



Deutsche Bank  
Virtual Copper CEO Conference

Friday 6 October 2023

**Refer to cautionary statement in presentation slides.**

**Slide 1: Welcome**

Welcome and good afternoon ladies and gentlemen. Thank you for joining us today. And thank you for the introduction, Liam. We have a dozen or so slides to present and then we will move to Q&A.

**Slide 2: Cautionary statement**

**Slide 3: Unique portfolio supplying the world's needs & wants**

There are see 3 major global trends that underpin the demand for the products in the wider Anglo American portfolio:

1. Decarbonisation of energy, industrial and transport systems.
2. Improving living standards expected by a growing and urbanising global population – we will come back to this point shortly.
3. And food security – there is increasing recognition of the huge strain on global agriculture to feed this growing global population, in a sustainable way.

Our product mix plays strongly into all these themes. Given this is a copper conference though, I'll be focusing on our copper portfolio today which offers significant growth optionality in one of the most sought-after commodities. And on that note, our Chief Economist, Paul Gait, will cover two slides on the market outlook. Paul!

**Slide 4: Economic development underpins demand outlook**

Thanks Ruben.

The role of copper in the decarbonisation theme has been talked about a lot.

But in addition to green transition, there is significant demand growth from economic development. The global population is expected to grow by 2 billion by 2050. And living standards for that population are improving. Notably, the consuming middle classes will grow by 1.3bn by 2030. People have everyday needs such as homes, energy, infrastructure, appliances, mobility.

Today, the global installed stock of copper is around 61 kilograms per person. A four-fold increase, to over 230 kg, is needed to reach the levels currently seen in the developed world. As shown on the right-hand bar graph, convergence towards western-like living standards – and achieving the first of the UN Sustainable Development Goals, that of ending global poverty – and doing so as sustainably as possible - will be massively metals and minerals intensive. So we need to bring copper to market faster than ever - and yet, it is becoming increasingly more difficult to bring new supply online.

**Slide 5: Copper supply challenges indicate pricing upside**

To delve into part of that supply picture a little further...

The cost estimates of new sources of supply often fail to incorporate all of the costs involved for new projects to manage ever increasing environmental and social challenges. The history of project development shown on the left of this slide highlights the degree to which copper project costs have been underestimated across the industry. While the chart on the right shows that the capital intensity of the installed capacity base to support current levels of production is markedly different from that assumed for new sources of supply.

The industry is clearly under pressure to deliver new supply but there are significant challenges from geology, geopolitics, tax stability, permitting and sustainability. The time to bring on new supply is taking longer and longer. – a least 15 years from first drill hole. For example, our Los Bronce Integrated Project – which is a brownfield – was 10 years of studies, 3 years of EIA preparation, 1 year lost due to the rejection and another year for the committee to approve. And that's just the EIA!

The result has to be that the outlook for prices is very positive.

And on that note – back to you, Ruben.

#### **Slide 6: Copper portfolio overview**

Thanks Paul.

Coming back to our Copper portfolio.

Our operating copper assets are located in Chile and Peru. In the first half of this year they contributed 29% to Anglo American's EBITDA and represented 28% of the Group's capital employed – bringing attractive geographic diversification to the Group's portfolio. We expect that to grow further as we develop our pipeline of organic growth options, which includes options in Chile and Peru as well as the Sakatti greenfield mine in Finland.

#### **Slide 7: A world class copper portfolio**

I'll cover the key assets within the portfolio in a little more detail shortly as well as our growth pathway. But to give you an initial sense of the overall scale:

- The reserve lives of the key assets extend more than 30 years – with significant expansion potential beyond that.
- They are low cost – with a Q2 position overall.
- We are delivering growth near-term – largely from the ramp-up of Quellaveco.
- And we also have significant long-term organic growth potential.

#### **Slide 8: Quellaveco ramped up & set to deliver strong returns**

The Quellaveco copper mine in Peru started up in July 2022 following a 4-year construction period at a cost of \$5.5 billion. It was on time and on budget – despite 2-years of that construction period being through the pandemic. And Peru was one of the hardest hit countries.

The ramp-up has progressed very well with 240kt of copper produced in the first 12 months of operation. The moly plant is also doing really well with a very quick and successful ramp-up – we expect production to stabilise in Q4 this year. The team have adjusted the pit sequence to help us manage the build up the tailings dam. Quellaveco is on track to deliver the full year guidance of around 330kt in the middle of the guidance range and should do that at a shade above a dollar a pound. It is a Q1 asset. It is a long-life asset, with a reserve life of 35 years.

#### **Slide 9: Collahuasi: world class ore body - long life, low cost & expandable**

Now to Collahuasi. The numbers really doing the talking here!

A Q1 cost curve position with unit costs last year less than a dollar per pound.

The reserve life is 84 years but there are significant resources beyond that. The mine represents more than 2% of the world's total copper resources.

This is an asset with huge growth potential. With our joint venture partners, we have plans afoot to capitalise on that – I'll come back to those.

**Slide 10: Los Bronces looking to lower unit costs**

Now when we say we like long-life mines – Los Bronces is probably one of the best examples of that! It is 156 years old – with plenty of mine life remaining. Los Bronces District alone accounts for more than ~2% of the world's total known copper resources; while the total of Los Bronces and the Andina district, in which the mine lies, is nearly 7%.

It currently has a Q3 cost curve position given the age and depth of the mine. Costs have been particularly impacted by the ore characteristics of the current mining area as well as the cost of water purchases. The ore there is lower grade and behaves like a hard ore. This impacts throughput and recoveries. Typically in mining, you would look to open up other areas of the mine so that you can blend this ore with a higher grade area to maintain production levels. That hasn't been possible due to the impact of covid-related and permitting delays on mine development as well as the single-face nature of the Los Bronces mine. We have also had some operational challenges during July and August which have had a bit of an impact on performance, both at Los Bronces and El Soldado.

We were very pleased that the permit for the Los Bronces Integrated Project was approved earlier this year. That approval was unprecedented. Never before has the Ministers Committee revoked a decision made by the Environmental Service. This reinforces the robustness in the appeal process and the size and nature of the compensation measures that we have put in place that extend beyond Los Bronces' area of influence. I will come on to the details of that project shortly but we are now working to best mitigate the impact of the licensing and mine development delays in opening up the higher grade, softer ore in the next phase of the open pit. That phase is called Donoso 2. We should hopefully start to see production from there from 2027, resulting in a tick-up in average grade and our volumes thereafter.

Overall, Los Bronces probably represents a mine of around 250kt of annual production over the longer term. In parallel to the cost reduction work we are doing across our business support activities, we are also reviewing the cost structures at our assets to ensure they are optimised to the long-term footprint. We have a good track record in our copper business of managing our costs tightly so I fully expect that to continue.

**Slide 11: Collahuasi aiming for >1Mtpa by early 2030s**

Turning now to the growth potential at these assets.

Firstly – Collahuasi.

The partners are aligned on expanding Collahuasi to realise the full potential of this incredible ore body. There are a number of pathways by which we can transform the asset to more than 1Mtpa on a 100% basis. That expansion is a similar scale to a brand new copper mine – but with less risk and a lower expected capital intensity.

The 5th ball mill is already under construction and due for completion this year. This is a modest first step. Capex of circa \$0.1bn for 15ktpa our share – but also very low capital intensity at around \$9,000/t. Bit of a no-brainer and highlights the relative attractiveness of these brownfield options.

There is then a series of debottlenecking options, in their study phase, that add between 20 to 50 ktpa (our share). If approved, they would likely come online between 2025 and 2028. The options being explored include:

- additional float cells;
- crusher debottlenecking;
- secondary sulphides leaching; and
- debottlenecking of processing infrastructure lifting throughput.

Not all of these will necessarily be approved – but gives you a flavour of the range of options that are being looked at.

The step-up transformation will be a new 4th processing line, possibly complemented by leaching and coarse particle recovery. That would add about 100ktpa our share. It is still in the study phase now but would likely come online, if approved, in the early to mid 2030s.

In parallel to this, a desalination plant is being constructed that will secure the water needs of the existing asset. I'll come back to this later.

#### **Slide 12: Brownfield studies at both Quellaveco & Los Bronces**

Turning to our other expansion options. At Quellaveco, while the current focus is on bedding down operating processes and delivering on the production guidance for the existing mine, we are also progressing the studies of expansion options that could help to sustain production after we are through the initial high-grade area. Where possible, we intentionally oversized elements of the plant to cater for throughput of 150ktpd in the design, so we could reach that if we can use water more efficiently and apply some technologies. We are currently around 127.5ktpd. We are then studying further expansion potential such as a possible 3rd ball mill. Additional water for this step would be needed which would trigger an amendment to the EIA and public consultation.

Beyond the existing site, there is also additional regional potential that our Discovery team are progressing – including the adjacent Mamut area, around 10 kilometres away.

At Los Bronces, the permit for the integrated project was approved earlier this year. Firstly, as I touched on earlier, it enables us to access higher grade areas within the existing open pit. This would support operational continuity for the next two decades.

The second element is the underground project. This is partly a replacement project, in that it replaces lower grade open-pit tonnes with higher grade underground tonnes. It is located 5km from the existing pit. It will use the same plant and tailings deposit capacity used by the current operation, without requiring any addition fresh water to the processes. Studies are under way with the aim being to develop a modern operation with a minimal surface impact.

#### **Slide 13: Sakatti is a high grade, polymetallic greenfield option**

I have walked you through the key brownfield options that we have. These are attractive options in relatively stable and familiar jurisdictions.

Sakatti is a greenfield option in Finland with a low capital cost, thanks to its underground set-up. It is a high grade, polymetallic ore body containing copper, battery-grade nickel, platinum, palladium, gold, and some cobalt. Whilst it is a relatively small ore body, it could deliver at least 100ktpa copper equivalent, over a mine life that could extend a couple of decades or so. And the by-products would drive a negative cost curve position.

The EIA for the project was approved by the Finnish authorities in August this year. We are now working with the authorities to progress the Natura assessment, as the project is located in a protected EU Natura 2000 area. For context, we first discovered this ore body 19 years ago! – a great example of the challenges of bringing on new supply. We are working with the relevant authorities on the Natura process, which involves some uncertainty – but we are hoping to bring the project online in the early 2030s.

Our studies here are focused on minimising the impacts of our activities on the surrounding area through a state-of-the-art mine design, incorporating learnings from both Quellaveco and our Woodsmith polyhalite project in the UK. We are working to drive positive outcomes in terms of land management and biodiversity as we develop the project in a responsible way.

#### **Slide 14: FutureSmart Mining™ integrates innovative technology & sustainability**

As Duncan has talked about consistently, we must deliver production from both our existing assets and our growth options as sustainably as possible. We believe we have a very different approach to others. Sustainability considerations are embedded into our strategy and value creation model, from portfolio choices to everyday operational decisions.

Our FutureSmart Mining™ programme integrates innovative technology and our approach to sustainability. It drives us to consider issues holistically and to see opportunities where others might see challenges.

We have some great examples of this within our copper portfolio.

For example, on energy, we are 100% renewable electricity across our South American operations. Those were all NPV positive outcomes.

We view sustainability as a key driver of commercial and stakeholder value. We are showing what responsible and sustainable mining looks like. We aim to be the partner of choice to those who, like us, focus on long term sustainable value creation. Recognition of our efforts through certifications, such as The Copper Mark that was awarded to our managed Chilean operations, is valuable recognition of that work.

#### **Slide 15: Delivering significant reductions in freshwater abstraction**

Final slide.

Water is the sustainability challenge for copper.

The area of Chile in which Los Bronces is located has been suffering from a decade long drought. We have been supplementing reduced continental water supply with third party water purchases.

But last November, we were pleased to announce that we had secured a desalinated water supply for Los Bronces from 2025. It is an offtake from Aguas Pacifico, a Chilean water

desalination and solutions provider, that will meet almost half of the mine's water requirements in the first phase. It will also provide clean water to approximately 20,000 people in the communities of Colina and Til Til, local to the operation, and approximately 15,000 people along the pipeline.

In the second phase, we are studying the option to provide that desalinated water for human consumption in exchange for treated waste water that will supply 100% of our operational needs. At the moment, the waste water is just being discharged into the ocean. We have committed to stop withdrawing fresh water at Los Bronces by 2030 – even better if we can do so while supporting the provision of clean water to local communities in the greater Valparaiso area.

At Collahuasi, a desalination plant is under construction at a cost of ~\$3bn on a 100% basis and that will reduce the operation's fresh water abstraction by two-thirds. The pipeline has been designed to accommodate future expansions in line with the growth strategy at the asset in a capital efficient manner.

And at Quellaveco, water was at the very heart of the mine design and was the primary community ask of the project. 80% of the water comes from the Titire river which is unfit for human & livestock consumption or agricultural use. The other 20% comes from the Vizcachas dam and reservoir that we constructed. We are only using a very small amount of that volume with the remainder supplied to the local communities in the Moquegua and Tambo regions. This gives them a better quality, higher volume and more reliable water supply than was previously the case.

In addition to these asset-specific initiatives, we are also progressing studies on coarse particle recovery and hydraulic dry stacking that could also improve our water efficiency.

**Slide 16: Fireside chat**

And with that – over to you Liam.

**END**