



A Leading Copper and Gold Producer
Developing a Tier-1 Copper Asset

Fourth Quarter and Full Year 2020 Financial Results

March 9, 2021



TURQUOISE HILL
TSX-NYSE: TRQ

Certain statements made herein, including statements relating to matters that are not historical facts and statements of Turquoise Hill Resources Ltd.'s (the "Company", "Turquoise Hill" or "TRQ") beliefs, intentions and expectations about developments, results and events which will or may occur in the future, constitute "forward-looking information" within the meaning of applicable Canadian securities legislation and "forward-looking statements" within the meaning of the "safe harbor" provisions of the United States Private Securities Litigation Reform Act of 1995. Forward-looking statements and information relate to future events or future performance, reflect current expectations or beliefs regarding future events and are typically identified by words such as "anticipate", "could", "should", "expect", "seek", "may", "intend", "likely", "plan", "estimate", "will", "believe" and similar expressions suggesting future outcomes or statements regarding an outlook. These include, but are not limited to, statements and information regarding: discussions with, and the nature of the Company's relationship and interaction with, the Government of Mongolia on the continued operation and development of Oyu Tolgoi, including with respect to the definitive estimate and the potential termination, amendment or replacement of the Oyu Tolgoi Underground Mine Development and Financing Plan (the "Underground Plan"); the willingness and ability of the parties to the Underground Plan to amend or replace the Underground Plan; the potential benefits, impact, timing and outcome of the arbitration proceedings (including any related interim relief) initiated with respect to certain agreements with Rio Tinto International Holdings Limited ("RTIH"); the expectations set out in OTTR20 (as defined herein); the timing and amount of future production and potential production delays; statements in respect of the impacts of any delays on the Company's cash flows; expected copper and gold grades; the merits of the class action complaints filed against the Company in October 2020 and January 2021, respectively; liquidity, funding sources, funding requirements and planning and the status and nature of the Company's ongoing discussions with Rio Tinto plc and its subsidiaries ("Rio Tinto") with respect to future funding plans and requirements (including as contemplated by the Memorandum of Understanding dated September 9, 2020 (the "MoU")); the amount of any funding gap to complete the Oyu Tolgoi project; the amount and potential sources of additional funding; the Company's ability to re-profile its existing project debt in line with current cash flow projections; the amount by which a successful reprofiling of the Company's existing debt would reduce the Company's currently projected funding requirements; the Company's and Rio Tinto's understanding regarding the raising of supplemental senior debt and the Company's ability to raise supplemental senior debt; the Company's and Rio Tinto's understanding regarding the process for identifying and considering other funding options; the Company's and Rio Tinto's understanding regarding the scope and timing for an equity offering by the Company to address any remaining funding gap; the Company's intention to prioritise funding by way of debt and/or hybrid financing over equity funding; the Company's expectation of the anticipated funding gap; the timing of studies, announcements and analyses; status of underground development; the mine design for Panel 0 of Hugo North Lift 1 and the related cost and production schedule implications; the re-design studies for Panels 1 and 2 of Hugo North Lift 1 and the possible outcomes, content and timing thereof; expectations regarding the possible recovery of ore in the two structural pillars to the north and south of Panel 0; the possible progression of a state-owned power plant ("SOPP") and related amendments to the Power Source Framework Agreement ("PSFA") as well as power purchase agreements; the timing of construction and commissioning of the potential SOPP; sources of interim power; the potential impact of COVID-19, including any restrictions imposed by health or governmental authorities relating thereto, on the Company's business, operations and financial condition; capital and operating cost estimates; mill and concentrator throughput; the outcome of formal international arbitration proceedings; anticipated business activities, planned expenditures, corporate strategies, and other statements that are not historical facts.

Forward-looking statements and information are made based upon certain assumptions and other important factors that, if untrue, could cause the actual results, performance or achievements of the Company to be materially different from future results, performance or achievements expressed or implied by such statements or information. There can be no assurance that such statements or information will prove to be accurate. Such statements and information are based on numerous assumptions regarding present and future business strategies, local and global economic conditions, and the environment in which the Company will operate in the future, including the price of copper, gold and silver; projected gold, copper and silver grades; anticipated capital and operating costs; anticipated future production and cash flows; the anticipated location of certain infrastructure in Hugo North Lift 1 and sequence of mining within and across panel boundaries; the availability and timing of required governmental and other approvals for the construction of the SOPP; the ability of the Government of Mongolia to finance and procure the SOPP within the timeframes anticipated in the PSFA, as amended; the willingness of third parties to extend existing power arrangements; the status and nature of the Company's relationship and interaction with the Government of Mongolia on the continued operation and development of the Oyu Tolgoi mine and Oyu Tolgoi LLC internal governance (including the outcome of any such interactions or discussions); the willingness and ability of the parties to the Underground Plan to amend or replace the Underground Plan; the nature and quantum of the current and projected economic benefits to Mongolia resulting from the continued operation of Oyu Tolgoi; the status and nature of the Company's ongoing discussions with Rio Tinto with respect to future funding plans and requirements (including as contemplated by the MoU) as well as the potential benefits, impact, timing and outcome of the arbitration proceedings (including any related interim relief) initiated with respect to certain agreements with RTIH. Certain important factors that could cause actual results, performance or achievements to differ materially from those in the forward-looking statements and information include, among others: copper, gold and silver price volatility; discrepancies between actual and estimated production; mineral reserves and resources and metallurgical recoveries; development plans for processing resources; public health crises such as COVID-19; matters relating to



proposed exploration or expansion; mining operational and development risks, including geotechnical risks and ground conditions; litigation risks, including the outcome of the class action complaints filed against the Company; the outcome of the arbitration proceedings, including of any related interim relief; regulatory restrictions (including environmental regulatory restrictions and liability); Oyu Tolgoi LLC or the Government of Mongolia's ability to deliver a domestic power source for the Oyu Tolgoi project within the required contractual time frame; communications with local stakeholders and community relations; activities, actions or assessments, including tax assessments, by governmental authorities; events or circumstances (including public health crises, strikes, blockades or similar events outside of the Company's control) that may affect the Company's ability to deliver its products in a timely manner; currency fluctuations; the speculative nature of mineral exploration; the global economic climate; global climate change; dilution; share price volatility; competition; loss of key employees; cyber security incidents; additional funding requirements, including in respect of the development or construction of a long-term domestic power supply for the Oyu Tolgoi project; capital and operating costs, including with respect to the development of additional deposits and processing facilities; defective title to mineral claims or property; and human rights requirements. Although the Company has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking statements and information, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. All such forward-looking statements and information are based on certain assumptions and analyses made by the Company's management in light of their experience and perception of historical trends, current conditions and expected future developments, as well as other factors management believes are reasonable and appropriate in the circumstances. These statements, however, are subject to a variety of risks and uncertainties and other factors that could cause actual events or results to differ materially from those projected in the forward-looking statements or information.

Readers are cautioned not to place undue reliance on forward-looking information or statements. By their nature, forward-looking statements involve numerous assumptions, inherent risks and uncertainties, both general and specific, which contribute to the possibility that the predicted outcomes will not occur. Events or circumstances could cause the Company's actual results to differ materially from those estimated or projected and expressed in, or implied by, these forward-looking statements. Important factors that could cause actual results to differ from these forward-looking statements are included in the "Risk Factors" section in the Company's annual information form for the year ended December 31, 2020 ("AIF"), as supplemented by the "Risks and Uncertainties" section of the Company's management's discussion and analysis dated December 31, 2020 ("MD&A").

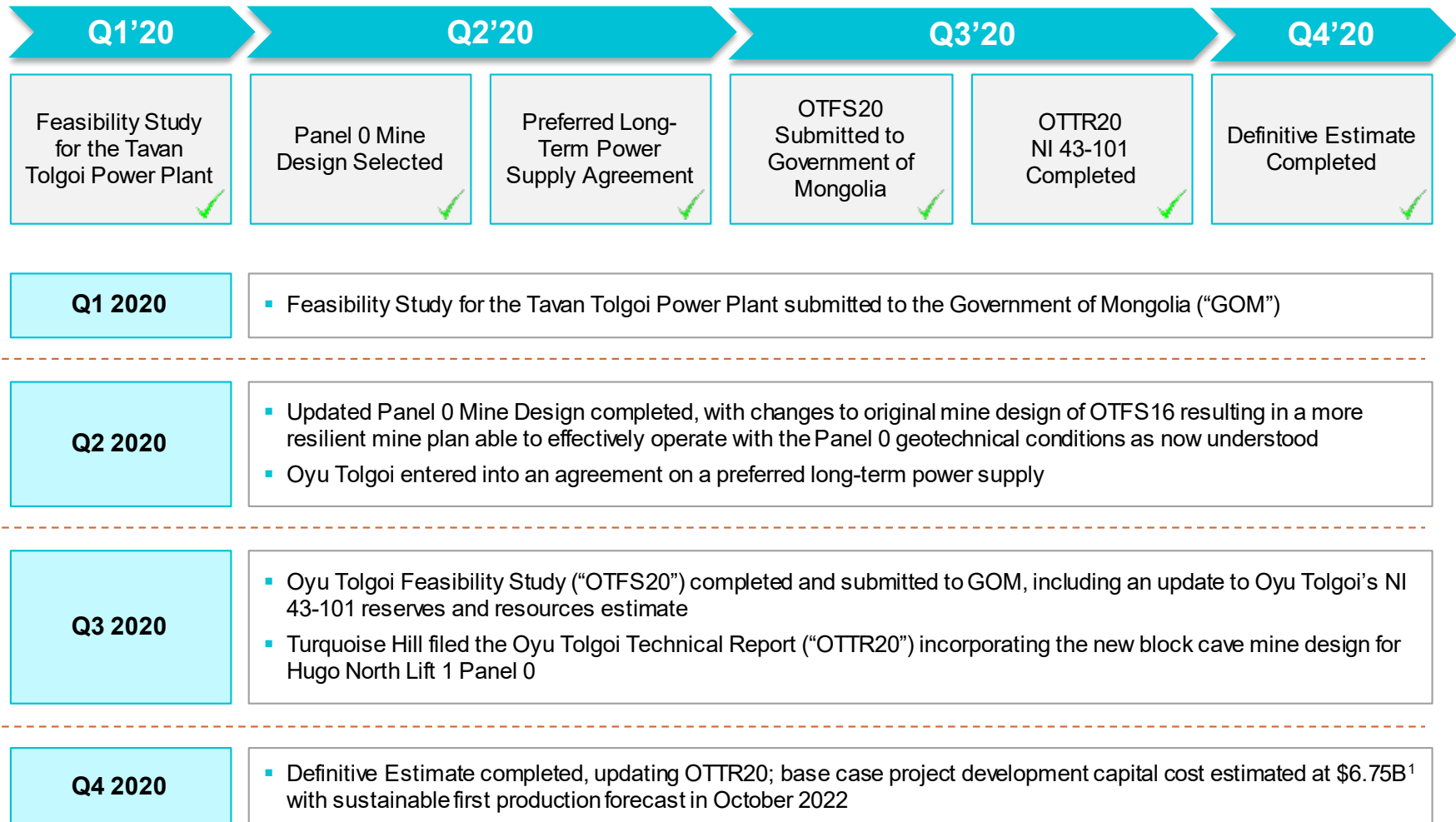
Readers are further cautioned that the list of factors enumerated in the "Risk Factors" section of the AIF and in the "Risks and Uncertainties" section of the Company's MD&A that may affect future results is not exhaustive. When relying on the Company's forward-looking statements and information to make decisions with respect to the Company, investors and others should carefully consider the foregoing factors and other uncertainties and potential events. Furthermore, the forward-looking statements and information contained herein are made as of the date of this document and the Company does not undertake any obligation to update or to revise any of the included forward-looking statements or information, whether as a result of new information, future events or otherwise, except as required by applicable law.

Disclosure of information of a scientific or technical nature in this presentation in respect of the Oyu Tolgoi mine was approved by Jo-Anne Dudley (FAusIMM(CP)), Chief Operating Officer of Turquoise Hill. Ms. Dudley is a "qualified person" as that term is defined in National Instrument 43-101 – Standards of Disclosure for Mineral Projects. Reference is made to the Oyu Tolgoi 2020 Technical Report dated August 28, 2020 and available on SEDAR at www.sedar.com ("OTTR20").

This presentation contains certain non-GAAP (Generally Accepted Accounting Principles) measures such as C1 cash costs and Operating cash costs. Such measures are not defined under International Financial Reporting Standards ("IFRS") and may not be comparable to similar measures used by other issuers. These measures are presented in order to provide investors and other stakeholders with additional understanding of performance and operations at the Oyu Tolgoi mine and are not intended to be used in isolation from, or as a replacement for, measures prepared in accordance with IFRS. See the MD&A for more information about non-GAAP measures reported by the Company.



Key Milestones Achieved in 2020



1. Key assumptions underlying this information remain materially aligned with OTTR20

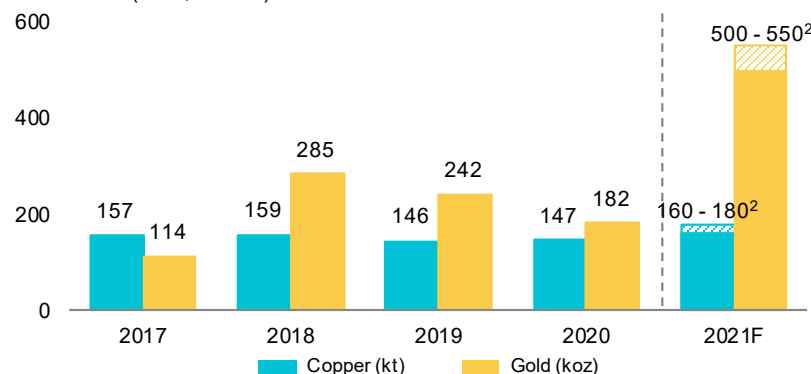
Solid Fourth Quarter Drove 2020 Full Year Operating Performance

5

- Copper production for 2020 of 149.6kt was within the Company's original guidance of 140 - 170kt, while gold production of 181.9koz outperformed the Company's original guidance
- C1 cash cost¹ of \$1.45/lb of copper produced
- Strong mill throughput performance of 40.2Mt

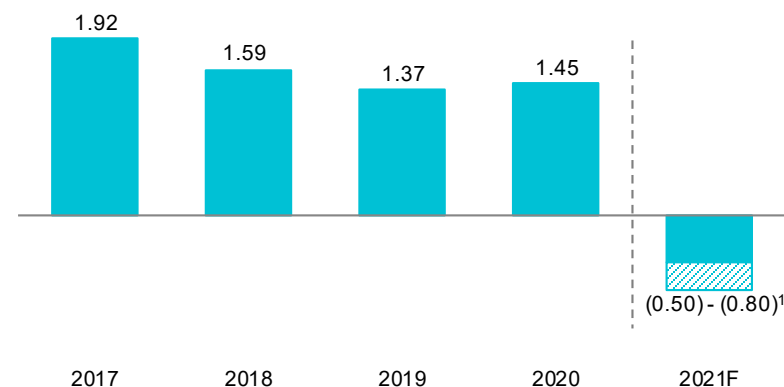
Oyu Tolgoi Metal Production

Production (kt Cu, koz Au)



C1 Copper Cash Cost¹

(\$/lb)



Source: Company Filings

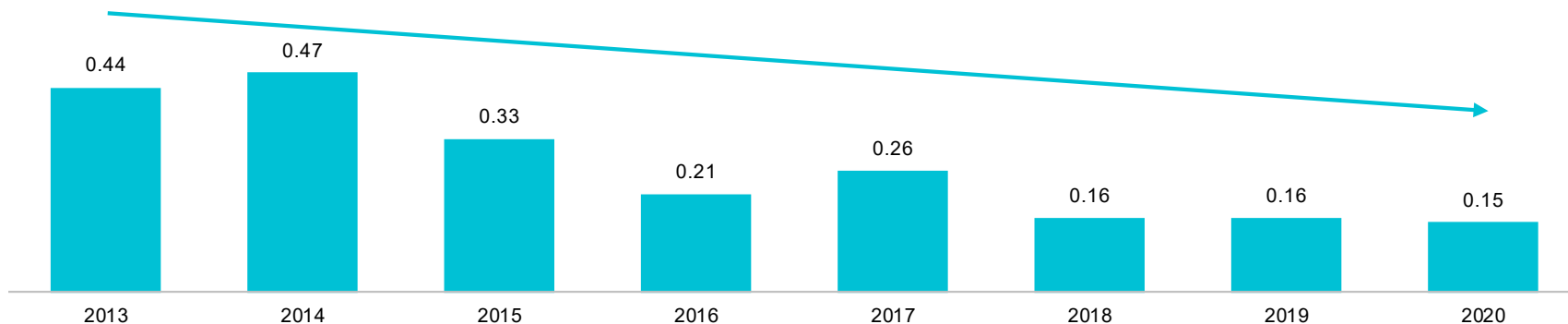
1. C1 cash costs is a non-GAAP measure which is not intended to replace measures prepared in accordance with IFRS. Refer to section - Non-GAAP Measures - of the MD&A at December 31, 2020. 2021 C1 copper cash costs are expected to be in the range of negative \$0.50 to negative \$0.80 per pound of copper produced. Refer to section - Operational Outlook for 2021 - of the MD&A at December 31, 2020
2. Refer to section - Operational Outlook For 2021 - of the MD&A at December 31, 2020

Continued Track Record of Excellence in Safety and Operational Performance

6

Best-in-Class All Injury Frequency Rate

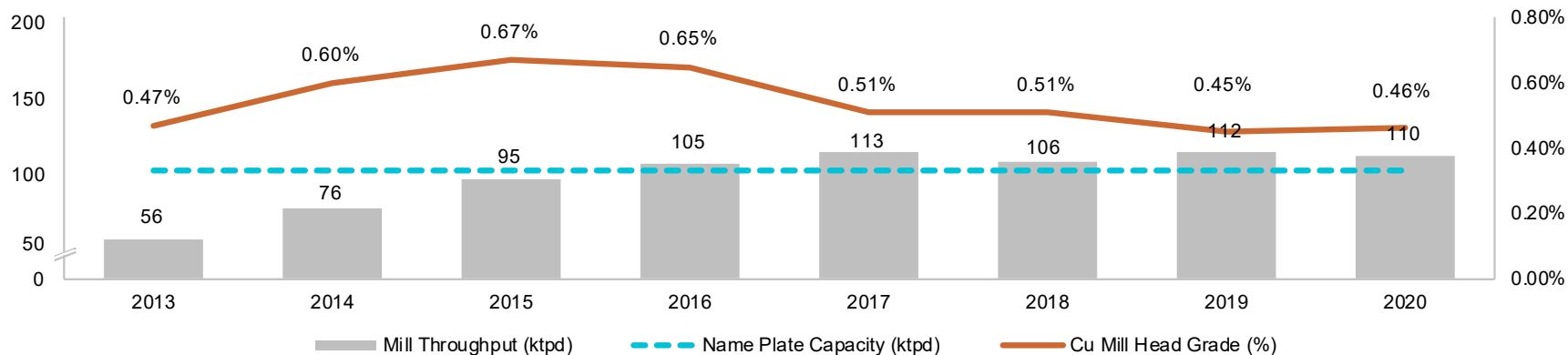
Based on 200,000 Hours of Work Exposure



Oyu Tolgoi Ore Throughput Consistently Above Nameplate Capacity¹

Processing Rate (ktpd)

Cu Grade (%)



Source: Company Filings

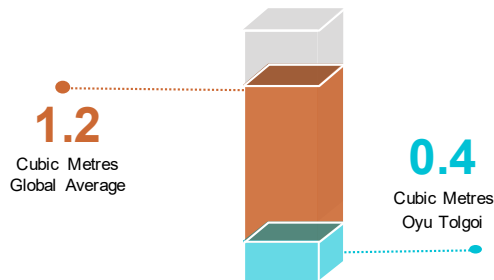
1. Nameplate capacity is based on an average ore type. Ore hardness variability will influence processing rates achieved year to year in addition to other operating factors

Oyu Tolgoi is Recognized for its Commitment to Environmental Standards

7

Water Use Efficiency

Cubic Metres of Water per Tonne of Ore Processed



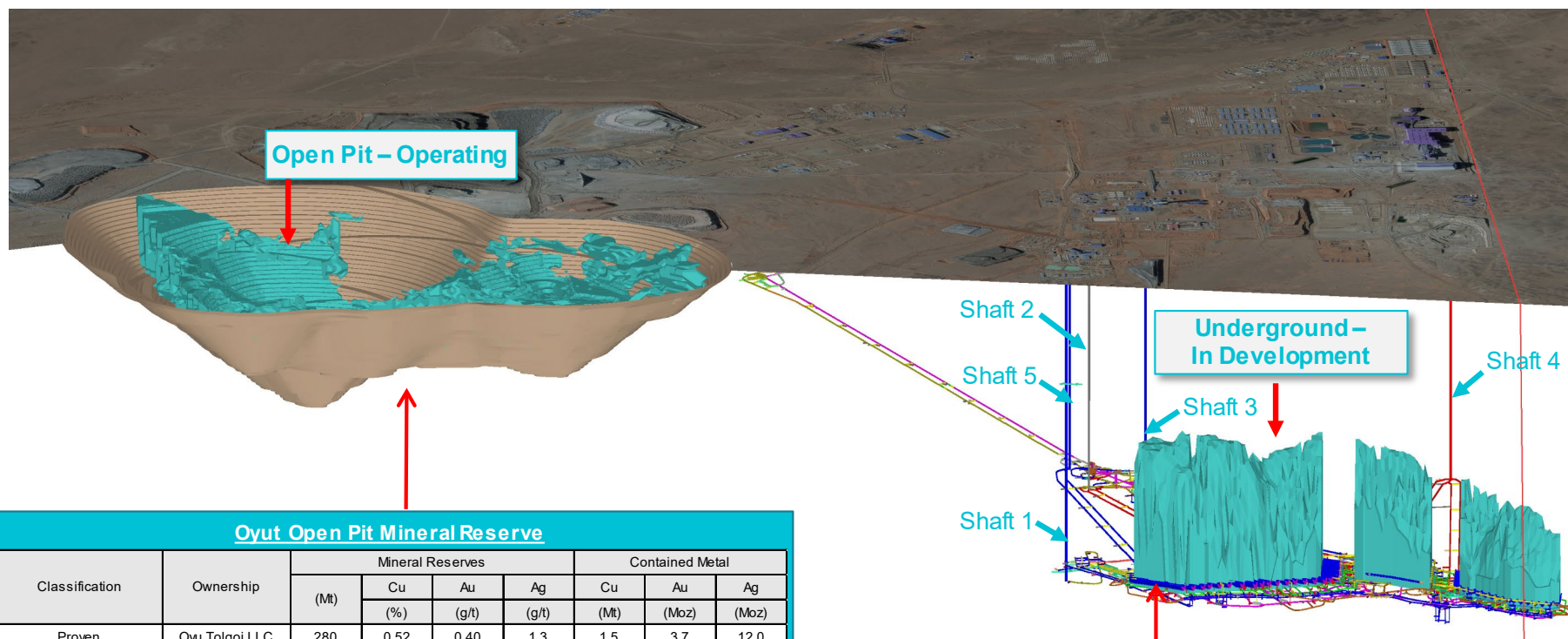
- ✓ Oyu Tolgoi awarded the IFC's Volunteer Code of Practice Water Stewardship Award in 2018
- ✓ Global leader in water use efficiency, driven by an average water recycling rate of 87.7% in 2020



- ✓ In 2020, Oyu Tolgoi LLC was awarded the Copper Mark, the copper industry's new independently assessed responsible production program
- ✓ The Copper Mark is the first and only program for responsible production in the copper industry, developed by the International Copper Association (ICA) with inputs from a broad range of stakeholders including customers, NGOs and producers
- ✓ Oyu Tolgoi Met Over 30 Criteria for Responsible Environmental, Social and Governance (ESG) Operating Practices

Oyut Open Pit and Hugo North Lift 1 Mineral Reserves^{1 2 3 4} 8

Hugo North Mineral Reserves increased by 10Mt Since OTTR20 Due to Mine Design Refinements



Oyut Open Pit Mineral Reserve

Classification	Ownership	Mineral Reserves				Contained Metal		
		(Mt)	Cu	Au	Ag	Cu	Au	Ag
			(%)	(g/t)	(g/t)	(Mt)	(Moz)	(Moz)
Proven	Oyu Tolgoi LLC	280	0.52	0.40	1.3	1.5	3.7	12.0
Probable	Oyu Tolgoi LLC	460	0.39	0.24	1.1	1.8	3.5	16.7
Total (Proven + Probable)	Oyu Tolgoi LLC	740	0.44	0.30	1.2	3.3	7.2	28.7

Oyut Surface Stockpile Mineral Reserve

Classification	Ownership	Mineral Reserves				Contained Metal		
		(Mt)	Cu	Au	Ag	Cu	Au	Ag
			(%)	(g/t)	(g/t)	(Mt)	(Moz)	(Moz)
Proven	Oyu Tolgoi LLC	60	0.32	0.13	0.9	0.2	0.2	1.7

Hugo North Lift 1 Mineral Reserve

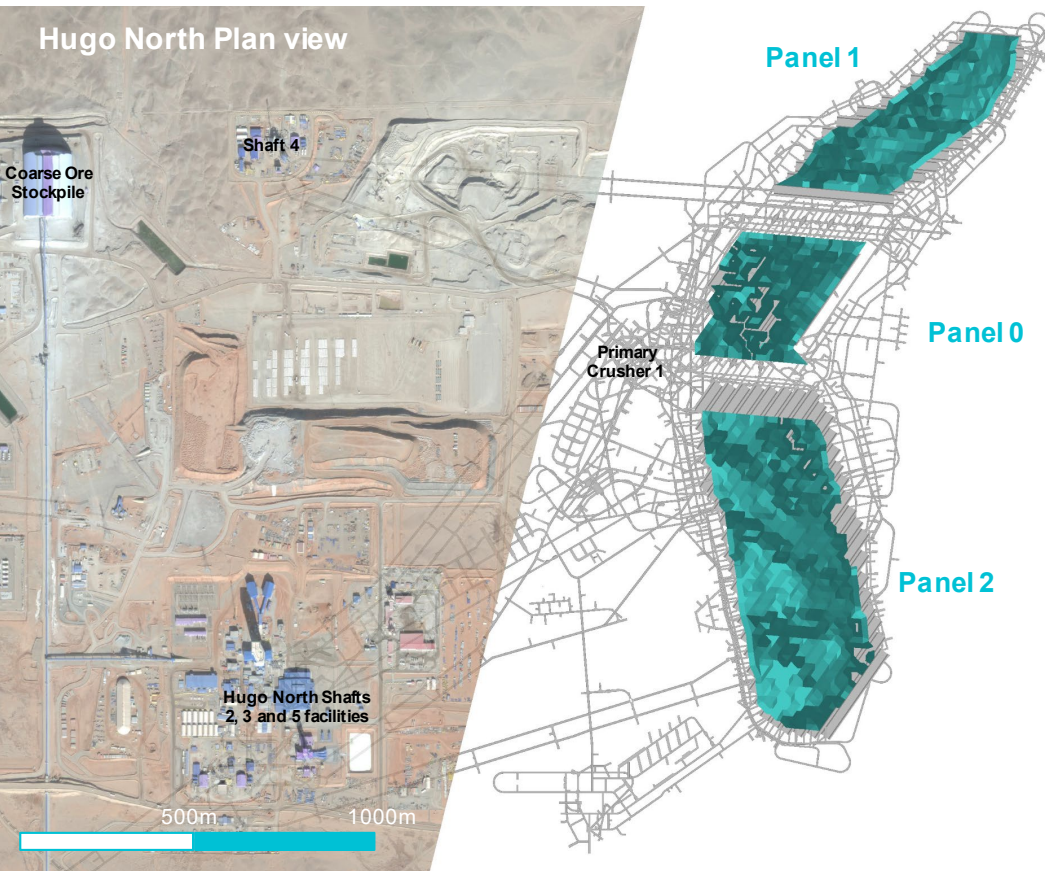
Classification	Ownership	Mineral Reserves				Contained Metal		
		(Mt)	Cu	Au	Ag	Cu	Au	Ag
			(%)	(g/t)	(g/t)	(Mt)	(Moz)	(Moz)
Probable	Oyu Tolgoi LLC	410	1.52	0.29	3.1	6.2	3.8	41.0
Probable	Entrée LLC	40	1.56	0.54	3.7	0.6	0.7	4.6
Total Probable		450	1.52	0.31	3.2	6.8	4.5	45.6

Source: Company Filings

1. Totals may not match due to rounding. CIM Definition Standards (2014) are used for reporting of Mineral Reserves
2. The Hugo North Mineral Reserve includes 1.5Mt of underground development material which has been stockpiled at surface and is awaiting processing
3. Mineral Reserves as at December 31, 2020
4. See section – Mineral Reserves – of the Company's AIF.

Development Update

Significant Development Progress in 2020 Despite COVID-19 challenges; Project NPV Has Increased Since OTTR20 and First Sustainable Production Forecast at Earlier End of Previously Disclosed Range



Key Updates

A Development Update

- Required development to commence undercutting substantially complete
- Development to fire the first drawbell substantially complete
- Materials Handling System 1 progressing well

B Undercut + First Sustainable Production

- Technical and non-technical milestones to be met prior to commencement of the undercut
- First sustainable production forecast to be October 2022

C Definitive Estimate + Ongoing Studies

- Improves time to Sustainable First Production compared to OTTR20 to October 2022¹
- Ongoing work on P2/1 designs as well as recoverability of the P0 pillars using learnings from P0 as well as new data

Source: Company Filings

1. News Release 18 December, 2020. Key assumptions underlying this information remain materially aligned with OTTR20

Financial Performance Overview

Key Financial Metrics of Turquoise Hill

All values on a consolidated basis and in millions of United States dollars unless otherwise stated

	Fourth Quarter of 2020	Fourth Quarter of 2019	Change	Full Year 2020	Full Year 2019	Change
Revenue	405.1	221.4	83.0%	1,078.2	1,166.0	(7.5%)
Cash generated from operating activities before interest and tax	245.8	42.4	479.7%	371.2	341.7	8.6%
Basic and diluted income per share attributable to owners of Turquoise Hill (\$ per share)	0.79	0.56	-	2.02	(0.75)	-
C1 copper cash costs¹	0.76	2.21	(65.6%)	1.45	1.37	5.8%
All-in-sustaining unit costs¹	1.45	2.97	(51.2%)	1.94	2.08	(6.7%)
Capital expenditures²	263.0	318.6	(17.5%)	1,080.5	1,308.1	(17.4%)
Liquidity (billions of dollars)³	1.1	2.2	(50.0%)	1.1	2.2	(50.0%)
Base Case Incremental Funding Requirement (billions of dollars)⁴	2.3	4.5	(48.9%)	2.3	4.5	(48.9%)

1. C1 cash costs and all-in-sustaining unit costs are non-GAAP measures which are not intended to replace measures prepared in accordance with IFRS. Refer to section - Non-GAAP Measures - of the MD&A at December 31, 2020
2. Includes open pit and underground capital expenditures
3. Cash and cash equivalents, and available and undrawn funds under the project finance facility
4. Refer to section - Funding of Oyu Tolgoi LLC by Turquoise Hill - of the MD&A at December 31, 2020

Liquidity and Funding

Current Liquidity and Outlook^{1 2 3}

- ✓ Improved commodity price forecasts and supportive price environment have continued to improve liquidity window
- ✓ Hedging program implemented in February to preserve liquidity while protecting price upside



As At: 31-Dec-20	
Available Liquidity	\$1.1B
End of Liquidity Period	Q3 2022

Incremental Funding Requirement^{1 2 3}

- ✓ Expected funding gap has reduced due to supportive commodity prices, and improved assumptions regarding impact of COVID-19
- ✓ However, any significant delay to undercut may have a material adverse impact on the funding gap



Base Case Estimate	\$2.3B
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Funding Strategy

- ✓ TRQ continues to prioritize debt and/or hybrid financing over equity for incremental funding requirements
- ✓ Range of funding options being pursued, including a gold streaming transaction, a gold pre-sale transaction, and a bond offering (GMTN)
- ✓ TRQ is committed to finding a path forward with project partners to implement the proposed re-profiling of project debt and the sourcing of an additional \$500 million in supplemental senior debt

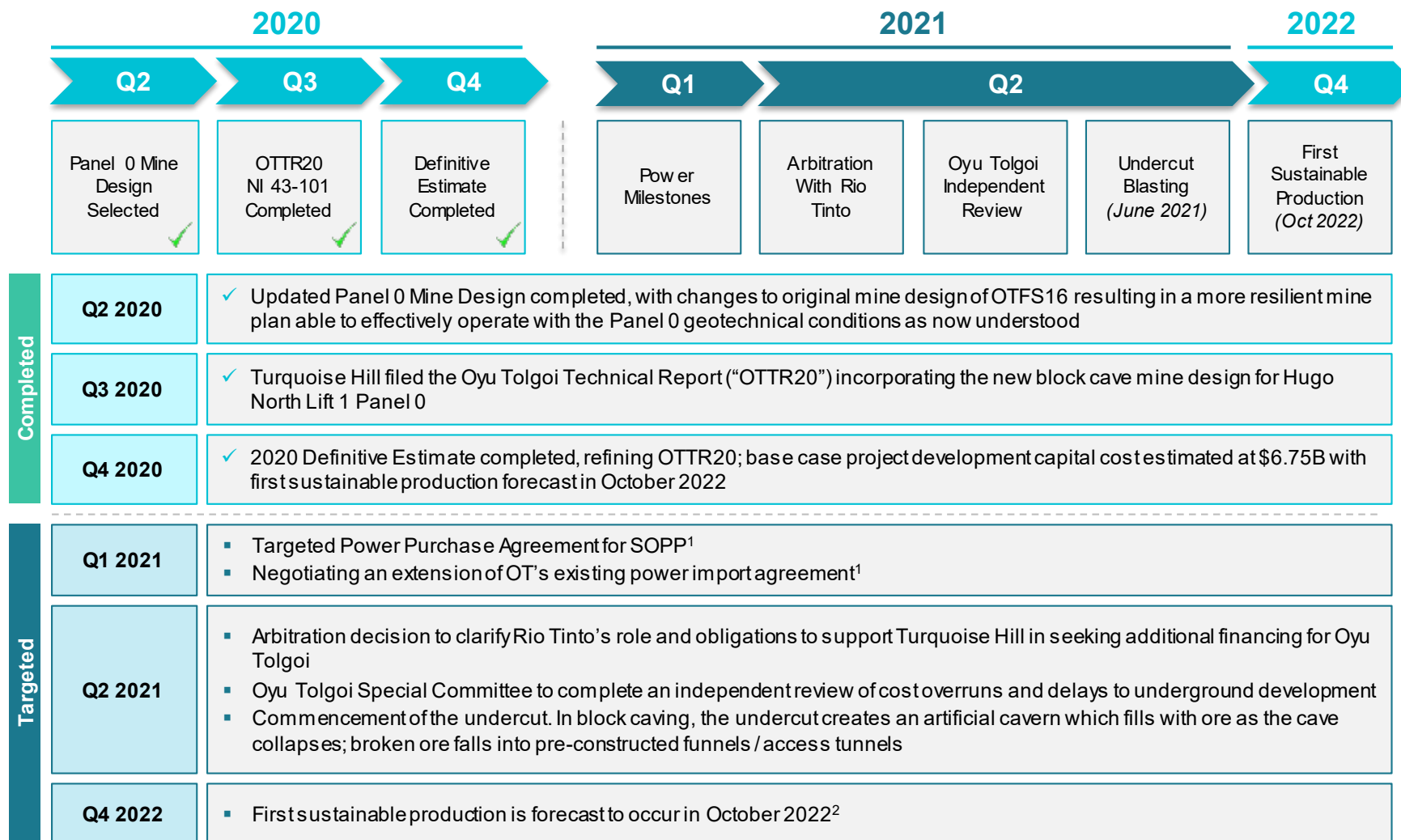
Base Case Underground Development Forecasts:

- Development Cost: **\$6.75Bn³**
- First Sustainable Production: **October 2022³**

1. Forecasts incorporate principal and interest payments and do not assume any re-profiling of existing principal repayments or additional external financing
 2. Liquidity outlook and incremental funding requirement impacted by various factors. Please refer to section – Funding of Oyu Tolgoi LLC By Turquoise Hill – of the MD&A at December 31, 2020
 3. Key assumptions underlying this information remain materially aligned with OTTR20

Key Milestones to First Sustainable Production of Panel 0

12



Source: Company Filings, Definitive Estimate

- The first PSFA Amendment milestone was not met by the original date of March 1, 2021 and GOM formally notified Oyu Tolgoi LLC and Rio Tinto on February 25, 2021 that the Tavan Tolgoi thermal power station project will be implemented, connected to the Central Energy System and operated under a unified load dispatch control. Oyu Tolgoi LLC is engaging with the Government of Mongolia to agree to a standstill period following the lapse of the March 1, 2021 milestone
- Key assumptions underlying this information remain materially aligned with OTTR20

Oyu Tolgoi – A True World Class Asset



- ✓ A tier one Copper asset
- ✓ Underground ramp-up well-advanced to benefit from strong near and long term copper supply/demand fundamentals
- ✓ Oyu Tolgoi has a proven track record of excellence in safety and operational performance
- ✓ 2020 witnessed:
 - Full year copper production within guidance
 - Full year gold production exceeding guidance
 - Updated Panel 0 mine design
 - Oyu Tolgoi Technical Report
 - Definitive Estimate
- ✓ Superior growth profile to peers

APPENDIX



Operation and Finance

2021 Guidance¹

Operational guidance

Copper production (tonnes)	160,000 – 180,000
Gold production (ounces)	500,000 – 550,000

Financial guidance

Operating cash costs (\$ million)²	800 – 850
C1 copper cash costs (\$/lb)^{2 3}	(0.50) – (0.80)
Capital expenditure	
Open pit (\$ million)	110 – 140
Underground (\$ billion)	1.1 – 1.2

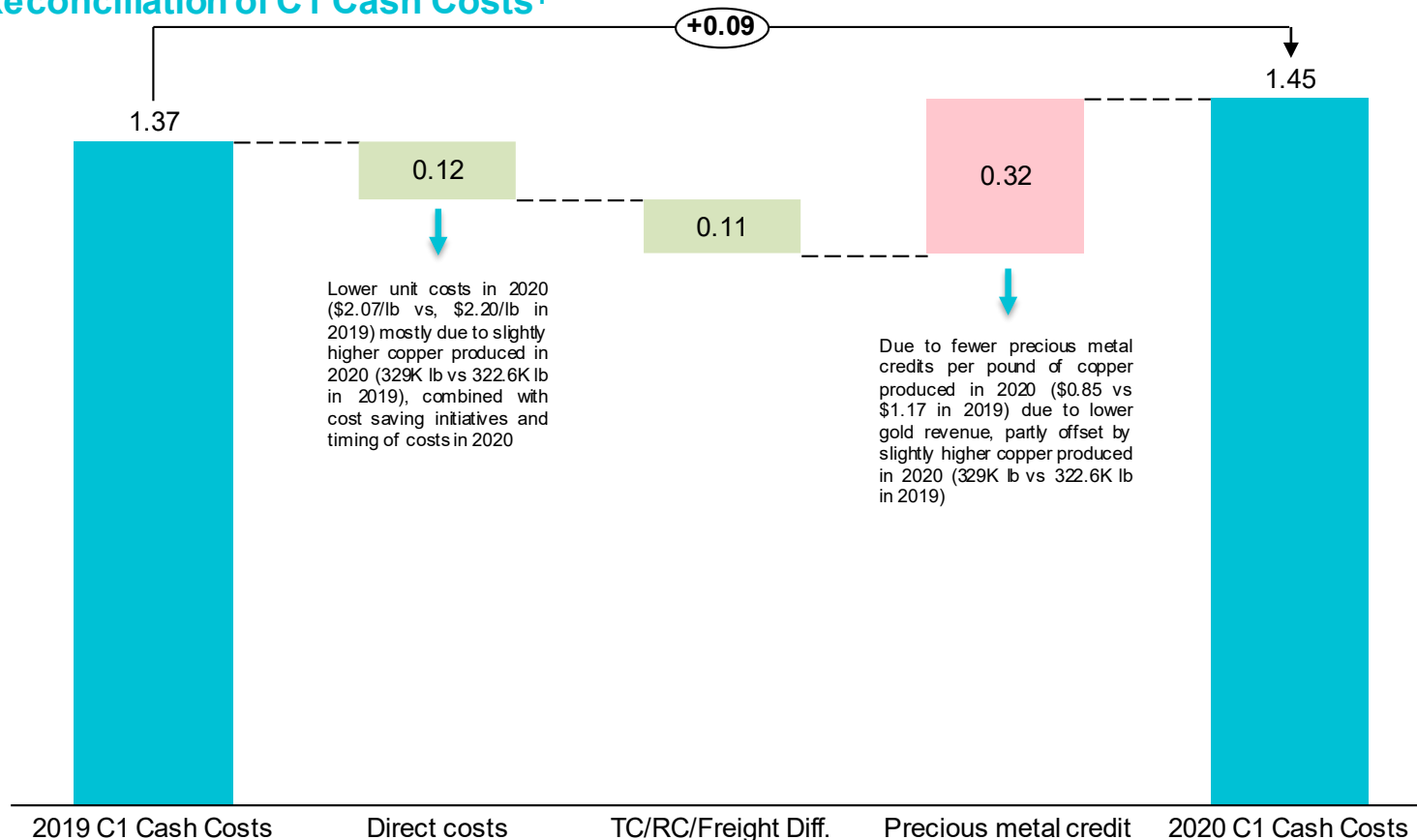


1. Refer to section – Operational Outlook For 2021 – of the MD&A at December 31, 2020
2. Operating cash costs and C1 copper cash costs are non-GAAP measures which are not intended to replace measures prepared in accordance with IFRS. Refer to section - Non-GAAP Measures - of the MD&A at December 31, 2020
3. Unit cost guidance assumes the midpoint of expected 2021 copper and gold production ranges and commodity price assumptions of \$2.85 per pound copper and \$1,880 per ounce gold

C1 Cash Costs over Full-year 2019 and 2020

16

Reconciliation of C1 Cash Costs¹



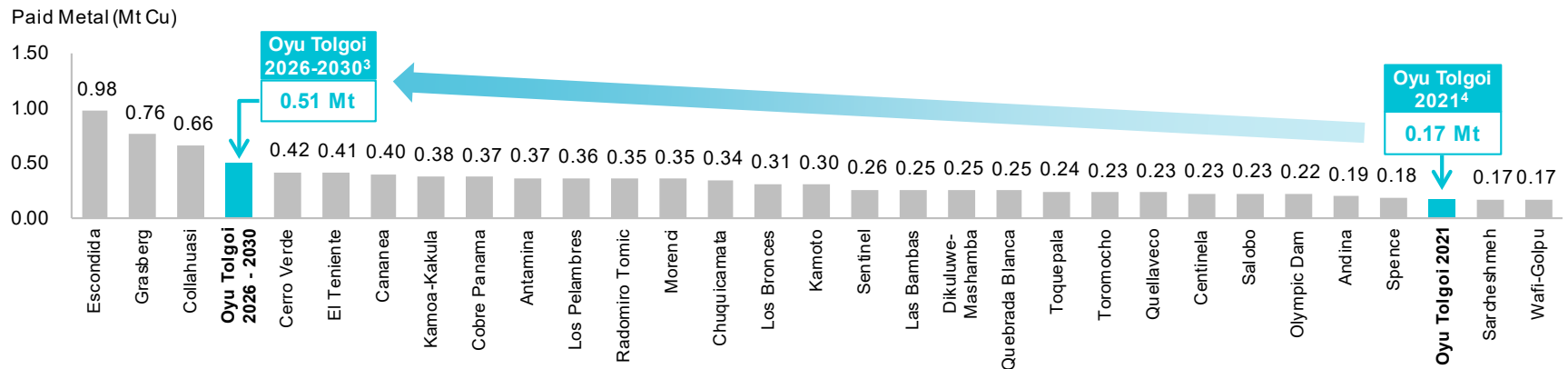
All values on a consolidated basis unless otherwise stated and in United States dollars per pound of copper produced

1. Based on the reconciliation of C1 cash costs in the MD&A. Refer to section - Non-GAAP Measures - of the MD&A at December 31, 2020

Oyu Tolgoi Is a Tier 1 Copper Asset

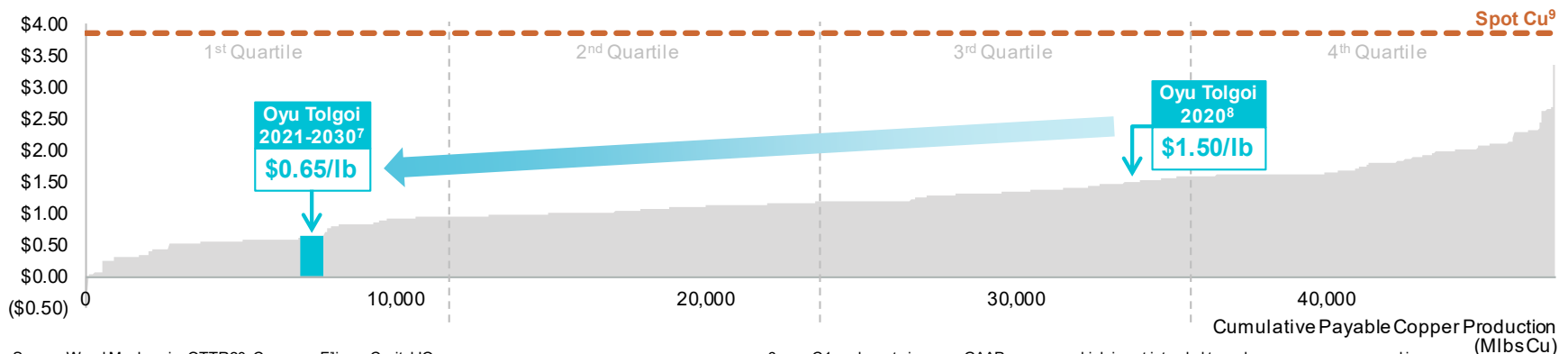
On Track to Become the World's 4th Largest Copper Producer With 1st Quartile Cash Costs⁶

Top 30 Copper Producing Mines in 2028^{1 2}



2025 Cash Cost by Mine^{1 2 5 6}

C1 Cash Cost⁶ (\$ / lb) (Composite)



Source: Wood Mackenzie, OTTR20, Company Filings, Capital IQ

1. Wood Mackenzie estimate as of Q1 2021
2. OTTR20 excludes any impacts of COVID-19
3. Reflects OTTR20 forecast of average payable copper in concentrate production over 5 years from 2026 to 2030. Refer to Table 22.5 in OTTR20
4. Reflects mid-point of management guidance, as previously disclosed on January 18, 2021
5. First quartile C1 cash costs⁶ based on Oyu Tolgoi forecast production and peer data using 2025 Wood Mackenzie C1 composite cost curve

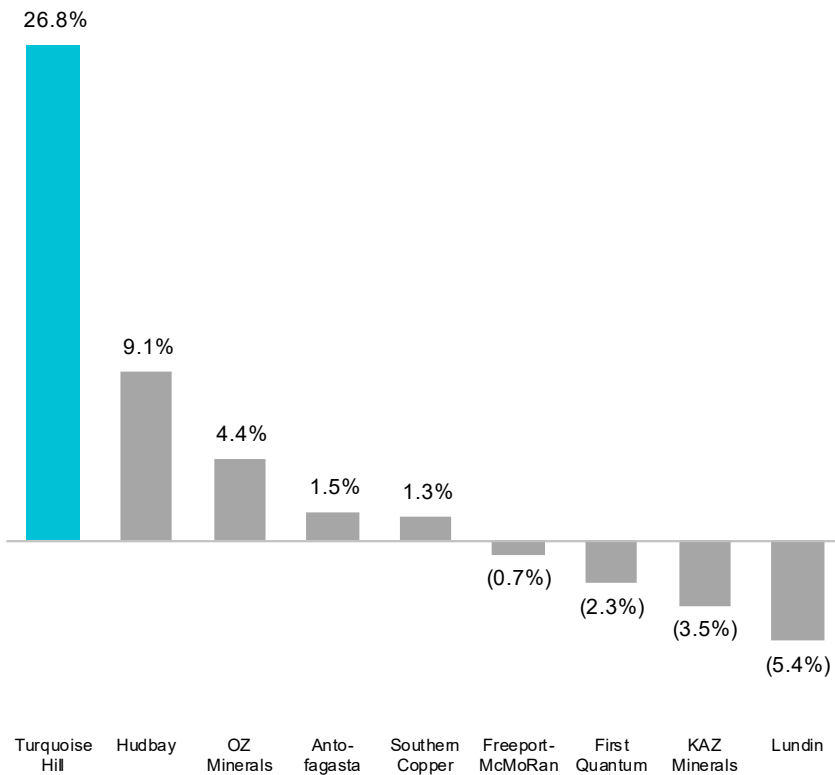
6. C1 cash costs is a non-GAAP measure which is not intended to replace measures prepared in accordance with IFRS. Please refer to the Non-GAAP Measures section of the Company's MD&A at December 31, 2020
7. OTTR20 forecast of average annual C1 post by-product cash costs⁵ for first 10 years. Refer to Table 1.18 in OTTR20
8. Midpoint of 2020 guidance as reported on November 13, 2020
9. Spot copper price, data as of February 16, 2021

Turquoise Hill Offers Leading Growth, but Is Currently Trading at a Deep Discount Relative to Peers

18

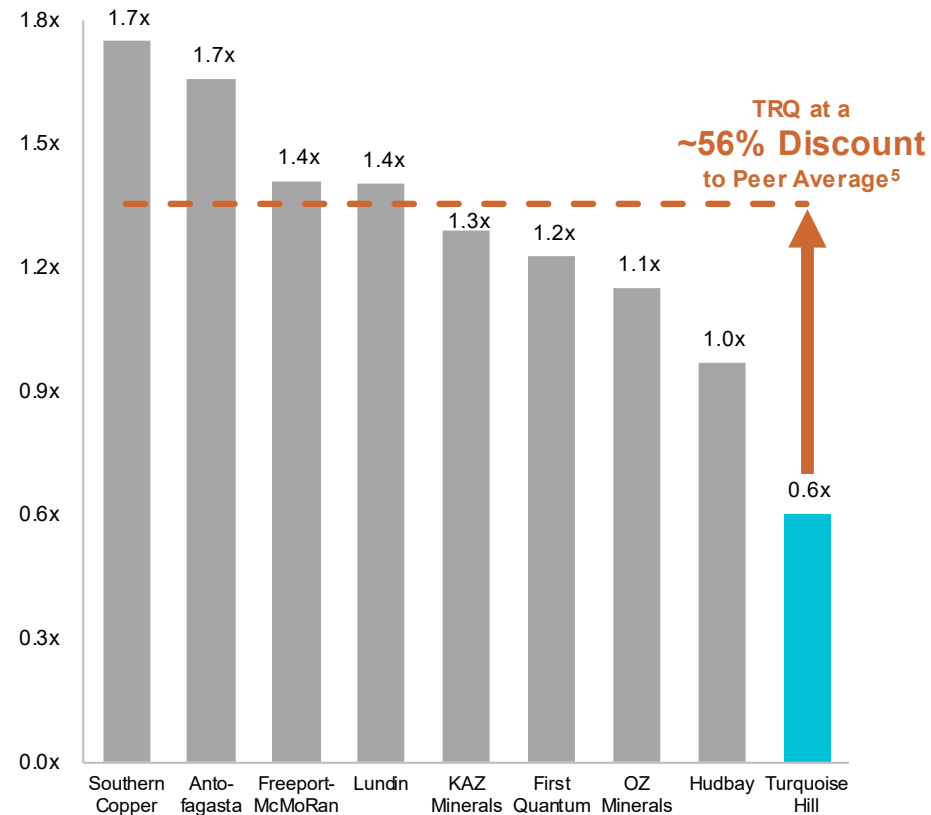
2022 – 2028 Copper Production Growth^{1 2 3}

CAGR (%)



Share Price / NAV per Share⁴

Peers



Source: Wood Mackenzie, OTTR20, Capital IQ

1. Based on pay able, attributable copper production
2. TRQ's 2022 and 2028 production based on OTTR20, peer copper production data based on Wood Mackenzie estimates as at Q1 2021

3. OTTR20 excludes any impacts of COVID-19
4. Market data as of March 2, 2021; P/NAV calculations use broker consensus NAV as reported by Capital IQ
5. Peer average P/NAV excludes TRQ

Gold and Copper Prices Remain Elevated

Copper Prices Benefitting From COVID-19 Supply Side Challenges and Strong Long-Term Demand Outlook

Copper Price – Jan 1, 2015 to Mar 2, 2021 (\$ / lb)



Gold Prices Supported by Negative Real Interest Rates and Market Uncertainty

Gold Price – Jan 1, 2015 to Mar 2, 2021 (\$ / oz)



Source: Capital IQ

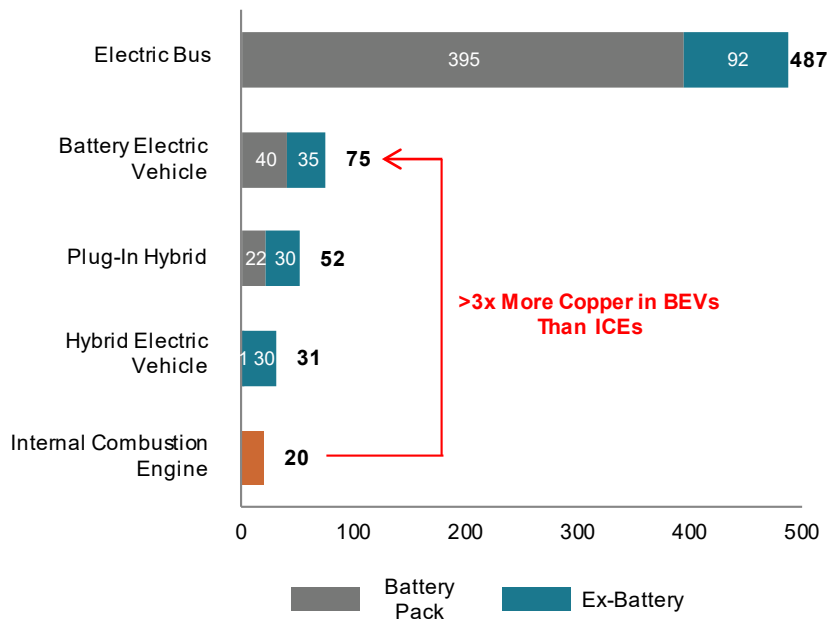
1. Spot copper and gold prices, data as of March 2, 2021

Copper Demand From Electric Vehicles and Related Infrastructure Expected to Grow Meaningfully

20

Electric Vehicles (EVs) Use Significantly More Copper Than Combustion Engine Vehicles...

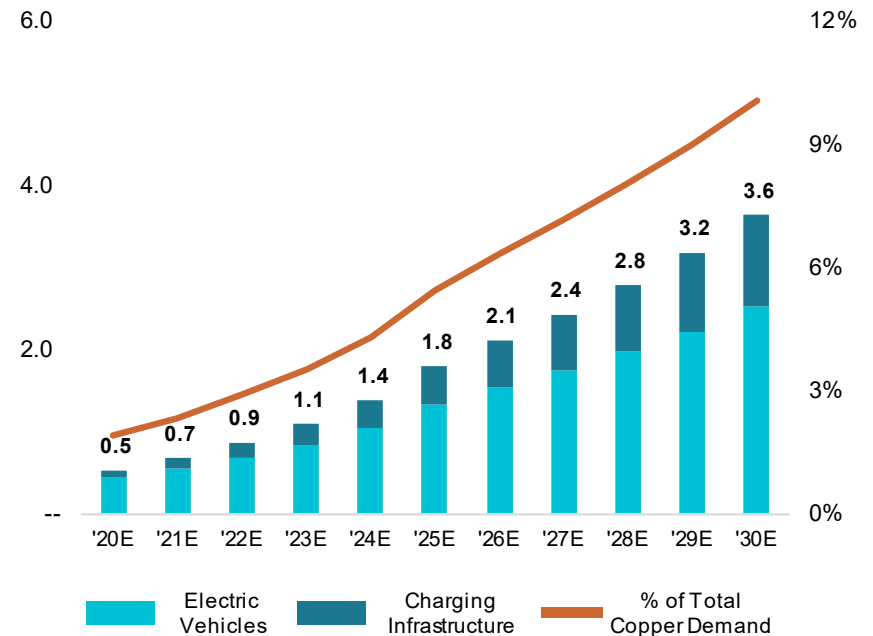
Copper Content by Vehicle Type (kg)



...Which Is Set to Drive Copper Demand as EV Sales Increase

Cu Consumption in EV (Mt)

% of Total Demand

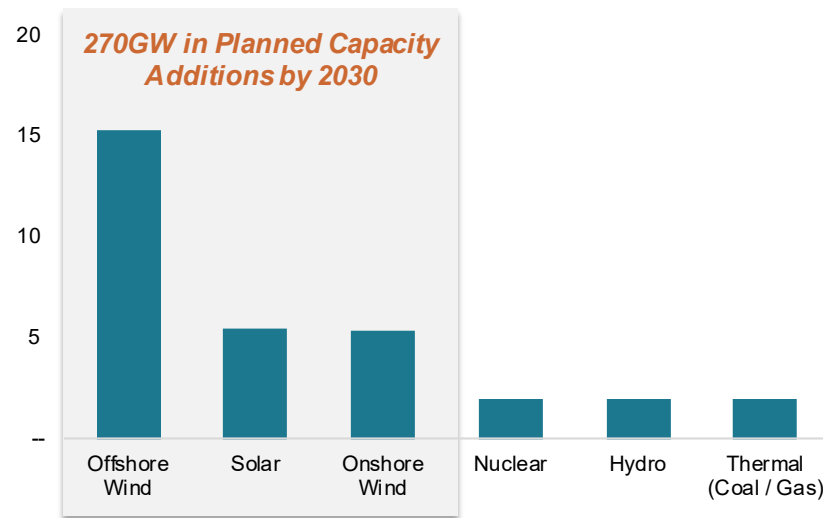


Copper Expected to Be a Key Material in Powering the World's Transition to Renewable Energy

21

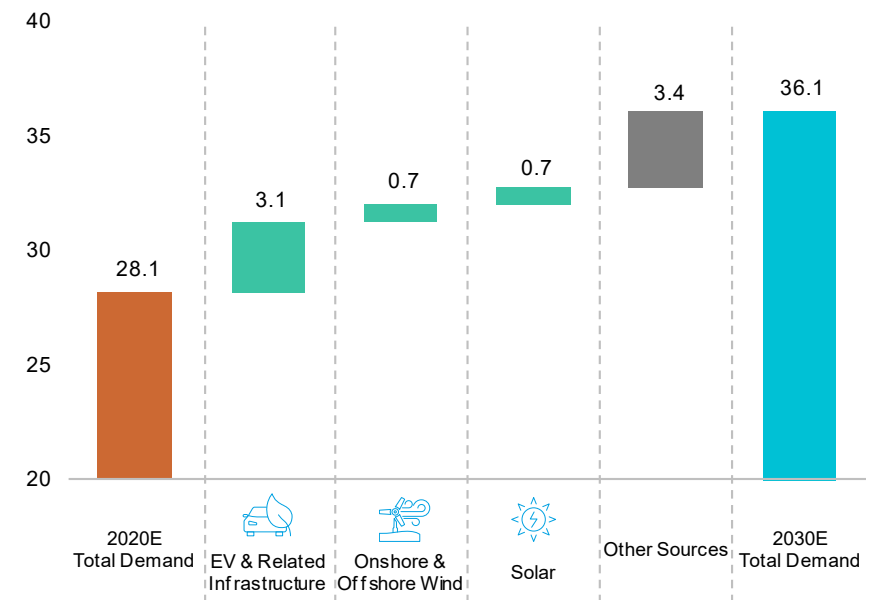
Wind and Solar Are 2x More Copper-Intensive Than Traditional Sources of Power Generation...

Copper Intensity by Power Generation Method (t/MW)



...Driving ~1.5Mtpa of Incremental Copper Demand by 2030 Based On Planned Capacity Additions

Annual Copper Demand (Mt)



4.6Mtpa in Incremental Copper Consumption Forecast from Wind, Solar, and EVs by 2030 – >16% of 2020 Total Demand

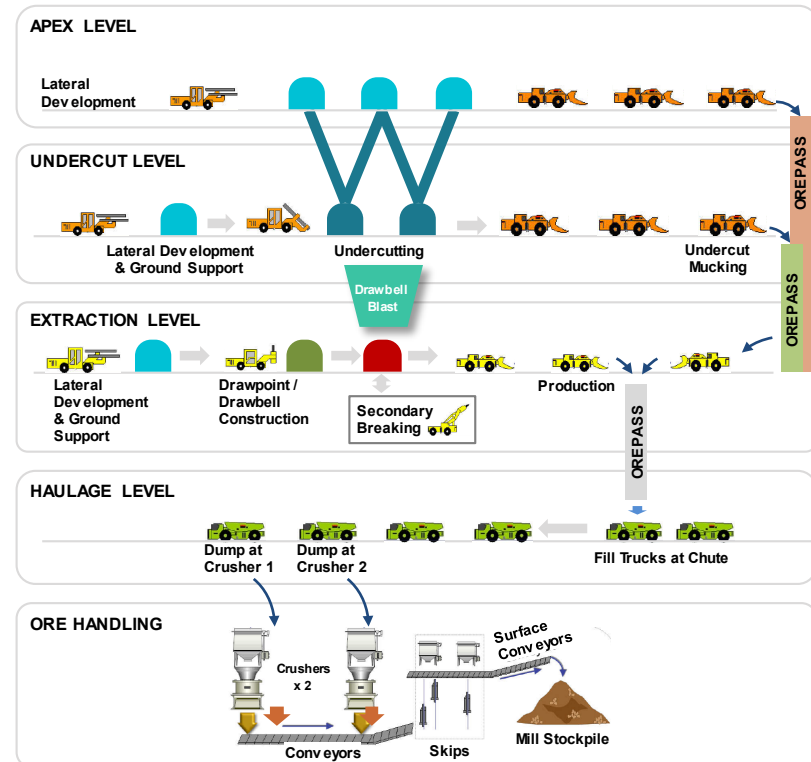
Block Caving Provides Significant Operational Benefits to Oyu Tolgoi

22

Benefits of Block Caving

- ✓ Suited to large, fractured rockmasses such as that encountered at Hugo North
- ✓ Significant safety benefits from long-life, well-engineered excavations and work areas
- ✓ Able to mine significant volumes compared with other underground production methods
- ✓ Low operating costs and amenable for automation
- ✓ Proven mining method used at world-class deposits (Grasberg, Cadia, Chuquicamata, Northparkes, El Teniente, Palabora, Argyle, Andina, Henderson, New Afton, Finsch, Cullinan, Kimberly, Koffiefontein)

Hugo North Lift 1 Ore Flow Schematic



Turquoise Hill Resources Ltd.
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TRQ: TSX & NYSE

Turquoise Hill is an international mining company focused on the operation and development of the Oyu Tolgoi copper-gold mine in southern Mongolia

