

Rio Tinto invests to strengthen copper supply in US

20 June 2023

Rio Tinto is investing in its Kennecott operation near Salt Lake City, Utah, to strengthen its supply of copper in the United States by increasing production from underground mining and improving the health of key assets.

\$498 million¹ of funding has been approved to deliver underground development and infrastructure for an area known as the North Rim Skarn² (NRS). Production from the NRS will commence in 2024 and is expected to ramp up over two years, to deliver around 250 thousand tonnes of additional mined copper over the next 10 years³ alongside open cut operations.

As the above production target is in part underpinned by Inferred Resources, we note in accordance with ASX Listing Rule 5.16.4 that there is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the production target itself will be realised.

In September 2022, Rio Tinto approved development capital totalling \$55 million to start underground mining in an area known as the Lower Commercial Skarn (LCS). Underground production within LCS started in February 2023, and is expected to deliver a total of around 30 thousand tonnes of additional mined copper through the period to 2027⁴.

These two investments will support Kennecott in building a world class underground mine which will leverage battery electric vehicle (BEV) technology, following a successful trial in 2022. BEV's create a safer and healthier workplace for employees underground, increase the productivity of the mine and reduce emissions from operations.

A \$300 million rebuild is also underway at the Kennecott smelter. The rebuild is the largest in Kennecott's history and commenced in May 2023. A further \$120 million is being invested to upgrade the refinery tank house structure and update Kennecott's molybdenum flotation circuit with a state-of-the art, fully automated system. As the second largest copper producer in the US, this will allow Kennecott to continue to deliver a high quality product to customers.

Rio Tinto Copper chief operating officer Clayton Walker said: "We are investing to build a world class underground mine at Kennecott and strengthen our processing facilities, to meet the growing demand for copper in the United States, a key material for domestic manufacturing and the energy transition. This investment will position Kennecott to continue the strong contribution it has made as part of the Salt Lake Valley community for 120 years, injecting about \$1.5 billion annually to the local Utah economy."

¹ All dollar values are in USD.

² The NRS Mineral Resources and Ore Reserves, together with the Lower Commercial Skarn (LCS) Mineral Resources and Ore Reserves, form the Underground Skarns Mineral Resources and Ore Reserves.

³ This production target for 2023 to 2033 is underpinned as to 25% by Probable Ore Reserves, 9% by Indicated Resources, and 66% by Inferred Resources. Mined copper is reported as total recoverable metal. These estimates of Mineral Resources and Ore Reserves were reported in a release dated 20 June 2023 titled "Rio Tinto Kennecott Mineral Resources and Ore Reserves" (Table 1 Release) which is available on Rio Tinto's website at [resources & reserves \(riotinto.com\)](https://www.riotinto.com/resources-and-reserves), and have been prepared by Competent Persons in accordance with the requirements of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, 2012 (JORC Code) and the ASX Listing Rules.

⁴ This production target is reported as total recoverable metal and is underpinned as to 100% by Probable Ore Reserves. These estimates of Mineral Resources and Ore Reserves were reported in a release to the ASX dated 27 September 2022 titled "[Rio Tinto Kennecott Mineral Resource and Ore Reserves](https://www.riotinto.com/resources-and-reserves)" and have been prepared by Competent Persons in accordance with the requirements of the JORC Code and the ASX Listing Rules.

Studies to inform decisions on the next phases of expanding underground production continue in parallel with work that is being advanced to extend open pit mining at Kennecott beyond 2032.

All the above investments are already included in Rio Tinto's share of capital investment guidance for 2023 to 2025.

Kennecott Underground Mineral Resources and Ore Reserves

The NRS has updated Indicated Mineral Resources of 10.8 Mt at 2.93 % copper, 1.20 g/t gold, 65.97 g/t silver, 0.008 % molybdenum, and Inferred Mineral Resources of 7.7 Mt at 3.13 % copper, 0.96 g/t gold, 18.41 g/t silver, and 0.005 % molybdenum identified based on additional drilling and an initial Probable Ore Reserve of 3.0 Mt at 2.39 % copper, 1.77 g/t gold, 18.59 g/t silver, and 0.010 % molybdenum⁵.

Mineral Resources are reported in addition to Ore Reserves. Mineral Resources and Ore Reserves are quoted on a 100 per cent basis.

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⁵ These Mineral Resources and Ore Reserves have been reported in accordance with the JORC Code and the ASX Listing Rules in the Table 1 Release. The Competent Person responsible for the information in that release that relates to Mineral Resources is Mr Ryan Hayes, a Member of the Australasian Institute of Mining and Metallurgy (MAusIMM). The Competent Person responsible for the information in that release that relates to Ore Reserves is Mr Stephen McInerney, a Member of the Australasian Institute of Mining and Metallurgy (MAusIMM). Rio Tinto confirms that it is not aware of any new information or data that materially affects the information included in the Table 1 Release, that all material assumptions and technical parameters underpinning the estimates in the Table 1 Release continue to apply and have not materially changed, and that the form and context in which the Competent Persons' findings are presented have not been materially modified.

Mineral Resources declaration

The Table 1 Release sets out Measured, Indicated and Inferred Mineral Resources for the underground skarns at the Kennecott Copper operation. A tabulation of the Mineral Resources is provided in Table A.

Table A Rio Tinto Kennecott Underground Mineral Resources as at 31 March 2023

	Likely mining method ¹	Measured Mineral Resources as at 31 March 2023					Indicated Mineral Resources as at 31 March 2023					Inferred Mineral Resources as at 31 March 2023					Total Mineral Resources as at 31 March 2023					Rio Tinto Interest %
		Tonnage		Grade			Tonnage		Grade			Tonnage		Grade			Tonnage		Grade			
		Mt	% Cu	g/t Au	g/t Ag	% Mo	Mt	% Cu	g/t Au	g/t Ag	% Mo	Mt	% Cu	g/t Au	g/t Ag	% Mo	Mt	% Cu	g/t Au	g/t Ag	% Mo	
Copper²																						
Bingham Canyon (US) - Underground Skarns																						
- Lower Commercial Skarn	U/G	0.2	2.52	1.27	10.56	0.056	1.1	2.08	0.72	9.43	0.029	6.2	1.84	0.86	11.62	0.011	7.5	1.89	0.84	11.26	0.015	100.0
- North Rim Skarn	U/G	-	-	-	-	-	10.8	2.93	1.20	65.97	0.008	7.7	3.13	0.96	18.41	0.005	18.5	3.02	1.10	46.26	0.007	100.0
Total Underground Skarns		0.2	2.52	1.27	10.56	0.056	12.0	2.85	1.15	60.58	0.010	13.9	2.56	0.91	15.37	0.008	26.0	2.69	1.03	36.16	0.009	

1 Likely mining method: U/G = underground.

2 Copper Mineral Resources are stated on a dry in situ weight basis.

Ore Reserves declaration

The Table 1 Release also sets out additional Probable Ore Reserves at the Kennecott Copper operation, with the first time reporting of Ore Reserves associated with the NRS. A tabulation of the Ore Reserves is provided in Table B.

Table B Rio Tinto Kennecott Underground Ore Reserves as at 31 March 2023

	Type of mine ¹	Probable Ore Reserves as at 31 March 2023					Total Ore Reserves as at 31 March 2023					Average mill recovery %				Rio Tinto Interest %	Rio Tinto share Recoverable Metal				
		Tonnage		Grade			Tonnage		Grade			Cu		Ag			Moz Au		Moz Ag		
		Mt	% Cu	g/t Au	g/t Ag	% Mo	Mt	% Cu	g/t Au	g/t Ag	% Mo	Cu	Au	Ag	Mo		Mt Cu	Moz Au	Moz Ag	Mt Mo	
Copper²																					
Bingham Canyon (US) - Underground Skarns																					
- Lower Commercial Skarn	U/G	1.7	1.90	0.71	10.07	0.044	1.7	1.90	0.71	10.07	0.044	90	71	76	71	100	0.030	0.028	0.421	0.001	
- North Rim Skarn	U/G	3.0	2.39	1.77	18.59	0.010	3.0	2.39	1.77	18.59	0.010	93	69	64	45	100	0.066	0.117	1.149	0.000	
Total Underground Skarns		4.7	2.21	1.39	15.50	0.022	4.7	2.21	1.39	15.50	0.022						0.096	0.144	1.569	0.001	

1 Type of mine: U/G = underground.

2 Copper Ore Reserves are reported as dry mill feed tonnes.

Contacts

Please direct all enquiries to media.enquiries@riotinto.com

Media Relations, United Kingdom

Matthew Klar
M +44 7796 630 637

David Outhwaite
M +44 7787 597 493

Investor Relations, United Kingdom

Menno Sanderse
M +44 7825 195 178

David Ovington
M +44 7920 010 978

Danielle Smith
M +44 7788 190 672

Rio Tinto plc

6 St James's Square
London SW1Y 4AD
United Kingdom
T +44 20 7781 2000

Registered in England
No. 719885

Media Relations, Australia

Matt Chambers
M +61 433 525 739

Jesse Riseborough
M +61 436 653 412

Alysha Anderson
M +61 434 868 118

Investor Relations, Australia

Tom Gallop
M +61 439 353 948

Amar Jambaa
M +61 472 865 948

Rio Tinto Limited

Level 43, 120 Collins Street
Melbourne 3000
Australia
T +61 3 9283 3333

Registered in Australia
ABN 96 004 458 404

Media Relations, Americas

Simon Letendre
M +1 514 796 4973

Malika Cherry
M +1 418 592 7293

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This announcement is authorised for release to the market by Steve Allen, Rio Tinto's Group Company Secretary.