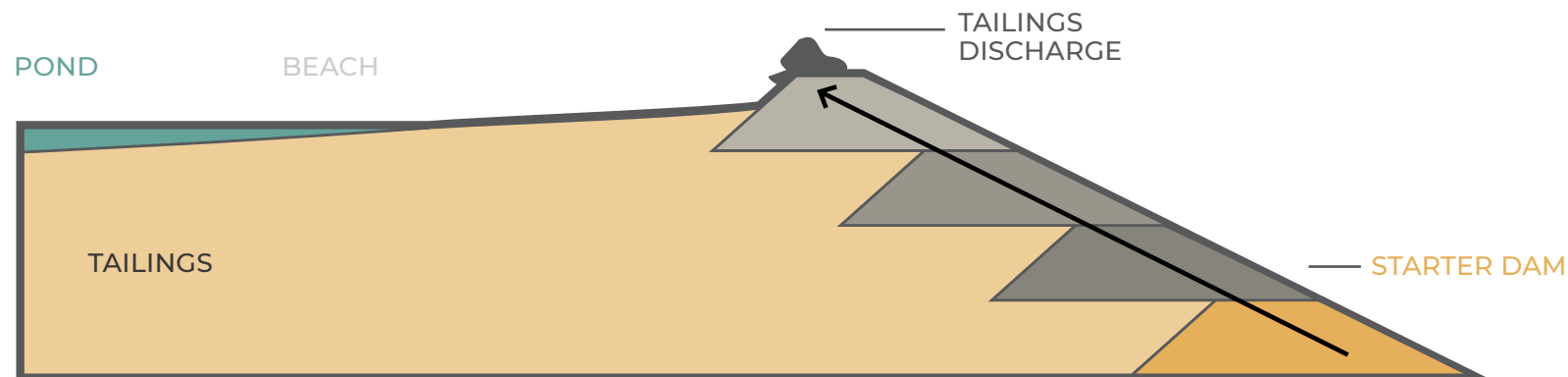
When determining the appropriate type of TSF for a project, it is important to consider local conditions and the physical and engineering properties of the tailings. Hard rock copper tailings typically settle, drain, consolidate and gain strength over time. Cyclones are used to separate the tailings into a coarse and fine fraction on the embankment during deposition. Preferential deposition of the cyclone underflow onto the embankment creates a free draining, competent and stable construction material while the fine fraction, and the majority of the water delivered with the tailings, flows towards the centre of the TSF. In this way, the embankment remains dry as defined by the phreatic surface (level of saturation) and the embankment stability remains well above the lower design limit.

Based on these properties, First Quantum has adopted two main approaches to embankment design and construction, the upstream and centerline methods. These designs are industry best practice and used widely and successfully in hundreds of mining operations around the world. However, regardless of the design and construction, it is imperative that the TSF is operated in accordance with the design constraints. First Quantum's senior management and its engineering staff work closely with the operators of each TSF (i.e. each project) to ensure the facility is managed and operated according to the constraints of the design.

A third TSF construction method is used at our Cobre Las Cruces copper mine in Spain. At Cobre Las Cruces the tailings is dewatered using a filter press (12% moisture content) and transported by articulated dump truck to the TSF where the 'dry' tailings are placed.

The TSF construction methods used at our major operations, upstream at Kansanshi and Sentinel in Zambia and centerline at Cobre Panama are shown in the following illustrations.

UPSTREAM



Deposition of the cyclone underflow upstream of the existing embankment centre line in lifts using the beached (sub aerially deposited) tailings as support. The embankment crest line progressively moves in an upstream direction. The rate of rise of the embankment is typically maintained at less than 2m per year to allow the beached tailings to desiccate and gain strength. This method of construction is used extensively around the world and within the First Quantum group. Properly executed, upstream construction can provide an economical embankment with a high factor of safety.

KANSANSHI TSF 1

Upstream construction using cycloned tailings. The TSF was designed to have a rate of rise of less than 2m per year (and in practice is considerably lower than this).

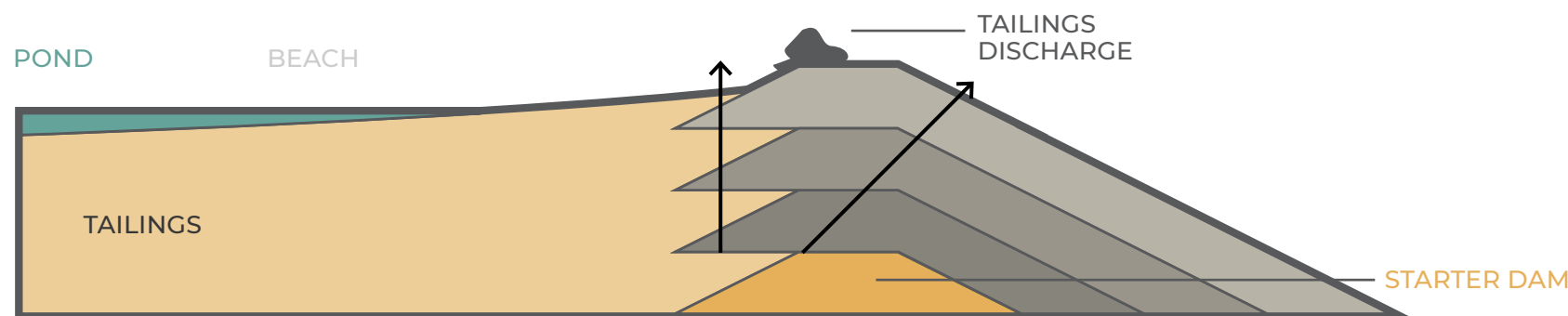
KANSANSHI TSF 2

Upstream construction using cycloned tailings. The TSF rate of rise is around 1m per year.

SENTINEL TSF

Upstream construction over a 17 km long embankment. The TSF has a rate of rise of 2m per year.

CENTRELINE



Centreline construction is where the existing embankment crest line is maintained. The majority of the placed cyclone underflow is supported by natural ground on the downstream side of the embankment. This method of construction is often considered, but not proven, to provide a higher factor of safety than upstream construction.

COBRE PANAMA TSF

Centreline construction is an inherently safe form of construction.



COVID-19 RESPONSE

When COVID-19 was declared an international public health emergency by the World Health Organization in late January, First Quantum moved quickly to introduce health and sanitary protocols across our diverse range of operations and local communities around the world. Our proactive response to COVID-19, in compliance with both local and international guidelines, is specific to each country. Our goal is to prevent or reduce the transmission of the virus on our sites and in local towns or villages in each region.

Our operational strategies for COVID-19 vary from site to site and include:

- A focus on personal sanitization and sanitization and sterilization of equipment;
- Social-distancing and minimizing our interactions with neighbouring communities where possible;
- Education and training for employees, particularly those with medical roles on our site, and continual information about methods of preventing virus transmission;
- Regular testing and isolation for any employee or contractor who may have or has been exposed to the virus;
- Regular temperature checking of employees and contractors;
- Donating medical equipment, PPE supplies and other resources to local communities;
- Working closely with local health authorities.

We have significant workforces (both employees and contractors) on our sites and we continue to maintain health and sanitary protocols and to support the government health authorities in each jurisdiction according to the needs across all of its sites and operations to combat the spread of COVID-19. These health protocol measures continue to be reviewed and adjusted as needed.

Among the specific actions taken to address the needs of local communities are:

- Supplying transportable medical modules in Panama to assist with triage and treatment of patients at hospitals;
- Responding to the Panamanian Government's request to support families in need with food and supplies;
- The creation of a new ICU and high dependency care unit in a Zambian hospital;
- Pledge of financial support for the provision of medical logistics support in the Solwezi and Kalumbila districts of North-Western Zambia;
- Contracting local manufacturing of facemasks in Zambia;
- Changes to employee transportation in Australia to avoid local communities.



LOCAL COMMUNITIES

GRI 413-1 GRI 413-2

COMMUNITY SUPPORT

Earning and maintaining community support for mining is fundamental to our Company's success. Globally, there is public concern about the perceived effect of mining on the environment and communities which is why First Quantum has implemented a comprehensive corporate social responsibility program that balances best practice with site-specific needs. Our initiatives and activities are consistent with international best practice and are carried out in a systematic manner across all sites.

Our commitment to local stakeholder engagement is laid out in our Community Engagement Policy, which describes our community engagement principles:

RESPECT

First Quantum strives for relationships that are based on transparency, mutual trust and respect. We recognize that our activities affect or could affect stakeholders, local communities, their culture and traditional and current uses of lands and resources.

ENGAGEMENT

First Quantum commits to listening and communicating with stakeholders and local communities directly and openly about events, issues and ideas. We seek to consult and resolve grievances in a timely, interactive and culturally appropriate manner.

BENEFIT

We recognize that people and communities affected by our business should benefit through opportunities such as employment, business development, education, training or community investment over the long term.

To deliver on these principles and adhere to our community Engagement Policy commitments, we undertake the following actions:

- Develop strategies and programs that build capacity in local communities, and enhance their ability to benefit from economic opportunities associated with mining development;
- Commit to local communities' participation in our workforce through employment and contracting opportunities;
- Strive to ensure local contractors can provide safe, reliable and competitive goods and services to our operations;
- Work with communities to identify community investment opportunities that support local cultures and priorities.

These actions are guided by our Human Rights Policy, which is guided by the principles of internationally recognized human rights norms, including the ILO Declaration on the Fundamental Principles and Rights at Work, and the United Nations (UN) Declaration on the rights of indigenous peoples.

We are also committed to conserving natural resources and minimizing environmental impact at all of our locations.

The EHS&CSR Committee has the responsibility to review and monitor the effectiveness of our community engagement efforts.

Management of First Quantum's community engagement is overseen by a corporate Community Relations and Development Manager who provides clear, focused guidance on local community relations activities and who ensures that First Quantum's corporate standards on community engagement are met. The Company's internal audit function periodically reviews site practice against corporate expectations. Each site is staffed appropriately to manage community relations, including a local community relations manager.



LOCAL COMMUNITIES

COMMUNITY RELATIONS

Each of our projects and operating mines has a comprehensive community relations program, appropriately staffed, to engage with communities affected or perceived to be affected by our activities or who have a genuine interest in the performance of our business. We engage in broad based community consultation, both formally and informally. First Quantum regularly engages with governments at national, regional and local levels, international development organizations, civil society organizations, not-forprofit organizations, traditional leadership and community-based organizations such as women’s groups, chambers of commerce, religious institutions and local development organizations, indigenous peoples and vulnerable peoples in addition to international and local academics.

COMMUNITY RELATIONS

All of our mines participate in broad based local consultation committees. Key topics, interests and concerns raised include local hiring and contracting opportunities, community funding, community participation in mining activities or programs, environmental issues including water and biodiversity management as well as issues related to community development, taxation and wealth distribution.

In addition to ongoing dialogue, each of our operations and projects has a grievance mechanism for receiving complaints and concerns from communities, ensuring they are responded to in an effective and timely manner.

Engagement is continuous and ongoing as shown in our stakeholder maps and in the schedule and record of all engagement activities.

GRIEVANCE MANAGEMENT

Each of our projects and operations has a fully functioning grievance mechanism used to accept, assess and resolve community complaints related to Company activities. Each mechanism is culturally appropriate, free and readily accessible. We register, classify grievances, and assign responsibilities and timelines for addressing grievances.

All complaints received through our formal mechanisms were addressed within timeframes prescribed by each site’s procedures.

SOCIAL IMPACT

Each of our projects and operations conducts ongoing social impact reviews to proactively and actively manage these impacts to the greatest degree possible. This is an ongoing activity focused on identifying, assessing, mitigating and enhancing outcomes for host communities and is embedded in community engagement and development activities and informed by community baseline studies. Formal Social Impact Assessments have been conducted as part of the process required for project development. Impact Assessments are also embedded into Resettlement Action Plans.



COMMUNITY DEVELOPMENT

OUR APPROACH

Each of our sites has a community social and economic development plan which is aligned with the United Nations Sustainable Development Goals (SDGs) and the national development strategies for host countries. We seek to ensure that the positive economic impacts of mining are realized and to assist in improving the quality of life for those people and communities impacted by our activities. Plans are made according to legal requirements, community needs and business opportunity and risk. We are continually refining our social investment strategy to best address community needs, local workforce development, local business and infrastructure development in a manner that benefits communities. Through partnerships with government and civil society, we seek to ensure that the benefits of mining extend beyond the life of our mines, so that we leave a positive impact on the national environment, climate change and social capital.

OUR PERFORMANCE

As part of First Quantum's corporate social performance strategy we support host communities and governments, helping to tackle social challenges and collaborate on solutions that enhance growth and prosperity. We develop human and economic capital by providing jobs and skills training and by promoting local procurement. Furthermore, we build physical infrastructure and institutional capabilities thereby helping to create more resilient communities.

The COVID-19 pandemic was particularly impactful on our local communities. Our community development programs had to pivot from supporting initiatives requiring group gatherings to simply providing remote and direct support. In 2020, the Company contributed \$17 million in community programs.

KEY PERFORMANCE HIGHLIGHTS

ZAMBIA

- Created a remote education program that reached 40 000 school children via radio during the months that schools were shut down due to COVID-19;
- Started the Nsanshi Art jewellery company that supports 10 local women, all identified by the community as vulnerable, to learn how to make jewellery and from copper donated by Kansanshi mine. All profits are donated to the Young Women Christian Association (YWCA) in support of their women empowerment programs;
- Working with 7 000 farmers in conservation farming and holistic family nutrition programming; the harvest was the most successful in the past decade as farmers harvested more than 6 million kilograms of maize in 2020;

- Handed the Kisasa Community Water Reticulation Project over to the local authorities, giving 10 000 people access to clean water.

PANAMA

- Supported 36 agricultural cooperative groups, a coffee cooperative and a textile cooperative as well as 162 individual farmers through the Company's Agro-extension program;
- 5 469 children benefited from our scholarship program.

MAURITANIA

- Drilled four additional boreholes;
- Supplied Akjoujt city with 1 200m³ of water per day and communities along the pipeline with 400m³ per day, total provision of 576 000m³ of water per year;
- With schools and large gatherings banned, focus was shifted from community-based programming to infrastructure support and emergency response support.



HUMAN RIGHTS



OUR APPROACH

While governments have the primary duty for protecting human rights, we recognize that we must respect human rights within our sphere of influence. We also recognize that we have an important role to play in promoting human rights among our stakeholders. Therefore, respect for human rights is fundamental to our Company values and how we conduct our business activities.

This commitment is embedded in our corporate Human Rights Policy as well as our operational management processes. Our approach is guided by the United Nations Guiding Principles on Business and Human Rights and the Voluntary Principles on Security and Human Rights (VPSHR). The Company's security practices are guided by the VPSHR which set out rules for engagement with the police that provide external security and response assistance, and provide

guidelines on contractual requirements, the use of force and human rights training. All security personnel follow the VPSHR and have received human rights training. All security service providers are required to abide by the VPSHR code of conduct and they have to provide a quarterly certificate declaring that they (1) induct and train all new employees on these principles and (2) monitor the adherence to these principles by their employees.

OUR PERFORMANCE

We have a goal of zero human rights violations by our Company and our contractors. In 2020 we are pleased to report that we achieved that goal. A comprehensive human rights impact assessment is embedded in our social impact management programs and our land acquisition and resettlement programs. These are documented in our Social Impact Assessments and Resettlement Action Plans as required by law.

We will continue to promote human rights within our sphere of influence. This is especially important in the context of our support for the United Nations Social Development Goals (SDGs), as human rights serve as the foundation of the overall SDG framework and underpin over 90% of the SDG targets. As such, the integration of SDGs will help promote a human rights-based approach to our business management.



RESETTLEMENT

OUR APPROACH

When the Company’s activities involve land access and displacement, the Company establishes resettlement processes that adhere to international standards of fairness and transparency. As part of this process, in-depth consultations and negotiations are conducted with project affected people, under the leadership of experienced experts.

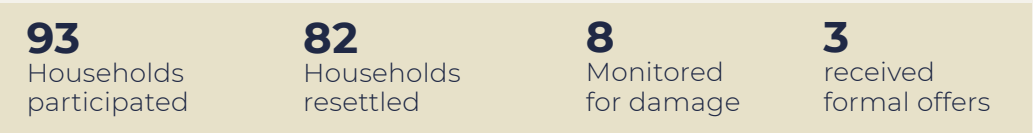
OUR PERFORMANCE

COBRE PANAMA

The resettlement plan for the Cobre Panama Project was developed through extensive stakeholder consultations. The resulting agreement was the product of good faith negotiations based on internationally accepted principles of free, prior and informed consent. As of January 2017, all from Petaquilla community moved voluntarily to Nuevo Eden as per their resettlement agreement. Previously resettled communities have adapted to their new communities and are now successfully subsisting on their own farming outputs. The communities schools will commence their school year again in March 2021 which will be their seventh year under the Ministry of Education. This affirms the on-going government support for, and participation in the new settlements, a key to the long term sustainability of these communities.

ÇAYELI

Voluntary resettlement is ongoing at Çayeli as part of the Near Mine Housing Project. For a number of years local residents have complained that blast vibrations from the mine have damaged their homes. Expert studies were commissioned in 2013 and while no causation was established, heavy precipitation and naturally-occurring ground movement led to Çayeli undertaking a voluntary resettlement process for people living in damaged houses. To-date 93 households have participated in the process: 82 have been resettled, 3 have received formal offers and 8 are having their homes monitored for damage and monitoring is ongoing.



HAQUIRA

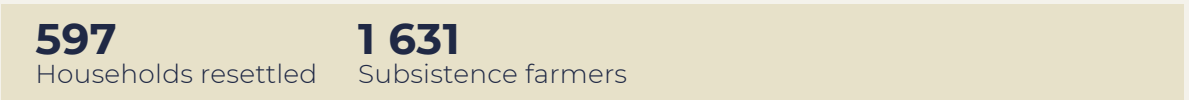
First Quantum has been engaging with communities influenced by the Haquira project in Peru since 2011. In early 2020 the Company commenced discussions on land rights and resettlement with the communities of Huanacopampa, Ccahuanhuire, Lahuani, Llamanhuire and Pararani. The Company has presented a proposal to each of the above communities except Pararani which has yet to submit their official census list of qualifying families.

TACA TACA

At Taca Taca in north-western Argentina, as part of an Environmental Impact Assessment, a communications plan has been designed and information meetings held with the populations closest to the project. The area is sparsely populated with no resettlement necessary for the advancement of the project. Local small populations are being briefed on the project to address their queries about potential employment and service provision.

SENTINEL

Physical resettlement of 597 households and 1,631 subsistence farmers is nearing completion at Trident in accordance with requirements set out in the Resettlement Action Plan (RAP) approved by Zambia Environmental Management Agency (ZEMA). All project affected people received their agreed to and legally supported compensation on time and prior to commencement of the mine’s development. Substantial structured stakeholder meetings were held during the resettlement planning, implementation and continue as part of follow-ups. Due to the COVID-19 pandemic, physical engagement meetings have been affected and mostly done through electronic platforms, a situation well understood by our stakeholders. Acquisition of secured farming land in accordance with RAP approval conditions was recently completed for all the physically displaced households. Livelihood restoration activities include training in entrepreneurship by adopting business idea stimulation, support initiatives and sustenance activities. Sustainable agriculture as a business venture for both crops and livestock has also been adopted as a livelihood restoration initiative and is being implemented starting with mind-set transformation activities. Other community activities include education support, health support, and wildlife management support and community infrastructure. The strategic approach is the avoidance of dependence drivers and focus on Corporate Social Investment activities in order for interventions to outlive the mine life.



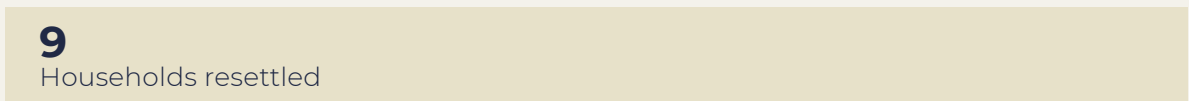
KANSANSHI

In 2015, Kansanshi completed the Smelter Access Road resettlement program in accordance with the Resettlement Action Plan, approved by the Zambia Environmental Management Agency (ZEMA). 114 people were affected by the Smelter Road and 89 of them directly received 100% of the agreed compensation. 50 formal meetings were held in 2015 with local stakeholders and traditional leadership and a livelihood restoration program, including casual employment and conservation farming has been fully implemented.



BWANA MKUBWA

As part of mine closure, a social baseline survey was initiated downstream of the tailings storage facility at Bwana Mkubwa. The project is being steered by negotiated settlements as well as full replacement packages such as newly constructed primary households, protected wells commissioned by the Government, improved sanitation, same size title replacement land, securing tenure for the most vulnerable. The Resettlement was started prior to the sale of Bwana Mkubwa. First Quantum Minerals will complete the resettlement program.



INDIGENOUS PEOPLES

GRI 411

GRI 412

OUR APPROACH

Where indigenous communities are present, we use our best efforts to respect their standing as distinct, self-determining peoples with collective rights.

OUR PERFORMANCE

At the beginning of 2017, First Quantum completed a decade-long process to resettle several hundred people living near the Cobre Panama Project. Among those voluntarily relocating were two small indigenous communities, who moved from villages settled a few years earlier to new homes in the rainforest 5 km away. This resettlement was among the first to be carried out under the Guiding Principles on Business and Human Rights adopted by the United Nations in 2011. A highly collaborative effort, the Cobre Panama resettlement has earned appreciation from indigenous leaders, international experts and the government of Panama and is seen as a model for successfully resettling communities through free, prior and informed consent. As part of the Resettlement Action Plan an Indigenous Peoples Development Plan was developed and implemented. Three years into the plan, programs and support continue in partnership with government education, health and social development agencies. Engagement is ongoing.

With respect to cultural heritage at Ravensthorpe, there have not been any cultural heritage issues. Ravensthorpe has legally-binding agreements in place with each of the Aboriginal groups who have Native Title over the lands on which we operate, namely the Wagyl Kaip and Southern Noongar people of Albany and the Southern Nyungar people of Esperance, and has a strong history of compliance to the Heritage Protocols contained within those agreements.

Most recently in November 2019, a “Site Identification Aboriginal Heritage Survey of the Shoemaker Expansion Area and Straight Infrastructure Corridor” was conducted. This survey included representation from both the Wagyl Kaip and Southern Noongar people, the Southern Nyungar people of Esperance, an anthropologist, an archaeologist and Ravensthorpe. As a result of the survey both Aboriginal groups had no objections to Ravensthorpe progressing with their plans for the eastern portion of the Shoemaker-Levy expansion area and the straight infrastructure corridor Levy.





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