

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



Investor Presentation September 2020



TURQUOISE HILL

TSX-NYSE: TRQ

Note: All dollar amounts are expressed in United States dollars and references to “dollars” or “\$” are to US dollars, unless otherwise stated

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: economic analyses; cost reporting, operating costs and capital expenditures; project schedule; negotiation and completion of transactions; exchange rates; mineral resources, mineral reserves, realization of mineral reserves; the development approach including concepts for developing Oyu Tolgoi mineral resources; the potential impact of COVID-19 on the Company's business, operations and financial condition; the timing and amount of 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; liquidity; funding sources, requirements and planning; statements regarding timing and 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 study for Panels 1 and 2 of Hugo North Lift 1, and the possible outcomes, content and timing thereof; short-term and long-term financing options under consideration and related negotiations; the possible progression of the State Owned Power Plant ("SOPP") and related amendments to the Power Source Framework Agreement ("PSFA") as well as power purchase agreements; the timing, construction and commissioning of the potential SOPP; sources of interim power; economic conditions; capital and operating cost estimates; timing of completion of the Definitive Estimate review; mill and concentrator throughput; the outcome of formal international arbitration proceedings; anticipated business activities; planned expenditures; corporate strategies; and any and all 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 and 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 of the Company's relationship and interaction with the Government of Mongolia on the continued operation and development of Oyu Tolgoi and Oyu Tolgoi LLC internal governance. 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; the outcome of the Definitive Estimate review; 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; 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 strikes, blockages 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; 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; and defective title to mineral claims or property. 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 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 dated as of March 18, 2020 in respect of the year ended December 31, 2019 (the "AIF") as supplemented by our Management's Discussion and Analysis of Financial Condition and Results of Operations for the three and six months ended June 30, 2020 ("MD&A").

Readers are further cautioned that the list of factors enumerated in the "Risk Factors" section of the AIF and in the 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.

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. Such measures have non-standardised meaning 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.



Presenters

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Ulf Quellmann

Chief Executive Officer

Luke Colton

Chief Financial Officer

Jo-Anne Dudley

Chief Operating Officer



Turquoise Hill: A Clear and Compelling Value Proposition

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TRQ Operates Oyu Tolgoi – a Tier 1 Asset...

- ✓ Forecast to be the world's 4th largest copper producer when fully ramped up
- ✓ First quartile C1 cash costs expected when underground production ramps up¹

...with A Demonstrated Track Record of Operational Excellence

- ✓ Consistently met production guidance with best-in-class safety performance
- ✓ On-going optimisations to enhance open pit cash flows
- ✓ Underground development well advanced

Compelling Value Proposition

- ✓ Superior growth profile to other copper producers
- ✓ Shares currently trading at a discount relative to peers
- ✓ Timing of the underground ramp-up well-positioned to benefit from strong long-term copper demand-supply fundamentals

Technical Report Highlights²

\$10B
After-Tax NPV³

46%
After-Tax IRR⁴

8.5Mt
Payable Cu⁵
Head Grade 0.82%

8Moz
Payable Au⁵
Head Grade 0.30g/t

31 Years
Mine Life⁶

\$2.3B
Development Capex⁷

Source: OTTR20, Wood Mackenzie, Capital IQ

1. Refer to section – Non-GAAP Measures – of the MD&A at June 30, 2020
2. Financial analysis uses long-term metal prices of \$3.03/lb copper, \$1,474/oz gold, and \$17.85/oz silver; excludes any impacts of COVID-19 and estimates are subject to further study and assessment as part of Oyu Tolgoi LLC's cost and schedule estimation update which is expected later in 2020 and subject to further study and analysis on Panels 1 and 2
3. NPV8 is the net present value of Mineral Reserves at a discount rate of 8% for all years, calculated at January 1, 2021, based on expected cash flows from and after that date
4. Calculated based on net cash flows after tax from Mineral Reserves at January 1, 2021, based on expected net cash flows after tax from and after that date
5. Payable Cu and Au reflect life-of-mine values
6. Mine life is calculated from January 1, 2021 and only reflects Mineral Reserves
7. Presented in nominal terms. Economic analysis is calculated as of January 1, 2021 and excludes development capital spend up to December 31, 2020. Underground project spend includes development capital and VAT and excludes capitalized interest
8. Refer to pages 9, 11, 16, 17, 22, 23 and 31 for supporting information



Oyu Tolgoi Mineral Reserves as at December 31, 2019 (Updated on June 30, 2020)

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Oyut Open Pit Mineral Reserve

| Classification | Ownership | Mineral Reserve | | | | Contained Metal | | |
|---------------------------|----------------|-----------------|--------|----------|----------|-----------------|----------|----------|
| | | (Mt) | Cu (%) | Au (g/t) | Ag (g/t) | Cu (Mt) | Au (Moz) | Ag (Moz) |
| Proven | Oyu Tolgoi LLC | 310 | 0.52 | 0.39 | 1.3 | 1.6 | 3.8 | 13 |
| Probable | Oyu Tolgoi LLC | 480 | 0.39 | 0.23 | 1.1 | 1.9 | 3.5 | 17 |
| Total (Proven + Probable) | Oyu Tolgoi LLC | 780 | 0.44 | 0.29 | 1.2 | 3.5 | 7.2 | 30 |

Oyut Surface Stockpile Mineral Reserve

| Classification | Ownership | Mineral Reserve | | | | Contained Metal | | |
|----------------|----------------|-----------------|--------|----------|----------|-----------------|----------|----------|
| | | (Mt) | Cu (%) | Au (g/t) | Ag (g/t) | Cu (Mt) | Au (Moz) | Ag (Moz) |
| Proven | Oyu Tolgoi LLC | 48 | 0.33 | 0.12 | 0.93 | 0.16 | 0.19 | 1.40 |

Hugo North Lift 1 Mineral Reserve

| Classification | Ownership | Mineral Reserve | | | | Contained Metal | | |
|----------------|----------------|-----------------|--------|----------|----------|-----------------|----------|----------|
| | | (Mt) | Cu (%) | Au (g/t) | Ag (g/t) | Cu (Mt) | Au (Moz) | Ag (Moz) |
| Probable | Oyu Tolgoi LLC | 400 | 1.5 | 0.29 | 3.1 | 6.0 | 3.8 | 40 |
| Probable | Entrée LLC | 40 | 1.5 | 0.53 | 3.6 | 0.6 | 0.7 | 4.6 |
| Total Probable | | 440 | 1.5 | 0.32 | 3.2 | 6.7 | 4.5 | 45 |

Source: OTTR20

- Totals may not match due to rounding to two significant figures in line with industry best practice
- CIM Definition Standards (2014) are used for reporting of Mineral Reserves
- The effective date of the Oyut open pit and surface stockpile Mineral Reserve is December 31, 2019. The effective date of the Hugo North Mineral Reserve is December 31, 2019 (updated on June 30, 2020)
- The Oyut Mineral Reserve is currently being mined by open pit mining methods. The Stockpile Mineral Reserve is on surface close to the Oyut open pit. The Hugo North Mineral Reserve will be mined by underground mining methods
- Net Smelter Return ("NSR") values used for estimating Mineral Reserves are based on forecast long-term copper, gold, and silver prices of \$3.08/lb, \$1,292/oz, and \$19.00/oz, respectively
- Assumptions for smelting refining and treatment, charges, deductions, and payment terms, concentrate transport, metallurgical recoveries and royalties are included in the NSR values
- For the Oyut Mineral Reserve processing and general and administration (G&A) costs used to determine NSR cut-off values vary between \$7.18/t and \$10.14/t depending on the ore type processed
- For the Hugo North Mineral Reserve, an NSR shut off grade of \$17.84/t is used to determine the point at which each underground drawpoint is closed. This NSR value is based on estimated mining, processing and G&A costs which range from \$17.27/t to \$17.90/t across the five different ore types
- For the Oyut deposit, the Proven Mineral Reserve is derived only from Measured Mineral Resources. The Probable Mineral Reserve is derived only from Indicated Mineral Reserves
- For the Hugo North deposit, the Probable Mineral Reserve is derived from a combination of Measured and Indicated Mineral Resources
- The Shivee Tolgoi Licence and the Javkhant Licence are held by Entrée LLC. The Shivee Tolgoi Licence and the Javkhant Licence are planned to be operated by Oyu Tolgoi LLC. Oyu Tolgoi LLC will receive 80% of cash flows after capital and operating costs for material originating below 560m and 70% above this depth TRQ holds a 7.9% interest in Entrée Resources Ltd
- The term Entrée LLC refers to ownership by the proposed joint venture arrangement between Oyu Tolgoi LLC and Entrée LLC
- The Hugo North Mineral Reserve has been updated from that reported in TRQ's AIF dated March 18, 2020 and reflects changes in the Hugo North Lift 1 Panel 0 design. No mineral reserves were mined from Hugo North between December 31, 2019 and June 30, 2020 other than a small (non-material) quantity of development ore
- Shapes shown in this diagram are approximate representations of the Mineral Resources
- The estimate of Mineral Reserves may be materially affected by environmental, permitting, legal, title, sociopolitical, marketing, or other relevant issues including risks set forth in this technical report and in other filings made by TRQ with Canadian securities regulatory authorities and available at www.sedar.com

Reserves



Oyu Tolgoi Mineral Resources as at December 31, 2019 (Updated on June 30, 2020)

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Heruga Deposit Underground Mineral Resources Summary

| Classification | Ownership | Tonnage (Mt) | Cu (%) | Au (g/t) | Ag (g/t) | Mo (ppm) | Contained Metal | | | |
|----------------|----------------|--------------|--------|----------|----------|----------|-----------------|----------|----------|-----------|
| | | | | | | | Cu (Mt) | Au (Moz) | Ag (Moz) | Mo (Mlbs) |
| Inferred | Oyu Tolgoi LLC | 110 | 0.42 | 0.30 | 1.6 | 110 | 0.4 | 1.0 | 5.3 | 26 |
| Inferred | Entrée LLC | 1400 | 0.41 | 0.40 | 1.5 | 120 | 6.0 | 19 | 68 | 390 |
| Inferred | All Heruga | 1600 | 0.42 | 0.39 | 1.5 | 120 | 6.5 | 20 | 73 | 410 |

Hugo North Deposit Underground Mineral Resources Summary

| Classification | Ownership | Tonnage (Mt) | Cu (%) | Au (g/t) | Ag (g/t) | Contained Metal | | | |
|----------------------|----------------|--------------|--------|----------|----------|-----------------|----------|----------|--|
| | | | | | | Cu (Mt) | Au (Moz) | Ag (Moz) | |
| Measured | Oyu Tolgoi LLC | 58 | 1.9 | 0.48 | 4.2 | 1.1 | 0.9 | 7.8 | |
| | Entrée LLC | - | - | - | - | - | - | - | |
| | All Hugo North | 58 | 1.9 | 0.48 | 4.2 | 1.1 | 0.9 | 7.8 | |
| Indicated | Oyu Tolgoi LLC | 401 | 1.3 | 0.34 | 3.1 | 5.4 | 4.4 | 41 | |
| | Entrée LLC | 87 | 1.6 | 0.54 | 4.1 | 1.4 | 1.5 | 12 | |
| | All Hugo North | 488 | 1.4 | 0.38 | 3.3 | 6.8 | 5.9 | 52 | |
| Measured + Indicated | Oyu Tolgoi LLC | 459 | 1.4 | 0.36 | 3.3 | 6.5 | 5.3 | 48 | |
| | Entrée LLC | 87 | 1.6 | 0.54 | 4.1 | 1.4 | 1.5 | 12 | |
| | All Hugo North | 546 | 1.4 | 0.39 | 3.4 | 7.8 | 6.8 | 60 | |
| Inferred | Oyu Tolgoi LLC | 765 | 0.8 | 0.28 | 2.4 | 6.1 | 6.9 | 59 | |
| | Entrée LLC | 167 | 1.0 | 0.36 | 2.8 | 1.7 | 1.9 | 15 | |
| | All Hugo North | 932 | 0.8 | 0.29 | 2.5 | 7.8 | 8.8 | 74 | |

Oyut Deposit Open Pit Mineral Resources Summary

| Classification | Ownership | Tonnage (Mt) | Cu (%) | Au (g/t) | Ag (g/t) | Contained Metal | | |
|----------------------------|----------------|--------------|--------|----------|----------|-----------------|----------|----------|
| | | | | | | Cu (Mt) | Au (Moz) | Ag (Moz) |
| Measured | Oyu Tolgoi LLC | 16 | 0.39 | 0.41 | 1.2 | 0.1 | 0.2 | 0.6 |
| Indicated | Oyu Tolgoi LLC | 80 | 0.34 | 0.29 | 1.2 | 0.3 | 0.8 | 3.0 |
| Total Measured + Indicated | Oyu Tolgoi LLC | 95 | 0.35 | 0.31 | 1.2 | 0.3 | 1.0 | 3.6 |
| Inferred | Oyu Tolgoi LLC | 320 | 0.29 | 0.17 | 1.0 | 0.9 | 1.8 | 10 |

Oyut Deposit Underground Mineral Resources Summary

| Classification | Ownership | Tonnage (Mt) | Cu (%) | Au (g/t) | Ag (g/t) | Contained Metal | | |
|----------------------------|----------------|--------------|--------|----------|----------|-----------------|----------|----------|
| | | | | | | Cu (Mt) | Au (Moz) | Ag (Moz) |
| Measured | Oyu Tolgoi LLC | 14 | 0.47 | 0.88 | 1.3 | 0.1 | 0.4 | 0.6 |
| Indicated | Oyu Tolgoi LLC | 69 | 0.38 | 0.59 | 1.1 | 0.3 | 1.3 | 2.5 |
| Total Measured + Indicated | Oyu Tolgoi LLC | 83 | 0.39 | 0.64 | 1.1 | 0.3 | 1.7 | 3.0 |
| Inferred | Oyu Tolgoi LLC | 180 | 0.39 | 0.40 | 1.2 | 0.7 | 2.2 | 6.8 |

Hugo South Deposit Underground Mineral Resources Summary

| Classification | Ownership | Tonnage (Mt) | Cu (%) | Au (g/t) | Ag (g/t) | Contained Metal | | |
|----------------|----------------|--------------|--------|----------|----------|-----------------|----------|----------|
| | | | | | | Cu (Mt) | Au (Moz) | Ag (Moz) |
| Inferred | Oyu Tolgoi LLC | 720 | 0.84 | 0.07 | 1.9 | 6.1 | 1.7 | 44 |

Source: OTTR20

- Totals may not match due to rounding to two significant figures in line with industry best practice
- CIM Definition Standards (2014) are used for reporting of Mineral Resources
- The Mineral Resources exclude Mineral Reserves
- The following copper equivalent ("CuEq") formulae have been used for cut-off grade determination in each deposit. Oyut: $\text{CuEq} = \text{Cu} + ((\text{Au} \times 35.4938) + (\text{Ag} \times 0.4101)) / 67.9023$, Hugo North: $\text{CuEq} = \text{Cu} + ((\text{Au} \times 35.7175) + (\text{Ag} \times 0.5353)) / 67.9023$, Hugo South: $\text{CuEq} = \text{Cu} + ((\text{Au} \times 37.7785) + (\text{Ag} \times 0.5773)) / 67.9023$, Heruga: $\text{CuEq} = \text{Cu} + ((\text{Au} \times 37.0952) + (\text{Ag} \times 0.5810) + (\text{Mo} \times 0.0161)) / 67.9023$
- The metal prices used in determining the CuEq formulae are: \$3.08/lb for copper, \$1,292/oz for gold, \$19.00/oz for silver, and \$10.00/lb for molybdenum
- The metallurgical recoveries used in determining the CuEq formulae for each deposit are: Oyut deposit: Copper 78%, Gold 67%, Silver 52%. Hugo North deposit: Copper 93%, Gold 80%, Silver 81%. Hugo South deposit: Copper 89%, Gold 81%, Silver 84%. Heruga: Copper 82%, Gold 73%, Silver 76%, Molybdenum 60%
- For the Oyut deposit, a cut-off grade of 0.24% CuEq has been used for Mineral Resources with open pit potential. A cut-off 0.41% CuEq has been used for Mineral Resources with underground mining potential
- For the Hugo North, Hugo South, and Heruga deposits a cut-off grade of 0.41% CuEq grade used based on the assumption that the deposits will be mined using underground mining methods
- The effective date of the Mineral Resources estimates is December 31, 2019 (updated on June 30, 2020). The Mineral Resources do not account for resources mined after the effective date
- The Shivee Tolgoi and Javkhant licenses are held by Entrée LLC. The Shivee Tolgoi and Javkhant Licenses are planned to be operated by Oyu Tolgoi LLC. Oyu Tolgoi LLC will receive 80% of cash flows after capital and operating costs for material originating below 560m, and 70% above this depth. TRQ holds a 7.9% interest in Entrée LLC
- In the Mineral Resource tabulations, the term Entrée LLC refers to ownership by the proposed joint venture arrangement between Oyu Tolgoi LLC and Entrée LLC
- Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability
- The Oyut deposit was formerly known as Southern Oyu Tolgoi
- Molybdenum is excluded from the Total Resources in the Oyut Deposit Open Pit Mineral Resources Summary table
- The contained copper, gold, silver, and molybdenum estimates in the tables have not been adjusted for metallurgical recoveries
- Shapes shown in this diagram are approximate representations of the Mineral Resources
- The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, sociopolitical, marketing, or other relevant issues including risks set forth in this technical report and in other filings made by TRQ with Canadian securities regulatory authorities and available at www.sedar.com

■ Reserves ■ Resources



1. Oyu Tolgoi Asset Overview

A Tier 1 Mine: Large, Low Cost, and Expandable



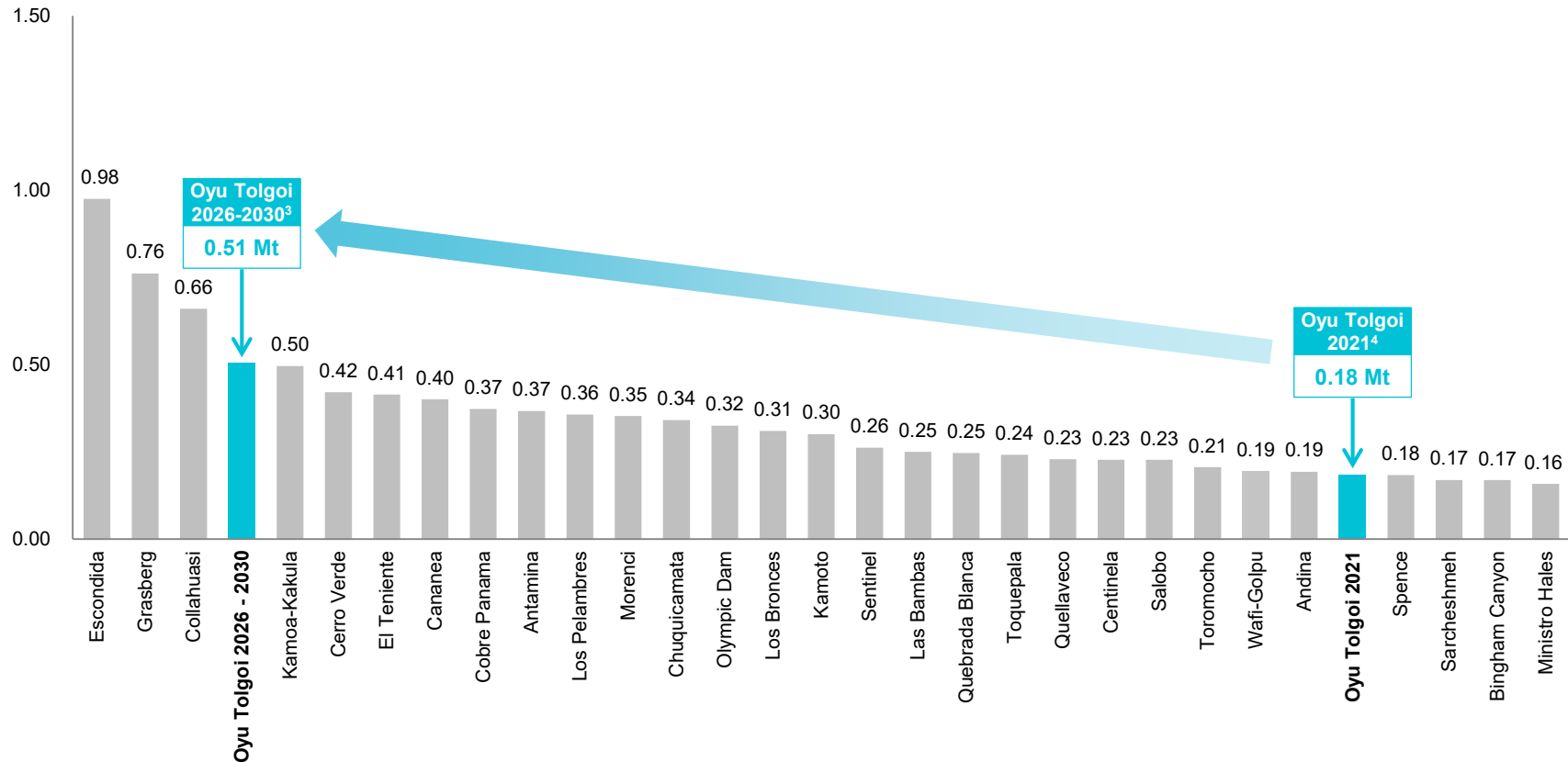
Oyu Tolgoi is A Major Copper Producer...

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Forecast to be the World's Fourth Largest Copper Producer as Underground Production Ramps Up

Top 30 Copper Producing Mines in 2028¹ ²

Paid Metal (Mt Cu)



Source: Wood Mackenzie, OTTR20

1. Wood Mackenzie estimate as at Q3 2020
2. OTTR20 excludes any impacts of COVID-19 and estimates are subject to further study and assessment as part of Oyu Tolgoi LLC's cost and schedule estimation update which is expected later in 2020 and subject to further study and analysis on Panels 1 and 2
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. See payable copper in concentrate production forecast for 2021. Refer to Table 22.5 in OTTR20



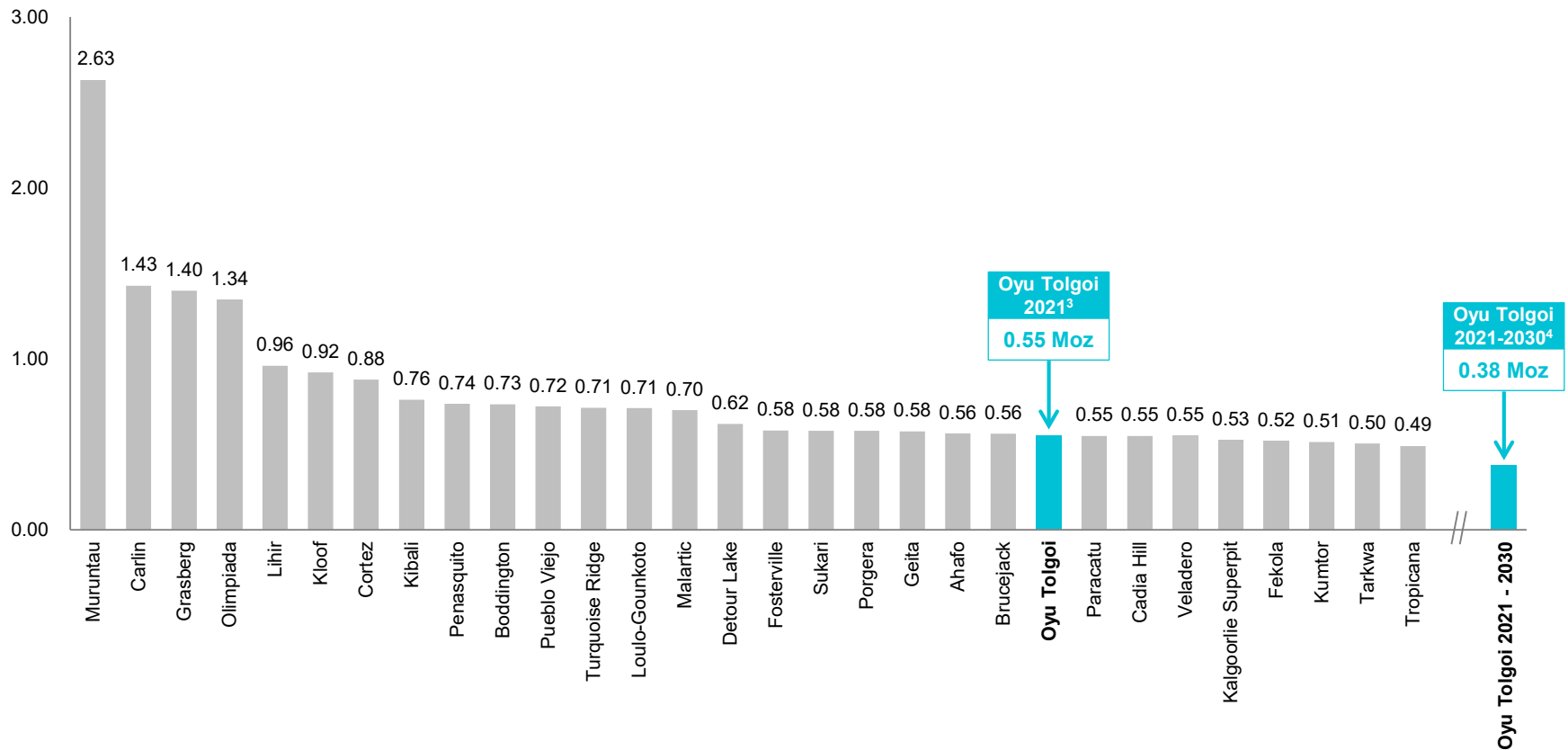
...And A Substantial Producer of Gold

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Forecast to be Among the Top 30 Producers in 2021

Top 30 Gold Producing Mines in 2021^{1 2}

Paid Metal (Moz Au)



Source: Wood Mackenzie, OTTR20, Company Filings

1. Wood Mackenzie estimate as at Q3 2020

2. OTTR20 excludes any impacts of COVID-19 and estimates are subject to further study and assessment as part of Oyu Tolgoi LLC's cost and schedule estimation update which is expected later in 2020 and subject to further study and analysis on Panels 1 and 2

3. See payable gold in concentrate production forecast for 2021. Refer to Table 22.5 in OTTR20

4. Reflects OTTR20 forecast of average payable gold in concentrate production over 10 years from 2021 to 2030. Refer to Table 22.5 in OTTR20

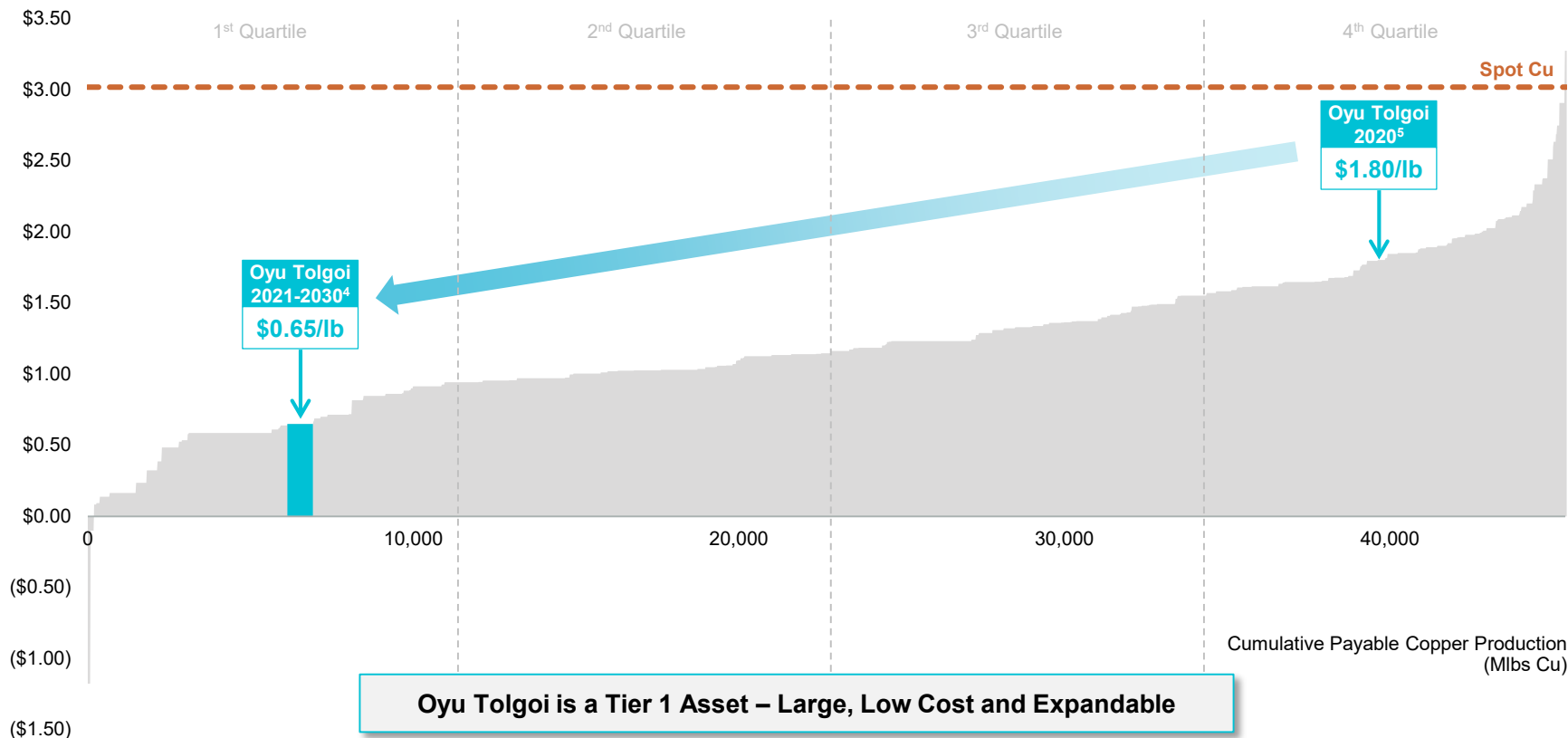


First Quartile Cash Costs Expected As Underground Expansion Ramps Up^{1 2}

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2025 Cash Cost by Mine

C1 Cash Cost³ (\$ / lb) (Composite)



Source: Wood Mackenzie, Capital IQ, OTTR20

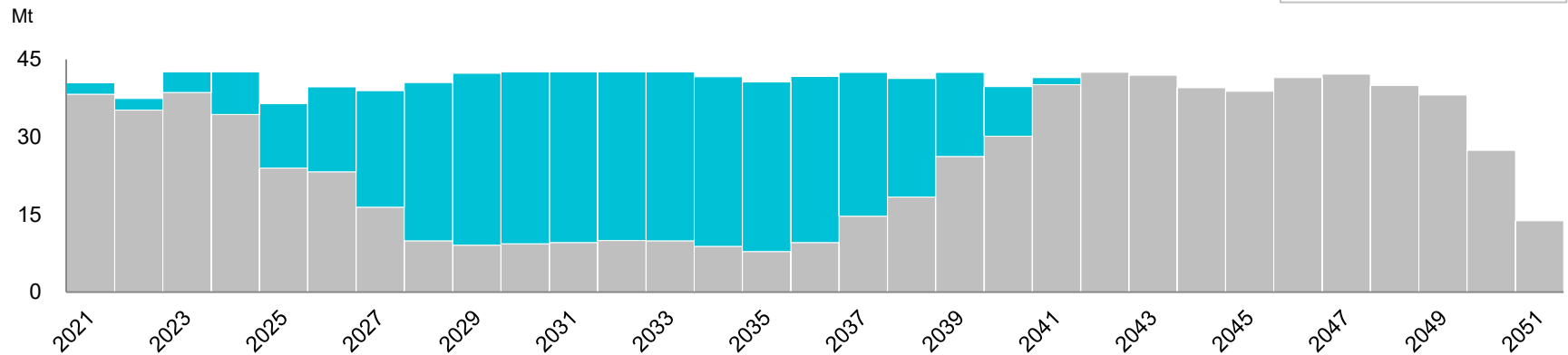
1. First quartile C1 cash costs based on Oyu Tolgoi production using 2025 Wood Mackenzie C1 composite cost curve
2. OTTR20 excludes any impacts of COVID-19 and estimates are subject to further study and assessment as part of Oyu Tolgoi LLC's cost and schedule estimation update which is expected later in 2020 and subject to further study and analysis on Panels 1 and 2
3. Refer to section - Non-GAAP Measures - of the MD&A at June 30, 2020
4. OTTR20 forecast of average annual C1 cash costs for first 10 years. Refer to Table 1.18 in OTTR20
5. Midpoint of 2020 guidance as reported on July 28, 2020



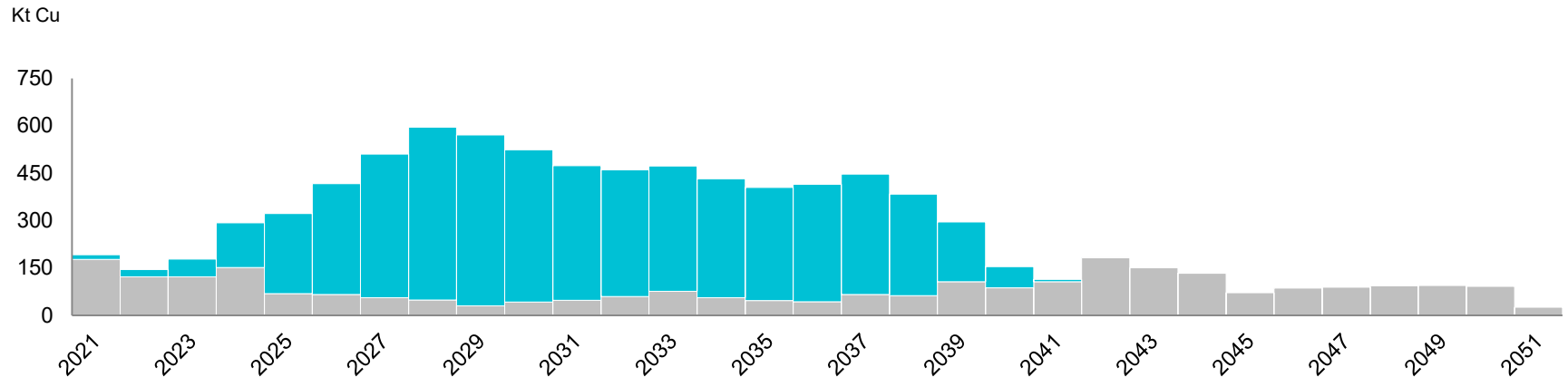
Underground to Become Significant Source of Copper Production...

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Material Processed by Source^{1 2}



Copper in Concentrate by Ore Source^{1 3}



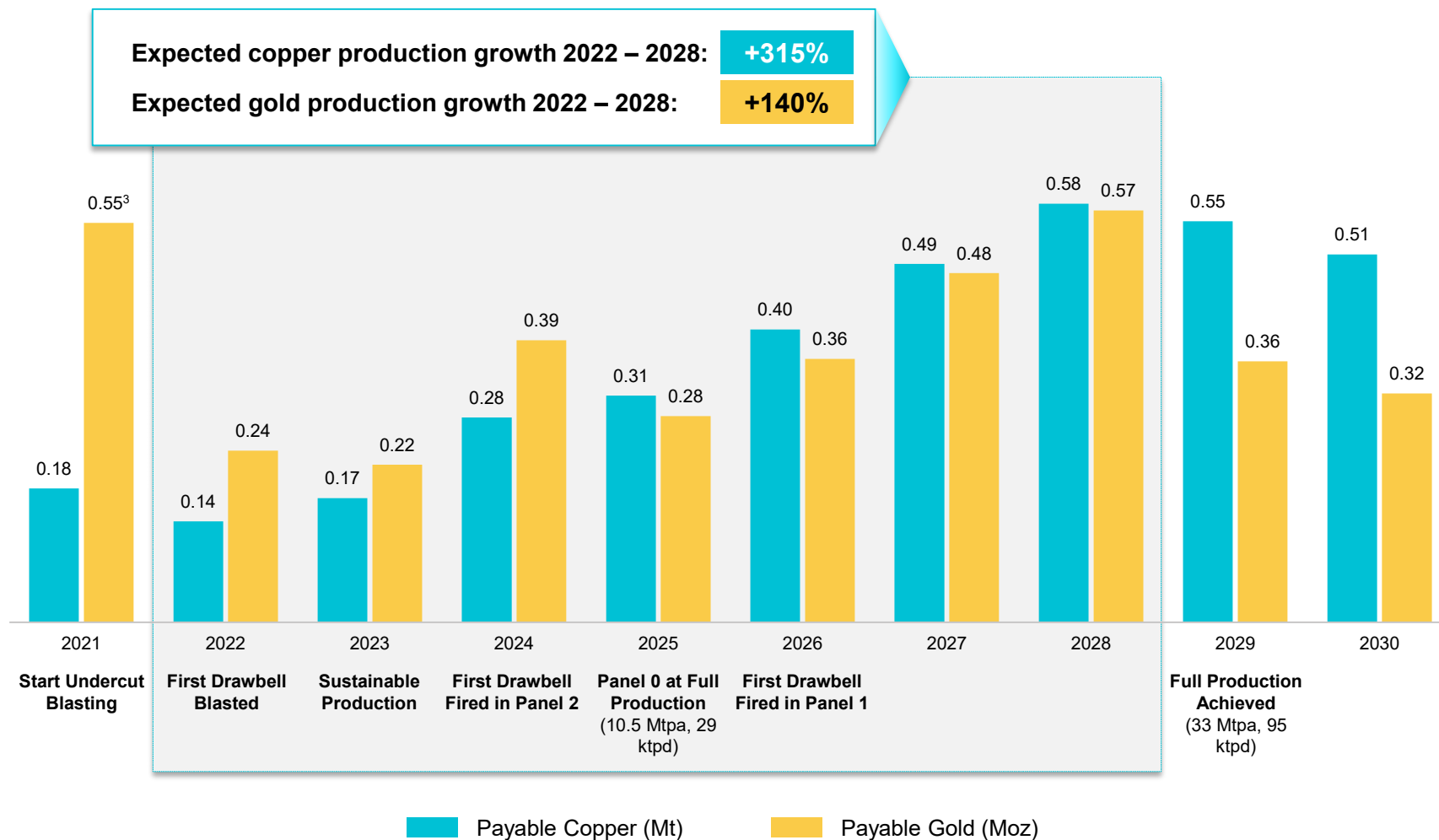
Source: OTTR20

1. OTTR20 excludes any impacts of COVID-19 and estimates are subject to further study and assessment as part of Oyu Tolgoi LLC's cost and schedule estimation update which is expected later in 2020 and subject to further study and analysis on Panels 1 and 2
2. Refer to Figure 22.1 in OTTR20
3. Refer to Figure 22.2 in OTTR20



...Driving Production Growth...^{1 2}

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Source: OTTR20

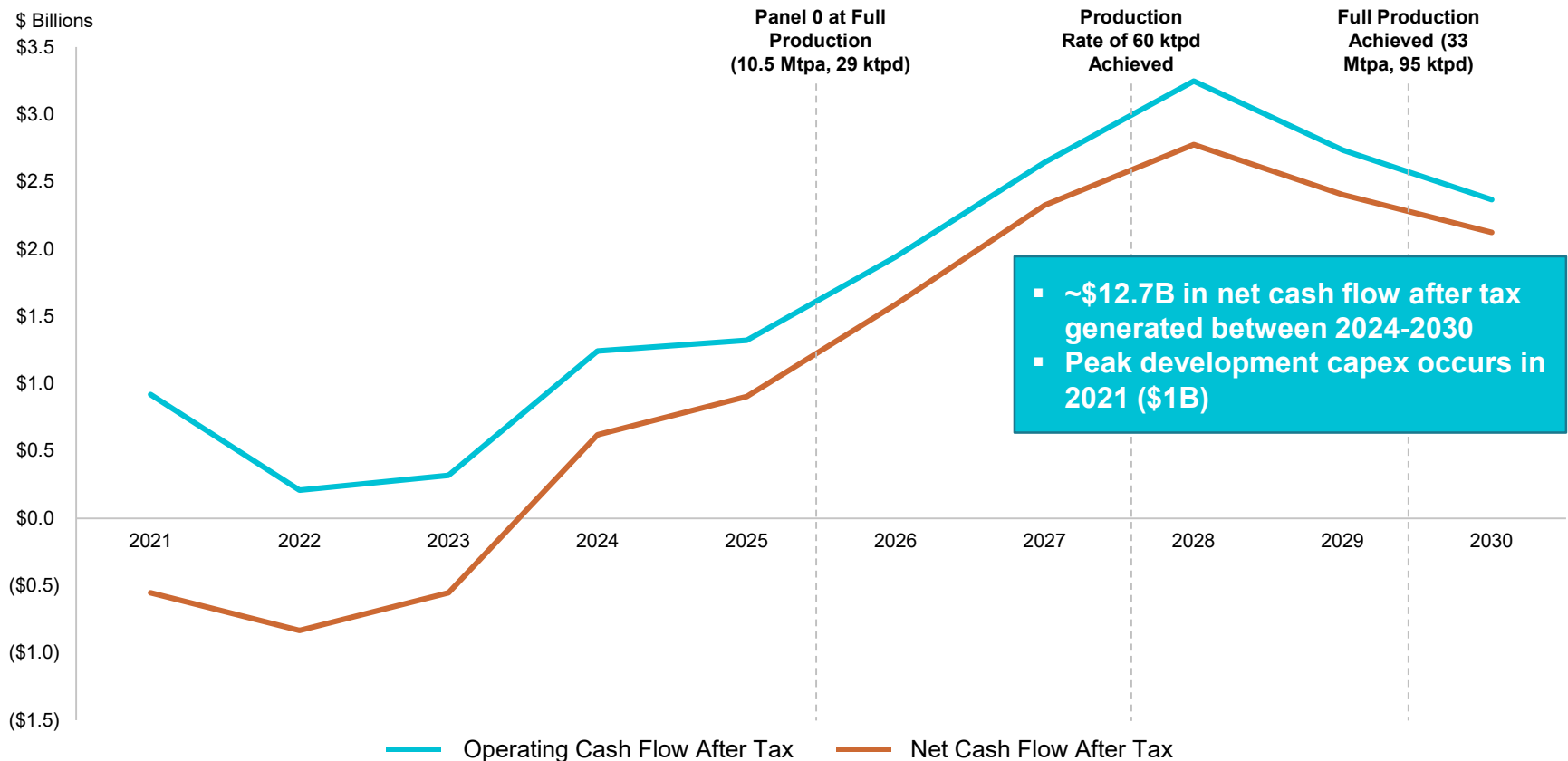
1. OTTR20 excludes any impacts of COVID-19 and estimates are subject to further study and assessment as part of Oyu Tolgoi LLC's cost and schedule estimation update which is expected later in 2020 and subject to further study and analysis on Panels 1 and 2
2. See payable metal in concentrate production. Refer to Table 22.5 in OTTR20
3. Expected gold production increase in 2021 driven by the transition to higher grade ore in lower benches of the southwest pit



...And Significant Cash Flow Generation

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Indicative Oyu Tolgoi Cash Flow^{1 2 3 4}



Source: OTTR20

1. Amounts are rounded and exclude any impacts of COVID-19 and are subject to further study and assessment as part of Oyu Tolgoi LLC's cost and schedule estimation update which is expected later in 2020 and subject to further study and analysis on Panels 1 and 2
2. See Net Cash Flow After Tax. Refer to Table 22.5 in OTTR20
3. Realization costs are inclusive of Government royalties, treatment and refining charges freight costs and penalties. Indirect costs are inclusive of operating cost VAT, management fees, property taxes and other fees. Capital expenditure is presented inclusive of associated VAT. Total capital in nominal terms is \$2.3 billion as presented in Section 21 of OTTR20
4. Net cash flow after tax is exclusive of any expenses related to financing. Net cash flow after tax is presented on a pre-finance basis. TRQ's disclosed incremental funding requirement of \$3.6 billion incorporates principal repayments of \$1.9 billion and interest and similar charges of \$1.1 billion. Refer to TRQ's July 16, 2020 press release



2. Track Record of Operational Excellence

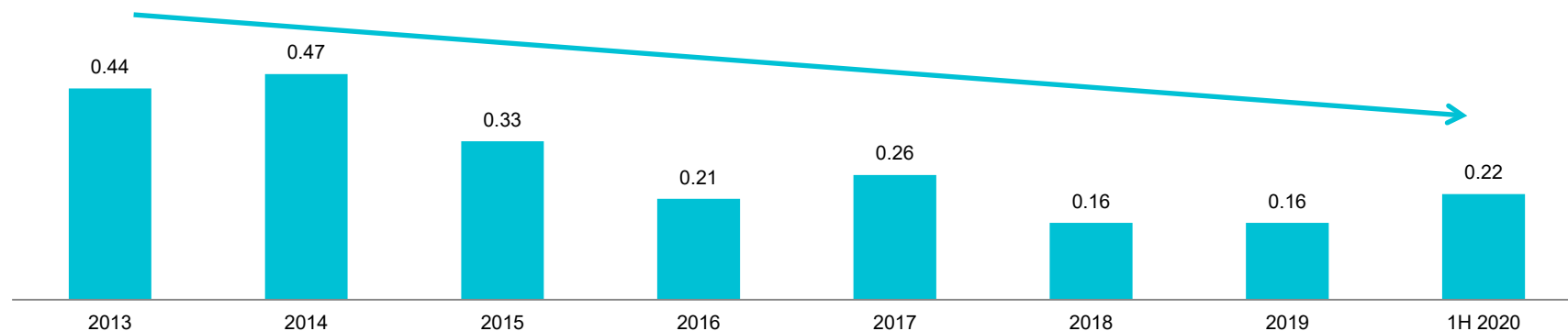


Best-in-Class Safety Performance and Track Record of Operational Excellence

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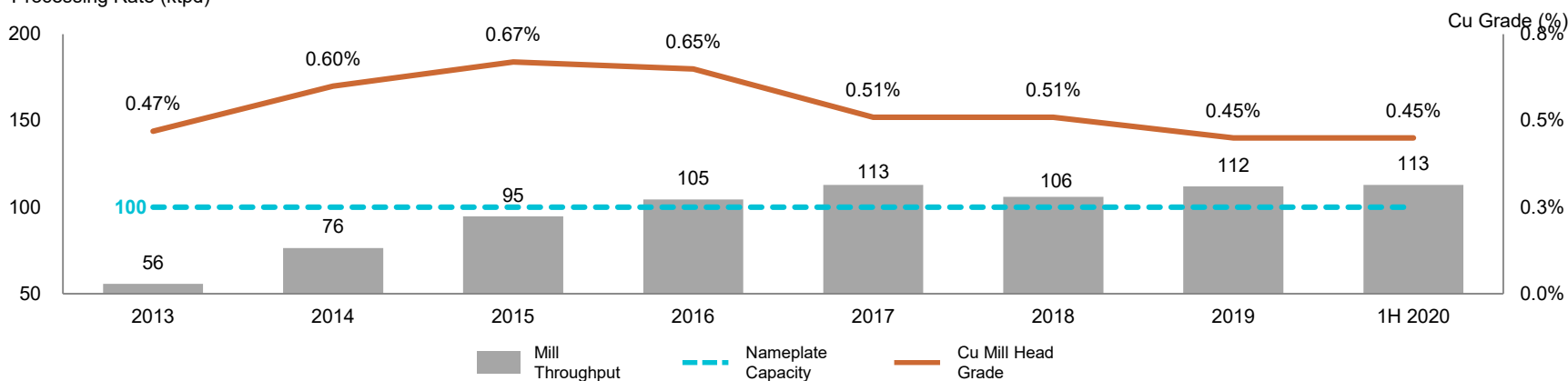
Best-in-Class All Injury Frequency Rate

Based on 200,000 Hours of Work Exposure



Oyu Tolgoi Ore Throughput Consistently Above Nameplate Capacity

Processing Rate (ktpd)

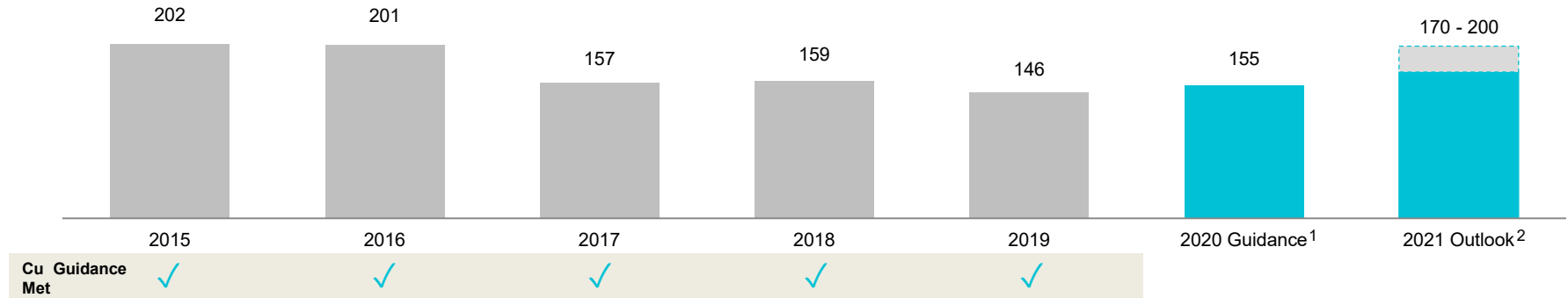


Turquoise Hill Has Consistently Met Production Guidance

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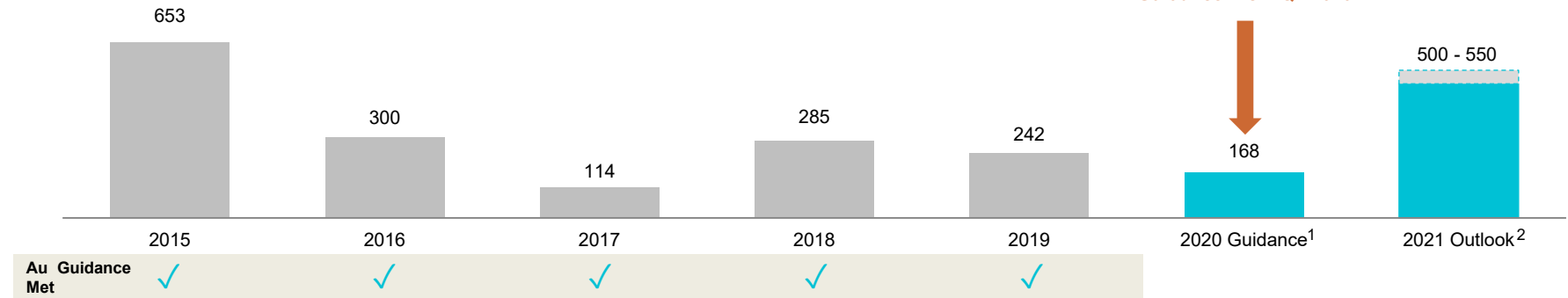
Oyu Tolgoi Copper Production

kt (100% Basis)



Oyu Tolgoi Gold Production

koz (100% Basis)



Source: Company Filings

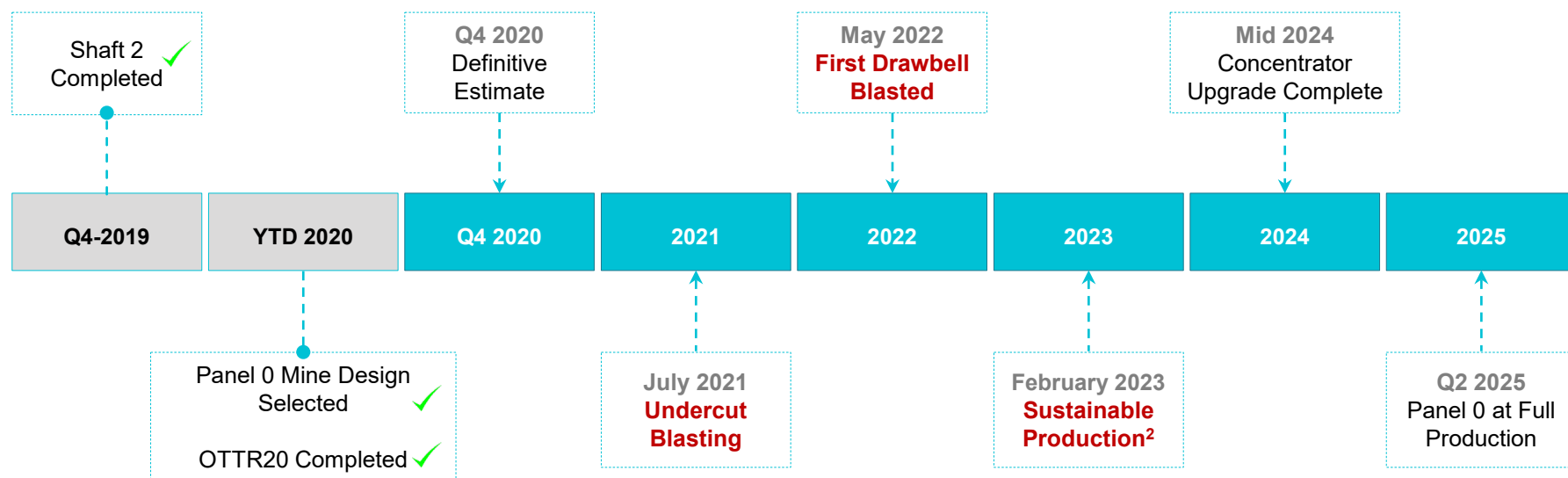
1. Midpoint of guidance

2. 2021 copper and gold production outlook of 170-200kt and 500-550koz, respectively



Underground Development Well-Advanced¹

18



Achievement of key milestones continues to de-risk underground development

1. Timeline is illustrative, subject to change and excludes any impacts of COVID-19 and estimates are subject to further study and assessment as part of Oyu Tolgoi LLC's cost and schedule estimation update which is expected later in 2020 and subject to further study and analysis on Panels 1 and 2
2. Range of October 2022 – June 2023



Existing Operations

- ✓ Open pit operations have continued uninterrupted
 - Q2 2020: 36.5kt of Copper and 31.2koz of Gold produced; mill continuing to operate above nameplate capacity
- ✓ Oyu Tolgoi remains in full compliance with, and aligned to guidance and decrees issued by the Government of Mongolia, State Emergency Committee, and the local authorities
 - Oyu Tolgoi's Business Resilience Team is working closely with the Mongolian authorities to prioritize the health and safety of all its employees and the wider community

Underground Development

- **Planned production schedule does not reflect COVID-19 impacts which are ongoing and continue to be assessed**
- While development has continued to progress, several workstreams are directly impacted and this may lead to delays
 - Shafts 3 and 4 are on care and maintenance; these provide ventilation to support the ongoing development associated with production post Panel 0 ramp up
 - Work on Primary Crusher 1 and the associated materials handling system to Shaft 2 continues to progress but has slowed due to the lack of availability of critical resources and restrictions on onsite workforce numbers. Strategic redeployment of lateral development personnel is underway to improve productivity



3. Compelling Relative Valuation

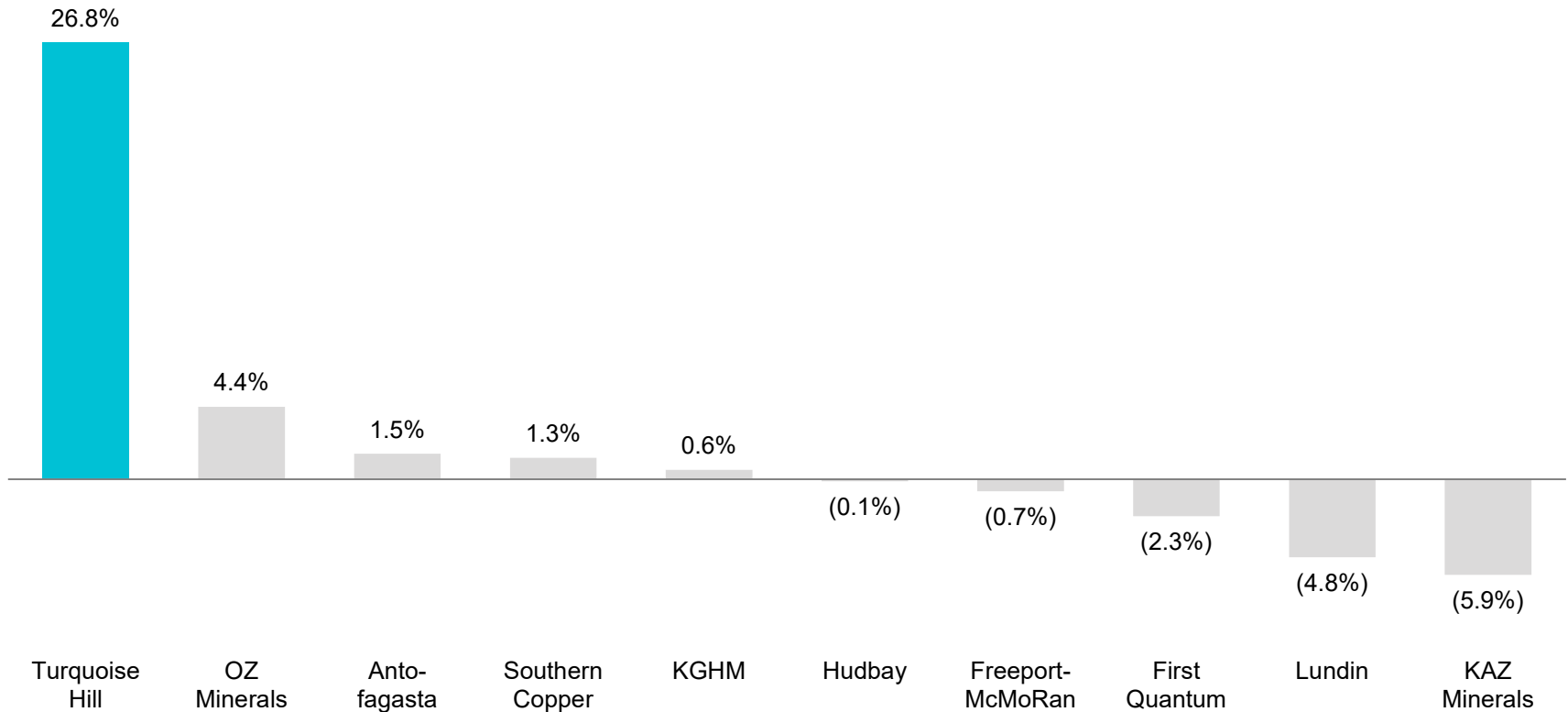


Turquoise Hill Offers Superior Growth Compared to Peer Copper Companies...

21

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

CAGR (%)



Source: Wood Mackenzie, OTTR20

1. Based on payable, attributable copper production
2. TRQ's 2022 and 2028 production based on OTTR20, peer copper production data based on Wood Mackenzie estimates as at Q3 2020
3. OTTR20 excludes any impacts of COVID-19 and estimates are subject to further study and assessment as part of Oyu Tolgoi LLC's cost and schedule estimation update which is expected later in 2020 and subject to further study and analysis on Panels 1 and 2

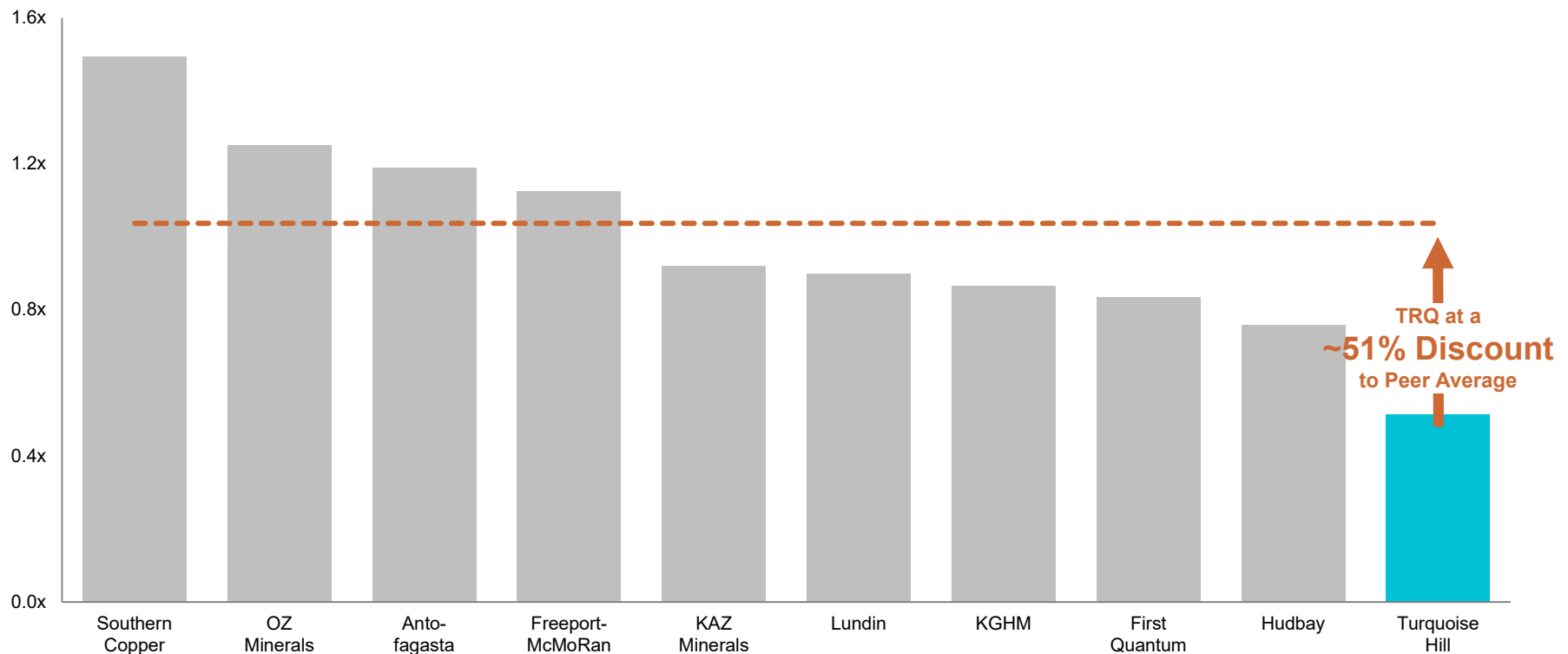


...But Is Trading at a Deep Discount Relative to Copper Peers

22

Share Price / NAV per Share

Peers



Source: Capital IQ

1. Data as of August 28, 2020; P/NAV calculations use broker consensus NAV as reported by Capital IQ
2. Peer average P/NAV excludes TRQ



Investment Highlights

23

1

Tier 1 Asset – forecast to be the 4th largest global copper producer with first quartile cash costs¹ as underground production ramps up

2

Pipeline of ore bodies with large resource base provides development optionality

3

Demonstrated track record of operational excellence and best-in-class safety performance

4

Superior growth profile to peers, yet currently trading at a substantial discount

5

Underground ramp-up well-positioned to benefit from strong long-term copper supply/demand fundamentals

1. Refer to section – Non-GAAP Measures – of the MD&A at June 30, 2020

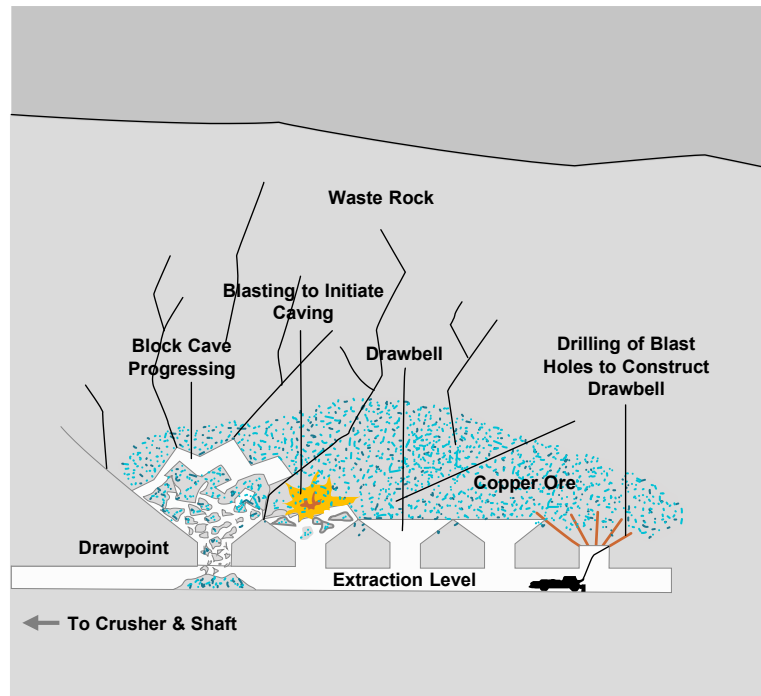




Block Caving Provides Significant Operational Benefits to Oyu Tolgoi

25

Overview of Block Caving



Benefits of Block Caving

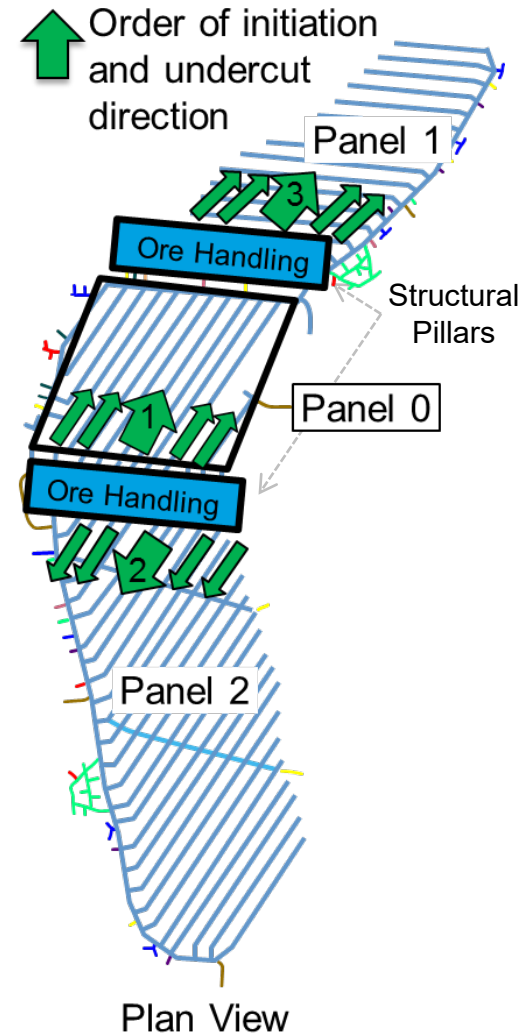
- ✓ Suited to large, fractured rockmasses such as that encountered at Hugo North
 - ✓ Significant safety benefits from long-life, well engineered excavations and work areas
 - ✓ Able to mine significant volumes relative to other underground production methods
 - ✓ Low operating costs and amenable for 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)
- › *Bolded mines indicate block caving mines with past or current Rio Tinto involvement*

Partnering with Rio Tinto provides technical expertise in block cave mining



Panel 0 Mine Design Optimized Based on Geotechnical Conditions

- ✓ **Underground production begins in Panel 0 where the highest grades within Hugo North Lift 1 are found**
- ✓ **Design changes provide increased execution and operational resilience to Panel 0 geotechnical conditions**
- ✓ **Incorporation of structural pillars to the North and South of the Panel 0 boundaries:**
 - Protects critical ore handling infrastructure from stress induced damage during caving
 - Generates significant optionality with Panel 1 and Panel 2 able to be refined, developed and operated independently
 - Next phase of design studies is ongoing includes a review of the designs of Panel 1 and Panel 2 to reflect Panel 0 learnings and to independently optimize these panels due to the structural pillars



Production and Financial Evaluation Summary^{1 2 3}

| Description | Units | Life-of-Mine Value |
|---|-----------------------|--------------------|
| Material Processed | Billion Tonnes | 1.2 |
| Copper (Cu) Head Grade | % | 0.82 |
| Gold (Au) Head Grade | g/t | 0.30 |
| Silver (Ag) Head Grade | g/t | 1.89 |
| Cu in Concentrate | Mt (Billion Pounds) | 8.8 (19.5) |
| Au in Concentrate | Moz | 8.4 |
| Ag in Concentrate | Moz | 51.7 |
| Concentrate | Mt | 31.1 |
| Payable Cu | Mt (Billion Pounds) | 8.5 (18.8) |
| Payable Au | Moz | 8.0 |
| Payable Ag | Moz | 46.5 |
| Mine Life ⁴ | Years | 31 |
| Development Capital ⁵ | \$ Billions (Nominal) | 2.3 |
| Development Capital ⁵ | \$ Billions (Real) | 2.2 |
| Payback Period ⁶ | Years | 6 |
| Internal Rate of Return (Unlevered, After Tax) ⁷ | % | 46% |
| NPV8 (After Tax) ⁸ | \$ Billions | 10.0 |

Source: OTTR20

- Cost estimates are prepared in 2020 real terms
- The estimate of mineral reserves may be materially affected by environmental, permitting, legal, title, sociopolitical, marketing, or other relevant issues including risks set forth in the AIF and other filings made with Canadian securities regulatory authorities. These updated estimates differ from those reported in the AIF and reflect incorporation of changes in the Hugo North Panel 0 design and incorporated into OTTR20
- The financial analysis uses long-term metal prices of \$3.03/lb copper, \$1,474/oz gold, and \$17.85/oz silver. The analysis was calculated with assumptions for smelter refining and treatment charges, deductions, and payment terms, concentrate transport, metallurgical recoveries, and royalties
- Mine life is calculated from January 1, 2021 and only reflects Mineral Reserves
- Presented in nominal terms. Economic analysis is calculated as of January 1, 2021 and excludes development capital spend up to December 31, 2020. Underground project spend includes development capital and VAT and excludes capitalized interest
- Payback period is calculated from January 1, 2021 and is rounded to years. Payback is calculated on undiscounted real cash flows including interest and similar charges associated with the in-place project finance facility
- IRR is the discount rate that makes the net present value of all net cash flows after tax from Mineral Reserves equal to zero, calculated at January 1, 2021, based on expected net cash flows after tax from and after that date
- NPV8 is the net present value of Mineral Reserves at a discount rate of 8% for all years, calculated at January 1, 2021, based on expected cash flows from and after that date

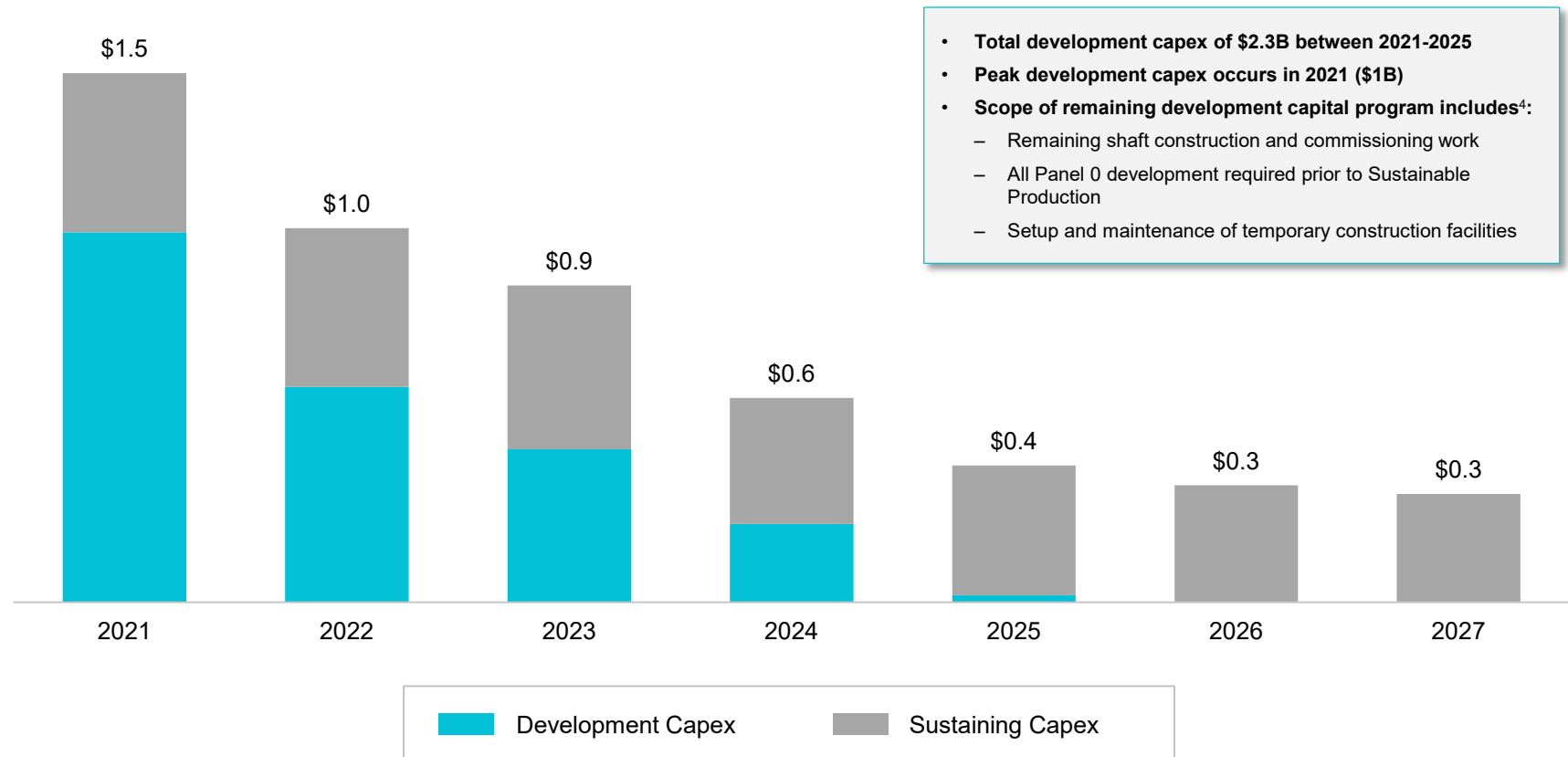


Capital Spend Profile

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Oyu Tolgoi Capital Spend Profile^{1 2 3}

\$ Billions



Source: OTTR20

1. Amounts are rounded, expressed in nominal terms, include any applicable taxes and exclude any impacts of COVID-19 and are subject to further study and assessment as part of Oyu Tolgoi LLC's cost and schedule estimation update which is expected later in 2020 and subject to further study and analysis on Panels 1 and 2
2. Capital expenditure is presented inclusive of associated VAT
3. See Capital Expenditure. Refer to Table 22.5 in OTTR20
4. Refer to Section 1.14 Development Capital in OTTR20 for a complete list



Sensitivity of After-Tax NPV and IRR to Changes in Metal Price

29

After-Tax NPV^{1 2 3 4}

\$ Billions

| | | Gold Price (US\$/oz) | | | | | | |
|------------------------|--------|----------------------|---------|---------|---------|---------|---------|---------|
| | | \$900 | \$1,100 | \$1,300 | \$1,500 | \$1,700 | \$1,900 | \$2,100 |
| Copper Price (US\$/lb) | \$2.50 | 4.2 | 4.9 | 5.6 | 6.3 | 7.0 | 7.7 | 8.4 |
| | \$2.75 | 6.2 | 6.9 | 7.5 | 8.2 | 8.9 | 9.5 | 10.1 |
| | \$3.00 | 8.1 | 8.8 | 9.4 | 10.0 | 10.6 | 11.2 | 11.8 |
| | \$3.25 | 9.8 | 10.4 | 11.0 | 11.6 | 12.2 | 12.8 | 13.4 |
| | \$3.50 | 11.5 | 12.1 | 12.6 | 13.2 | 13.8 | 14.4 | 14.9 |

After-Tax IRR^{1 2 5}

%

| | | Gold Price (US\$/oz) | | | | | | |
|------------------------|--------|----------------------|---------|---------|---------|---------|---------|---------|
| | | \$900 | \$1,100 | \$1,300 | \$1,500 | \$1,700 | \$1,900 | \$2,100 |
| Copper Price (US\$/lb) | \$2.50 | 23 | 26 | 29 | 32 | 36 | 40 | 45 |
| | \$2.75 | 29 | 32 | 36 | 39 | 44 | 48 | 55 |
| | \$3.00 | 35 | 39 | 42 | 47 | 52 | 59 | 67 |
| | \$3.25 | 42 | 46 | 50 | 56 | 62 | 71 | 83 |
| | \$3.50 | 49 | 53 | 59 | 66 | 76 | 89 | 110 |

Source: OTTR20

1. Estimates exclude any impacts of COVID-19 and are subject to further study and assessment as part of Oyu Tolgoi LLC's cost and schedule estimation update which is expected later in 2020 and subject to further study and analysis on Panels 1 and 2
2. Sensitivity analyses assume a long-term silver price of \$17.85/oz
3. NPV8 based on an 8% discount rate for all cases
4. See Sensitivity of After-Tax NPV to Changes in Metal Price. Refer to Table 22.7 in OTTR20
5. See Sensitivity of After-Tax IRR to Changes in Metal Price. Refer to Table 22.8 in OTTR20

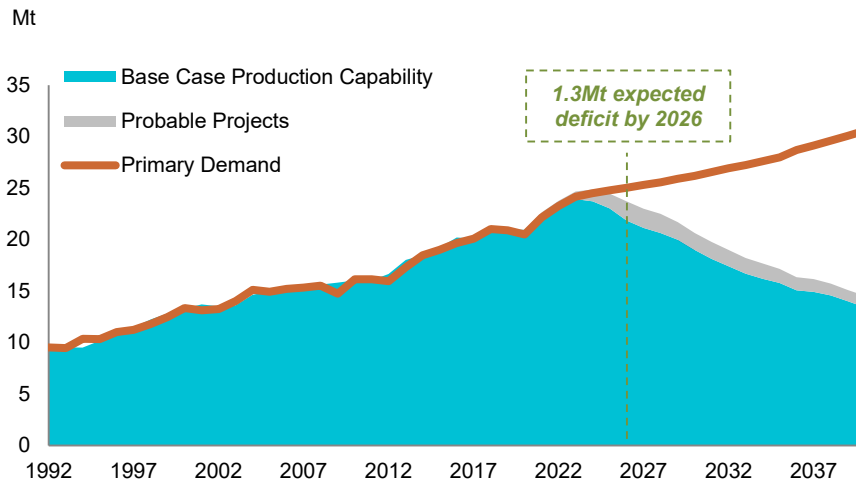


Long-Term Copper Supply-Demand Fundamentals Remain Strong

30

OT Underground Ramp-Up Expected to Coincide With Pricing Tailwinds From Forecast Supply Deficit

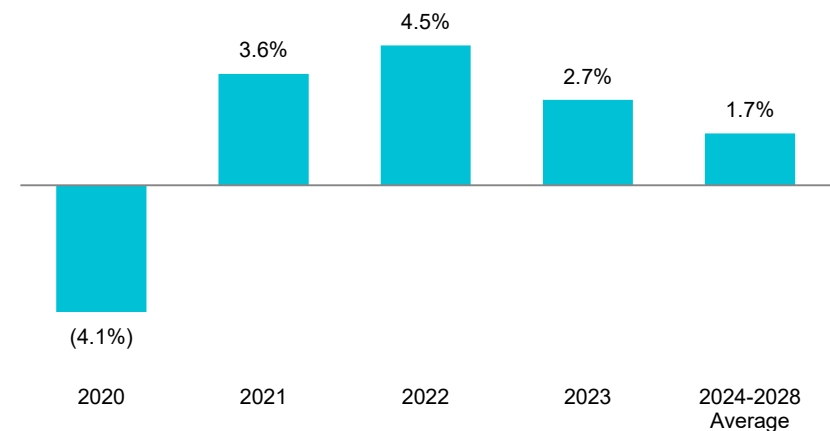
Long Term Undersupply Coincides with OT Ramp-Up



- ✓ Market for mined copper expected to be in a deficit beginning in 2025
- ✓ Long lead times required to bring new mines into production
- ✓ Many growth projects delayed due to COVID-19

Long Term Copper Demand Fundamentals Remain in Place

Global Refined Copper Consumption Growth (%)



- ✓ Chinese stimulus is providing demand support in near term despite COVID-19 impact on global demand
- ✓ In the medium term, urbanization and industrialization will continue to support copper demand growth
- ✓ In the long term, copper demand is expected to remain strong due to the electric vehicle revolution, growth in renewable power, and continued electrification and communications development

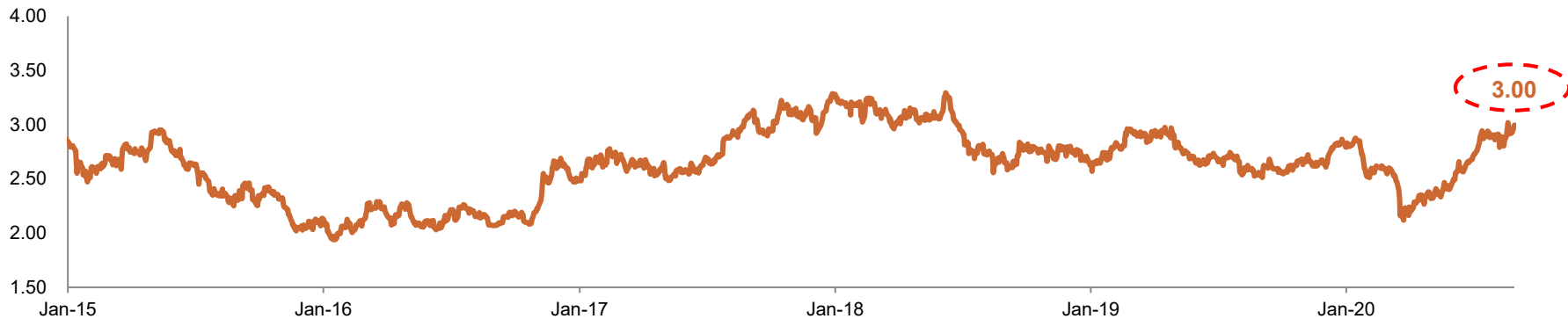


Gold and Copper Prices Have Recovered From March Lows

31

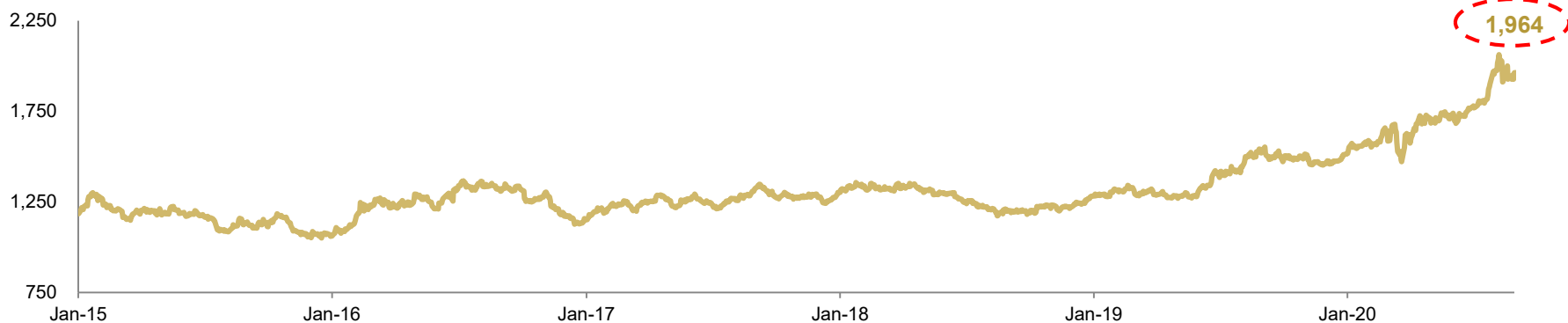
Short-Term Copper Prices Benefitting From COVID-19 Supply Side Challenges

Copper Price – Jan 1, 2015 to Aug 28, 2020, \$ / lb



Upward Momentum in Gold Prices Supported by Negative Real Interest Rates and Market Uncertainty

Gold Price – Jan 1, 2015 to Aug 28, 2020, \$ / oz



Source: Capital IQ

1. COMEX spot copper and gold prices, data as of August 28, 2020



Turquoise Hill's Management Team: Proven Operator and Developer of World Class Mines

32



Ulf Quellmann
Chief Executive Officer

Appointed as CEO effective August 1, 2018, Mr. Quellmann has more than 20 years of experience in corporate finance, strategy, treasury and investor relations at General Motors, Alcan and Rio Tinto



Luke Colton
Chief Financial Officer

Appointed CFO on October 9, 2017. Mr. Colton has more than 15 years of mining experience and worked for Rio Tinto beginning in 2004 before joining Turquoise Hill. While at Rio Tinto, he worked in various business units including minerals, iron ore and energy. Mr. Colton was also a Senior Accountant at E&Y



Jo-Anne Dudley
Chief Operating Officer

Appointed Chief Operating Officer in June 2019, Ms. Dudley has 25 years of mining industry experience. Since 2005, Ms. Dudley has been working on Rio Tinto underground projects in Australia, South Africa, the U.S., and Asia, including nine years at Oyu Tolgoi, where she led the Strategic Mine and Resources Planning unit

Deep Management Experience

- ✓ Has developed major projects on time and on budget
- ✓ Successfully operated world class copper mines
- ✓ Experienced at building positive stakeholder relations in numerous countries
- ✓ Proven ability to ramp-up block caving operations

Partnership with Rio Tinto

- ✓ Global leader in mine operations across diverse group of commodities
- ✓ Strong balance sheet; providing financial guarantee supporting Oyu Tolgoi project financing
- ✓ Continuously developing world class mining assets
- ✓ Track record in block caving in current and previously owned assets
 - Argyle, Northparkes and Palabora
- ✓ Committed to world-class HSEC standards and ESG practices



2020 Guidance

| Operational guidance | |
|----------------------------------|-------------------|
| Mill throughput (million tonnes) | 40 |
| Copper production (tonnes) | 140,000 – 170,000 |
| Gold production (ounces) | 155,000 – 180,000 |

| Financial guidance | |
|--|-------------|
| Operating cash costs (\$ million) ¹ | 780 – 830 |
| C1 cash costs (\$/lb) ^{1 2} | 1.60 – 2.00 |
| Capital expenditure | |
| Open pit (\$ million) | 70 – 90 |
| Underground (\$ billion) | 1.0 – 1.1 |

2021 Outlook

| Operational Outlook | |
|----------------------------|-------------------|
| Copper production (tonnes) | 170,000 – 200,000 |
| Gold production (ounces) | 500,000 – 550,000 |



1. Refer to section "Non-GAAP Measures" of the MD&A at June 30, 2020
2. Unit cost guidance assumes the midpoint of expected 2020 copper and gold production ranges and commodity price assumptions of \$2.43/lb copper and \$1,659/oz gold



Delivering Value to Host Communities

34

Oyu Tolgoi Contributes Materially to Expanding the Mongolian Economy

~12,200

Oyu Tolgoi's workforce¹ at the
end of Q2 2020

94% Mongolian

~\$2.6B

Taxes² and royalties paid to
the Mongolian Government
2010 – 2019

~\$10.3B

Spent in Mongolia³
2010 – 2019

564

Mongolian national
businesses worked with
Oyu Tolgoi in 2019

\$3.1B

Spent on
Mongolian procurement
2010 – 2019

>\$40M

Invested in sustainable long-
term projects in South Gobi
2014 – 2019

1. Includes contractors
2. Includes VAT
3. In-country spend includes salaries, payments to Mongolian suppliers, taxes, and other payments to the Government of Mongolia



Turquoise Hill Resources Ltd.
Suite 3680 1 Place Ville-Marie
Montreal, Quebec, Canada
H3B 3P2

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

