



ANTOFAGASTA PLC

ANNUAL REPORT AND FINANCIAL STATEMENTS 2016



## INTRODUCTION

Antofagasta is a Chilean copper mining group with significant by-product production and interests in transport.

The Group creates value for its stakeholders through the discovery, development and operation of copper mining assets.

The Group is committed to generating value in a safe and sustainable way throughout the commodity cycle.

+ See page 2 for more information

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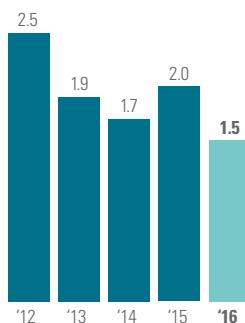
# 2016 HIGHLIGHTS

## *Lost time injury frequency rate*

**1.5**

The Lost Time Injury Frequency Rate of the Group was 1.5 accidents with lost time per million hours worked.

**+** See page 19 for more information

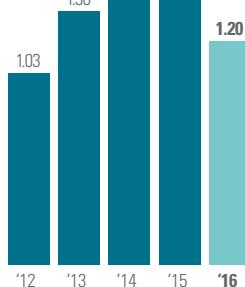


## *Net cash costs<sup>1</sup>*

**\$1.20/LB**

Net cash costs for the year, 20.0% lower than in 2015 due to cost savings and higher gold production.

**+** See page 19 for more information

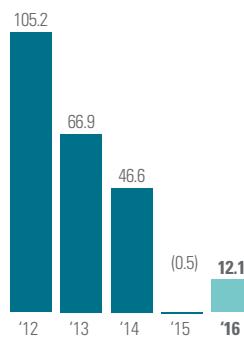


## *Earnings per share\**

**12.1 CENTS**

Earnings per share from continuing operations increased to 12.1 cents per share due to higher realised prices, sales volumes and lower unit operating costs.

**+** For more information go to Financial Review



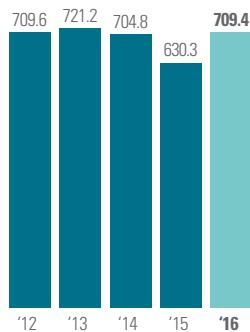
\*Restated for discontinued operations.

## *Copper production*

**709.4K TONNES**

Copper production of 709,400 tonnes, a 12.5% increase on 2015.

**+** For more information go to Financial Review

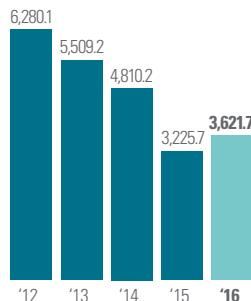


## *Revenue\**

**\$3,621.7M**

Revenue of \$3,621.7 million, 12.3% higher than 2015 due to higher realised prices and higher production.

**+** For more information go to Financial Review



\*Restated for discontinued operations.

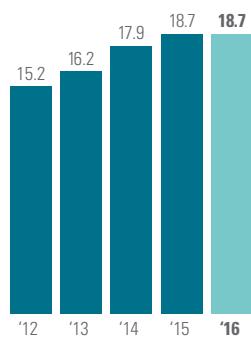
## *Mineral resources<sup>2</sup>*

**18.7BN TONNES**

(including ore reserves)

Mineral resources remained similar due to the incorporation of additional resources at Penacho Blanco and Mirador offset by the closure of Michilla.

**+** For more information go to Financial Review



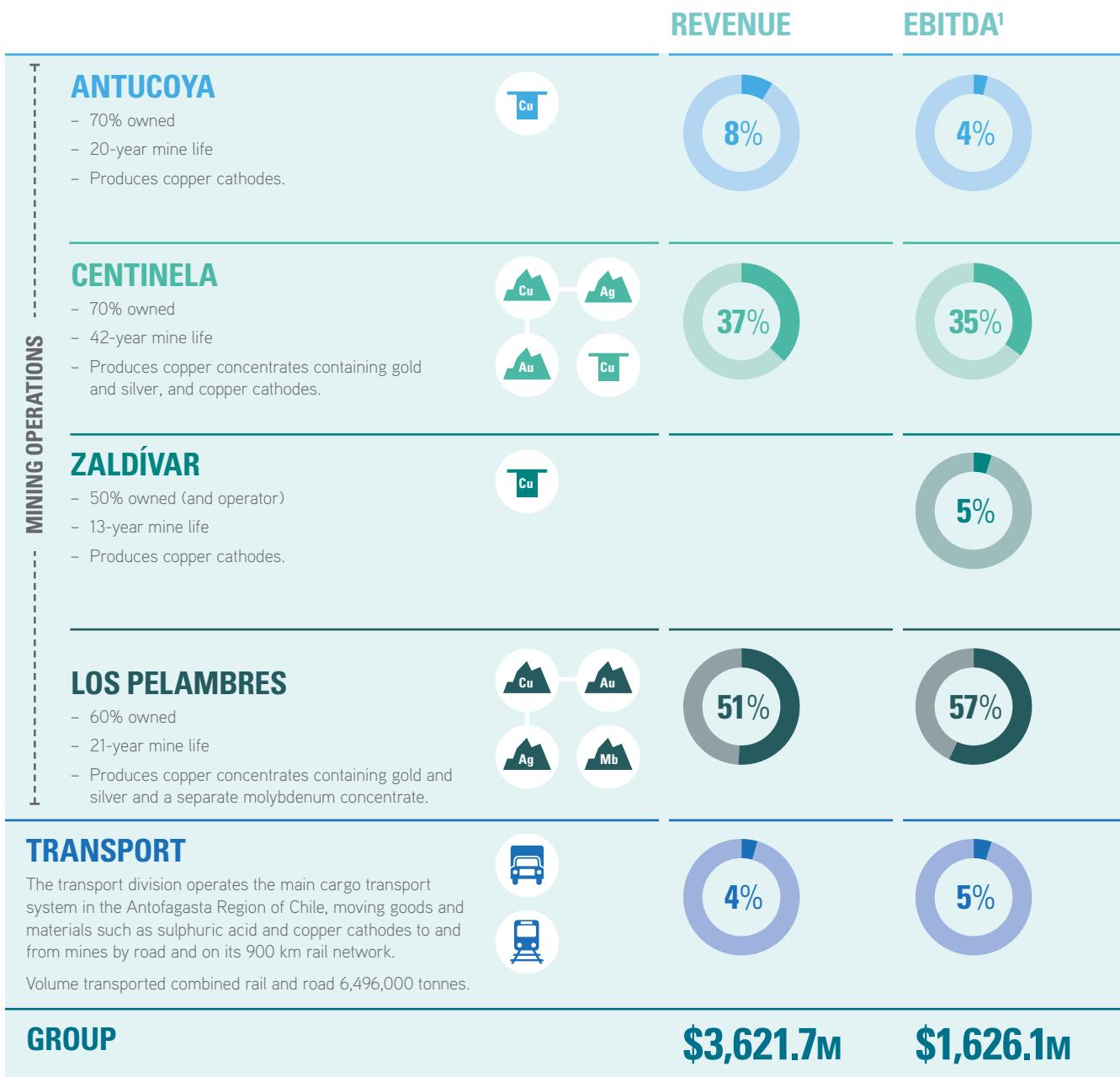
1. Non IFRS measures, refer to the alternative performance measures in Note 39 to the financial statements
2. Mineral resources relating to the Group's subsidiaries on a 100% basis and Zaldivar on a 50% basis.

# OUR BUSINESS TODAY

## THE BUSINESS

Mining is the Group's core business, representing over 95% of Group revenue and EBITDA. The Group operates four copper mines in Chile, two of which also produce significant volumes of by-products. The Group has a portfolio of growth opportunities located predominantly in Chile.

In addition to mining the Group has a transport division that provides rail and road cargo services in northern Chile predominantly to mining customers, including to some of the Group's own operations.



1. Non IFRS measures, refer to the alternative performance measures in Note 39 to the financial statements

## OUR INVESTMENT CASE



**+** See page 10 for more information

## OUR STRATEGY



**+** See page 16 for more information

## COPPER PRODUCTION (TONNES) AND NET CASH COST<sup>1</sup> (\$/LB)

| 2016                               | 2017 FORECAST                          |
|------------------------------------|--|
| <b>66,200</b><br><b>\$1.83/LB</b>  | <b>80-85,000</b><br><b>\$1.60/LB</b>   |
| <b>236,200</b><br><b>\$1.19/LB</b> | <b>220-230,000</b><br><b>\$1.35/LB</b> |
| <b>51,700</b><br><b>\$1.54/LB</b>  | <b>55-60,000</b><br><b>\$1.50/LB</b>   |
| <b>355,400</b><br><b>\$1.06/LB</b> | <b>330-345,000</b><br><b>\$1.15/LB</b> |
| <b>709,400</b><br><b>\$1.20/LB</b> | <b>685-720,000</b><br><b>\$1.30/LB</b> |

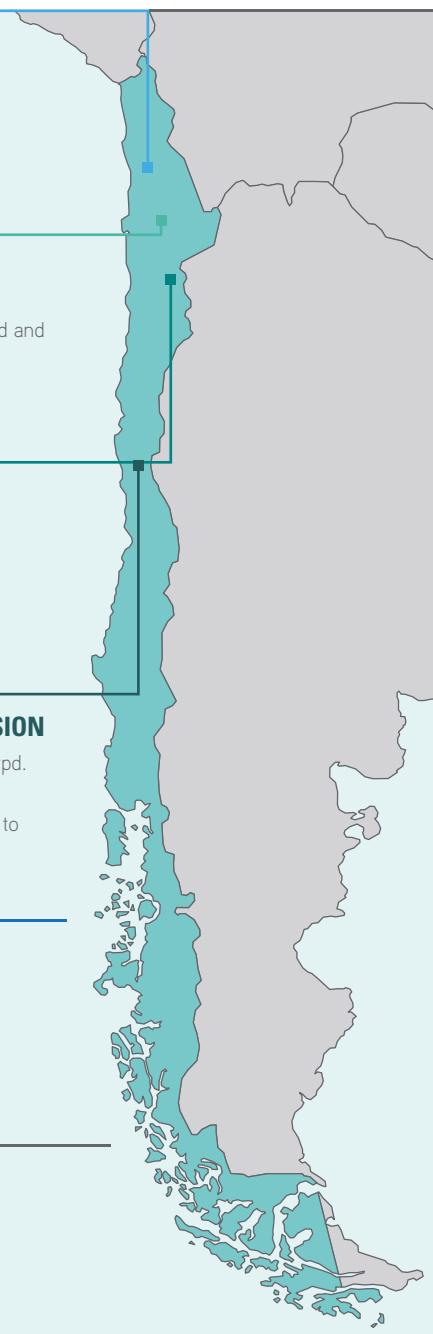
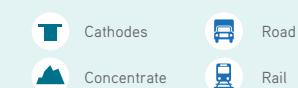
## GROWTH POTENTIAL

### CENTINELA SECOND CONCENTRATOR

- The Centinela Second Concentrator will produce 140,000 tonnes of copper, 150,000 ounces of gold and 2,800 tonnes of molybdenum.

### LOS PELAMBRES INCREMENTAL EXPANSION

- Phase 1 will increase throughput capacity to 190ktpd. The feasibility study was completed in early 2017.
- Phase 2 will further increase throughput capacity to 205ktpd and increase the mine life.



# POSITIONING FOR THE FUTURE

## Dear shareholders,

Over the course of 2016 we saw copper prices begin to stage a recovery from the lows at the beginning of the year and this has continued into 2017. While this is undoubtedly good news, we must be careful as an industry to guard against falling back into complacency.

Despite considerable efforts – the industry still has further to go in order to put costs back on a sustainable footing.

At Antofagasta, our response to these challenges has been to renew our focus on producing profitable tonnes. This is an essential strand in our strategy to ensure our business will generate positive free cash flow through the cycle and generate decent returns on the capital we invest. Our employees have worked hard over the last 12 months to improve the Company's operating performance and reliability, achieving some notable milestones. The Antucoya mine successfully reached full production capacity during 2016 and the Zaldivar mine, in which we acquired a 50% interest in December 2015, was fully integrated into our operations during the year.

As a result of these efforts, over the course of 2016 costs have come down, productivity improved and

copper production has grown to almost 710,000 tonnes. While we anticipate prices will be stronger in 2017 than in 2016, we must continue to implement our strategy of reducing costs sustainably and producing only profitable tonnes in a way that benefits all of our stakeholders.

### AN IMPORTANT PILLAR IN CHILE'S DEVELOPMENT

Despite the fall in prices over the last few years, the copper industry in Chile still has a vital role to play both in the country's development and in the global markets. While I believe that Chile needs to continue to diversify its economy as the country raises living standards for all, we must not lose sight of the very important role that the copper industry has to play.

I believe that copper remains a central pillar in Chile's development. The industry contributed some 8% of Chile's gross domestic product last year. Approximately 50% of this is reinvested back into Chile's economy, securing jobs, supporting local businesses and helping to create the prosperity which drives the country's development. The industry contributed \$3 billion in taxes during 2015, allowing the government to invest in education, social housing, roads, rail and other vital infrastructure.

If managed properly, copper will have a long-term role to play in Chile's development. The country still has 30% of global copper reserves. With the right incentives in place and working with all the stakeholders involved – employees, communities, companies, shareholders and local and regional government – we can develop these reserves safely and to the benefit of future generations of Chileans.

### WELCOMING OUR NEW CEO

In April 2016 we welcomed Iván Arriagada as CEO of the Antofagasta Group. He has over 25 years of operating and financial experience in the mining and oil and gas industries, including leading the Group's mining division since early in 2015. Iván is the right person to succeed Diego Hernández, having worked closely with him in the preceding year. His focus on cost discipline and operating performance has proven very effective in navigating the current challenge of low copper prices. His strong commitment and leadership of our expansion initiatives has enhanced our ability to grow profitable production in the future.

On behalf of the Board, I would like to take this opportunity to thank Diego for his commitment and dedication over these past four years. Under his leadership the

Company and our management have been well prepared to meet the challenges ahead. I look forward to his continued support, not only of the Group, but also in the development of the mining industry in Chile in his new role as President of Sonami.

### A RESPONSIBLE PARTNER IN THE COMMUNITY

As we work to reduce our cost base we must do so in a way that reflects our responsibilities to the communities – and the environment – in which we operate. I am delighted therefore with the demonstrable progress that Antofagasta has made to strengthen its community relations during 2016. Chief among these is the agreement we reached in April with the Caimanes community which led to the resolution of two court cases relating to the Mauro tailings dam. Los Pelambres and the Antofagasta Group now move into a new era of community engagement.

## OUR CORE VALUES



RESPECT



INNOVATION



SUSTAINABILITY



SAFETY AND HEALTH



EXCELLENCE



FORWARD THINKING



## NEW LEASE OF LIFE FOR MICHILLA

Last year we announced the closure of Antofagasta's first mine, Michilla.

As I said at the time, this was an important moment both for the Company and for me personally – Michilla was the mine where I completed my first internship when I was just 18 years old. I am delighted that during 2016 we found a new owner for the mine, another Chilean mining company, which will be able to continue its operations and help secure jobs in the region.

## SAFETY

The safety of our employees and the communities in which we work is our number one priority. Our target is to achieve zero fatalities at our operations. Therefore I regret to report that during 2016 Antofagasta had two fatalities. On behalf of the Board – and myself – I would like to express our sincere condolences to the families of our departed colleagues.

## BOARD CHANGES

During the year Hugo Dryland retired from his position as Non-Executive Director of the Company, a position he has held since 2011. I would like to thank Hugo for his valuable insights and guidance on a wide range of matters and for the significant contribution he made to the Company during his time on the Board. Hugo was replaced by Francisca Castro, who brings with her extensive experience in mining, energy and finance, in Chile – where she has worked for the government and Codelco – and internationally. I know her knowledge and expertise will be of great benefit to Antofagasta.

In August we announced that Ollie Oliveira, a Non-Executive Director of Antofagasta, was appointed Senior Independent Director. Ollie took over from Bill Hayes who remains on the Board. We also made several other changes to the Board committees with Ollie taking over as Chairman of the Audit and Risk Committee, and Vivianne Blanlot as Chairman of the Sustainability and Stakeholder Management Committee.

## OUTLOOK

We made good progress in 2016, reducing costs and increasing production as the full impact from the new assets in our portfolio flowed through. This led to a strong end to the year, which was boosted by a marked strengthening in copper prices on higher than expected Chinese demand.

As we look ahead into 2017 we see a market which is more driven by supply considerations than demand factors, some of them short term. This may result in more supply disruptions than originally expected and the year ending in balance, or possibly in deficit. In any event the market should be in balance in 2018 and in 2019 we expect to see supply constraints come through in the market as the impact of project deferrals is felt in the global market.

So, although prices and sentiment are improving, some of the challenges we have seen in the market over the last two or three years are expected to continue over the next 12 months. We are now seeing the return of inflationary pressures on input prices and this is

one reason we remain committed to our strategy of reducing costs and putting them on a sustainably lower footing, producing profitable tonnes and delivering positive free cash flow through the cycle. With this approach we will maintain healthy margins during periods of lower prices and safeguard our financial strength to the benefit of all of our stakeholders – our employees, communities, shareholders and the government. This in turn sets us up well to take full advantage of any upturn in the market.

As a final note I would like to thank all of our employees and managers for their continued hard work. I look forward to 2017 and beyond with a greater degree of optimism than I have had for some years.

**JEAN-PAUL LUKSIC  
CHAIRMAN**

# STRATEGY

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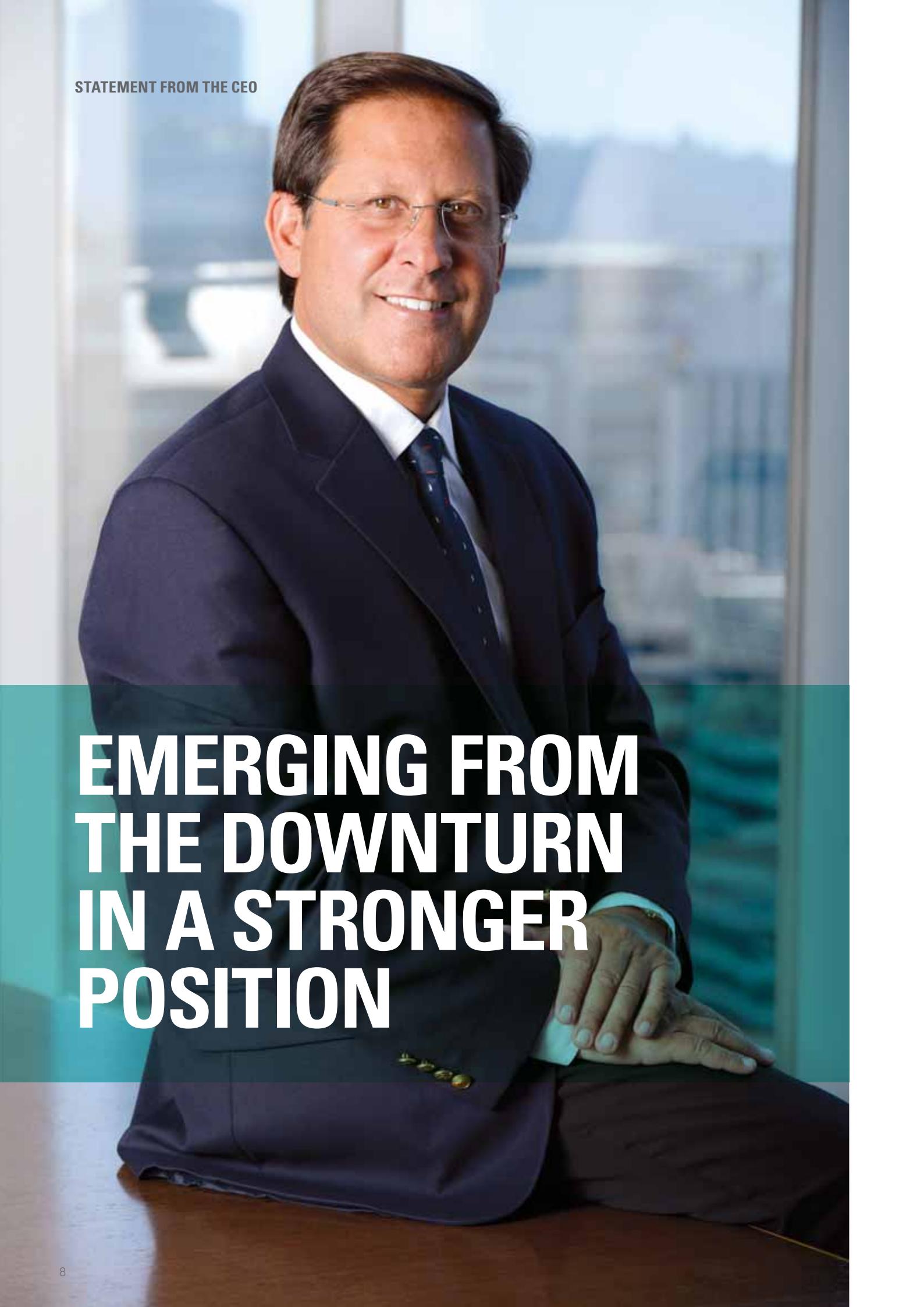
**ZALDÍVAR**

Dynamic-heap leaching pad.





STATEMENT FROM THE CEO



# EMERGING FROM THE DOWNTURN IN A STRONGER POSITION



IVÁN ARRIAGADA, CEO

**WE HAVE MADE SEVERAL STRUCTURAL CHANGES TO OUR PORTFOLIO DURING THE YEAR INCLUDING STARTING UP OUR NEW ANTUCOYA MINE, TAKING OVER OPERATIONS OF OUR NEWLY ACQUIRED ZALDÍVAR COPPER MINE AND SELLING OUR FIRST OPERATING ASSET, MICHILLA**

**Q** You took over as CEO in 2016 – how would you describe your first year?

It has been an exciting year, both for me personally and for the Company. Taking over as CEO of Antofagasta was a very proud moment for me. Since taking up the role I have been working hard with the team at Antofagasta, putting people and safety first, focusing on improving our operating efficiency and rebasing our cost structure. I am convinced that improvements in productivity are key for the long term success of the Company and that we should regard them as an on-going process and part of the culture of Antofagasta.

We will always look for ways to improve what we do, irrespective of the copper price environment. In addition, we progressed down a path of constructive and transparent engagement with the communities around Los Pelambres, resolving the court cases relating to the Mauro tailings dam, overcoming what has been a very important challenge to us. This confirmed our belief that we can drive value creation for us and our stakeholders by the way in which we address and find solutions to social and environmental challenges. One of the things that first attracted me to Antofagasta was its long history of entrepreneurialism. The Company has grown from a single mine site at Michilla into one of the world's largest copper producers and a major contributor to Chile's economy. We still seek opportunities for innovation and 2016 saw us work hard to improve our operations, sustainably reducing costs and maximising the extraction of profitable tonnes.

While there is more to do, I'm pleased with what we've achieved in 2016. Costs have come down, productivity and efficiency has improved and our copper production rose. Against a challenging backdrop we've maintained our focus on sustaining the foundations of our business that underpin our ability to provide stable, long-term returns to our shareholders.

## In this section



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### OUR NEW OPERATING MODEL

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### OUR POSITION IN THE MARKET

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### OUR STRATEGY

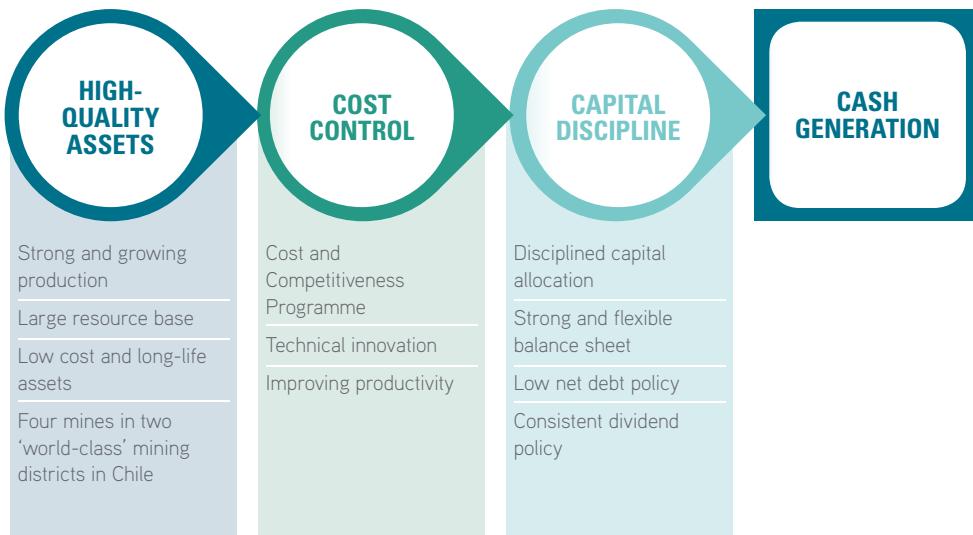
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### KEY PERFORMANCE INDICATORS

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## INVESTMENT CASE



**Q** What were the operating highlights during the year? Can you talk us through some of the numbers for 2016?

I think it was in 2016 that we really started to see the underlying performance of our operations begin to come through in our production numbers as we achieved copper production of 709,400 tonnes, an increase of 12.5% compared to 2015. While this was in part driven by higher production at Centinela, it also reflected development milestones being achieved at Antucoya and the full integration of Zaldívar. Importantly Antucoya reached full production capacity during 2016 with significant progress with the dust issues having been achieved and Zaldívar contributed its first full year of production, adding to the Group 51,700 tonnes of copper cathode production during the year.

At Los Pelambres production fell slightly versus 2015, primarily due to lower throughput as a greater proportion of harder ore was processed in the plant. For me, this reduction in ore quality underlines the real need to focus on operating improvements and productivity, which are the key drivers behind Antofagasta's efforts to reduce costs sustainably and consistently into the future.

Occasionally, this means we have to make tough choices. As you know, during the year a significant forecast construction cost overrun was announced at the Alto Maipo hydroelectric project, in which Los Pelambres held a 40% interest, at a time when long-term electricity prices in Chile had been falling dramatically. We reviewed our options and concluded that it would be best for Antofagasta if we disposed of our interest to benefit from lower future sustainable energy costs for Los Pelambres.

Actions like these are part of our efforts to bring down the cost base. And the success of our decision to concentrate the Group's efforts in 2016 on operating and capital cost control has been another highlight of the year. Improved productivity and efficiencies have also begun to bear fruit. As a result of our efforts on costs, combined with increased production and lower input prices, we've been able to reduce our net cash costs by 20% year-on-year, to average \$1.20/lb in 2016.

Away from our core copper production, gold production was 270,900 ounces, 26.6% higher than in 2015, reflecting better grades and throughput at Centinela. Additionally, as expected, molybdenum production saw a 3,000 tonne decrease for the full year as grades

and recoveries fell. Our transport division saw increased customer demand and improved performance of the rolling stock and better fleet utilisation, all contributing to a 6.3% increase in transported volume to 6.5 million tonnes.

The Board has recommended a final dividend for the year of 15.3 cents per share, bringing the total dividend for the year to 18.4 cents per share or \$182 million. This represents a total pay out ratio of 53% of net earnings, significantly in excess of the Company's policy of paying out a minimum of 35% of underlying net earnings.



IVÁN ARRIAGADA, CEO

IT WAS IN 2016 THAT YOU REALLY STARTED TO SEE THE UNDERLYING PERFORMANCE OF OUR OPERATIONS BEGIN TO COME THROUGH IN OUR PRODUCTION NUMBERS

## OUR NEW OPERATING MODEL

During 2016 the Group created a new operating model throughout its operations, with the objective of strengthening key processes and achieving full production commitments.

The model improves operating reliability and releases latent capacity, resulting in a competitive advantage for the Group's mining operations. It has been supported by:

1. Operations – streamlining operations to focus on safety, production and costs. During the year the Group conducted a simplification exercise to prioritise core functions carried out by the operations and established a solid support structure at Group level to assist operations in other activities.
2. Maintenance – ensuring in-house capability and expertise on maintenance issues within the Group. Maintenance managers were appointed at all operations, with responsibility for overseeing all maintenance

activity conducted by the Group and its contractors. They will share the lessons learned in other operations to establish more efficient, standardised maintenance practices across the Group.

3. Planning – focusing on near-term and medium-term mine planning in a single area, with the full life of the operation in mind. A new control and reconciliation function encourages adherence to plan, reducing the variability of and deviation from production plans to achieve maximum potential performance.
4. Operating Excellence – supporting continuous improvement by implementing standardised practices and sharing experiences to ensure that all operations work within an established framework regarding support services, asset integrity and engineering standards.



| OPERATIONS  | MAINTENANCE  | PLANNING   | OPERATING EXCELLENCE   |
|---|--|--|--|
| <p>Strengthen operating discipline and minimise process variability</p> <ul style="list-style-type: none"> <li>- Focus on leading KPIs and clearer accountabilities</li> <li>- Establish new operating intelligence role through better process management</li> </ul> | <p>Ensure optimum performance and reliability of assets throughout their life cycle</p> <ul style="list-style-type: none"> <li>- Combine reliability, planning and execution in a single functional area</li> <li>- Strengthen reliability practices</li> <li>- Implement new asset integrity function, focusing on high-impact risks</li> </ul> | <p>Develop challenging, high-quality plans to successfully fulfil commitments</p> <ul style="list-style-type: none"> <li>- Implement new control and reconciliation function, which focuses on greater adherence to plans</li> <li>- Conduct shorter and more focused planning cycles</li> </ul> | <p>Identify and exploit the maximum potential of each productive asset</p> <ul style="list-style-type: none"> <li>- Implement methodology to challenge and support different areas and optimise performance</li> <li>- Regularly report on the value captured</li> </ul> |

**Q We hear a lot from mining companies on the subject of innovation – how has Antofagasta added value through innovation?**

We have been making some important progress over 2016 which are associated to real innovation. As I said earlier the entrepreneurial spirit is a core element of Antofagasta's character. Let me provide you with a couple of recent examples where our innovations

have improved plant efficiency and saved money.

At Centinela we have finally commissioned three new paste thickeners, which represent a new water saving technology on the biggest scale yet seen in copper mining. They play a big role, not only in improving our efficient use of water, but also enabling us to run the plant at our new increased throughput capacity of 105,000 tonnes per day.

Elsewhere we have been working on developing partnerships with technology and specialist engineering companies to improve our training and safety systems. At Antucoya we have been trialling a state-of-the-art 360° training simulator for operators of our trucks, shovels and other mining equipment with the aim of eliminating accidents through loss of vehicle control. We've also installed Collision Alert Systems in

all of our mining trucks at Centinela and Antucoya and will roll this out across the rest of the operations in 2017.

These are just a few of the ways that we are deploying new technologies and procedures to reduce our running costs, boost plant uptime and improve safety across our operations.



IVÁN ARRIAGADA, CEO

## SAFETY REMAINS OUR NUMBER ONE PRIORITY

**Q How do you work with the community and other stakeholders? What steps have you taken to strengthen community relations over the past year?**

We produce copper responsibly and profitably, putting people and safety first and working closely with our local communities to ensure that our mines are developed sustainably. Our aim is to work in partnership with all of our stakeholders to provide jobs, prosperity and opportunities to not just the local population, but Chile as a whole. Our belief is that this is the best approach to ensure our continued ability to deliver stable, long-term returns to our shareholders.

During 2016 we made an important step towards putting our relations with the Caimanes community at Los Pelambres on a sustainable future. We reached a settlement of the outstanding court cases concerning the Mauro tailings dam. As a result the Company is now proceeding with the plans agreed with the community and courts as regards the future water supply solutions, additional safety measures, community development projects, and to provide access to benefits for families in the community.

**Q What will your focus for safety be in 2017?**

Safety remains our number one priority. During the course of 2016 Antofagasta tragically suffered a fatal accident at Antucoya in April and a further fatality at our transport division in July. I, with everyone at Antofagasta, offer my sincerest condolences to the affected families and friends.

It is not acceptable that we still have fatalities and we are determined to achieve our target of zero fatalities. While overall our safety standards have improved I am redoubling

our efforts to ensure that all of our employees and contractors live in a culture of safety every day. We are building on our programme of 2016, including enhancing our Critical Safety Controls verifications and “near-miss” incidence reporting. Our executive team continues to visit the Group’s mining operations regularly as part of our safety leadership programme, demonstrating to employees and contractors the importance of safety and empowering employees to ensure safety comes first.



### VIRTUAL REALITY USED FOR SAFETY AND HEALTH INDUCTIONS

Antofagasta takes steps right at the beginning of an employee's training to improve their knowledge of accident risk and avoidance. Key to this approach is the use of virtual reality Safety and Health Inductions, using a system of lenses and mobile devices to create realistic 360° images of operating sites. This allows employees to learn in the most tangible way how to assess the risk of accidents or fatalities in particular situations and the use of critical controls.

## NORDEA ANALYSTS VISIT ANTOFAGASTA MINERALS' OPERATIONS

Nordea Asset Management (NAM) is the largest asset manager in the Nordics, with over €200 billion under management. As part of its mission statement – Returns with Responsibility – it believes that companies incorporating environmental and social considerations into their business strategies represent better long-term investment opportunities. After several conference calls discussing financial and non-financial results over several months, the NAM Responsible Investments team decided to conduct a site visit to the Group's mining operations.

Nordea performs site visits to develop an in-depth on the ground knowledge of how companies are addressing Environmental, Social and Governance ("ESG") issues and to further understand how companies are achieving their goals. Nordea also develops short videos for their clients to explain how companies approach sustainability issues. In October 2016, two Nordea analysts and their cameraman toured the Los Pelambres and Centinela operations, meeting several employees and members of senior management during their three-day visit.

They also met community members, including representatives from the

Caimanes community, and visited the tailings storage facility at El Mauro. This included an overnight stay at the campsite, a tour of the mine and the opportunity to appreciate the absolute importance of safety.

At Centinela, they visited the thermosolar plant and the innovative thickened tailings deposit system pioneered by the Group. In addition to the mining operations, they toured the equally progressive sea water pumping facilities, where the Group is the first company in the world to use sea water without desalination in a large-scale copper mining process.

Sustainable development is an essential component of the Group's business model. The Group is committed to the continual assessment and improvement of safety, health, environmental and social performance across all of its operations.

The Nordea visit was an excellent opportunity to showcase the Group's progress and achievements and to demonstrate how it is addressing challenges in ESG matters. It was also the result of regular dialogue with the Company's shareholders on the importance of issues such as safety, community relations and the environment.

### SUSANNE RØGE LUND, SENIOR ESG ANALYST

The ultimate purpose of this visit was to establish whether Antofagasta would be investable for the Nordea Star Funds. Before the equity investment team can invest in these companies, they need to be approved by the RI team from an ESG point of view. After we got home, we assessed all the information that we had gathered during our visit, and concluded that Antofagasta plc is investable for the Nordea Star Funds and we have subsequently become a shareholder.

Our approval was based on the business model, where copper plays an important part in the transition to a low-carbon economy, and on the management of ESG issues, which we find acceptable, given that mining is a high risk sector.



+ Visit [www.antofagasta.co.uk](http://www.antofagasta.co.uk) for the full video of the 'Nordea responsible investments site visit'

## Nordea

ASSET MANAGEMENT

Nordea Asset Management (NAM) is the largest asset manager in the Nordic countries with a growing European presence and business. With assets under management of over €200 billion, Nordea is a semi-captive asset manager servicing Nordea Retail Banking, Private Banking and Life & Pensions, as well as Nordic and international institutional clients and third-party fund distributors globally.



**Q You speak to end users in key markets like China. What is your sense of prices for the year ahead and the outlook for 2017 and beyond?**

I do meet our customers on various occasions during the year when I am in China or at the LME Week in London. What has surprised many over the last year, and particularly in the final quarter of 2016, was the uptick we saw in copper demand and the expectation that this would continue. This year has started strongly, bolstered by the continued improvement in sentiment towards copper and the production problems at some of the biggest copper mines. It seems that we are now in a reflationary environment and this is positive for commodities. As many

continue to adjust their forecasts for China, we are confident that consumption there will continue to grow as they support their power and infrastructure requirements. The higher level of mine disruptions we are experiencing since the beginning of the year should keep pressure on refined copper availability and support the fundamentals for copper in the months to come. As a result we do not see copper returning to the lows of 2016.

Beyond that we expect to see a steady shift from a market in balance to a slight deficit, leading to a further improvement in prices. There are wild cards of course, but these are more likely to be positive for the copper price than negative.

Potential higher demand in the US under the new administration is one, increased disruptions to supply is another.

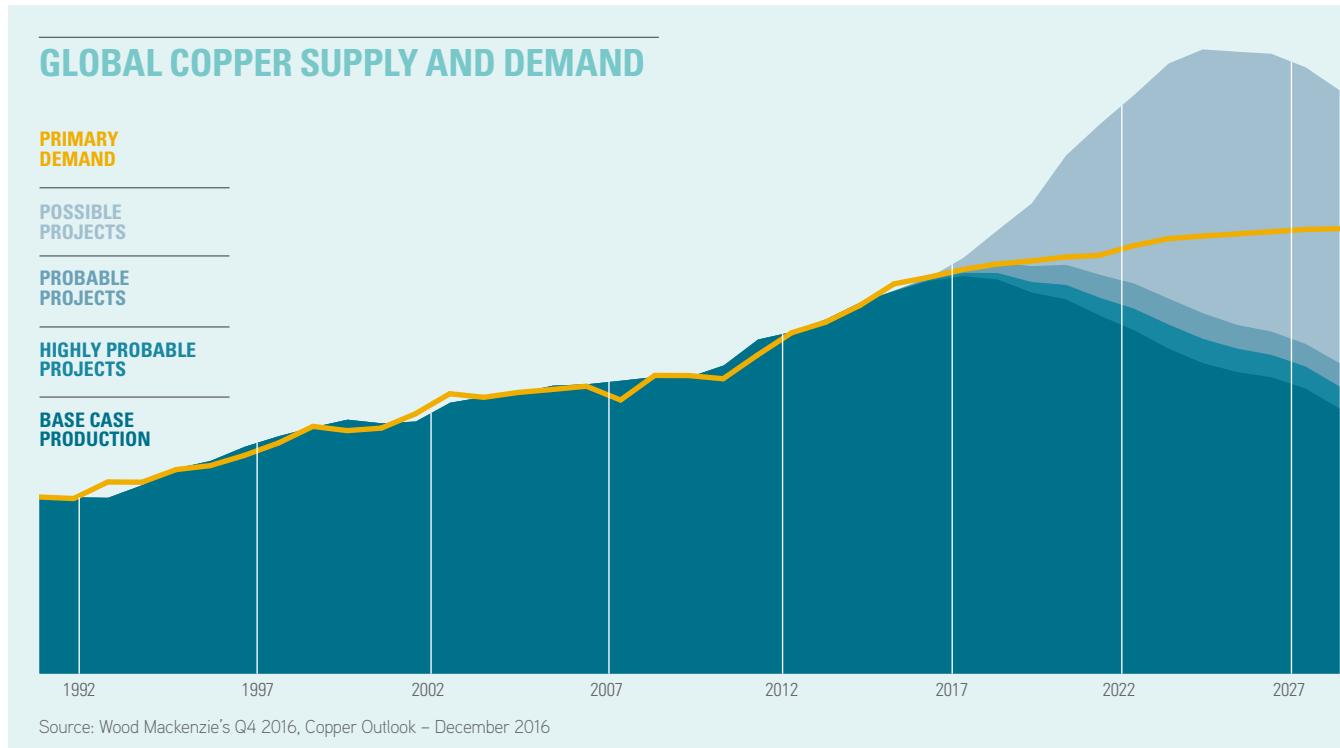
But the key lesson our industry has learnt over the last few years, and one that Antofagasta has now embedded in the way that we do business, is that we must maintain our cost discipline through the cycle, not just at our operations but also in how and when we invest capital. Only by doing this will we ensure that our operations continue to generate cash, defend our margins and deliver sustainable returns for all of our stakeholders.

This is why, as I look into 2017, my focus will continue to be on improving our operating efficiencies

and reducing our costs sustainably while continuing to work on our options for growth. As I said at the beginning of our conversation, Antofagasta was established and grew quickly because of its entrepreneurial spirit, and I want to embed that dynamism and innovation further in the Company. What gives me optimism about the future is how far we've come over the past few years. Antofagasta is focused on the responsible production of profitable tonnes in a way that benefits all of our employees, communities, government, fellow citizens, and of course, our shareholders.

**IVÁN ARRIAGADA**  
CHIEF EXECUTIVE OFFICER

## OUR POSITION IN THE MARKET



## MARKET ENVIRONMENT

### REFINED COPPER

#### 2016 MARKET PERFORMANCE

The average LME copper price during 2016 was \$2.21/lb, an 11.6% decrease compared with the 2015 average. Prices were expected to remain low during 2016 as the market priced in lower growth for key markets such as China, and this reduced investment in the sector depressed the copper price even though the market was in balance or showing only a small surplus during the year. However, by the fourth quarter of 2016 China was consuming at a much higher rate than expected and in October announced that it would continue its programme of fiscal stimulus into 2017. This, combined with a reflationary and stimulatory acceptance speech by President-elect Trump, led to a rally in the price of copper, which finished the year strongly at over \$2.50/lb.

Global mine production accounts for some 82% of total refined

supply and grew during the year as new production came on stream, particularly from Peru. In addition, fewer supply disruptions occurred during the year, which led to more copper in the market. The balance of supply comes from secondary sources, particularly in the form of scrap, the availability of which declined as falling prices led to lower rates of recycling and some scrap dealers limited their trading activities.

On the demand side, the most important market is China, which accounted for approximately 47% of global copper consumption in 2016. Europe and North America also remain the key consumers at 17% and 8% respectively. An estimated 15-25% of Chinese consumption is re-exported in products manufactured in China.

The Group's average realised price in 2016 was above the average LME price, reflecting a net positive provisional pricing adjustment of \$153.6 million for the year.

### MARKET OUTLOOK

The general consensus is that the market will show a small surplus in 2017. An unexpectedly high level of supply disruptions early in the year may move this small surplus to a small deficit. However, from 2018 the market will tighten as supply is constrained by lack of investment as greenfield and brownfield projects across the world have been postponed while demand continues to grow. Demand growth will continue to be linked to expected Chinese consumption.

In early 2017, the consensus price forecast for the year was \$2.45/lb, 11% higher than in 2016 based on expected higher consumption from China and possible supply-side disruptions arising from contested labour negotiations in Chile, which produces about one-third of the world's copper.

### COPPER CONCENTRATE

#### 2016 MARKET PERFORMANCE

There was good demand for copper concentrates during the year, and spot treatment and refining charges ("TC/RCS") traded below the benchmark price for annual contracts. As new mines ramped up production, particularly in Peru, new smelters came on stream in China absorbing this production. Further increases in Chinese smelting capacity are expected in 2017 and 2018.

### MARKET OUTLOOK

Benchmark TC/RCS for 2016 have been agreed at \$92.50 per dry metric tonne of concentrate and 9.25c/lb of refined copper. This rate is some 5% lower than the benchmark set for 2016 and reflects a tighter market and increased smelter capacity.

### GOLD

The average annual gold price increased by more than 7% in 2016, peaking in July at \$1,366/oz. Macroeconomic events such as Brexit, rising interest rates in the US and uncertainty related to Chinese growth all impacted the price of gold, which is considered a safe haven investment. Prices in the second half of the year were further impacted by demonetisation in India which caused a fall in demand in traditionally strong months.

Gold averaged \$1,248/oz in 2016 compared with \$1,160/oz in 2015 and closed the year at \$1,148/oz. The consensus price forecast for 2017 is \$1,302/oz.

### MOLYBDENUM

Molybdenum prices rebounded in 2016 after reaching their lowest levels for 12 years in 2015 due to lower demand from the steel industry and increased mine supply. The price averaged \$6.5/lb for the year compared with \$6.7/lb in 2015, and the consensus is it will remain around this level in 2017.

## GLOBAL COPPER CONSUMPTION BY SECTOR

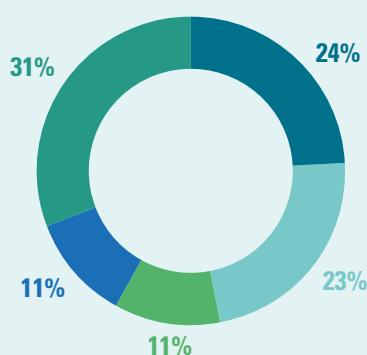
### CONSTRUCTION

### CONSUMER PRODUCTS

### ELECTRICAL AND ELECTRONIC PRODUCTS

### INDUSTRY MACHINES

### TRANSPORT



Source: Wood Mackenzie's Q4 2016 Copper Outlook – December 2016

# APPLICATION OF OUR STRATEGY

## OUR VISION

To be an international mining company based in Chile, focused on copper and related by-products and recognised for operating efficiency, value creation and as a preferred partner in the global mining industry.



## 1 THE EXISTING CORE BUSINESS

The first pillar of the strategy is to optimise and enhance the existing core business: Los Pelambres, Centinela, Antucoya and Zaldívar.

### CURRENT STRATEGIC FOCUS:

- Continue deploying the Safety Model across all operations to achieve zero fatalities.
- Identify and capture further cost savings through the Cost and Competitiveness Programme (CCP) to improve performance and competitive position.
- Implement a New Operating Model to enhance the operations' performance.
- Cultivate a proactive and inclusive approach to communities and other stakeholders to strengthen sustainable development.

### 2016 IN REVIEW

Antofagasta regrets that there have been two fatalities this year. The Group will continue embedding its Safety Model and is certain that the zero fatalities target will be achieved.

Copper production of 709,400 tonnes<sup>1</sup>, representing a 12.5% increase compared to 2015.

Group net cash costs of \$1.20/lb were lower than the initial guidance for the year.

This was due to the successful implementation of the CCP, which achieved \$176 million of mine cost savings, exceeding its target of \$160 million.

The highest-cost operation, Michilla, was sold.

Los Pelambres reached an agreement with the Caimanes community regarding El Mauro tailings dam and resolved the outstanding court cases.

### OBJECTIVES FOR 2017

Zero fatalities.

Improve safety standards through strengthened application of the Safety Model.

Focus on cultural change within the organisation.

Copper production of 685-720,000<sup>1</sup> tonnes.

Work on the implementation of the New Operating Model to improve operations' reliability and release latent capacity.

Maintain cash costs before by-product credits at \$1.55/lb, similar to 2016.

Capture an additional \$140 million of cost reductions under the CCP, focusing on structural cost savings and productivity.

Cultivate strong relationships with communities and local stakeholders.

1. Includes 50% of attributable production from Zaldívar.



## ② ORGANIC AND SUSTAINABLE GROWTH OF THE CORE BUSINESS

The second pillar of the strategy is to achieve sustainable, organic growth from further developing the areas around the Group's existing asset base in Chile: Encuentro Oxides, Centinela Molybdenum Plant, Los Pelambres Incremental Expansion and Centinela Second Concentrator.

### CURRENT STRATEGIC FOCUS:

- Finalise and commission projects under construction: Encuentro Oxides and the Molybdenum Plant.
- Advance the feasibility studies and permitting processes of the Group's main brownfield projects: Los Pelambres Incremental Expansion and Centinela Second Concentrator.

### 2016 IN REVIEW

- Antucoya reached design capacity during the year.
- Zaldívar successfully integrated into the Group.
- Construction of Encuentro Oxides and Molybdenum Plant slowed during 2016, to focus on cash preservation.
- Environmental approval obtained for Centinela Second Concentrator project.
- Environmental Impact Assessment (EIA) submitted for Los Pelambres Incremental Expansion project (Phase I).
- Feasibility studies progressed for both brownfield growth projects.
- Centinela Concentrator plant reached design capacity of 105,000 tpd.

### OBJECTIVES FOR 2017

- Continue working on capturing synergies, especially in operations in the north of Chile.
- Commission Encuentro Oxides and Molybdenum Plant projects.
- Construction decision on Los Pelambres Incremental Expansion by the end of the year (Phase I).
- Advance Centinela Second Concentrator feasibility study.
- Continue innovation programme to assess value-capturing technologies at the Group's operations.
- Complete Centinela Second Concentrator feasibility study.
- Complete the ramp up of tailings thickeners and stabilise throughput at Centinela.



## ③ GROWTH BEYOND THE CORE BUSINESS

The third pillar of the strategy is to seek growth beyond the Group's existing operations – both in Chile and internationally. The focus is on potential acquisitions of both high-quality operating assets and high-potential early-stage developments.

### CURRENT STRATEGIC FOCUS:

- Work to develop the long-term growth pipeline beyond the Group's existing operations.
- Continue the exploration programme focused on the Americas to identify long-term growth options.
- Monitor the current market to assess the potential value of accretive acquisitions or joint ventures.

### 2016 IN REVIEW

- Rationalised international exploration programme.
- Advanced studies relating to the Twin Metals project in preparation for permit applications.

### OBJECTIVES FOR 2017

- Continue monitoring the market to identify potential opportunities.
- Refocus exploration programme on the Americas, allocating more resources to high-prospect targets.
- Seek confirmation of the mining properties and advance permitting process.

# MEASURING OUR PERFORMANCE

The Group uses KPIs to assess performance in terms of meeting its strategic and operating objectives.

Performance is measured against the following financial, operating and sustainability objectives:

## FINANCIAL KPIs

### NET CASH/(DEBT)\*



**\$(1,072)M**

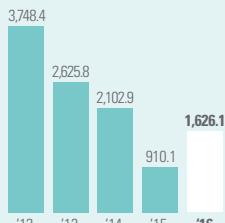
### WHY IT IS IMPORTANT

Net Cash/Debt is a measure of the financial position of the Group.

### PERFORMANCE IN 2016

Net Debt rose by \$48.2m in 2016 as a result of new borrowings offset by higher cash generation.

### EBITDA\*



**\$1,626.1M**

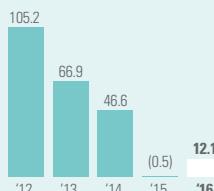
### WHY IT IS IMPORTANT

This is a measure of the Group's underlying profitability.

### PERFORMANCE IN 2016

EBITDA rose in 2016 as a result of higher production, higher realised prices and lower unit operating costs.

### EARNINGS PER SHARE\*



### WHY IT IS IMPORTANT

This is a measure of the profit attributable to shareholders

### PERFORMANCE IN 2016

EPS rose due to higher profitability as production and realised prices rose, while operating cost fell.

**12.1 CENTS**

\* Restated for discontinued operations

**[+] See page 23 for more information on our financial risks**

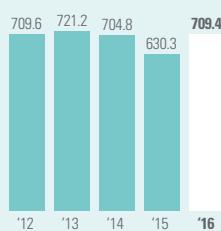
**[+] An analysis of Financial KPIs is included within the Financial Review on pages 60 to 65.**

#### Footnotes:

1. Non IFRS measures, refer to the alternative performance measures in Note 39 to the financial statements
2. Mineral resources relating to the Group's subsidiaries on a 100% basis and Zaldivar on a 50% basis.
3. The Lost Time Injury Frequency Rate is the number of accidents with lost time during the year per million hours worked.
4. Water consumption relates to the mining division only.
5. Total CO<sub>2</sub> emissions per tonne of copper produced. Data relates to the mining division only.

## OPERATING KPIs

### COPPER PRODUCTION



**709,400 TONNES**

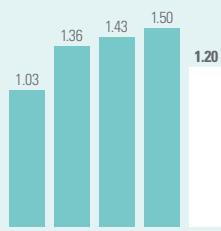
### WHY IT IS IMPORTANT

Copper is the Group's main product and its production is a key operating parameter. Includes all production from Los Pelambres, Centinela, Antucoya and 50% from Zaldívar.

### PERFORMANCE IN 2016

Copper production increased by 12.5% in 2016, primarily due to inclusion of production from Antucoya and Zaldívar and improved performance at Centinela.

### NET CASH COSTS<sup>1</sup>



**\$1.20/LB**

### WHY IT IS IMPORTANT

This is a key indicator of operating efficiency and profitability.

### PERFORMANCE IN 2016

Net cash costs decreased 20.0% compared to 2015, reflecting cost savings, higher copper and gold production and lower input prices.

### MINERAL RESOURCES<sup>2</sup>



**18.7BN TONNES**

### WHY IT IS IMPORTANT

Expansion of the Group's mineral resources base supports its strong organic growth pipeline.

### PERFORMANCE IN 2016

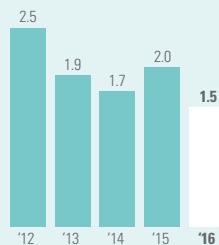
Mineral resources remained similar due to the incorporation of additional resources at Penacho Blanco and Mirador was offset by the closure of Michilla.

+ See page 190 for more information on our Reserves and Resources

+ See page 24 for more information on our operating risks

## SUSTAINABILITY KPIs

### LOST TIME INJURY FREQUENCY RATE<sup>3</sup>



**1.5**

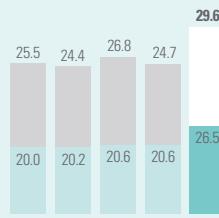
### WHY IT IS IMPORTANT

Safety is a key priority for the Group with the LTIFR being one of the principal measures of performance.

### PERFORMANCE IN 2016

The LTIFR of the Group in 2016 declined to 1.5 accidents with lost time per million hours worked.

### WATER CONSUMPTION<sup>4</sup>



**56.2M M³**

### WHY IT IS IMPORTANT

Water is a precious resource and the Group is focused on maximising efficient use and utilising the most sustainable sources as production grows.

### PERFORMANCE IN 2016

Consumption of water increased during 2016, as two new operations were integrated into the Group, Antucoya and Zaldívar.

CONTINENTAL  
 SEA

### EMISSIONS<sup>5</sup>



**3.67 TONNES**

### WHY IT IS IMPORTANT

The Group recognises the risks and opportunities of climate change and the need to measure and mitigate its greenhouse gas ("GHG") emissions. The Group is investing in renewable energy projects both to address rising costs and to mitigate climate change.

### PERFORMANCE IN 2016

Carbon emission intensity increased from 2015 primarily due to higher copper production at the Group's operations.

+ See page 26 for more information on our sustainability risks

# RISK AND COMPLIANCE MANAGEMENT FRAMEWORK

Effective risk and compliance management is essential to the Group's operations and strategy. The accurate and timely identification, assessment and management of risks are key to achieving the Group's operating and financial targets.

## THE RISK AND COMPLIANCE MANAGEMENT DEPARTMENT:

- Provides guidelines, standards and best-practice examples of risk and compliance management at the corporate and business unit levels
- Takes responsibility for the risk and compliance management systems
- Maintains the Group's risk register
- Organises and promotes risk and compliance workshops
- Supervises the operations' risk management
- Reviews the effectiveness of mitigating actions
- Supports internal stakeholders in key strategic decisions
- Ensures there are policies, guidelines and procedures in place to support the effectiveness of the Group's internal controls

### AREAS OF FOCUS AND DEVELOPMENT DURING 2016

#### RISK

The focus was on the continued consolidation of risk, compliance and internal control management processes, which included the following:

- Working to improve from maturity level four to maturity level five, the top level of the Risk Maturity Model<sup>1</sup>
- Expanding risk analysis to incorporate new business areas and widen coverage
- Improving key risk controls and taking action to reduce the impact and/or probability of identified risks, particularly through the use of preventive action plans
- Updating, improving and testing the Disaster Recovery Plans (DRP) and Business Continuity Plans (BCP)
- Verifying the effectiveness and design of key controls through the On Site Review of operations

- Following up agreed actions for materialised risks and action plans regarding the On Site Review of operations
- Establishing risk management training programmes for key users

#### COMPLIANCE

- Including the Modern Slavery Act in the Compliance Model. All of the Group's suppliers were reviewed to ensure that modern slavery is not occurring in the business or its supply chains
- Reviewing more than 4,000 employees' conflict of interest statements
- Implementing guidelines concerning business relationships with companies employing politically exposed persons (PEP)
- Strengthening compliance processes through conflict of interest assessment and due diligence of all business partners
- Updating key guidelines of the Compliance Model to comply with amendments to Chilean Law No. 20,393 (Criminal Liability for Legal Entities)

- Systematising compliance processes for the review of suppliers, gifts and hospitality declarations and conflict of interest statements
- Strengthening compliance training programmes for employees and contractors

#### INTERNAL CONTROL

- Ensuring SAP transactions are in full compliance with delegated authority structures
- Ensuring that key in-built SAP automatic controls are appropriate and effective

**+ Further information about the Group's Risk Management Systems is given in the Governance section on pages 88 to 91 and in the Sustainability Report on pages 52 to 59. Further detailed disclosures in respect of financial risks relevant to the Group are set out in Note 25 to the Financial Statements.**

1. In accordance with Risk Maturity Model processes developed by Deloitte, based on COSO ERM, ISO 31000 and other Standards.

## The Group's risk and compliance management framework can be divided into three tiers:



Communicating the Group's vision, strategy and objectives throughout the organisation, and putting in place appropriate governance structures, policies and procedures to embed key aims and objectives.

Ensuring that there are structures and processes in place to identify and evaluate risks, and developing appropriate controls and mitigation techniques to address those risks.

Ensuring that key risks, and performance in managing those risks, are reported on a timely basis to the relevant parties.

Ensuring that the Group adheres to internal policies, procedures and controls, as well as all relevant laws and regulations.

### GOVERNANCE

**+ Further information on the Board and its Committees is given in the Governance section on pages 68 to 119**

The Board is responsible for determining the nature and extent of the significant risks that the Group will accept in order to achieve its strategic objectives, and for maintaining sound risk management and internal control systems. The Board receives detailed analysis of key matters for consideration in advance of Board meetings. This includes reports on the Group's operating performance, including safety and health, financial, environmental, legal and social matters, key developments in the Group's exploration, project and business development activities, information on the commodity markets, updates on talent management and analysis of financial investments. The provision of this information allows the early identification

of potential issues and assessment of any necessary mitigating actions.

The Audit and Risk Committee assists the Board by reviewing the effectiveness of the risk management process and monitoring key risks and mitigation procedures. The Chairman of the Audit and Risk Committee reports to the Board following each Committee meeting and, if necessary, the Board can discuss the matters raised in more detail.

These processes allow the Board to monitor effectively the Group's major risks and mitigation procedures, and to assess the acceptable level of risk arising from the Group's operations and development activities.

Risk management reports are sent to the Board quarterly.

The Code of Ethics sets out the Group's commitment to undertaking business in a responsible and transparent manner. The Code requires honesty, integrity and accountability from all employees and contractors and includes guidelines for identifying and managing potential conflicts of interest. An Ethics Committee comprising members of senior management implements, develops and updates the Code and monitors compliance. The Code and other compliance matters form part of the induction programme for all new employees.

### RISK MANAGEMENT

**+ See page 88 for more information on our risk management practices**

The Risk and Compliance Management Department is responsible for risk and compliance management systems across the Group. It maintains the Group's risk register, which specifies the strategic risks that represent the most significant threats to the Group's performance and achievement of its strategy, along with any necessary mitigation activities. The risk register is regularly updated and annual strategic risk workshops are held at which senior management from across the business review the Group's key strategic risks and related mitigation activities. The Risk and Compliance Management Department reports quarterly to the Audit and Risk Committee on the overall risk management process, giving a

detailed update of key risks, mitigation activities and actions being taken.

The General Managers of each of the operations have overall responsibility for leading and supporting risk management. "Risk Champions" within each operation have direct responsibility for the risk management processes in their operations and for the continuous update of individual business risk registers, including relevant mitigation activities. The owners of the risks and controls at each business unit are identified, providing effective and direct management of risk. Each operation holds its own annual risk workshop in which the business unit's risks and mitigation activities are reviewed in detail and updated

if necessary. Workshops are also used to assess key risks that may affect relationships with stakeholders, limit resources, interrupt operations and/or negatively affect potential future growth. Mitigation techniques for significant strategic and business unit risks are annually reviewed by the Risk and Compliance Management Department.

The Board regularly reviews Group compliance with all relevant laws and regulations, internal policies, procedures and control activities. A formal risk assessment is conducted at least once a year at all the Group's operations, and all risks are reported and reviewed quarterly by the Audit and Risk Committee.

## COMPLIANCE + See page 88 for more information

The Group's Compliance Model applies to both employees and contractors. It is clearly defined and is communicated regularly through internal communication channels, as well as being available on the Group's website. All contracts with contractors include clauses relating to ethics, modern slavery and crime prevention to ensure adherence to the Group's Compliance Model.

The Compliance Model comprises five pillars:

### ① THE CODE OF ETHICS

This code sets out the Group's values and provides guidelines on behaviour for all employees and contractors.

- Code of Ethics
- Conflict of Interest Guidelines
- Gifts and Hospitality Guidelines
- Modern Slavery Act
- Monitoring effectiveness of programme
- Annual Statement

+ Please see our Modern Slavery Statement on page 59.

### ② THE CRIME PREVENTION MODEL

This model ensures compliance with the anti-bribery and anti-corruption laws in the United Kingdom and Chile. The Vice President of Finance and Administration is responsible for overseeing, defining and implementing the model. As part of the model, the Group regularly undertakes the following activities:

- Training on key risk areas (ethics, anti-corruption, modern slavery and antitrust matters)

- Investigating all reports made by whistleblowers
- Assessing conflict of interest and due diligence on all business partners
- Updating and reviewing all employees' conflict of interest statements
- Bolstering the compliance programme and systems
- Overseeing third-party reviews of the Crime Prevention Model
- Implementing policies and processes to ensure the proper management of any non-compliance exposure
- Crime Prevention Handbook
- Anti-corruption clauses in contracts
- Due diligence process, including global checking
- Antitrust – Politically Exposed Person (PEP) Facilitation Fees Guidelines

### ③ WHISTLEBLOWING

Employees and external stakeholders can report concerns of irregular conduct or ethical issues through the Company's intranet, by email, or letter, or by using a dedicated hotline. All complaints are investigated, findings are reported to the Ethics Committee and action taken if required. The security and confidentiality of employees is ensured for the duration of the process, safeguarding individuals and therefore achieving greater transparency.

- Reporting channels (web, telephone hotline, email)
- Methodology of complaints investigation and reports
- Monitoring – analysis of complaints and improving internal controls

### ④ COMMUNICATION AND TRAINING PROGRAMME

The Group has a comprehensive training programme to ensure that the policies and procedures of the Compliance Model are clearly understood and embedded in the culture of the organisation. The programme emphasises the right to know and there are measures in place to enhance the skills required to ensure its effective implementation.

The Group updated its compliance training programme in 2016, adding the concept of modern slavery and examples of its use to the new employee induction and e-learning courses.

- Communications (news, intranet, posters)
- Training programme – induction of new employees and e-learning

### ⑤ COMPLIANCE RISKS AND CONTROL ASSESSMENT

The objective of the Compliance Risks and Control Assessment is to identify, develop and improve internal controls to prevent potential risks. This assessment is performed at least annually.

- Identification of risks and controls
- Assessment of risks and controls, and improvement of the process

The model is reviewed regularly, both internally and by third parties, and on matters relating to corruption it has been certified under Chilean anti-corruption legislation.

## VIABILITY STATEMENT

To address the requirements of provision C.2.2 of the 2014 Corporate Governance Code, the Directors have assessed the prospects of the Group over a period of five years.

Mining is a long-term business and timescales can run into decades. The Group maintains life-of-mine plans covering the full remaining mine life for each of the mining operations. More detailed medium-term planning is performed for a five-year time horizon (as well as very detailed annual budgets). Accordingly, a period of five years has been selected as the appropriate period over which to assess the prospects of the Group.

When taking account of the impact of the Group's current position on this viability assessment, the Directors have considered in particular its financial position, including its significant balance of cash, cash equivalents and liquid investments and the borrowing facilities in place, including their terms and remaining durations.

When assessing the prospects of the Group, the Directors have considered the Group's copper price forecasts, the Group's expected production levels, operating cost profile, capital expenditure and financing plans. The Directors have taken into consideration the Group's principal risks which could impact the prospects of the Group over this period, with the most relevant to this viability assessment considered to be risks to the copper price outlook. Robust down-side sensitivity analyses have been performed, assessing the impact of a significant deterioration in the copper price outlook over the five-year period, along with the impact of the potential occurrence of a number of the Group's other specific principal risks. This analysis has focused on the existing asset-base of the Group, without factoring in potential development projects, which is considered appropriate for an assessment of the Group's ability to manage the impact of a depressed economic environment. These stress-tests all indicated results which could be managed in the normal course of business.

Based on their assessment of the Group's prospects and viability, the Directors confirm that they have a reasonable expectation that the Group will be able to continue in operation and meet its liabilities as they fall due over the next five years.

## GOING CONCERN

The Directors also considered it appropriate to prepare the financial statements on the going concern basis, as explained in the Basis of preparation paragraph in Note 1 to the financial statements.

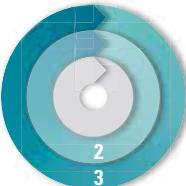
# PRINCIPAL RISKS

Set out below are the Group's principal risks and related mitigation techniques. The Board has carried out a robust assessment of the principal risks.

## FINANCIAL RISKS

| RISK  | MITIGATION   | APPLICATION TO STRATEGY   |
|---|--|---|
| <b>Growth opportunities</b><br><br><i>The Group may fail to identify attractive acquisition opportunities or may select inappropriate targets.</i>  | <p>The Group assesses a wide range of potential growth opportunities, both internal projects and external opportunities. A rigorous assessment process is followed to evaluate all potential business acquisitions, which are subjected to different stress test scenarios for sensitivity analysis, and to determine the risks associated with the project or opportunity.</p> <p>The Group's Business Development Committee reviews potential growth opportunities and transactions, and approves or recommends them within authority levels set by the Board.</p> <p><b>+ Details of the Group's growth opportunities are set out in the Operating Review on pages 40 to 43</b></p>   |   |
| <b>Commodity prices</b><br><br><i>The Group's results are heavily dependent on commodity prices – principally copper and, to a lesser extent, gold and molybdenum. The prices of these commodities are strongly influenced by a variety of external factors, including world economic growth, inventory balances, industry demand and supply, possible substitution, etc.</i> | <p>The Group considers exposure to commodity price fluctuations to be an integral part of the business and its usual policy is to sell its products at prevailing market prices. The Group monitors the commodity markets closely to determine the effect of price fluctuations on earnings, capital expenditure and cash flows. Very occasionally, when it feels it to be appropriate, the Group uses derivative instruments to manage its exposure to commodity price fluctuations. The Group runs its business plans through various different commodity price scenarios and develops contingency plans as required.</p> <p><b>+ The sensitivity of the Group's earnings to movements in commodity prices is set out in Note 25 to the Financial Statements</b></p> |  |
| <b>Foreign currency</b><br><br><i>The Group's sales are mainly denominated in US dollars and some of the Group's operating costs are in Chilean pesos.</i>  | <p>As copper exports account for over 50% of Chile's exports, there is a correlation between the copper price and the US dollar/Chilean peso exchange rate. This natural hedge partly mitigates the Group's foreign exchange exposure. However, the Group monitors the foreign exchange markets and the macroeconomic variables that affect them and on occasion implements a focused currency hedging programme to reduce short-term exposure to fluctuations in the US dollar against the Chilean peso.</p> <p><b>+ Details of the Group's currency hedging arrangements are shown in Note 25 to the Financial Statements</b></p>  |  |

## OPERATING RISKS

| RISK   | MITIGATION   | APPLICATION TO STRATEGY   |
|--|--|---|
| <b>Strategic resources</b><br><br><i>Disruption to the supply of any of the Group's key strategic inputs such as electricity, water, fuel, sulphuric acid and mining equipment could have a negative impact on production. Longer term, any restrictions on the availability of key strategic resources such as water and electricity could affect the Group's opportunities for growth.</i><br><br><i>A significant portion of the Group's input costs are influenced by external market factors.</i> | <p>Contingency plans are in place to address any short-term disruptions to strategic resources. The Group negotiates early with suppliers of key inputs to ensure supply continuity. Certain key supplies are purchased from several sources to mitigate potential disruption arising from exposure to a single supplier.</p> <p>Technological and innovative solutions, such as using sea water in the Group's mining operations, can help mitigate exposure to potentially scarce resources.</p> <p>The Group also utilises several sources of non-traditional energy such as wind and solar power.</p> <p><b>+ Information on the Group's arrangements for the supply of key inputs is included within the Key Inputs section on pages 32 to 34, and details of significant operating or cost factors related to key inputs are included within the Operating Review on pages 38 to 51</b></p>  |    |
| <b>Operating</b><br><br><i>Mining operations are subject to a number of circumstances not wholly within the Group's control. These include damage to or breakdown of equipment or infrastructure, unexpected geological variations or technical issues, extreme weather conditions and natural disasters, any of which could adversely affect production and/or costs.</i>   | <p>Key risks relating to each operation are identified as part of the regular risk review process undertaken by the individual operations. This process also identifies appropriate mitigation techniques for such risks. Monthly reports to the Board provide variance analysis of operating and financial performance, allowing potential key issues to be identified in good time and any necessary actions, such as monitoring or control activities, to be implemented to prevent unplanned downtime.</p> <p>The Group has Business Continuity Plans and Disaster Recovery Plans for all key processes within its operations in order to mitigate the consequences of a crisis or natural disaster. The Group also has property damage and business interruption insurance to provide protection from some, but not all, of the costs that may arise from such events.</p> <p><b>+ Details of the performance of each of the Group's operations are included within the Operating Review on pages 38 to 51</b></p>  |   |
| <b>Project management</b><br><br><i>Failure to effectively manage the Group's development projects could result in delays in the start of production and cost overruns.</i>  | <p>The Group has a project management system consisting of standards, manuals and procedures containing the best practices applicable and enforceable in all phases of project development. The project management system supports the decision-making process by balancing risk versus benefit, increasing the likelihood of success and providing a common language and standards. All geometallurgical models are reviewed by independent experts.</p> <p>During the project lifecycle, quality checks for each of the standards applied are carried out by a panel of experts from within the Group. This panel reviews each feasibility study to assess the technical and commercial viability of the project and how it can be safely developed. Detailed progress reports on ongoing projects are regularly reviewed, and include assessments of progress against key project milestones and performance against budget.</p> <p><b>+ Details of the progress of the Group's projects are included within the Operating Review on pages 40 to 43</b></p> |  |

| RISK   | MITIGATION  | APPLICATION TO STRATEGY   |
|--|---|---|
| <b>Political, legal and regulatory</b><br><br><i>The Group may be affected by political instability and regulatory developments in the countries in which it is operating, pursuing projects or conducting exploration activities. Issues regarding the granting of permits or amendments to permits already granted, and changes to the legal environment or regulations, could adversely affect the Group's operations and development projects.</i> | Political, legal and regulatory developments affecting the Group's operations and projects are monitored continually. The Group operates in full compliance with the existing laws, regulations, licences, permits and rights in each country in which it operates.<br><br>The Group assesses political risk as part of its evaluation of potential projects, including the nature of any foreign investment agreements.<br><br>The Group monitors proposed changes in government policies and regulations and belongs to several associations that consult with the government on these changes. This helps to improve the Group's internal processes and better prepare it to meet any new regulatory requirements. |    |
| <b>Identification of new mineral resources</b><br><br><i>The Group needs to identify new mineral resources to ensure continued future growth and does so through exploration and acquisition. There is a risk that exploration activities may not identify sufficient viable mineral resources.</i>  | The Group conducts exploration programmes both in Chile and in other countries. The Group has entered into early-stage exploration agreements and strategic alliances with third parties in a number of countries and has also acquired equity interests in companies with known geological potential. The Group focuses its exploration activities on stable and secure countries to reduce risk exposure.   |   |
| <b>Ore reserves and mineral resources estimates</b><br><br><i>The Group's ore reserves and mineral resources estimates are subject to a number of assumptions, including geological, metallurgical and technical factors, future commodity prices and production costs. Fluctuations in these variables may result in some reserves or resources being deemed uneconomic, which could lead to a reduction in reserves and/or resources.</i>            | The Group's reserves and resources estimates are updated annually to reflect material extracted during the year, the results of drilling programmes and any revised assumptions. The Group follows the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ("the JORC Code") in reporting its ore reserves and mineral resources. This requires reserves and resources estimates to be based on work undertaken by a Competent Person, as defined by the Code. In addition, the Group's reserves and resources estimates are subject to a comprehensive programme of internal and external audits.   |  |
|  | <b>+ Details of any significant political, legal or regulatory issues that impact the Group's operations are included within the Operating Review on pages 38 to 51</b>   |   |
|  | <b>+ A review of the Group's exploration activities is set out in the Operating Review on pages 40 to 41</b>  |   |
|  | <b>+ The ore reserves and mineral resources estimates, along with supporting explanations, are set out on pages 190 to 197</b>  |   |

## SUSTAINABILITY RISKS

| RISK   | MITIGATION   | APPLICATION TO STRATEGY   |
|--|--|---|
| <b>Community relations</b> <p><i>Failure to identify and manage local concerns and expectations can have a negative impact on the Group. Relations with local communities and stakeholders affect the Group's reputation and social licence to operate and grow.</i></p>   | <p>The Group has a dedicated team that establishes and maintains relations with local communities. These are based on trust and mutual benefit throughout the mining lifecycle, from exploration to final remediation. The Group seeks to identify early any potentially negative operating impacts and minimise these through responsible behaviour. This means acting transparently and ethically, prioritising the safety and health of its employees and contractors, avoiding environmental incidents, promoting dialogue, complying with commitments to stakeholders and establishing mechanisms to prevent or address a crisis. These steps are undertaken in the early stages of each project and continue throughout the life of each operation.</p> <p>The Group contributes to the development of communities in the areas in which it operates, particularly through human capital development – the education, training and employment of the local population. The Group endeavours to communicate clearly and transparently with local communities, in line with the established Community Relations Plan, including the use of a grievance management process, local perception surveys, and local media and community engagement.</p> |    |
| <b>Safety and health</b> <p><i>Safety and health incidents could result in harm to the Group's employees, contractors or to local communities. Ensuring their safety and wellbeing is first and foremost an ethical obligation for the Group, as stated in the Group Core Values.</i></p> <p><i>Poor safety records or serious accidents could have a long-term impact on the Group's morale, reputation and production.</i></p> | <p>The Group is seeking continuous improvement of its safety and health risk management procedures, with particular focus on the early identification of risk and preventing fatalities.</p> <p>The corporate Safety and Health department provides a common strategy to the Group's operations and co-ordinates all safety and health matters. The Group has a Significant Incident Report system which is an important part of the overall approach to safety.</p> <p>The Group's goal of zero fatalities and minimising the number of accidents requires all contractors to comply with the Group's Occupational Health and Safety Plan. This is monitored through monthly audits and supported by regular training and awareness campaigns for employees, contractors, employees' families and local communities, particularly with regard to road safety.</p> <p>Critical controls and verification tools are regularly strengthened through the verification programme and regular audits of critical controls for high potential safety risks.</p>  |  |
| <b>Environmental management</b> <p><i>An operating incident that damages the environment could affect both the Group's relationship with local stakeholders and its reputation, undermining its social licence to operate and to grow.</i></p> <p><i>The Group operates in challenging environments, including the Atacama Desert, where water scarcity is a key issue.</i></p>  | <p>The Group has a comprehensive approach to incident prevention. Relevant risks are assessed, monitored and controlled in order to achieve the goal of zero incidents with significant environmental impact. The Group works to raise awareness among employees and contractors and provides training to promote operating excellence. Potential environmental impacts are key considerations when assessing project viability, and the integration of innovative technology in the project design to mitigate these effects is encouraged. The Group strives to ensure maximum efficiency in water use, pioneering the use of sea water for mining operations in the arid Antofagasta Region of Chile and installing capacity to produce thickened tailings at Centinela, thus achieving high rates of reuse and recovery.</p>   |  |

| RISK  | MITIGATION  | APPLICATION TO STRATEGY   |
|---|---|---|
| <b>Talent management and labour relations</b><br><br><i>The Group's highly skilled workforce and experienced management team are critical to maintaining current operations, implementing development projects, achieving long-term growth and preserving current operations without major disruption. Managing talent and maintaining a high-quality labour force is a key priority for the Group and any failures in this respect could have a negative impact on the performance of the existing operations and future growth.</i> | <p>The Group maintains good relations with its employees and unions, founded on trust, continuous dialogue and good working conditions. The Group is committed to safety, non-discrimination and compliance with Chile's strict regulations on labour matters.</p> <p>There are long-term labour agreements in place with employee unions at each of the Group's mining operations, which help to ensure labour stability.</p> <p>The Group seeks to identify and address labour issues that may arise throughout the period covered by existing labour agreements and to anticipate any potential issues in good time. Contractors are an important part of the Group's workforce and under Chilean law are subject to the same duties and responsibilities as the Group's own employees. The Group's approach is to treat contractors as strategic associates and its goal is to build long-term mutually beneficial contractor relationships. The Group maintains constructive relationships with its employees and the unions that represent them through regular communication and consultation. Union representatives are regularly involved in discussions about the future of the workforce.</p> <p>The Group develops the talents of its employees through training and development, invests in initiatives to widen the talent pool and focuses on maintaining good relationships with employees, unions and contractors.</p> <p>The Group's Employee Performance Management System is designed to attract and retain key employees by creating reward and remuneration structures and personal development opportunities. The Group has a talent management system to identify and develop internal candidates for key management positions, as well as identifying suitable external candidates where appropriate.</p> <p><b>+ Details of the Group's relations with its employees and contractors are set out within the Sustainability Report on pages 52 to 59 and within the Operating Review on pages 32 to 37</b></p> |    |
| <b>Corruption activities</b><br><br><i>The Group's projects or operations around the world may be affected by risks related to corruption or bribery, including operating disruptions or delays resulting from a refusal to make "facilitation payments". Such risk depends on the economic or political stability of the country in which the Group is operating.</i>  | <p>The Group employs procedures and controls against any kind of corruption, including open channels of communication that any employee or external party can use in order to raise any concerns or complaints.</p> <p>In addition, the Group has Ethics Committees (composed of senior executives) at each of its operations, responsible for investigating complaints and taking any necessary measures. They in turn report such investigations to the Corporate Ethics Committee, which decides whether any further action is required.</p> <p>All employees in the Group receive training on the Group Compliance Model which is subject to external certification.</p> <p>There are also control procedures in place that help to prevent corruption, covering such issues as conflicts of interest, suitability of suppliers, receiving and giving of gifts and hospitality, and facilitation payments.</p>  |  |

# PERFORMANCE

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## CENTINELA

Copper concentrate crushing plant,  
SAG and ball mills.





# CREATING VALUE

## CREATING VALUE THROUGH THE MINING LIFECYCLE



## GROUP CORE VALUES



### RESPECT



### SAFETY AND HEALTH

## INVESTMENT VERSUS INCOME

Mining is a long-term business and timescales can run into decades. The period from initial exploration to the start of production often exceeds ten years, and, depending on the nature of the project and market conditions, it may take more than five years of operation to recoup the initial investment. If possible, mines exploit higher-grade areas towards the start of the mine life in order to maximise returns. As a result, average ore grades may decline over time, with production volumes decreasing along with revenues.



The Group mines both copper sulphide and copper oxide ores, which require different processing routes:

**Los Pelambres and Centinela Concentrates**  
Mined sulphide ore is milled to reduce its size before passing to flotation cells where it is upgraded to a concentrate containing some 25-35% copper. This concentrate is then shipped to a smelter operated by a third party and converted to copper metal.

### *Centinela Cathodes, Antucoya and Zaldívar*

Mined oxide ore is combined with leachable sulphide, crushed, piled into heaps and then leached with sulphuric acid, producing a copper sulphate solution. This solution is then put through a solvent extraction and electrowinning ("SX-EW") plant to produce copper cathodes, which are sold to fabricators around the world.

The marketing team builds long-term relationships with the smelters and fabricators who purchase the Group's products, with approximately 75% of output going to Asian markets.

As well as copper, a number of the Group's mines produce significant volumes of gold, molybdenum and silver as by-products. Gold is sold for use in industrial and electronic applications and in jewellery making.

Most copper and molybdenum sales are made under annual contracts or longer-term framework agreements. Sales volumes are agreed each year, which guarantees offtake.

During the operation of a mine, its impact on the environment and the neighbouring communities is carefully managed. At the end of its life, a mine must be closed and the surrounding habitats restored to their original state. A closure plan for each mine is maintained and updated throughout its life to ensure compliance with the latest regulations and a sustainable closure.

The Group's mining operations create significant economic and social value for a wide range of stakeholders. Local communities benefit from job creation and improved infrastructure, while the Chilean government and local municipalities receive tax payments and royalties. There are also benefits to society in general, with the copper the Group produces being used across many sectors, from industrial to medical.

The copper and by-products from the Group's mines go on to be further processed for use in end markets, including property, power, electronics, transport and consumer products.

+ Further information on pages 44-49.

+ Further information on pages 44-49.

+ Further information on pages 52.

+ Further information on pages 61.



SUSTAINABILITY



INNOVATION



EXCELLENCE



FORWARD-THINKING

# KEY INPUTS AND COST BASE

The Group's mining operations depend on key inputs, including energy, water, labour and fuel. For cathode producers such as Centinela, Antucoya and Zaldívar, which use the SX-EW process, sulphuric acid is also a key input.

Concentrate producers such as Los Pelambres and Centinela require other substantial inputs, for example reagents and grinding media. The availability and cost of these inputs are central to the Group's cost management strategy, which focuses on cost control and security of supply.

The Group's two largest operations, Los Pelambres and Centinela, are already competitively positioned on the copper industry cost curve and the

acquisition of Zaldívar and its successful integration into the Group has unlocked valuable synergies in several areas, including that of cost.

The initiatives below have been implemented by the Group's procurement department, reducing the unit cost of each operation and allowing them to remain profitable even as mine grades decline.

| \$ COST AND COMPETITIVENESS PROGRAMME | EXAMPLES OF SAVINGS INITIATIVES   | ANNUAL SAVINGS PER INITIATIVE |
|---------------------------------------|---|-------------------------------|
|                                       | <ul style="list-style-type: none"> <li>- Bringing electric shovel maintenance in-house</li> <li>- Consolidation of mechanical maintenance contracts for concentrator plant</li> <li>- Modifying peak consumption patterns to reduce power costs</li> </ul>  | <b>&lt;\$5 MILLION</b>        |
|                                       | <ul style="list-style-type: none"> <li>- Improving productivity by changing the contractor business model for mine equipment rental and reducing maintenance unit cost by 10% to 15%</li> <li>- Optimising waste in the blasting pattern to reduce explosives consumption by approximately 10%</li> </ul> | <b>\$5-10 MILLION</b>         |
|                                       | <ul style="list-style-type: none"> <li>- Using existing loading capacity to replace shovel rental with a maintenance and repair contract</li> <li>- Optimisation of the organisational structure</li> </ul>   | <b>\$10-15 MILLION</b>        |



INPUTS



The Group sources its energy from the two electricity grids in Chile: the northern grid (SING), which supplies the Centinela, Antucoya and Zaldívar mines, and the central grid (SIC) which supplies Los Pelambres. The SING has an installed capacity of 5.0 GW, supplied to the grid from coal-fired power stations and renewable sources such as wind and solar. The SIC's installed capacity is 17.4 GW, primarily from hydroelectric plants. Due to this reliance on hydroelectric power, the cost of energy on the SIC fluctuates depending on precipitation levels, whereas on the SING costs tend to be more stable.

In 2014, the Government began a process to connect the SING and SIC power grids to increase the reliability of the national power system. This should be completed in 2018. The new integrated grid will supply 99% of national demand, increasing customer access to a range of power generation sources.

Approximately 13% of the Group's operating costs are energy related. To manage price fluctuations, the Group aims to procure medium and long-term electricity contracts called Power Purchase Agreements (PPAs) at each operation. Pricing, in most cases, is linked to the cost of electricity on the Chilean grids or the generation costs of a supplier, the latter being subject to adjustments for inflation and fuel input prices.

In 2012, Los Pelambres was facing an energy market with limited availability of long-term PPAs indexed to more stable fuel input prices, leaving it exposed to volatile spot energy prices. To mitigate this, the Group improved Los Pelambres' security of supply by investing in several power generation projects. These include an equity interest in a wind-power plant, El Arrayán, which now provides some 20% of Los Pelambres' energy requirements.

Los Pelambres has signed long-term PPAs with two solar power providers for a total of 50MW of power. The first solar PPA commenced in 2015 and the second came online in 2016. During 2015, Los Pelambres also started to receive power under a long-term PPA from a coal-fired power plant and in 2016 replaced the remaining exposure to the spot market by a short-term fixed price PPA. These PPAs, together with those signed with Alto Maipo, will fulfil Los Pelambres' energy requirements at competitive and stable prices.

All the Group operations located on the SING benefit from long-term contracts, mostly indexed to the price of coal. The first of these to expire will be the PPA supplying 100% of Zaldívar's power until 2020. The other PPAs continue until 2026-2028.



Water is a precious commodity in the regions where the Group's mines operate, so the recycling of water is extremely important.

Water for each operation is sourced either from the sea or from surface and underground sources. Each operation has the necessary permits for the long-term supply of water at current production levels.

The Group optimises water efficiency by reducing demand, using untreated sea water and encouraging recycling across its operations. Water reuse rates depend on a range of factors and the Group seeks to achieve a rate of 70–85% depending on circumstances at each operation.

The Group has pioneered the use of untreated sea water at its Chilean operations, and the technique is used at Centinela and Antucoya. In 2016, sea water accounted for 47.2% of total Group water use.



Secure labour supply is key to the Group's success. Labour agreements with unions are in place at all of the Group mining operations, generally lasting for three years. In 2016, the Group successfully renewed labour agreements with the unions at Zaldívar, Antucoya, and with a new supervisors' union at Los Pelambres. The Group continues to foster good working relationships with its employees and labour unions and to date there has been no industrial action.

Contractors account for approximately 71% of the workforce across Group operations, and they are responsible for labour negotiations with their own employees. The Group maintains strong relations with all contractors to ensure operating continuity and expects all contractors to adhere to the same standards expected of its own workforce, particularly in the areas of safety and health.





The sulphuric acid market weakened during 2016, mainly due to lower consumption in the fertiliser industry. This lowered the regional deficit and caused prices to drop by the end of the year.

The Group secures most of its sulphuric acid requirements under contracts for a year or longer at prices normally agreed in the latter part of the previous year. Therefore, the decline in demand is likely to benefit the acid procurement programme in 2017.

## SERVICE CONTRACTS AND KEY SUPPLIES

In 2014, the Group created a central procurement department to consolidate supply activities for key purchases such as mining equipment, tyres and reagents, achieving synergies and economies of scale across its operations. The programme has expanded since and has worked to standardise procurement policies and procedures across the Group. A core of experts defines product and service categories and negotiates corporate-level agreements to obtain price reductions and discounts in high-spend areas.

In 2016, the procurement team successfully:

- Implemented SAP to manage inventory levels
- Centralised the procurement of all goods, strategic and operating
- Incorporated Zaldívar into existing Group-wide contracts, achieving significant savings
- Integrated Antucoya into the Group procurement system and negotiated new procurement contracts for goods and services not already covered under Group contracts
- Automated and outsourced all transactions under \$5,000, which account for approximately 60% of all procurement transactions

The Group continually reviews its procurement processes and existing agreements, identifying additional cost-saving opportunities

to be taken during the coming years as part of the Cost and Competitiveness Programme.

Opportunities to improve major service contracts in areas such as productivity and costs are under review by external consultants. Once identified and analysed, these can lead to contract renegotiations.

In total, the Group has over 1,500 contracts for goods and services. Key contracts, such as tyres, grinding media, mining and mobile equipment, chemicals, explosives, camp administration and maintenance, are under long-term agreements. Price adjustment formulas reflect market variations of key cost elements, such as steel, petrol and Consumer Price Index (CPI). Contracts are normally negotiated between the operation and the supplier, but tenders and negotiations are mostly co-ordinated, and sometimes led, by the Central Procurement Department in order to maximise leverage and benefits.

The Group's corporate procurement team uses a variety of strategies, including from full-price competition, price auctions, sourcing in China and working with strategic suppliers, to reduce the costs to each party and achieve a sustainable, longer-term, lower-cost base for future growth. To foster this co-operative approach, the Group has engaged productivity experts to map operations, understand value streams and identify opportunities for the Group to increase efficiency and reduce costs.

## OIL PRICE

Fuel represents less than 5% of total operating costs and is used in trucks transporting ore and waste at the mine sites. Nevertheless, improving fuel efficiency is a priority, with the amount of fuel consumed per tonne of material extracted being a key measure. Fuel is supplied by Chile's two largest suppliers to avoid sole supplier risk.

Generally, the oil price also affects the spot price of energy, shipping rates for supplies and products, and the cost of items such as tyres and conveyor belts, which contain oil-based products. The oil price rose by approximately 45% during 2016, following the reduction of output agreed by oil producing nations at the end of the year.

## EXCHANGE RATE

Costs are affected by the Chilean peso to US dollar exchange rate, as approximately 35-40% of the mining division's operating costs are in Chilean pesos. However, this often acts as a natural hedge as over half of Chile's foreign exchange is generated from copper sales, so an increase in the copper price tends to weaken the Chilean peso and vice versa. During 2016, the Chilean peso weakened by 3.5% from Ch\$654/\$1 in 2015 to Ch\$677/\$1. During the first two months of 2017 it averaged Ch\$652/\$1.



INPUTS

# KEY RELATIONSHIPS

The Group cannot run its business in isolation. The business model is underpinned by relationships with stakeholders at local, regional, national and international level, which contribute to its long-term success.

The Group forms long-term partnerships with some suppliers, while others are managed with a more short-term focus based on market competition.



## CUSTOMERS

Most copper and molybdenum sales are made under annual contracts or using longer-term framework agreements with sales volumes agreed for the coming year. Gold is contained in the copper concentrates and so is part of copper concentrates sales.

The majority of sales are to industrial customers who refine or further process the copper – smelters, in the case of copper concentrate production, and copper fabricators in the case of cathode production. The Group's marketing team builds long-term relationships with these core customers, while also maintaining relationships with trading companies that participate in shorter-term sales.

Over 80% of the Group's mining sales are under contracts of a year or longer and metals sales pricing is generally based on prevailing market prices.



## STRUCTURE OF SALES CONTRACTS

Typically, the Group's sales contracts set out the annual volumes to be supplied and the main terms for the sale of each payable metal, with the pricing of the contained copper in line with LME prices.

In the case of concentrate, a deduction is made from LME prices to reflect TC/RCs – the smelting and refining costs necessary to process the concentrate into copper cathodes. These TC/RCs are typically determined annually and in line with terms negotiated across the concentrate market.

A significant proportion of the Group's copper cathode sales are made under annual contracts, priced in line with LME prices. In copper cathode transactions a premium, or in some cases a discount, on the LME price is negotiated to reflect differences in quality, logistics and financing compared with the metal exchange's standard copper contract specifications.

Similarly, the Group's molybdenum contracts are made under long-term framework agreements, with pricing usually based on Platts' average prices.

Across the industry neither copper producers nor consumers tend to make annual commitments for 100% of their respective production or needs, and producers normally retain a portion to be sold on the spot market throughout the year.

The prices realised by the Group during a specific period will differ from the average market price for that period. This is because, in line with industry practice, sales agreements generally provide for provisional pricing at the time of shipment, with final pricing based on the average market price for the month in which settlement takes place.

For copper concentrate, sales remain open until settlement occurs, on average three to five months from the shipment date. Settlement for the gold and silver content in copper concentrate sales occurs approximately one month from shipment. Copper cathode sales remain open for an average of one month from shipment. Settlement for copper in concentrate sales is later than for copper cathode sales as further refinement of copper in concentrate is needed before sale. Molybdenum sales generally remain open for two or three months from shipment.

## OPERATING REVIEW CONTINUED KEY RELATIONSHIPS CONTINUED



### SUPPLIERS

Suppliers play a critical role in the Group's ability to operate, providing a large range of products and services from grinding media to catering at the mine sites.

The Group currently works with over 3,500 suppliers, focusing on the top suppliers in each category to ensure the most cost-effective and efficient solutions across all operations. As previously mentioned, the corporate procurement team has consolidated procurement practices across all operations and projects. The team has also reduced the number of suppliers in order to extract greater benefits from selected suppliers over a long period of time.

The Group openly encourages suppliers to raise any issues or concerns they may have about their relationship with the Company, their contracts or the workforce.

All suppliers are audited routinely with regard to the workforce, to ensure that they are complying with the law and the Group's stringent policies and procedures. The Group also monitors suppliers' financial health and ensures bank guarantees are in place when necessary.



### EMPLOYEES

The Group employs approximately 5,400 people, who work alongside approximately 13,100 contractors at its corporate offices, operations and projects. Mining operations are inherently risky and ensuring the safety and health of every employee is an absolute priority. It is an ethical obligation and is central to the Group's strategic objectives.

The Group has created a variety of initiatives over the last few years to secure and develop talent. In particular, the Group seeks to attract young professionals into the mining industry and complement their work experience with workshops and seminars across different functional areas.

Relationships with trade unions are based on mutual respect and transparency. This helps the Group to retain employees and avoid labour disputes, contributing to greater productivity and business efficiency. During 2016, the Group renewed labour agreements with employees at Antucoya and with the supervisors at Los Pelambres and Zaldívar. In the Chilean mining industry labour agreements are negotiated with each union every three years and the next of the Group's negotiations will take place during 2017.

During 2016 the Group successfully implemented a functional simplification programme to:

1. Focus the operations on core business activities (safety, production volume and cost) and centralise all supporting transactional activities.
2. Standardise processes and foster best practice across all operations by sharing and leveraging the potential of SAP.
3. Increase the efficiency of functional processes and structures with a core team responsible for these activities across all operations.
4. Reduce costs as a consequence of simplified functional models and structures.

The programme covered Finance, Supply, IT, Human Resources, Legal, Internal and External Affairs functions, eliminating approximately 100 positions across the Group and achieving annual savings of around \$10 million.

[See page 54 for more information](#)



### CONTRACTORS

The number of contractors working for Antofagasta varies according to business needs and the level of construction activity.

As at 31 December 2016, there were approximately 13,100 contractors working at the Group's operations and projects. This was some 5% lower than the same time last year, principally due to the completion of construction at Antucoya.

Contractors are vital to mining operations and the Group aims to build long-term relationships with contractor companies based on the highest standards. Safety and health targets are included in performance agreements and compliance with safety and human rights laws, labour regulations and the Group's own safety and health standards are assessed regularly by internal and external audits.

The minimum wage paid by Antofagasta to contractor employees is 55% higher than that required by Chilean law and contractor staff have access to the same mine camp facilities as the Group's own employees.

[See page 54 for more information](#)





INPUTS



It is crucial to have strong relationships with local communities in the areas where the Group operates, as without mutual trust, co-operation and understanding it is not possible to run a mine successfully.

Having clear social policies and regular contact with community members helps to manage potential conflicts and maintains the Group's social licence to operate. During 2014, Los Pelambres adopted a new community engagement initiative called "Somos Choapa" (We Are Choapa), after the region in which it is located. In 2015, the Group signed a framework agreement with three municipalities under the initiative, and has begun assessing a portfolio of projects for sustainable development in the region.

During 2016, the Group resolved long-standing legal issues with the Caimanes community, mainly related to the El Mauro tailings dam. This was achieved by open dialogue with the community, prioritising their needs and clarifying the Company's commitments. The dialogue was monitored by the Chilean chapter of Transparency International to ensure the openness and fairness of the process.

**More information on pages 54 and 55.**



Political developments and changes to legislation or regulations can affect business, whether in Chile, the UK, or other countries where the Group has operations, development projects or exploration activities.

The Group monitors new and proposed legislation in order to anticipate, mitigate or reduce possible effects and ensure it complies with all legal and regulatory obligations. It works with industry bodies to engage with governments on public policy, laws, regulations and procedures that may affect its business, including such issues as climate change and energy security.

The Group assesses political risk when evaluating potential projects, including existing foreign investment agreements. It also utilises internal and external legal expertise to ensure its rights are protected.

**See page 58 for more information**



Good relationships with other stakeholders near the Group's operations and projects, such as the local authorities, local media and others, are fundamental to the smooth operation and future growth of the business. Each of the Group's operations has a manager who oversees these relationships.

# OUR MINING DIVISION

All of the Group's operations are located in the Antofagasta Region of northern Chile except for its flagship operation, Los Pelambres, which is in the Coquimbo Region of central Chile.

In this section



## GROWTH PROJECTS AND OPPORTUNITIES

P40

TONNES OF COPPER PRODUCED IN 2016  
**709,400**

OUNCES OF GOLD PRODUCED IN 2016  
**270,900**

TONNES OF MOLYBDENUM PRODUCED IN 2016  
**7,100**

NET CASH COSTS IN 2016  
**\$1.20/LB**



## LOS PELAMBRES

P44



## CENTINELA

P46



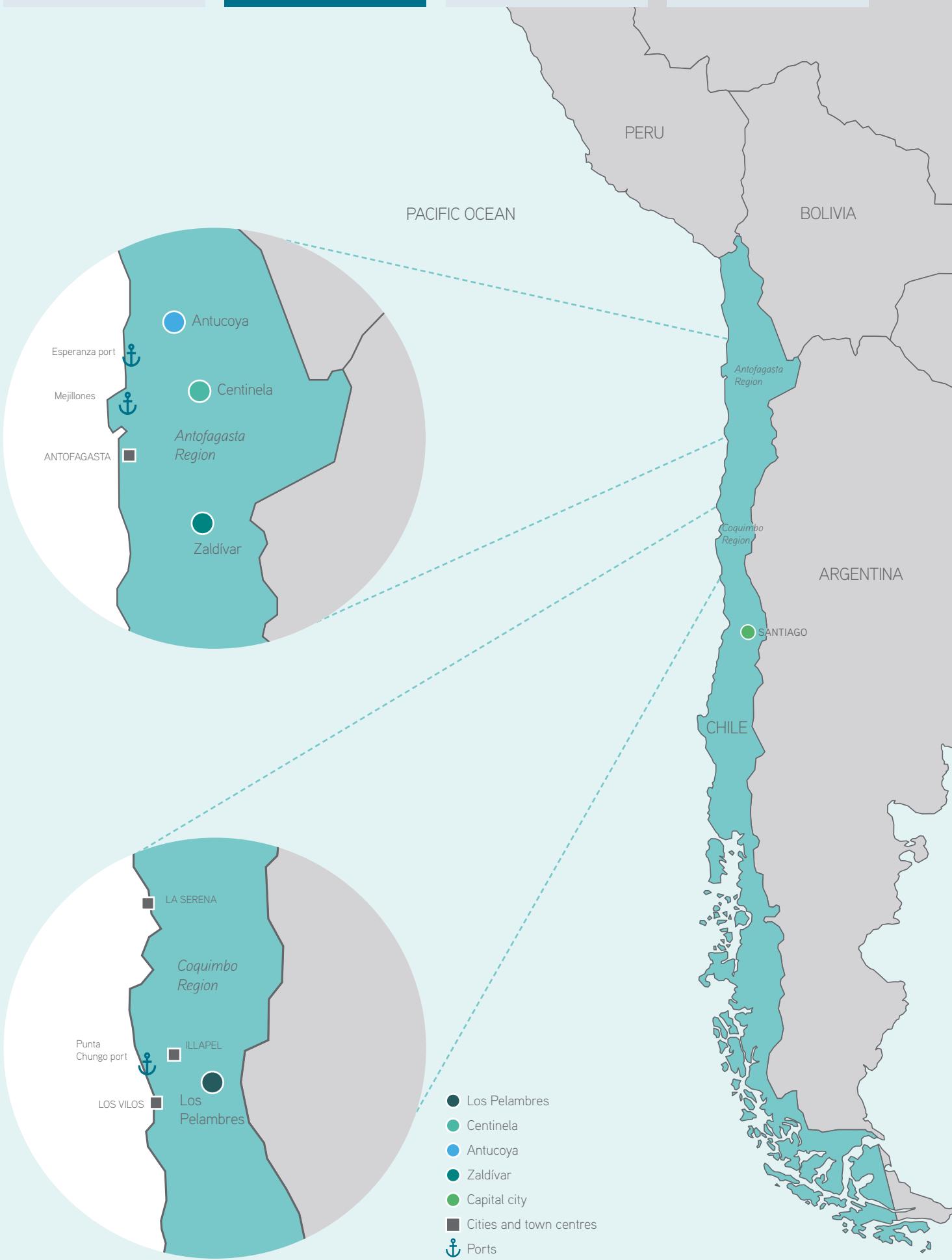
## ANTUCOYA

P48



## ZALDÍVAR

P49



# GROWTH PROJECTS AND OPPORTUNITIES

The Group seeks to expand its copper production in Chile and abroad by developing new projects and other potential opportunities. Brownfield development within the Group's Los Pelambres and Centinela mining districts in Chile remains the primary focus for maximising value while managing associated risks.

The Group has a portfolio of longer-term growth options and continues to assess opportunities that come to market. Long-term growth options already within the portfolio are under evaluation in feasibility studies. Given the early stage of some of these projects, their potential and timing is uncertain and the following outline provides only a high-level indication of potential opportunities.

The Group's exploration and evaluation expenditure decreased by 56.5% to \$44.3 million in 2016 compared with \$101.9 million in 2015. When commodity prices decline and there is greater emphasis on cost control, tighter focus on high-potential opportunities results in a decrease in overall exploration expenditure.

## EXPLORATION ACTIVITIES

The Group has an active early-stage exploration programme beyond the core locations of the Centinela and Los Pelambres mining districts. This is managed through its in-house exploration team and utilises partnerships with third parties to build a portfolio of longer-term opportunities across Chile and the rest of the world. In response to the depressed copper market the Group reduced its exploration and evaluation expenditure from \$101.9 million in 2015 to \$44.3 million in 2016.

### CHILE

The Group focuses its exploration activities on the main copper porphyry belts in northern and central Chile. During the year, as part of its asset rationalisation programme, the Group relinquished low priority tenements and acquired new tenements more closely aligned with its target areas. First stage drilling was initiated during the year and progressed as planned at targets located in the second and third regions of Chile.

### INTERNATIONAL

The Group's international exploration strategy is to identify, secure and evaluate high-quality copper exploration projects in preferred jurisdictions such as the Americas and Australia.

During 2016, the Group downgraded Australia as a target country, increasing its focus on the Americas while refining its portfolio of early-stage exploration projects in key copper provinces in target countries. Working in partnership with selected companies, both public and private, the Group drilled and tested projects in Argentina, Australia, Mexico and Zambia and exited from projects in Portugal, Finland and Canada. Exploration efforts in Canada and Australia generated new projects that will be evaluated during 2017.

The Group's strategy is to partner with experienced junior exploration companies, funding their exploration programmes to earn an interest in the projects while benefiting from their local knowledge and expertise.

+ Further information regarding Reserves and Resources is included on pages 190 to 199.





# GREENFIELD GROWTH PROJECTS

## CENTINELA SECOND CONCENTRATOR

The Centinela Mining District is a key area for longer-term growth and the Group continues to evaluate options for its development.

The second concentrator will be built some 7 km from Centinela's current concentrator and is expected to have an ore throughput capacity of approximately 90,000 tonnes per day, with annual production of approximately 140,000 tonnes of copper, 150,000 ounces of gold and 2,800 tonnes of molybdenum. Ore will be sourced initially from the Esperanza Sur deposit and, once mining is completed at Encuentro Oxides, additionally from Encuentro Sulphides.

## 90,000 TONNES PER DAY THROUGHPUT CAPACITY

The pre-feasibility study for this \$2.7 billion project was completed at the end of 2015 and the feasibility study is now underway. The EIA

was approved in 2016 and the Group has commenced applications for the additional permits required for the project following certain design modifications made during the year. The feasibility study, which is due for completion in 2017, will include the testing of a pilot hydraulic roll crushing system that is being considered in preference to conventional SAG.

A decision to proceed with the project will depend on the market outlook and the sequencing of the project relative to the Los Pelambres project. If approval is granted in 2018, production would be expected to begin in 2021.

The project team continues to review options for reducing the capital cost of the project. These include the use of existing infrastructure (power lines, pipelines, concentrate shipping and other facilities) as well as enhancing the owner's team capabilities, to improve the project execution strategy, management and control, together with other initiatives.

There is scope to further increase the plant capacity once the second concentrator is completed. The

Group is considering the possibility and timing of such an expansion, which could bring throughput capacity to approximately 150,000 tonnes per day and increase annual production to approximately 200,000 tonnes of copper, 170,000 ounces of gold and 5,500 tonnes of molybdenum. Feasibility study work is underway on certain critical early-stage activities.

## TWIN METALS MINNESOTA

Twin Metals Minnesota LLC (Twin Metals) is a wholly-owned copper, nickel and platinum group metals (PGM) underground mining project holding the Maturi, Maturi Southwest, Birch Lake and Spruce Road copper-nickel-PGM deposits located in north-eastern Minnesota, US.

During 2016 the Group undertook evaluation and optimisation exercises on the pre-feasibility study completed in 2014 and progressed various activities in preparation for submitting permitting applications.

As previously announced, on 15 December 2016 Twin Metals was notified that the relevant U.S.

authorities had denied renewal of two of its long-held federal mining leases. Twin Metals' leases had been held in good standing by the federal government for more than 50 years, and had been twice renewed without controversy.

Twin Metals has filed a federal lawsuit seeking to secure its rights to the two federal mineral leases and believes denial of the leases is inconsistent with federal law, the terms of leases themselves and the federal government's established precedent in supporting and renewing the leases over five decades.

While Twin Metals is assessing the impact of the agencies' lease renewal decision, it will continue progressing the project while also pursuing legal avenues to protect its contractual mineral rights.

**+ Further information is set out in Note 36 to the Financial Statements.**



# BROWNFIELD GROWTH PROJECTS

The Group is focused on controlling capital costs and optimising production from existing operations with careful project management and the constant monitoring of the efficiency of its mines, plants and transport infrastructure. Where possible, it conducts debottlenecking and incremental plant expansions to increase throughput and improve overall efficiencies.

## LOS PELAMBRES INCREMENTAL EXPANSION

The expansion project has been split into two phases in order to smooth its progress, simplify permitting applications and spread the cost over a longer period.

### PHASE 1

This phase is designed to optimise throughput within the limits of the existing operating, environmental and water extraction permits so that it will thus need only relatively simple updates. During this phase, Los Pelambres will operate at an average throughput of 190,000 tonnes per day with the addition of new grinding and flotation circuit to mitigate the hard ore currently being mined, and a 400 litres per second desalination plant and pipeline. Desalinated water will be pumped to the tailings storage facility at El Mauro where it will connect with the recycling circuit returning water to the Los Pelambres plant.

**55,000 TONNES ↑  
ANNUAL COPPER  
PRODUCTION**

During the year 2016 the Group submitted the EIA for the desalination plant to the authorities and expects to receive approval in late 2017 or early 2018. The feasibility study was completed in early 2017 and detailed engineering will be completed once EIA approval is received. The project will be subject to internal review and should be presented to the Board for construction approval by the end of 2017. A decision to proceed will be made only in suitable market conditions and with an approved EIA in place. Production would commence in late 2020 at the earliest.

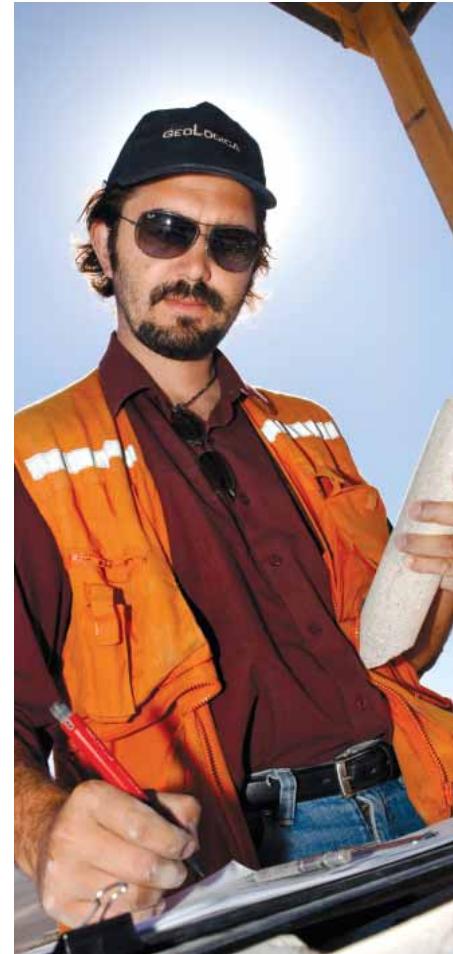
The feasibility study estimate of the capital expenditure for this project is approximately \$1.05 billion, with some \$580 million allocated to the additional crushing and flotation circuits and the balance to the desalination plant and water pipeline. The expansion is estimated to increase copper production by an average of 55,000 tonnes per year over a period of 15 years.

### PHASE 2

In this phase the Group will seek to increase throughput to 205,000 tonnes per day and to extend the mine's life beyond the currently approved 21 years. As part of this development a new EIA must be submitted to increase the capacity of the mine's El Mauro tailings storage facility and the mine waste dumps. The Group is preparing to commence the environmental baseline study for the EIA in 2017.

**21 YEARS ↑  
MINE LIFE**

Capital expenditure for this phase is estimated at approximately \$500 million, with the majority of the expenditure being on mining equipment, additional crushing and grinding capacity and flotation cells. The conveyors from the primary crusher to the concentrator plant will also have to be repowered to support the additional throughput. Critical studies on tailings and waste storage capacity are underway in parallel with the Phase 1 feasibility



study and should be completed by the end of 2017. However, the project will only proceed following a decision on Phase 1 and will require the submission of various permit applications, including a new EIA. First production from this phase would be in 2022 at the earliest.



# PROJECTS UNDER CONSTRUCTION

## ENCUENTRO OXIDES

The Encuentro Oxides deposit is within the Centinela Mining District. It is expected to produce an average of approximately 43,000 tonnes of copper cathode per year over an eight-year period, utilising the existing capacity at Centinela's SX-EW plant. Once the project is completed, it will enable the plant to produce at full capacity of 100,000 tonnes per annum for a number of years, helping to offset a natural decline in production due to falling mined grades at Centinela's existing oxide pits.

The project entails the installation of new crushing and heap-leach facilities at the Encuentro Oxides deposit, a pipeline to take the leach solution for processing at the existing SX-EW plant some 17 km away, and the extension of the sea water pipeline from Centinela to Encuentro. Higher-grade ore will be crushed and sent to the new heap-leach facilities, while lower-grade ore will be processed later on a Run-of-Mine (ROM) leach pad.

This deposit is important for the Group's long-term development,

as Encuentro Oxides sits on top of the much larger Encuentro Sulphide deposit. The Encuentro Oxides project will therefore act as a funded pre-strip for the sulphide deposit, opening up the latter for development as part of the Centinela Second Concentrator project.

### 43,000 TONNES ANNUAL COPPER PRODUCTION

Pre-stripping started in August 2014 and full-scale construction in early 2015. During 2016, total expenditure incurred was \$149.2 million and by the end of the year construction was over 79% complete, with first production expected in late 2017. The total construction budget for the project is \$636 million.

## CENTINELA

During 2016, work continued on optimising Centinela's concentrator plant in order to bring the level of throughput to 105,000 tonnes per day. Debottlenecking of the flotation and concentrate circuit and the installation of two paste thickeners were completed during the year and the plant achieved its design capacity in November. The final paste thickener was completed in early 2017 allowing the plant to produce tailings with a solids content of approximately 67% on a continuous basis, an improvement in the solids content of some four percentage points. The new paste thickeners are the largest application of this thickened tailings technology in the world.

## MOLYBDENUM PLANT

This project will allow Centinela to produce an average of 2,400 tonnes of molybdenum per year. Completion is expected in 2017, and the addition of another by-product credit will lower Centinela's unit net cash costs.

### \$125 MILLION CONSTRUCTION BUDGET

At the end of December 2016, the project was on time and on budget with 71% total progress (including design, engineering, procurement and construction) achieved. The total construction budget for the project is \$125 million.

## USE OF GEOGRAPHIC INFORMATION SYSTEMS

A Geographic Information System (GIS) is a set of hardware and software that stores, analyses and displays spatial geographic information and delivers it to users in a way that assists with the visualisation of the data. This is particularly useful in areas such as mining property, environmental management, projects and exploration.

In 2016 Antofagasta was recognised, among 100,000 nominated organisations, by the Environmental Systems Research Institute (ESRI) for its contribution and commitment to improving industry standards. The award cited its innovative use of GIS to solve complex problems in the work environment, reducing risks and improving safety.



## THE EXISTING CORE BUSINESS

# LOS PELAMBRES

Los Pelambres is a sulphide deposit in Chile's Coquimbo Region, 240 km north of Santiago. It produces copper concentrate (containing gold and silver) and molybdenum concentrate through a milling and flotation process.

60% OWNED

**2016 PRODUCTION**

COPPER (TONNES)  
**355,400**

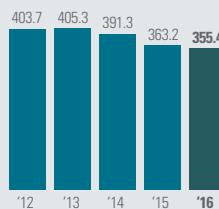
MOLYBDENUM  
(TONNES)  
**7,100**

GOLD (OUNCES)  
**57,800**

**MINE LIFECYCLE POSITION**

**EXPLORATION EVALUATION CONSTRUCTION PRODUCTION**

COPPER  
PRODUCTION  
('000)



**355,400 TONNES  
PRODUCED IN 2016**

START OF OPERATION: 2000  
REMAINING MINE LIFE: 21 YEARS

**2016 PERFORMANCE****OPERATING PERFORMANCE**

EBITDA at Los Pelambres was \$921.0 million in 2016, compared with \$748.7 million in 2015, reflecting significantly lower operating costs. Realised copper prices rose to \$2.35/lb from \$2.24/lb, further supporting EBITDA growth.

**\$1.06 /LB  
CASH COST**

**PRODUCTION**

Copper production was 355,400 tonnes in 2016, which was slightly below production in 2015 of 363,200 tonnes. This decrease is primarily due to lower throughput as a greater proportion of harder ore is processed in the plant, and was only partly offset by higher mined grades.

Molybdenum production for the year was 7,100 tonnes, 29.7% lower than in 2015, due to lower grades and recoveries. Gold production was 12.5% higher in 2016 at 57,800 ounces, compared with 51,400 ounces in 2015.

**CASH COSTS**

Cash costs before by-product credits at \$1.36/lb were 9.3% lower than in 2015, due to the savings achieved through the Cost and Competitiveness Programme and changes in the estimating method for deferred stripping costs. Net cash costs for the full year 2016 were \$1.06/lb compared with \$1.23/lb in 2015. This decrease is mainly due to higher realised prices for gold and molybdenum, slightly offset by lower molybdenum production.

Total capital expenditure in 2016 was \$215.3 million, which included \$99.4 million on mine development.

Capital expenditure is forecast at approximately \$260 million in 2017, reflecting higher sustaining capital expenditure compared to 2016.



## LEGAL UPDATE

### *Resolution of outstanding claims relating to the Mauro tailings dam*

Following the agreement reached with the Caimanes community in April 2016, long-running claims relating to the Mauro tailings dam were substantively resolved during 2016.

Further information about the agreement and the initiatives that are being undertaken by Los Pelambres in the region in which Los Pelambres is located are set out in the Sustainability section of the Annual Report on page 54.

### *Cerro Amarillo Waste Dump*

As previously announced, in 2014 Xstrata Pachón S.A. ("Xstrata Pachón"), a subsidiary of Glencore plc, filed civil and criminal claims against Los Pelambres before the Federal Courts of San Juan, Argentina, alleging that

Los Pelambres had unlawfully extended a waste-rock dump ("Cerro Amarillo Waste Dump") on its property (which is adjacent to Los Pelambres on the Argentinian side of the Chile/Argentina border) and that Los Pelambres had violated several Argentinian laws relating to the misappropriation of land, unlawful appropriation of water bodies and that people's health was in jeopardy from the alleged contamination that the Cerro Amarillo Waste Dump might generate.

Los Pelambres continues to exercise all available legal avenues to defend its position. In January 2017, Los Pelambres finished removing truck tyres that had previously been stored on the Cerro Amarillo Waste Dump – honouring a commitment previously made to the Province of San Juan in Argentina.

The Cerro Amarillo Waste Dump is a pile of inert waste-rock and any potential future environmental impact could be easily prevented with the implementation of an environmental closure plan, which is the accepted and recommended practice.

**+ Further details of developments in relation to these claims are set out in Note 36 to the financial statements.**

## OUTLOOK PRODUCTION

The forecast production for 2017 is 330–345,000 tonnes of payable copper (slightly below the 355,400 tonnes produced in 2016), 8,500–9,500 tonnes of molybdenum and 45–55,000 ounces of gold.

## CASH COSTS

Cash costs before by-product credits for 2017 are forecast to increase to approximately \$1.45/lb and net cash costs to increase to approximately \$1.15/lb as the mine grades decrease.



# CENTINELA

Centinela was formed in 2014 from the merger of the Esperanza and El Tesoro mining companies. Centinela mines sulphide and oxide deposits 1,350 km north of Santiago in the Antofagasta Region, one of Chile's most important mining areas.

Centinela Concentrates produces copper concentrate (containing gold and silver) through a milling and flotation process, and Centinela Cathodes produces copper cathodes using a solvent extraction electrowinning process (SX-EW).



## 2016 PRODUCTION

**COPPER (TONNES)**  
**236,200**

**GOLD (TONNES)**  
**213,000**

## 2016 FINANCIALS

**EBITDA**  
**\$562.5M**  
**+135.9%**

**NET CASH COSTS**  
**\$1.19/LB**  
**(35.7%)**

## 2017 FORECAST

**COPPER (TONNES)**  
**220-230,000**

**GOLD (OUNCES)**  
**140-150,000**

**COPPER PRODUCTION ('000)**

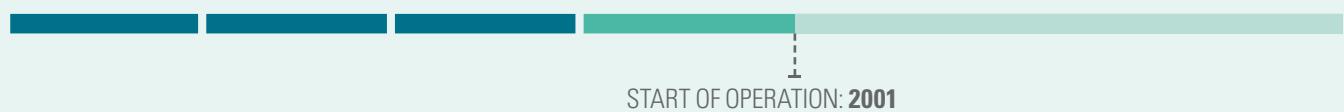


**236,200 TONNES  
PRODUCED IN 2016**

COPPER IN CATHODES  
 COPPER IN CONCENTRATE

## MINE LIFECYCLE POSITION

**EXPLORATION EVALUATION CONSTRUCTION PRODUCTION**



START OF OPERATION: **2001**  
REMAINING MINE LIFE: **42 YEARS**

## 2016 PERFORMANCE

### OPERATING PERFORMANCE

EBITDA at Centinela was \$562.5 million, compared with \$238.4 million in 2015, reflecting higher production and lower operating costs. The realised copper price was \$2.32/lb in 2016, remaining almost unchanged. The realised gold price rose from \$1,159/oz in 2015 to \$1,257/oz in 2016.

**6.8% ↑**

**COPPER PRODUCTION**

### PRODUCTION

Copper production for the full year 2016 was 6.8% higher than in 2015, primarily due to higher sulphide grades and the completion of the concentrator expansion project. This was partly offset by lower throughput in the Centinela Cathodes plant and the expected continued decline in oxide grades.

Copper in concentrate production for the full year was 24.2% higher year-on-year, mainly reflecting expanded throughput capacity following the installation of new tailings thickeners and modifications to the grinding and flotation circuits. Higher grades and slightly higher recoveries also helped increase production during the year.

Gold production was 213,000 ounces, some 31% higher than in 2015. This was mainly due to higher throughput and grades, as recoveries remained flat across the two years.

Copper cathode production for the year was 55,800 tonnes, 26.5% lower than the previous year, as grades declined as expected with mining moving to the lower grade zones of the Tesoro Central and Tesoro Noreste pits.



## CASH COSTS

Cash costs before by-product credits for the year were 22.9%, or 52c/lb, lower than in 2015. Savings achieved through the Cost and Competitiveness Programme reduced costs by 12c/lb and a further 23c/lb was the result of a change in the estimation method for deferred stripping costs. The balance was due to higher production. Net cash costs for 2016 were \$119/lb compared with \$1.85/lb in 2015. This decrease is due to lower cash costs before by-product credits and higher production and realised prices for gold.

**36% ↓**  
NET CASH COSTS

Capital expenditure was \$534.7 million, including \$206.2 million on Encuentro Oxides and the molybdenum plant and \$205.0 million on mine development. Total capital expenditure in 2017 is expected to be similar to 2016, including \$170 million related to the construction of the Encuentro Oxides and molybdenum plant projects and \$240 million on mine development.

## OUTLOOK PRODUCTION

Production for 2017 is forecast at 220–230,000 tonnes of payable copper and 140–150,000 ounces of gold. This includes 65–70,000 tonnes of cathodes and 155–160,000 tonnes of copper in concentrate. The construction of the Encuentro Oxides project is expected to reach completion during 2017 and this will provide feed to Centinela's SX-EW plant, allowing it to operate at near peak capacity of 100,000 tonnes per annum from 2018.

## CASH COSTS

Cash costs before by-products for 2017 are forecast at approximately \$1.75/lb, similar to 2016, and net cash costs at approximately \$1.35/lb.

In 2015, Centinela commenced construction on a separate molybdenum plant that will produce approximately 2,400 tonnes per year of molybdenum over the remaining life of the mine. Commissioning is expected to commence in 2017.



## COLLISION ALERT SYSTEM AND SLEEP AND FATIGUE WARNING DEVICE

Research has shown that one of the causes of loss of vehicle control is fatigue, so Antofagasta has installed Collision Alert Systems in all of its mining trucks at Centinela and Antucoya and will do the same at its other operations in 2017.

This technology constantly monitors the immediate environment around a truck and sounds an alarm to alert the driver to the presence of any obstacle in its path or near-by. If the obstacle is another truck an alarm will also sound in this truck.

Fatigue Warning Devices use sensors in "Smartcaps" worn by truck operators; these detect fatigue levels using readings from the skin and issue appropriate alerts by sounding an alarm.

# ANTUCOYA

Antucoya is approximately 1,400 km north of Santiago and 125 km north-east of the city of Antofagasta, in Chile's Antofagasta Region. Construction of the project was completed in 2015 with full production achieved in 2016. Antucoya mines and leaches oxide in order to produce copper cathodes at an average rate of 85,000 tonnes per year.



## 2016 PRODUCTION

COPPER (TONNES)  
**66,200**



## 2016 FINANCIALS

EBITDA  
**\$64.9M**

CASH COSTS  
**\$1.83/LB**

## 2017 FORECAST

COPPER (TONNES)  
**80-85,000**

## MINE LIFECYCLE POSITION

**EXPLORATION EVALUATION CONSTRUCTION PRODUCTION**



START OF OPERATION: 2016  
REMAINING MINE LIFE: 19 YEARS

## 2016 PERFORMANCE

### OPERATING PERFORMANCE

EBITDA at Antucoya was \$64.9 million as the operation came into commercial production in April 2016.

### PRODUCTION

The mine began commercial production at the beginning of April and produced 66,200 tonnes of copper during the year, as expected, reaching its design capacity in August.

### CASH COSTS

Cash costs from the start of commercial production were \$1.83/lb.

Total pre-financing construction cost of the project has been \$1.9 billion with \$9.4 million spent in 2016.

### OUTLOOK

In 2017 cathode production is forecast at approximately 80-85,000 tonnes and cash costs are expected to decrease to \$1.60/lb.

Total capital expenditure in 2017 is expected to be approximately \$85 million, which includes \$20 million related to mine development costs.



## 360° SIMULATOR IN ANTUCOYA

As part of Antofagasta's commitment to eliminating fatalities at its operations, it has analysed the main causes of accidents and implemented technology-driven solutions to minimise such risks.

For example, a significant factor in fatalities is loss of control of a vehicle. The solution at Antucoya was to install a state-of-the-art 360° simulator, so that operators training on a variety of mining equipment, such as trucks, shovels and front-end loaders, could experience the most realistic situations possible to prepare them for the challenges faced in the everyday working environment.

Antofagasta is planning to install simulators at all other operations during 2017 and 2018.



# ZALDÍVAR

Zaldívar is an open-pit, heap-leach copper oxide mine operating at an average elevation of 3,000 metres, approximately 1,400 km north of Santiago and 175 km south-east of the city of Antofagasta. The Group completed the acquisition of a 50% interest in the mine from Barrick Gold Corporation on 1 December 2015 and is the operator of the mine.

50% OWNED



## 2016 PRODUCTION<sup>1</sup>

COPPER (TONNES)  
**51,700**



## 2016 FINANCIALS

EBITDA  
**\$85.1M**

CASH COSTS  
**\$1.54/LB**

## 2017 FORECAST

COPPER (TONNES)<sup>1</sup>  
**55-60,000**

## MINE LIFECYCLE POSITION

EXPLORATION   EVALUATION   CONSTRUCTION   PRODUCTION

START OF OPERATION: 1995  
REMAINING MINE LIFE: 13 YEARS

## 2016 PERFORMANCE

### ACQUISITION

The Group's acquisition of a 50% interest in the Zaldívar mine from Barrick Gold Corporation was completed in December 2015. Total consideration for the transaction, after working capital adjustments, was \$950 million.

**\$1.54 /LB**  
CASH COSTS

### PRODUCTION

Total attributable production in 2016 was 51,700 tonnes of copper cathodes. During the year there was a significant increase in copper recovery due to improved sulphide leaching, using experience gained at other Group operations.

### CASH COSTS

Cash costs for 2016 were lower than expected at \$1.54/lb, partly because leach recoveries and grades were higher than anticipated and partly due to synergic savings made during the year following the mine's merger into the Group.

Attributable capital expenditure for the 2016 full year was \$57.5 million, which includes approximately \$30 million with respect to mine development. These amounts are not included in the Group capital expenditure figures.

### OUTLOOK

Attributable copper production in 2017 is forecast to be approximately 55–60,000 tonnes at a cash cost of \$1.50/lb.

Attributable capital expenditure in 2017 is expected to be approximately \$50 million, of which \$25 million will be spent on mine development.

1. 50% share of total mine production

# TRANSPORT

The division, known as Ferrocarril de Antofagasta a Bolivia (FCAB), provides rail and truck services to the mining industry in the Antofagasta Region.

The transport division operates its own railway network, with access to Bolivia and the two largest ports in the region at Mejillones and the city of Antofagasta.

The port at Antofagasta is managed by Antofagasta Terminal Internacional (ATI), which is minority owned by the Group.

100% OWNED

## 2016 TONNAGE TRANSPORTED

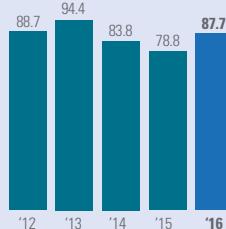
**6.5M TONNES ('000)**



\* Restated to exclude FCA which was sold in 2015

## 2016 FINANCIALS

**EBITDA \$87.7M**



## 2016 PERFORMANCE

During the year, FCAB optimised and expanded its business by integrating and strengthening the three key areas of sustainability, productivity and cost management. There was a positive effect on revenue as sales associated with spot services increased due to higher utilisation of the fleet. The railway agreed a tonnage increase with one of its largest customers and reached an important milestone with the purchase of seven brand new locomotives, with the object of optimising the fleet and increasing asset productivity.

## OPERATING PERFORMANCE

The division's EBITDA was \$87.7 million in 2016, compared to \$78.8 million in 2015, reflecting tight cost management which reduced costs by 7.6% compared to the previous year.

## TRANSPORT TONNAGE

During 2016 the division transported 6.5 million tonnes, compared to 6.1 million tonnes in 2015. This 6.3% increase was due to increased customer demand, improved performance of rolling stock and better fleet utilisation, which allowed more acid and copper and other concentrates to be transported.

This increase in tonnage transported marks the reversal of a downward trend since 2013 and further growth is expected in the medium term.

## COSTS

Cost management was focused on optimising the division's business processes to ensure the lasting competitiveness of its services. This was achieved by better utilisation of the fleet resulting in greater fuel efficiency, savings in the use of third-party services, and other organisational changes.

## CUSTOMERS MAP





MARKETING

## OUTLOOK

The division will also develop new business opportunities and optimise the use of rolling stock and utilisation of the fleet. One area of emphasis will be on maintenance, using knowledge gained from the mining division. Maintenance practice will be strengthened in order to deliver more consistent fleet availability, thereby improving operating continuity and budget compliance. This will ensure a seamlessly integrated fleet and more efficient use of assets and resources.

In the medium term, copper production in the Antofagasta Region will change from metallic copper output to concentrate, increasing the mass to be transported, and declining ore grades will increase the consumption of bulk supplies. These factors present unique opportunities for the transport division and will drive revenue growth in the medium to long term.

## FCAB MANAGEMENT MODEL



## SUSTAINABILITY

Sustainability is an integral part of the division's new management model, as the safety and health of employees and engagement with local communities are key to long-term success. It has been incorporated into the systems of both the division and the Group overall, enabling efficient co-ordination with the mining division's operations in the region.

**Safety and health:** As part of the management model a new Health, Safety and Security role was created on the division's Executive Committee. Employees' responsibility for their own and their colleagues' safety has been emphasised and improved risk and accident reporting introduced as a result of lessons learned from the first fatality in the division for five years.

This tragic fatality occurred in July 2016, a year that otherwise showed an improvement in the Lost Time Injury Frequency Rate (LTIFR), which fell by 55% compared to 2015. Incident reporting increased by 270% over the same period, reflecting take-up of the new reporting metric.

**Communities:** A Sustainability and Public Affairs Manager was appointed and internal and external baseline studies were conducted. The division also began to work on strengthening its image in the region.

In 2017, the focus will be on embedding the preventive safety and health culture, with a clear emphasis on individual responsibility, and deepening the interaction with local communities.



# THE GROUP'S APPROACH TO SUSTAINABILITY

For Antofagasta, sustainable mining means prioritising employees' safety and health and taking responsibility for environmental stewardship while engaging transparently with stakeholders.

Sustainable operation is an ongoing process in the face of increasingly demanding challenges. The Group is committed to the continuous improvement of its social and environmental practices and its Board is responsible for ensuring that sustainability is embedded in all decision-making throughout the mining cycle. This approach is closely aligned with its corporate values and the International Council on Mining and Metals (ICMM) Principles.

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## 2016 CHALLENGES AND OPPORTUNITIES

The Group's sustainability priorities are determined both by business risks and by the key concerns and expectations of its stakeholders. In 2016, the Group focused on:

- 1 Striving to achieve zero fatalities while continuing to improve safety and health performance. Regrettably, two employees lost their lives in fatal accidents.
- 2 Addressing long-running claims by the Caimanes community. Following an agreement reached with the community in April, the two outstanding court cases were substantively resolved in favour of Los Pelambres in November 2016.
- 3 Delivering on commitments made to communities as part of the Somos Choapa engagement process and extending its principles and methodology to other districts.
- 4 Pioneering the involvement of the Caimanes community in creating an emergency preparedness plan for the El Mauro dam.
- 5 Progressing strategies to address climate change and biodiversity.
- 6 Integrating Zaldívar into the Group's culture.
- 7 Strengthening corporate compliance procedures and increasing internal awareness.

## TRANSPARENT REPORTING ON PROGRESS

This section of the Annual Report summarises the Group's sustainability performance. More detailed information is provided in the annual Sustainability Report, prepared in accordance with the GRI G4 reporting standards and the ICMM's requirements, available at [www.antofagasta.co.uk](http://www.antofagasta.co.uk).

Antofagasta answers the Carbon Disclosure Project's (CDP) carbon and water questionnaires and is a constituent of the FTSE4Good Index series, the STOXX Global ESG Leaders Index and the ECPI Global Developed ESG Best in Class Index.

The mining division is a member of Chile Transparente, the local chapter of Transparency International.

Los Pelambres, Centinela and Zaldívar have ISO 9001 certifications. Los Pelambres and Zaldívar also have ISO 14001 and OHSAS 18001 certifications.

**+ Further information on the Board and its Sustainability and Stakeholder Management Committee can be found on pages 92 to 93.**

## SAFETY AND HEALTH

The Group is fully committed to achieving zero fatalities and to reducing the frequency and severity of accidents. Its safety and health strategy is risk based, in line with international best practices. Unfortunately, despite all efforts, two employees died in fatal accidents during the year, one at Antucoya and the other in the transport division. Though new standards, processes and tools are in place and the leadership is fully committed to safety, there is still more to be done to make each and every employee safe at work.

### SAFETY IS A JOURNEY

Over the past three years the Group has implemented a corporate framework to increase employee and contractor safety at all of its operations. The first step was to define new standards and procedures. Next came raising awareness through intensive training, senior leadership on the ground and communications support. The biggest challenge today is embedding this model with employees and contractors; as with all cultural change, this will take time.

### ADDRESSING KEY RISKS

Analysis of past accidents identified 15 types of risks that caused all of the fatalities. In 2016 the tools and processes for on-site verification of key safety controls were simplified on the basis of past experience, which showed that simpler procedures were more effective than complex ones.

There are six causes of all major health risks. The Group has concentrated on these risks by defining specific controls for each one.

In 2016 SAFEmap, a renowned international consultant, was hired to review the mining division's safety strategy and identify gaps. This review included a safety culture survey answered by 3,500 employees. The resulting recommendations and the plans to address them were reviewed by the Board.

### AWARENESS AND REPORTING

Safety reviews are conducted by the Executive Committee at every operation and the Committee uses its monthly visits to verify that the key controls for critical safety risks are being correctly applied at each site. It also oversees the investigation of high-potential risk events and publicly recognises employees for outstanding safe conduct. In 2016 the Group's Executive Committee conducted seven on-site safety verifications.

Safety performance is reported weekly to the Executive Committee and monthly to the Board. The Sustainability and Stakeholder Management Committee reviews fatal and serious accidents in detail.

Raising awareness and persuading all employees to fully commit to their own and their colleagues' safety remains a cultural challenge. Intensive on-site supervision and training, near-miss reporting, wide dissemination of information on the causes of severe accidents, site management meetings focused on safety, and public recognition of committed employees are among the many ways in which the Group's safety practices are introduced and reinforced.

All new employees must complete a safety and health induction course and all existing employees and contractors regularly receive refresher training. There are also regular refresher workshops on safety policies and procedures, which consider best practices and lessons learnt from near-miss incidents.



### FOCUS ON CONTRACTORS' EMPLOYEES

Contractor employees are a particularly important part of the Group's safety and health programme, as they represent some 70% of Antofagasta's total workforce. In 2016 the focus was on accelerating the adoption of the corporate safety framework by contractors via the Corporate Security and Health Regulations for Contractors and Subcontractors (RECSS), training, data analysis and on-site audits.

The Group requires contractors to comply with its safety and health procedures, providing them with technical support and training and closely monitoring their safety performance, which is reported together with that of the Group's own employees.

### PERFORMANCE IN 2016

The Group has continued to reduce the severity and frequency of accidents, but has yet to eliminate fatalities altogether: in 2016 one worker died at Antucoya and another employee was involved in a fatal accident at the Group's transport division. The Group is committed to improving compliance with the safety standards and timely management of early warning indicators. Compliance with the Safety model is audited twice a year at each site.

#### LOST TIME INJURY FREQUENCY RATE (LTIFR)

|                         | 2016 | 2015 | 2014 | 2013 | 2012 |
|-------------------------|------|------|------|------|------|
| Chilean mining industry | 1.8  | 2.0  | 2.5  | 2.6  | 2.9  |
| Mining division         | 1.2  | 1.2  | 1.1  | 1.1  | 1.3  |
| Transport division      | 4.9  | 10.9 | 10.3 | 10.3 | 13.0 |
| Group                   | 1.5  | 2.0  | 1.7  | 1.9  | 2.5  |

#### ALL INJURY FREQUENCY RATE (AIFR)

|                         | 2016 | 2015 | 2014 | 2013 | 2012 |
|-------------------------|------|------|------|------|------|
| Chilean mining industry | N/A  | N/A  | N/A  | N/A  | N/A  |
| Mining division         | 6.9  | 6.9  | 5.0  | 3.9  | 5.4  |
| Transport division      | 13.3 | 17.8 | 22.2 | 17.7 | 28.6 |
| Group                   | 7.3  | 7.9  | 6.1  | 5.1  | 7.8  |

#### NUMBER OF FATALITIES

|                         | 2016 | 2015 | 2014 | 2013 | 2012 |
|-------------------------|------|------|------|------|------|
| Chilean mining industry | 18   | 16   | 27   | 25   | 25   |
| Mining division         | 1    | 1    | 5    | 2    | 1    |
| Transport division      | 1    | -    | -    | -    | -    |
| Group                   | 2    | 1    | 5    | 2    | 1    |



## EMPLOYEES

### SECURING KEY TALENT TO SUPPORT THE BUSINESS

Antofagasta believes that committed employees are key to the operation of a successful organisation, particularly in a challenging business environment. The aim of its Human Resources model is to ensure it has the organisational capability to achieve its strategy.

In 2016, the Group's average total workforce was 18,600 people, of which almost 5,500 were employees and 13,100 contractors, compared with an average workforce of 19,200 in 2015. During the year a corporate reorganisation, implemented as part of the Cost and Competitiveness Programme, led to a reduction in the number of employees, mostly in supervisory positions at the operations.

### LABOUR RELATIONS

The Group recognises employees' rights to union membership and collective bargaining, with 68% of its employees holding union membership at its mining operations. There are ten unions across the Group; Centinela has four, including a supervisors' union created in 2016, Los Pelambres has three, Zaldívar has two, and Antucoya one.

Labour agreements cover matters such as salaries, shift patterns and employment benefits and these are generally renegotiated with the unions every three years in accordance with Chilean legislation. In 2016, labour agreements were negotiated at Los Pelambres, Antucoya and Zaldívar for the period through 2019.

Among other provisions, Chilean law prescribes the maximum number of working hours and forbids child and forced labour.

The Group's excellent labour relations are based on the provision of good working conditions, mutual trust and ongoing dialogue, which have resulted in fair labour agreements and the avoidance of strikes.

### VALUE OFFER FOR EMPLOYEES

The Group's mining division is the largest privately held mining group in Chile. It seeks to attract and retain talented and committed employees by offering opportunities to become part of a growing company with strong corporate values. The Group is not only committed to the development of its employees but to the development of the country, by setting examples in innovation, safety and excellence. It offers employees a safe work environment, quality accommodation, a fair salary and a good work/life balance, along with opportunities to further develop their talents.

### MANAGING TALENT AND SUCCESSION

The mining division has a talent management system designed to hire and retain talented, committed people who take responsibility for their personal safety and development in order to support business growth. The Group, in turn, supports each employee within their present position, as well as provides opportunities for horizontal and vertical development via training and internal mobility. New positions are initially advertised internally and there is a succession plan in place for key positions. Employees in supervisory and managerial positions are offered periodic training to develop leadership skills.

During 2016 the Group invested \$1.5 million dollars in training, providing an average of 2.5 hours of training per employee a month.

### INCREASING GENDER DIVERSITY

In 2016 women represented 9% of the mining division's workforce, of whom 60% were supervisors or above and 10% held senior management roles. There are two female Board Directors and one Vice President.

### CONTRACTORS – KEY PARTNERS

The Group aims to form stable, long-term relationships with key contractors who share its values and good practices. Contractors constitute over 70% of the mining division's workforce, so keeping them aligned with the Group's safety, ethical and operating standards is key to the Group's success and reputation. Contractor companies are audited monthly to ensure their compliance with Chilean labour legislation and with the Group's standards, which require contractors to offer their employees life insurance and a minimum salary well above the country's minimum wage, among other benefits.

### ZALDÍVAR'S SUCCESSFUL INCORPORATION INTO THE ANTOFAGASTA GROUP

Human Resources had an important role in easing Zaldívar's employees into the Group's structure and culture. Special efforts were made to share corporate values and communicate Antofagasta's Code of Ethics. The Group's performance management system was also implemented and Zaldívar employees have also been incorporated into the internal recruitment and mobility programme.

### COMMUNITY RELATIONS

Sustainable management of the Group's mining operations includes the prevention and mitigation of negative impact on neighbouring communities from the project stage until closure. The Group takes into account community expectations and adopts an approach consistent with its corporate values, human rights and the ICMM Principles.

### SOMOS CHOAPA: ENGAGEMENT AND INVESTMENT

Antofagasta is a long-term neighbour, keen to understand local challenges, and contributes to help solve these in conjunction with the community, the government and other relevant stakeholders. The Group has been innovative in its approach to resolving community issues at Los Pelambres, where it developed a new engagement process called Somos Choapa. This addressed both community engagement and investment under the same five principles: dialogue, collaboration, traceability, excellence and transparency. Somos Choapa is being developed into a platform for ongoing communication between the mining company, communities, the government and other stakeholders on local development and other issues of common interest. It encourages neighbours to take an active role in the decisions affecting their communities and is intended to become an integrated roadmap for public-private investment. Having successfully developed this approach at Los Pelambres, the Group now plans to expand it to the rest of its mining operations.

Through Somos Choapa, neighbours voice expectations and concerns regarding community development and the projects designed to advance it. Los Pelambres funds an independent firm to design these projects, aided by technical input from the municipalities. This co-ordinated approach produces a better outcome based on a combination of public and private funds.



In 2016 Los Pelambres, in partnership with a local educational provider, endorsed the development of the Choapa's first technical training centre to be located in Los Vilos. This centre will give young people who live in the area the opportunity to train in technical careers without the need to migrate away from their homes. It will be the first establishment of its kind in the province of Choapa.

## SOMOS CHOAPA COMMUNITY MODEL



## SOCIAL RISKS AND IMPACTS

The mining division manages the impact of its operations on local communities, from project inception to closure, and Somos Choapa reflects the Group's wish for this commitment to go beyond the mere legal requirements.

## PREVENTING CONFLICT

Water scarcity is a major community concern in Los Pelambres' area of influence. Besides operating the mine in a way to preserve water and being an active participant in local water management initiatives, the Company is leading the private-public Salamanca Agreement to assess other potential long-term solutions, such as the construction of a new public desalination facility and irrigation dams.

## EMERGENCY RESPONSE

The Group's dams and other facilities are designed to resist extreme weather conditions and severe earthquakes. This was demonstrated in September 2015 when Los Pelambres' tailings dam, El Mauro, remained unaffected after an 8.5 earthquake, whose epicenter was located some 50 km away. The dams have periodical revisions carried out by independent experts to verify its structural integrity.

As legally required, all four of the Group's mining operations follow emergency procedures approved by the national mining authority and their response plans are co-ordinated with public agencies and other authorities. These plans include preventive and corrective operating measures at each site.

## INNOVATION, COMMUNITY AND EMERGENCY PLAN

In 2016, using the approach developed as part of the Somos Choapa programme, Los Pelambres and the residents of the neighbouring Caimanes community discussed an agreed response procedure in case of an emergency at the El Mauro tailings dam. As a result, the legally required emergency procedure was supplemented with a new Contingency Plan, which involved defining a new safety zone in the community as well as measures to issue warnings and improve evacuation procedures for any type of emergency. The implementation of this plan started in 2016 and will be completed in 2017.



## CAIMANES – FROM CONFLICT TO COLLABORATION

Since Los Pelambres began building the El Mauro tailings dam, some 13 km from Caimanes, it has faced over a decade of local protests involving lawsuits, roadblocks and demonstrations. However, in May 2016, after nine months of talks, an agreement between the mine and the community was formally approved by 83% of the community and the pending court cases were finally resolved.

The Group realised that the judicial path was not going to resolve the conflict. Instead it needed a solution to the issues underlying the lawsuits and this required engagement with all the parties involved. This process was guided by the Somos Choapa Principles and involved:

- Thirteen open community meetings to discuss safety, water issues and Los Pelambres' contribution to local development.
- Full transparency during the meetings about the issues under discussion and what was being agreed. Anyone could attend the meetings, which were recorded in full and made available on the internet.
- Formal consultation with the community under the supervision of external observers, including Chile Transparente.
- A formal vote on the written agreement by all adult members of the community, which was approved by a vast majority.

The Caimanes Agreement covers:

- Additional works to ensure water availability for the Caimanes community, even during severe drought, thus complying with the Supreme Court's ruling.
- Additional works suggested by the community to increase its confidence in the safety of the El Mauro tailings dam.
- A fund to finance the development of the community and its member families.

A committee made up of representatives from the community, Los Pelambres and Chile Transparente oversees the implementation of the Agreement.



## ENVIRONMENTAL STEWARDSHIP

The Group endeavours to avoid environmental incidents and to comply with its legal commitments under its operating permits. Environmental incidents have the potential to damage the environment as well as community relations. They can also result in sanctions and even the cancellation of key permits.

The Group's environmental stewardship priorities are:

- Ensuring compliance with all of its commitments under its operating permits, also known as the Environmental Approval Resolution (RCA).
- Ensuring that all key environmental risk controls are in place.
- Enabling the environmentally sound development of mining projects through the early identification and assessment of their potential environmental impact.
- Developing adequate responses to the mitigation of climate change, protection of biodiversity and ensuring the proper closure of mining operations.

In 2016 Antofagasta updated its environmental management system. The immediate goal was to get all four of its mining operations applying the same standards to the assessment of environmental risk and to ensure full compliance with their operating permits. A system to track the sites' compliance with their operating permits and to issue automatic alerts in case of breaches is under development.

## ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

In Chile, all mining projects undergo a stringent environmental and social impact assessment (EIA) that is reviewed by the national Environmental Assessment Service and includes formal consultation with local communities and indigenous people. If the project is approved, its impact prevention, mitigation and compensation commitments become legally binding, contained in its RCA. The national Environmental Administration department regularly reviews companies' compliance with these commitments and any failures can result in severe fines and eventually the revocation of the RCA.

In April 2016, Los Pelambres submitted the EIA application for its Incremental Expansion project and in December Centinela received approval of its application for the Second Concentrator project, submitted in 2015.

## ENVIRONMENTAL CONTEXT

The Group's operations are located in two areas in Chile. Los Pelambres is in the central Andean zone, at the head of the agricultural Choapa valley. Its main environmental issues are water, air quality, biodiversity and archaeology. Centinela, Zaldívar and Antucoya are further north, in the Atacama Desert, with no agriculture nearby and only small local communities as neighbours, none of which are in close proximity to the sites.

The acquisition of Zaldívar and the ramping-up of Antucoya have increased the Group's water consumption, greenhouse gas (GHG) emissions and mining waste production, although some of these increases were offset by the closure of Michilla at the end of 2015. However, efforts are underway to maintain efficiency indicators.

## LOS PELAMBRES ENVIRONMENTAL COMPLAINT

In October 2016 Los Pelambres received notification of various charges against it from the Chilean environmental authority (SMA). The Company remains committed to full compliance and is working to address these charges, some of which have been under discussion for several years. The charges do not relate to the court cases that were resolved in 2016 nor to the protests regarding water availability in 2015. Los Pelambres is analysing various alternatives and is confident that it can resolve the situation in a manner acceptable to the SMA.

## INNOVATION TO REDUCE THE IMPACT OF MINING

The Group continues to seek and find new solutions to mining challenges. It pioneered the use of untreated sea water at its Michilla operation in the 1990s and later did the same, on a much larger scale, at Esperanza (now Centinela) and then Antucoya. In 2016, Centinela installed paste thickeners to increase the proportion of water being recycled, depositing paste tailings and removing the need for a conventional tailings dam.

In 2016 the Group participated in several research programmes on tailings management, acidic water treatment, dust control, tyre recycling and a plan to cover old tailings dams with endemic species of vegetation.

## WATER MANAGEMENT

Antofagasta minimises its use of continental water resources through efficient consumption and by using sea water. Two of the Group's newest mines, Antucoya and Centinela Concentrates, use untreated sea water. Centinela Cathodes, Zaldívar and Los Pelambres still use continental water. However, a desalination plant will be built as part of the Los Pelambres Incremental Expansion project to satisfy any increased water needs at Los Pelambres and to supplement the mine's requirements in case of drought.

The Group has achieved high water reuse rates of up to 86%, with zero discharge to waterways. The remainder of the water either evaporates or remains in the tailings dam. In 2016 it consumed 56 million m<sup>3</sup> of water, 53% of which was continental water and 47% was sea water.

All of the Group's mining operations have water management plans. Water quantity and quality are monitored respectively by the Chilean Water Bureau and the Chilean Health Bureau. Local communities also participate in this monitoring at Los Pelambres since 2012. The quality of sea water is monitored at the port of Los Pelambres and at the dock that serves the Centinela and Antucoya operations.



## MINING WASTE

Waste at large-scale mining operations is in the form of rock, spent ore and tailings. Tailings are the material remaining after the valuable portion of the ore has been separated from the uneconomic portion. Los Pelambres and Centinela Concentrates use a flotation process and deposit their mining waste in licensed tailings storage facilities. Antucoya, Zaldívar and Centinela Cathodes use leaching to produce copper and have fully-permitted spent ore dumps.

Centinela was the first large-scale mine in the world to use water-efficient thickened tailings technology that also makes tailings more stable and offers better dust control. Its expansion project will also use thickened tailings.

Other solid industrial and domestic waste is separated and stored prior to final disposal, in compliance with Chilean regulations for each type of waste.

**The Group has pioneered the use of raw sea water and thickened tailings technology to reduce its consumption of continental water.**

## SUSTAINABLE ENERGY

The Group's energy demands are rising as a result of higher throughput at its operations. As production increases and grades decline, haulage distances rise and a greater volume of water must be pumped from the sea. As energy represents around 15% of the mining division's total costs, investing in new and clean energy sources has major commercial as well as environmental benefits.

Over the past few years, the Group has secured renewable energy for Los Pelambres from conveyor belt self-generation as well as several wind and solar sources. Renewables accounted for 42% of Los Pelambres' total energy requirement during 2016 and this is expected to increase to 80% on completion of the Alto Maipo hydroelectric project. Centinela, Antucoya and Zaldívar have long-term fuel indexed supply contracts, secured prior to renewable sources becoming available, but as the contracts expire the Group expects to be able to benefit from increasing renewable supply.

**The Group remains committed to the efficient use of energy to reduce consumption per unit of production and increase the percentage of energy generated from renewable sources.**

## CLIMATE CHANGE

Chile is vulnerable to climate change, which has increased average temperatures and reduced rainfall in the northern and central regions of the country. The Chilean government has committed to a 30% reduction in GHG emissions intensity by 2030, despite the country contributing only 0.2% to global emissions.

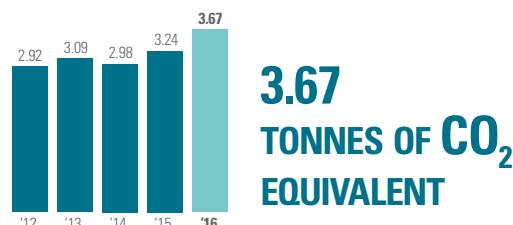
The Group continues to work on limiting GHG emissions through improved energy efficiency and renewable sourcing. The Group began reporting its GHG emissions to the Carbon Disclosure Project (CDP) in 2009 and developed its first integrated climate change strategy in 2015, the main features of which are:

- Identifying risks and opportunities for the Group's operations arising from climate change.
- Encouraging innovation to improve energy efficiency and the use of clean energy.
- Mitigating GHG emissions.
- Measuring progress and reporting results, including CO<sub>2</sub> emissions, in accordance with the CDP.

**The Group's production growth will increase GHG emissions. However, it is committed to offsetting this by improving energy efficiency and increasing its use of renewable energy.**

**Antofagasta has no significant gaseous emissions other than GHG.**

## CO<sub>2</sub> EMISSIONS INTENSITY<sup>1</sup>



1. Total CO<sub>2</sub> emissions per tonne of copper produced. Data relates to the mining division only.

## CO<sub>2</sub> EMISSIONS BY LOCATION (TONNES OF CO<sub>2</sub> EQUIVALENT)

| MINING DIVISION                  | SCOPE 1          |                | SCOPE 2            |                  | TOTAL EMISSIONS <sup>1</sup> |                  | CO <sub>2</sub> EMISSIONS INTENSITY <sup>2</sup> |             |
|----------------------------------|------------------|----------------|--------------------|------------------|------------------------------|------------------|--|-------------|
|                                  | DIRECT EMISSIONS |                | INDIRECT EMISSIONS |                  | 2016                         | 2015             | 2016   | 2015        |
|                                  | 2016             | 2015           | 2016               | 2015             | 2016                         | 2015             | 2016   | 2015        |
| Los Pelambres                    | 172,227          | 168,892        | 493,065            | 425,064          | 665,292                      | 593,956          | 1.87   | 1.64        |
| Centinela Concentrates           | 232,811          | 233,384        | 801,590            | 734,493          | 1,034,401                    | 967,876          | 5.73   | 6.67        |
| Centinela Cathodes               | 125,322          | 152,372        | 139,930            | 173,664          | 265,252                      | 326,036          | 4.75   | 4.29        |
| Antucoya                         | 99,918           | —              | 199,524            | —                | 299,442                      | —                | 4.52   | —           |
| Zaldívar                         | 165,590          | —              | 364,689            | —                | 530,279                      | —                | 5.13   | —           |
| Michilla                         | —                | 23,351         | —                  | 78,497           | —                            | 101,848          | —  | 3.47        |
| Corporate Offices                | 124              | 120            | 1,210              | 1,042            | 1,334                        | 1,161            | —  | —           |
| <b>Total for Mining Division</b> | <b>795,994</b>   | <b>578,118</b> | <b>2,000,010</b>   | <b>1,412,760</b> | <b>2,796,004</b>             | <b>1,990,878</b> | <b>3.67</b>                                      | <b>3.24</b> |

1. Scope 1 + Scope 2

2. Total CO<sub>2</sub> emissions per tonne of fine copper produced (scopes 1 and 2)

## DUST CONTROL

Los Pelambres has developed a predictive model to anticipate local weather affecting air quality around its operations. This information is used to prevent critical dust episodes by rescheduling blasting and even, at times, suspending some activities. The company also uses a set of measures to prevent and mitigate dust emissions at the mine and its facilities, which are also closely monitored by its neighbours.

This preventive approach has proved effective, allowing Los Pelambres to operate below the legally permitted dust emission limits.



## BIODIVERSITY

The Group has no operations in protected areas. Its biodiversity challenges are concentrated around Los Pelambres, which is at the head of the Choapa valley, one of the world's top 25 biodiversity areas due to its varied native vegetation. The Group's conservation efforts began in 2000, when it protected and rehabilitated an area previously used as an illegal waste dump into what is now an internationally-recognised coastal wetland under the Ramsar Convention. It also protects one of the last remaining Chilean palm forests and in 2014 bought a 62.7-hectare site to ensure the conservation of the rare temperate relict rainforest of Santa Ines.

In 2016 the Group produced its first Biodiversity Standard, developed with the support of the Wildlife Conservation Society while incorporating the ICMM's policy guidelines on the subject. The Standard includes a hierarchy of good practices to meet its objectives, in order to:

- Avoid or reduce as much as possible the impact of the Group's operations on biodiversity and associated ecosystems.
- Restore and/or compensate, as appropriate, when there is unavoidable impact.
- Generate additional benefits to the environment.
- Increase biodiversity awareness within the organisation.
- Consider biodiversity in the decision-making process.

The main biodiversity challenges for Centinela, Antucoya and Zaldívar are associated with the protection of the fauna occasionally found near their sites. Los Pelambres and Centinela also monitor the marine ecosystems at their port facilities for rapid detection of any impact on the marine environment.

In order to update this information in line with the new Biodiversity Standard, all four mining operations have now begun to assess their own biodiversity performance.

**+ For more information can be found in the Sustainability Report 2016.**

## CLOSURE PLANNING

Chilean legislation requires mining operations to have comprehensive closure plans approved by the National Geology and Mining Service (Sernageomin). These plans identify key issues and define risk control measures that focus on preventing pollution and ensuring the permanent stability of the tailings dams. Plans include budgeting for remediation work on closure and providing the financial resources to implement them. Closure plans must be submitted for all new mining projects as part of their original application for environmental approval and must be updated every five years.

**In 2016 the Group approved a new corporate closure standard that goes beyond what is legally required and provides further guidance on the management of environmental and social issues at the time of closure.**

## SUSTAINABILITY GOVERNANCE

The Group's Sustainability and Stakeholder Management Board Committee oversees sustainability strategy and targets.

The Sustainability and Stakeholder Management Committee is one of five committees supporting the Board and met four times in 2016. The Vice President of Corporate Affairs and Sustainability oversees environmental, communications and public affairs issues for the Group and in addition each mining company and the transport division has a sustainability manager.

**+ Further information on the Board and its Sustainability and Stakeholder Management Committee can be found on pages 92 to 93.**

## ETHICS AND CORRUPTION PREVENTION

The Group's Code of Ethics was updated in 2016 to include modern slavery and to emphasise respect for human rights. It sets out the conduct expected of directors, executives, employees and contractors, not just within the Group but in their dealings with all stakeholders. It reflects the Group's core values of Respect, Safety and Health, Sustainability, Excellence, Innovation and Forward Thinking.

The Crime Prevention Manual defines conflicts of interest and outlines an anonymous whistleblowing procedure offering multiple methods of communication. In 2016 all employees were asked to complete a Declaration of Interest questionnaire in order to prevent potential conflicts and approximately 1,000 workers participated in compliance workshops. Contractor companies are also trained to adhere to the Group's compliance standards and are expected to report any unethical conduct.

**+ Further information on the Group's Code of Ethics and Crime Prevention Manual can be found on the Group's website, [www.antofagasta.co.uk](http://www.antofagasta.co.uk).**

## PAYMENTS TO GOVERNMENTS

The Group makes payments to governments related to activities involving exploration and the discovery, development and extraction of minerals. In June 2016, in accordance with specific UK regulations and requirements, the Group published a report detailing the mining division's payments to governments for the year ended 31 December 2015. These were primarily taxes paid to national, regional and local governments, and mineral licence fees. In 2015 these payments totalled \$278 million, of which 99.9% were paid in Chile.

**+ The full report is available on the Group's website at [www.antofagasta.co.uk](http://www.antofagasta.co.uk).**

Chilean law allows political contributions subject to certain requirements, but the Group made none in 2016. However, it often contributes financing for projects that benefit neighbouring communities, in alliance with the municipalities and the government. These contributions are regulated by specific laws and reviewed by the Chilean Internal Revenue Service.



## COMPLIANCE AND SUPPLIERS

The Group's risk management and compliance function is responsible for the corporate compliance programme overseen by the Board's Audit and Risk Committee. Suppliers are required to provide specific information on their procedures concerning safety, anti-corruption, antitrust, modern slavery and other areas.

**+ More information can be found in the Risk Management section on page 20.**

## HUMAN RIGHTS

The Group's respect for human rights is reflected in its commitments to its employees, contractors and neighbouring communities:

- High safety and health standards
- Fair wages and good labour relations
- Prevention of discrimination, harassment and bullying
- Application of the UK Modern Slavery Act 2015
- Provision of quality accommodation, services and facilities at the operations
- Opportunities for training and development
- Prevention of corruption and malpractice
- Prevention or mitigation of environmental and social impacts
- Respecting communities' rights, culture and heritage
- Engaging in dialogue from exploration to closure
- Responding to grievances
- Supporting community development

Zaldívar is located 100 km from the Peine indigenous community, with which it has established a relationship and will make sure to comply with the framework provided by Chilean legislation, ILO Convention 169 and the ICMM's recommendations.

## MODERN SLAVERY ACT

Section 54 of the UK's Modern Slavery Act 2015 requires any company operating a business in the UK, which supplies goods or services and has a total annual turnover of £36 million or more, to publish an annual statement setting out the steps it has taken to ensure that slavery and human trafficking are not occurring in its supply chains or in any part of its business.

In 2016 the Group prepared and published a statement for the first time. This statement has been approved by the Antofagasta plc Board. A full copy of the statement is available on the Company's website at: [www.antofagasta.co.uk](http://www.antofagasta.co.uk).

Steps were also taken to ensure that slavery and human trafficking do not occur in the Company's supply chains or in any part of its business, and it intends to build on these actions over the coming years. The following actions were taken in 2016.

- **Policies and Procedures:** The Code of Ethics was reviewed and updated to prohibit the exercise of any form of exploitation or other behaviours constituting slavery or human trafficking. This includes the requirement that all employees and suppliers must report any conduct that is not in accordance with the Code of Ethics. All reported incidents will be thoroughly investigated to determine whether further action should be taken. All new contracts with suppliers include specific clauses requiring them to comply with the Group's compliance model.
- **Due Diligence:** Due diligence is performed on all new suppliers before they are engaged and periodically thereafter. The process requires suppliers to complete a questionnaire explaining their relevant internal models and procedures and includes third-party background checks.
- **Risk Assessment, Accountability and Results:** As part of the Group's risk assessment process, all suppliers are reviewed, based on due diligence analysis, the supplier's location and the slavery index of the country in which they operate. During 2016, none of the Group's reviewed suppliers had issues relating to forced labour, child labour or human trafficking.
- **Education and Training:** During 2016 the new employee induction training programme and the e-learning training courses for existing employees and contractors were updated to include training to ensure that slavery and human trafficking are not occurring in the Group or in its supply chains.

In 2017 the Group plans to:

- Monitor the effectiveness of actions taken to ensure that slavery and human trafficking are not occurring in the Group or in its supply chains.
- Engage external consultants to review its suppliers and the steps that they have taken to ensure that slavery and human trafficking are not occurring in their supply chains.

The Group's current procedures, combined with these steps and the continual improvement of its compliance model, confirms to the Board that the likelihood of modern slavery taking place in its first-tier suppliers or in any part of its business is low and that it took appropriate steps in 2016 to confirm this and to extend the scope and effectiveness of its supplier assessments.

# DELIVERING A STRONG SET OF RESULTS



 ALFREDO ATUCHA, CFO

EBITDA IN 2016 INCREASED BY 78.7% TO \$1,626.1 MILLION, DRIVEN BY HIGHER COPPER SALES VOLUMES AND REDUCED MINE OPERATING COSTS

|  | BEFORE EXCEPTIONAL ITEMS<br>\$M | EXCEPTIONAL ITEMS<br>\$M | YEAR ENDED<br>31.12.2016<br>TOTAL<br>\$M | YEAR ENDED<br>31.12.2015<br>(RESTATED)<br>TOTAL<br>\$M |
|--|---------------------------------|--------------------------|--|--|
| Revenue  | 3,621.7                         | –                        | 3,621.7                                  | 3,225.7  |
| EBITDA (including results from associates and joint ventures)      | 1,626.1                         | –                        | 1,626.1                                  | 910.1  |
| Operating costs excluding depreciation                             | (2,100.0)                       | (241.0)                  | (2,341.0)                                | (2,349.1)  |
| Depreciation, loss on disposals and impairments                    | (598.1)                         | (215.6)                  | (813.7)                                  | (587.6)  |
| <b>Operating profit from subsidiaries</b>                          | <b>923.6</b>                    | <b>(456.6)</b>           | <b>467.0</b>                             | <b>289.0</b>   |
| Net share of results from associates and joint ventures            | 23.4                            | (134.7)                  | (111.3)                                  | (5.8)  |
| <b>Total profit from operations, associates and joint ventures</b> | <b>947.0</b>                    | <b>(591.3)</b>           | <b>355.7</b>                             | <b>283.2</b>   |
| Net finance expense  | (71.1)                          | –                        | (71.1)                                   | (40.4)   |
| <b>Profit before tax</b>   | <b>875.9</b>                    | <b>(591.3)</b>           | <b>284.6</b>                             | <b>242.8</b>   |
| Income tax expense   | (313.5)                         | 204.9                    | (108.6)                                  | (154.4)  |
| <b>Profit from continuing operations</b>                           | <b>562.4</b>                    | <b>(386.4)</b>           | <b>176.0</b>                             | <b>88.4</b>  |
| <b>Discontinued operations</b>                                     | <b>38.3</b>                     | <b>–</b>                 | <b>38.3</b>                              | <b>613.3</b>   |
| <b>Profit for the year</b>   | <b>600.7</b>                    | <b>(386.4)</b>           | <b>214.3</b>                             | <b>701.7</b>   |

| BASIC EARNINGS PER SHARE                            | US CENTS    | US CENTS      | US CENTS    | US CENTS    |
|---|-------------|---------------|-------------|-------------|
| From continuing operations                          | 34.7        | (22.6)        | 12.1        | (0.5)       |
| From discontinued operations                        | 3.9         | –             | 3.9         | 62.2        |
| <b>Total continuing and discontinued operations</b> | <b>38.6</b> | <b>(22.6)</b> | <b>16.0</b> | <b>61.7</b> |

As a result of the disposal of Michilla in 2016, and the disposal of Aguas de Antofagasta (the Water division) and Empresa Ferroviaria Andina (the Bolivian transport operation) in 2015 their net results are shown in the “Profit from discontinued operations” line. The 2015 comparatives have been restated to present Michilla’s net result for 2015 in the discontinued operations line.

A detailed segmental analysis of the components of the income statement is contained in Note 5 to the financial statements.



The following table reconciles the change in EBITDA between 2015 and 2016:

|   | \$M            |
|---|----------------|
| <b>EBITDA in 2015</b>   | <b>910.1</b>   |
| <b>Revenue</b>  |                |
| Increase in copper volumes sold                                 | 218.7          |
| Increase in realised copper price                               | 84.5           |
| Increase in tolling charges                                     | (7.0)          |
| <b>Increase in revenue from copper sales</b>                    | <b>296.2</b>   |
| Increase in gold revenue  | 87.5           |
| Increase in silver revenue                                      | 15.9           |
| Decrease in molybdenum revenue                                  | (11.4)         |
| <b>Increase in revenue from by-products</b>                     | <b>92.0</b>    |
| Increase in transport division revenue                          | 7.8            |
| <b>Increase in Group revenue</b>                                | <b>396.0</b>   |
| <b>Operating costs</b>  |                |
| Decrease in mine operating costs                                | 220.7          |
| Decrease in closure provisions                                  | 23.2           |
| Decrease in exploration and evaluation costs                    | 57.6           |
| Decrease in corporate costs                                     | 11.1           |
| <b>Increase in other mining division costs</b>                  | <b>(70.6)</b>  |
| <b>Decrease in operating costs for mining division</b>          | <b>242.0</b>   |
| Decrease in transport division operating costs                  | 7.1            |
| Increase in EBITDA relating to associates and in joint ventures | 70.9           |
| <b>Total EBITDA in 2016</b>                                     | <b>1,626.1</b> |

## REVENUE

Revenue for the Group in 2016 was \$3,621.7 million, 12.3% higher than in 2015. The increase of \$396.0 million mainly reflected an increase in copper sales volumes and the realised copper price, as well as higher gold and silver revenue.

## REVENUE FROM THE MINING DIVISION

### REVENUE FROM COPPER SALES

Revenue from copper concentrate and copper cathode sales increased by \$296.0 million, or 11.1%, to \$2,961.6 million, compared with \$2,665.6 million in 2015. The increase reflected the impact of higher sales volumes and slightly higher realised prices.

#### (I) COPPER VOLUMES

Copper sales volumes reflected within revenue increased from 590,400 tonnes in 2015 to 634,000 tonnes in 2016 increasing revenue by \$218.5 million. This increase was mainly due to Antucoya which achieved commercial production on 1 April 2016, and which recorded sales volumes of 54,900 tonnes reflected within revenue from that point onwards.

#### (II) REALISED COPPER PRICES

The Group's average realised copper price increased by 2.2% to \$2.33/lb in 2016 (2015 - \$2.28/lb) despite the market price having fallen by 11.6%. This was due to a significant year-end positive price adjustment of \$153.6 million with the copper price ending the year at \$2.51/lb, compared with a decrease of \$291.2 million in 2015. The increase in the average realised price led to an \$84.5 million increase in revenue from copper sales.

Realised copper prices are determined by comparing revenue (gross of tolling charges for concentrate sales) with sales volumes in the period. Realised copper prices differ from market prices mainly because, in line with industry practice, concentrate and cathode sales agreements generally provide for provisional pricing at the time of shipment with final pricing

based on the average market price for future periods (normally about 30 days after delivery to the customer in the case of cathode sales and up to 150 days after delivery to the customer in the case of concentrate sales). Realised copper prices also reflect the impact of realised gains or losses on commodity derivative instruments hedge accounted for in accordance with IAS 39 "Financial Instruments: Recognition and Measurements".

+ Further details of provisional pricing adjustments are given in Note 6 to the financial statements.

In 2016 revenue also includes a loss of \$2.2 million (2015 - nil) relating to commodity derivatives which matured during the year.

+ Further details of hedging activity in the period are given in Note 25 to the financial statements.

#### (III) TOLLING CHARGES

Tolling charges for copper concentrate increased by \$7.0 million to \$301.0 million in 2016 from \$294.0 million in 2015. Tolling charges are deducted from concentrate sales when reporting revenue and hence the increase in these charges has had a negative impact on revenue.

### REVENUE FROM MOLYBDENUM, GOLD AND OTHER BY-PRODUCT SALES

Revenue from by-product sales at Los Pelambres and Centinela relate mainly to molybdenum and gold and, to a lesser extent, silver. Revenue from by-products increased by \$92.2 million or 22.6% to \$499.9 million in 2016, compared with \$407.7 million in 2015.

Revenue from gold sales (net of tolling charges) was \$339.7 million (2015-\$252.0 million), an increase of \$87.7 million, which mainly reflected an increase in volumes and a higher realised price. The realised gold price was \$1,256.1/oz in 2016 compared with \$1,154.5/oz in 2015, with the increase reflecting higher market prices. Gold sales volumes increased by 23.8% from 219,200 ounces in 2015 to 271,400 ounces in 2016, mainly due to higher grades at Centinela.

## FINANCIAL REVIEW CONTINUED

Revenue from molybdenum sales (net of roasting charges) was \$94.0 million (2015–\$105.3 million), a decrease of \$11.3 million. The decrease was mainly due to lower sales volumes of 7,200 tonnes (2015 – 9,900 tonnes), partly offset by an increased realised price of \$6.8/lb (2015–\$5.7/lb).

Revenue from silver sales increased by \$15.8 million to \$66.2 million in 2016 (2015–\$50.4 million). The increase was due to higher sales volumes of 3.7 million ounces (2015 – 3.3 million ounces) and an increased realised silver price of \$17.5/oz (2015–\$15.4/oz).

### REVENUE FROM THE TRANSPORT DIVISION

Revenue from the transport division (FCAB) increased by \$7.8 million or 5.1% to \$160.2 million, mainly due to higher tonnages transported.

### OPERATING COSTS (EXCLUDING DEPRECIATION, LOSS ON DISPOSALS AND IMPAIRMENTS)

Operating costs (excluding depreciation, loss on disposals and impairments) amounted to \$2,100.0 million (2015 – \$2,349.1 million), a decrease of \$249.1 million despite copper sales volumes having increased by 9.8%. This was mainly due to lower mine operating costs and reduced exploration & evaluation and corporate expenditure.

### OPERATING COSTS (EXCLUDING DEPRECIATION, LOSS ON DISPOSALS AND IMPAIRMENTS) AT THE MINING DIVISION

Operating costs (excluding depreciation, loss on disposals and impairments) at the mining division decreased by \$242.0 million to \$2,013.1 million in 2016, a decrease of 10.7%. Of this decrease, \$220.7 million is attributable to lower mine-site operating costs. This reduction in mine-site costs reflected significant cost savings achieved during the year as well the impact of a revised estimation of deferred stripping costs, partly offset by additional costs resulting from the higher production volumes in the year. Reflecting these decrease costs, weighted average unit cash costs excluding by-product credits (which are reported as part of revenue) and tolling charges for concentrates (which are deducted from revenue) decreased from \$1.58/lb in 2015 to \$1.33/lb in 2016.

Exploration & evaluation costs decreased by \$57.6 million to \$44.3 million (2015 – \$101.9 million). This reflected a general decrease in exploration activity, in particular at the Centinela District in Chile and the Twin Metals project in the United States. Corporate costs decreased by \$11.1 million compared with 2015, and costs relating to the mine closure provisions decreased by \$23.2 million. These decreases were partly offset by a \$70.6 million increase in other expenses, largely relating to increased community spend at Los Pelambres.

### OPERATING COSTS (EXCLUDING DEPRECIATION AND LOSS ON DISPOSALS) AT THE TRANSPORT DIVISION

Operating costs (excluding depreciation and loss on disposals) at the transport division decreased by \$7.1 million to \$86.9 million, mainly reflecting lower diesel prices and a decrease in services provided by third parties.

### EBITDA

EBITDA (earnings before interest, tax, depreciation, amortisation) increased by \$716.0 million or 78.7% to \$1,626.1 million in 2016 (2015–\$910.1 million). EBITDA includes the Group's proportional share of EBITDA from associates and joint ventures

EBITDA from the Group's mining subsidiaries increased by 73.6% from \$876.6 million in 2015 to \$1,521.7 million in this year. As explained above, this was mainly due to the decrease in revenue, lower unit cash costs, and lower exploration & evaluation and corporate costs.

EBITDA at the transport division increased by \$8.9 million to \$87.7 million in 2016, reflecting the increased revenue and lower operating costs explained above.

The Group's proportional share of EBITDA from associates and joint ventures included \$85.1 million from Zaldívar (2015 – \$6.8 million) and \$19.3 million from other associates and joint ventures (2015 – \$26.7 million).

### DEPRECIATION, AMORTISATION AND DISPOSALS

The depreciation and amortisation charge was largely in-line with the prior year at \$578.4 million (2015–\$576.1 million). In addition, there were losses on disposals of assets of \$19.7 million (2015 – loss of \$11.5 million).

### EXCEPTIONAL IMPAIRMENT PROVISIONS

The Group recognised exceptional impairment provisions with a total impact of \$591.3 million before tax. After a corresponding tax credit of \$204.9 million the after tax impact was \$386.4 million.

The majority of this relates to the Group's 40% interest in Alto Maipo SpA ("Alto Maipo"), which is developing two hydroelectric power stations in Chile. The remaining 60% controlling interest is held by AES Gener SA ("Gener"). The Group had been reviewing its options with respect to its investment in Alto Maipo following the announcement of a significant forecast cost overrun for the project. In January 2017 the Group entered into an agreement with Gener to dispose of its stake in Alto Maipo to Gener for a nominal consideration. Accordingly, an impairment provision of \$367.6 million has been recognised in respect of the total carrying value relating to the project. This impairment provision resulted in a deferred tax credit of \$95.0 million and so the post-tax impact is \$272.6 million.

An impairment review was also conducted in respect of the Antucoya mine. Following the completion of construction, Antucoya achieved commercial production in April 2016 and then reached full production capacity in August 2016. This process was slower than originally forecast so costs capitalised during the ramp-up period were greater than originally forecast and net depreciation of the assets commenced later than originally anticipated. The achievement of commercial production and full capacity during the year has allowed a final determination of the total capital cost of the project, including costs capitalised during the ramp-up to commercial production, along with an understanding of the actual operating performance of the mine. The impairment review determined that the recoverable amount of Antucoya's assets was below their carrying value, and accordingly an impairment provision of \$215.6 million (on a pre-tax basis) has been reflected in respect of Antucoya. This impairment provision resulted in a deferred tax credit of \$99.4 million and so the post-tax impact is \$116.2 million.

In addition, the Group's Energía Andina joint venture holds an investment in the Javiera solar plant in Chile. In February 2017 the disposal of the interest in Javiera was agreed. The terms of the sale agreement indicate a recoverable value for the interest in Javiera which is \$8.1 million below the carrying value and accordingly an impairment provision for this amount has been recognised. The sale agreement is subject to certain closing conditions, and the transaction is expected to complete during the first half of 2017.

+ Further details are given in Note 4 to the financial statements.



## OPERATING PROFIT FROM SUBSIDIARIES

As a result of the above factors, operating profit from subsidiaries increased in 2016 by 61.6% to \$467.0 million. Of the exceptional impairment provisions outlined above \$456.6 million was recorded within operating expenses, and therefore excluding the exceptional impairment provisions, operating profit was \$923.6 million, a 219.6% increase compared to 2015.

## SHARE OF RESULTS FROM ASSOCIATES AND JOINT VENTURES

The Group's share of results from associates and joint ventures was a loss of \$134.7 million in 2016, compared with a loss of \$5.8 million in 2015. This was largely a reflection of the exceptional impairment provisions. Of the total impairment provision outlined above, \$134.7 million was recorded within the share of results from associates and joint ventures. Excluding the impact of the exceptional impairment, the share of results from associates and joint ventures was a profit of \$23.5 million (2015 – loss of \$5.8 million). The improvement compared with the prior year mainly reflected a full year's contribution from Zaldívar.

## NET FINANCE EXPENSE

Net finance expense in 2016 was \$71.1 million, compared with \$40.4 million in 2015.

|                            | YEAR ENDED<br>31.12.16<br>\$M | YEAR ENDED<br>31.12.15<br>\$M |
|----------------------------|-------------------------------|-------------------------------|
| Investment income          | 26.9                          | 17.5                          |
| Interest expense           | (86.1)                        | (33.7)                        |
| Other finance items        | (11.9)                        | (24.2)                        |
| <b>Net finance expense</b> | <b>(71.1)</b>                 | <b>(40.4)</b>                 |

Interest income increased from \$17.5 million in 2015 to \$26.9 million in 2016 due to an increase in operating cash invested as a result of increased revenue in 2016.

Interest expense increased from \$33.7 million in 2015 to \$86.1 million in 2016, mainly due to interest charges at Antucoya being expensed since the start of commercial production on 1 April 2016. Additionally, there was higher corporate interest expense reflecting a new long-term loan of \$500 million taken out during the period.

Other finance items comprised a loss of \$11.9 million (2015 – loss of \$24.2 million) arising mainly from foreign exchange losses of \$2.9 million in 2016, compared with a loss of \$14.8 million in 2015.

## PROFIT BEFORE TAX

As a result of the factors set out above, profit before tax increased by 17.2% to \$284.6 million (2015–\$242.8 million). Excluding exceptional items, profit before tax was \$875.9 million, a 260.7% increase compared with the prior year.

## INCOME TAX EXPENSE

The tax charge for 2016 was \$108.6 million and the effective tax rate was 38.2%. The exceptional impairment provisions had an impact on the overall tax charge and the reconciliation of the effective tax rate. Excluding these exceptional impairment provisions, the 2016 tax charge was \$313.5 million and the effective tax rate was 35.8%.

|  | 31.12.2016<br>BEFORE<br>EXCEPTIONAL<br>ITEMS<br>\$M | %<br>24.0   | 31.12.2016<br>AFTER<br>EXCEPTIONAL<br>ITEMS<br>\$M | %           | YEAR ENDED<br>31.12.2015<br>(RESTATED)<br>%      |
|--|---|-------------|--|-------------|--|
|  |   |             |  |             | 31.12.2016<br>AFTER<br>EXCEPTIONAL<br>ITEMS<br>% |
| <b>Profit before tax</b>   | 875.9   | –           | 284.6  | –           | 242.8  |
| Tax at the Chilean corporate tax rate of 24% (2015 – 22.5%)                    | (210.2)   | 24.0        | (68.3)   | 24.0        | (54.6)   |
| Provision against carrying value of assets (exceptional items)                 | –   | –           | 63.0   | (22.1)      | –  |
| Effect of increase in future first category tax rates on deferred tax balances | (24.6)  | 2.8         | (24.6)   | 8.6         | (8.9)  |
| Items not deductible from first category tax                                   | (23.7)  | 2.7         | (23.7)   | 8.3         | (21.2)   |
| Items not subject to first category tax  | 8.5   | (1.0)       | 8.5  | (2.9)       | 4.1  |
| Carry-back tax losses resulting in credits at historic tax rates               | (5.4)   | 0.6         | (5.4)  | 1.8         | (25.8)   |
| Mining tax (royalty)   | (60.1)  | 6.9         | (60.1)   | 21.1        | (31.8)   |
| Withholding taxes  | –   | –           | –  | –           | (14.8)   |
| Withholding taxes – adjustment to previous year                                | (3.8)   | 0.4         | (3.8)  | 1.3         | –  |
| Tax effect of share of results of associates and joint ventures                | 5.6   | (0.6)       | 5.6  | (1.9)       | (0.5)  |
| Net other items  | 0.2   | (0.0)       | 0.2  | (0.0)       | (0.9)  |
| <b>Tax expense and effective tax rate for the year</b>                         | <b>(313.5)</b>                                      | <b>35.8</b> | <b>(108.6)</b>                                     | <b>38.2</b> | <b>(154.4)</b>                                   |
|  |   |             |  |             | 63.6   |

This effective tax rate (excluding exceptional items) varied from the statutory rate principally due to the effect of increases in future first category tax rates on deferred tax balances (impact of \$24.6 million / 2.8%), the effect of expenses not deductible for Chilean corporate tax purposes (principally the funding of expenses outside of Chile) and items not subject to first category tax (impact of \$15.2 million / 1.7%), and the mining tax (impact of \$60.1 million / 6.9%).

+ Further details are given in Note 10 to the financial statements.

## PROFIT FROM DISCONTINUED OPERATIONS

On 30 December 2016 the Group completed the disposal of Minera Michilla and the resulting profit of \$38.3 million has been reflected as a profit from discontinued operations. In the prior year a profit from discontinued operations of \$613.3 million was recognised, mainly relating to the disposal of Aguas de Antofagasta in that year.

## NON-CONTROLLING INTERESTS

Profit for 2016 attributable to non-controlling interests was \$56.3 million (2015 – \$93.5 million). Before exceptional items the profit attributable to non-controlling interests was \$220.9 million.

## EARNINGS PER SHARE

|  | YEAR ENDED<br>31.12.16<br>\$ CENTS | YEAR ENDED<br>31.12.15<br>\$ CENTS |
|--|------------------------------------|------------------------------------|
| <b>Total including exceptional items</b>                             |                                    |                                    |
| Earnings per share from continuing operations                        | 12.1                               | (0.5)                              |
| Earnings per share from discontinued operations                      | 3.9                                | 62.2                               |
| Total earnings per share from continuing and discontinued operations | 16.0                               | 61.7                               |
| <b>Excluding exceptional items</b>                                   |                                    |                                    |
| Earnings per share from continuing operations                        | 34.7                               | (0.5)                              |
| Earnings per share from discontinued operations                      | 3.9                                | 62.2                               |
| Total earnings per share from continuing and discontinued operations | 38.6                               | 61.7                               |

Earnings per share calculations are based on 985,856,695 ordinary shares.

As a result of the factors set out above, profit attributable to equity shareholders of the Company was \$158.0 million compared with \$608.2 million in 2015, and total earnings per share from continuing and discontinued operations was 16.0 cents per share (2015 – 61.7 cents per share).

Profit from continuing operations and excluding exceptional items attributable to equity shareholders of the Company was \$341.5 million compared with a loss of \$5.1 million in 2015, and earnings per share from continuing operations excluding exceptional items was 34.7 cents per share (2015 – loss of 0.5 cents per share).

## DIVIDENDS

Dividends per share declared in relation to the period are as follows:

|   | YEAR ENDED<br>31.12.16<br>\$ CENTS | YEAR ENDED<br>31.12.15<br>\$ CENTS |
|---|------------------------------------|------------------------------------|
| Interim   | 3.1                                | 3.1                                |
| Final   | 15.3                               | –                                  |
| <b>Total dividends to ordinary shareholders</b> | <b>18.4</b>                        | <b>3.1</b>                         |

The Board determines the appropriate dividend each year based on consideration of the Group's cash balance, the level of free cash flow and underlying earnings generated during the year and significant known or expected funding commitments. It is expected that the total annual dividend for each year would represent a payout ratio based on underlying net earnings for that year of at least 35%.

The Board has declared a final dividend of 2016 of 15.3 cents per ordinary share, which amounts to \$150.8 million and will be paid on 26 May 2017 to shareholders on the share register at the close of business on 28 April 2017.

The Board declared an interim dividend for the first half of 2016 of 3.1 cents per ordinary share, which amounted to \$30.6 million and was paid

on 30 September 2016 to shareholders on the share register at the close of business on 9 September 2016.

This gives total dividends proposed in relation to 2016 (including the interim dividend) of 18.4 cents per share or \$181.4 million in total (2015 – 3.1 cents per ordinary share or \$30.6 million in total).

## CAPITAL EXPENDITURE

Capital expenditure decreased by \$253.4 million from \$1,048.5 million in 2015 to \$795.1 million in the year. This was mainly due to decreased construction costs at Antucoya, which is now in operation, partly offset by increased expenditure at Los Pelambres, relating mainly to capitalised stripping costs.

NB: Capital expenditure figures quoted in this report are on a cash flow basis, unless stated otherwise.

## DERIVATIVE FINANCIAL INSTRUMENTS

The Group periodically uses derivative financial instruments to reduce exposure to commodity price movements. At 31 December 2016 the Group had entered into min/max contracts at Centinela for a notional amount of 72,000 tonnes of copper production covering a period up to 31 December 2017, with an average minimum price of \$2.25/lb and an average maximum price of \$2.84/lb. The Group also periodically uses interest rate swaps to swap the floating rate interest for fixed rate interest. At 31 December 2016 the Group had entered into contracts at Centinela for a maximum notional amount of \$70 million at a weighted average fixed rate of 3.372 % maturing in August 2018. The Group had also entered into contracts in relation to a financing loan at the FCAB for a maximum notional amount of \$90 million at a weighted average fixed rate of 1.634% maturing in August 2019.

## CASH FLOWS

The key features of the Group cash flow statement are summarised in the following table.

|  | YEAR ENDED<br>31.12.16<br>\$M | YEAR ENDED<br>31.12.15<br>\$M |
|--|-------------------------------|-------------------------------|
| Cash flows from continuing and discontinued operations | 1,457.3                       | 858.3                         |
| Income tax paid  | (272.6)                       | (427.1)                       |
| Net interest paid                                      | (31.9)                        | (27.6)                        |
| Capital contributions and loans to associates          | (10.1)                        | (112.0)                       |
| Acquisition of joint ventures                          | 20.0                          | (972.8)                       |
| Disposal of subsidiary                                 | 10.0                          | 942.9                         |
| Acquisition of mining properties                       | (7.0)                         | (78.0)                        |
| Purchases of property, plant and equipment             | (795.1)                       | (1,048.5)                     |
| Dividends paid to equity holders of the Company        | (30.6)                        | (127.2)                       |
| Dividends paid to non-controlling interests            | (260.0)                       | (80.0)                        |
| Dividends from associates                              | 10.2                          | 12.1                          |
| Other items  | 0.4                           | 19.1                          |
| Changes in net debt relating to cash flows             | 90.6                          | (1,040.8)                     |
| Other non-cash movements                               | (149.0)                       | 50.0                          |
| Exchange   | 10.2                          | (31.1)                        |
| Movement in net debt in the period                     | (48.2)                        | (1,021.9)                     |
| Net debt at the beginning of the year                  | (1,023.5)                     | (1.6)                         |
| <b>Net debt at the end of the year</b>                 | <b>(1,071.7)</b>              | <b>(1,023.5)</b>              |

Cash flows from continuing and discontinued operations were \$1,457.3 million in 2016 compared with \$858.3 million in 2015. This



reflected EBITDA from subsidiaries for the year of \$1,521.7 million (2015 – \$876.6 million) adjusted for a net working capital increase of \$64.4 million (2015 – working capital increase of \$32.4 million).

Cash tax payments in 2016 were \$272.6 million, broadly in line with the current tax charge for the year of \$261.2m. However, within this amount the payments on account for the current year were only \$186.3m, as they were based on the prior year's profit levels. In addition to these payments on account there were other tax payments of \$194.6 million, mainly comprising tax relating to the disposal of Aguas de Antofagasta S.A. in 2015, as well as the recovery of \$108.3 million relating to prior years.

In 2016 the disposal of subsidiary amount of \$10.0 million related to the disposal of Michilla (2015 – \$947.3 million related to the disposal of Aguas de Antofagasta S.A.).

Contributions and loans to associates and joint ventures of \$10.1 million relate to the Group's share of the funding of the costs of Tethyan Copper Company and Energia Andina.

Cash disbursements relating to capital expenditure in 2016 were \$795.1 million compared with \$1,048.5 million in 2015. This included expenditure of \$534.7 million at Centinela (2015 – \$559.4 million), \$215.3 million at Los Pelambres (2015 – \$203.1 million) and \$9.4 million at Antucoya (2015 – \$143.4 million).

At 31 December 2016 dividends paid to ordinary shareholders of the Company were \$30.6 million, which related to the payment of the interim dividend declared in respect of the current year (2015 – \$127.2 million).

Dividends paid by subsidiaries to non-controlling shareholders were \$260.0 million (2015 – \$80.0 million).

## FINANCIAL POSITION

|   | AT 31.12.16<br>\$M | AT 31.12.15<br>\$M |
|---|--------------------|--------------------|
| Cash, cash equivalents and liquid investments | 2,048.5            | 1,731.6            |
| Total borrowings                              | (3,120.2)          | (2,755.1)          |
| <b>Net debt at the end of the period</b>      | <b>(1,071.7)</b>   | <b>(1,023.5)</b>   |

At 31 December 2016 the Group had combined cash, cash equivalents and liquid investments of \$2,048.5 million (31 December 2015 – \$1,731.6 million). Excluding the non-controlling interest share in each partly-owned operation, the Group's attributable share of cash, cash equivalents and liquid investments was \$1,830.2 million (31 December 2015 – \$1,410.8 million).

New borrowings in 2016 were \$938.8 million (2015 – \$725.9 million), including new short-term borrowings at Los Pelambres of \$312.0 million, Centinela of \$100.0 million, Antucoya of \$30.0 million and new long-term borrowings at Corporate of \$496.8 million. Repayments of borrowings and finance leasing obligations in 2016 were \$724.4 million, relating mainly to repayments at Los Pelambres of \$373.1 million, Centinela \$250.0 million, Antucoya \$66.1 million and the transport division of \$31.5 million.

Total Group borrowings at 31 December 2016 were \$3,120.2 million (at 31 December 2015 – \$2,755.1 million). Of this, \$2,329.7 million (at 31 December 2015 – \$1,936.2 million) is proportionally attributable to the Group after excluding the non-controlling interest shareholdings in partly-owned operations.

## CAUTIONARY STATEMENT ABOUT FORWARD-LOOKING STATEMENTS

This Annual Report contains certain forward-looking statements. All statements other than historical facts are forward-looking statements. Examples of forward-looking statements include those regarding the Group's strategy, plans, objectives or future operating or financial performance, reserve and resource estimates, commodity demand and trends in commodity prices, growth opportunities, and any assumptions underlying or relating to any of the foregoing. Words such as "intend", "aim", "project", "anticipate", "estimate", "plan", "believe", "expect", "may", "should", "will", "continue" and similar expressions identify forward-looking statements.

Forward-looking statements involve known and unknown risks, uncertainties, assumptions and other factors that are beyond the Group's control. Given these risks, uncertainties and assumptions, actual results could differ materially from any future results expressed or implied by these forward-looking statements, which speak only as at the date of this report. Important factors that could cause actual results to differ from those in the forward-looking statements include: global economic conditions, demand, supply and prices for copper and other long-term commodity price assumptions (as they materially affect the timing and feasibility of future projects and developments), trends in the copper mining industry and conditions of the international copper markets, the effect of currency exchange rates on commodity prices and operating costs, the availability and costs associated with mining inputs and labour, operating or technical difficulties in connection with mining or development activities, employee relations, litigation, and actions and activities of governmental authorities, including changes in laws, regulations or taxation. Except as required by applicable law, rule or regulation, the Group does not undertake any obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

Past performance cannot be relied on as a guide to future performance.

**ALFREDO ATUCHA**  
CHIEF FINANCIAL OFFICER

The Strategic Report has been approved by the Board and signed on its behalf by:

**JEAN-PAUL LUKSIC**  
CHAIRMAN

13 March 2016

**OLIE OLIVEIRA**  
SENIOR INDEPENDENT  
DIRECTOR

# GOVERNANCE

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## LOS PELAMBRES

Tailings thickeners.





# HIGH GOVERNANCE STANDARDS

## JEAN-PAUL LUKSIC, CHAIRMAN

GOOD CORPORATE GOVERNANCE IS ABOUT ESTABLISHING AND MAINTAINING EFFECTIVE MANAGEMENT STRUCTURES SO THAT WE CAN SHAPE AND PURSUE THE GROUP'S STRATEGY TAKING INTO ACCOUNT THE INTERESTS OF ALL STAKEHOLDERS.



### **Q** What does good corporate governance mean for the Company?

Expanding on my statement above, our aim is to have clearly defined roles and responsibilities, to promote and maintain a culture that encourages innovation and constructive challenge, to recruit and motivate the best talent available, to commit to regular, candid and objective review processes and to involve shareholders and other stakeholders in our deliberations.

In my letter of introduction to the 2015 Corporate Governance Report, I explained that one of my responsibilities as Chairman is to promote good corporate governance and as a Board, we continue to believe that good corporate governance is fundamental to the Company's success.

This Corporate Governance Report sets out the framework that we have worked hard to put in place and that we believe is best suited to the Group's businesses and strategy.

### **Q** What have been the main changes in 2016?

We made a number of changes during the year.

At the executive level, Iván Arriagada succeeded Diego Hernández as CEO now that Diego has completed his task of management restructuring.

At Board level:

- Francisca Castro joined the Board on 1 November 2016, following the retirement of Hugo Dryland.
- Ollie Oliveira succeeded William Hayes as Senior Independent Director and Audit and Risk Committee Chairman.
- A number of changes were made to the Board Committees with effect from 1 January 2017, including the appointment of Vivianne Blanlot as Sustainability and Stakeholder Management Committee Chairman.

We also conducted our second externally-facilitated Board and Board Committee effectiveness review during the year. This exercise has supported our view that significant improvements have been made in recent years. Further details are set out on pages 82 to 83.

### **Q** How do the Board and management of the Company differ from other UK listed companies?

As noted in my introductory letter at the beginning of this Annual Report, Chile holds 30% of global copper reserves, and the Group's operations, corporate headquarters and all of our senior management are based in Chile. Understanding the country and, in particular, mining in Chile, is essential for our Board.

The Board comprises a strong mix of Chilean and international Directors with mining experience in Chile, and during 2016 all Directors made a concerted effort to visit the Group's operations.

At the management level, the Group competes for talent with international and local businesses in Chile. This means that our approach to remuneration needs to take into account local market conditions and locally available remuneration structures.

The Group CEO is not a director. This is consistent with practice in Chile where local law prohibits CEOs of public companies from being directors of those companies. Nevertheless, we voluntarily disclose his remuneration as if he were a member of the Board. Further details are set out in the 2016 Remuneration Report on pages 100 to 111.

Members of my family are also on the Board and on the Executive Committee. I am Non-Executive Chairman of the Company, my brother Andrónico Lukšic C is a Non-Executive Director and my nephew Andrónico Lukšic L is Vice President of Development.

Members of the Lukšic family are interested in the E. Abaroa Foundation, which is a controlling shareholder of the Company under the Listing Rules. Further details of the Company's substantial shareholders are set out on page 70.

### **Q** How does the absence of an executive as a director affect the interaction between Non-Executive Directors and management?

In practice, the interaction between the Board and executive management is as you would expect between Non-Executive Directors and management in a typical UK-listed company.

Our Group CEO and Group CFO are invited to attend all Board meetings, our Group CEO is also invited to attend all Committee meetings and there is regular formal and informal dialogue between management and the Board.

The Board considers that there are considerable benefits associated with having a Board comprising exclusively Non-Executive Directors. Not only does it provide a broad range of perspectives, but also encourages robust debate with the Group's executive management.

We remain satisfied that the current structure ensures rigorous and effective oversight of the management team and do not currently expect it to change.

### **Q** How would you describe the Group's culture?

As a Board, we actively promote the values that have been developed and set by our employees. These values reflect our industry, the nature of our Company and Chilean culture. They include taking responsibility for safety

and health, respecting one another and being innovative in our approach and processes.

It is the Board's responsibility to ensure that our values continue to be relevant and aligned with the expectations of our stakeholders.

During 2017, our human resources team, under the supervision of the Remuneration and Talent Management Committee, will engage further with our employees and other relevant stakeholders to ensure that our current values continue to be embedded across the business and that expected behaviours are consistent with those values. Further details are set out on page 74.

#### **Q Are you satisfied with the current Board composition?**

Yes. We have a diverse Board comprising Directors with a broad and complementary spectrum of skills, personalities and competencies.

As at the date of this report the Board has 11 Directors, comprising a Non-Executive Chairman and ten Non-Executive Directors, five of whom are independent.

The Directors' biographies provide details of their Committee memberships as well as other principal directorships and external roles, and demonstrate a detailed knowledge of the mining industry, significant international business experience and a diversity of core

skills and experience, as well as gender. All of the Directors have confirmed that their other commitments do not prevent them from devoting sufficient time to their roles. Further details are set out on pages 72 to 74.

#### **Q What drives the Board's approach to succession planning?**

With support from the Nomination and Governance Committee, the Board bases succession plans on the need to maintain a broad and complementary spectrum of skills, personalities and competencies on the Board.

To assist in this, the Board adopted the skills matrix set out on page 73 during 2016. This was used to assist with the recruitment process that led to the appointment of Francisca Castro and also to update the succession plans for key Board and Committee roles.

#### **Q Will there be any further changes to the Board and its Committees in 2017?**

We do not expect there to be any major changes in 2017.

As always, I welcome questions or comments from shareholders at the Annual General Meeting.

**JEAN-PAUL LUKSIC  
CHAIRMAN**

## CORPORATE VALUES



**RESPECT**



**INNOVATION**



**SAFETY AND  
HEALTH**



**EXCELLENCE**



**SUSTAINABILITY**



**FORWARD  
THINKING**

## UK CORPORATE GOVERNANCE CODE COMPLIANCE STATEMENT

The UK Corporate Governance Code issued by the Financial Reporting Council in September 2014 (available on the Financial Reporting Council website at [www.frc.org.uk](http://www.frc.org.uk)) sets out the governance principles and provisions that applied to the Company during the 2016 financial year.

The Company complied with all of the detailed provisions of the Code in 2016.



## LEADERSHIP

### SENIOR INDEPENDENT DIRECTOR'S Q&A



#### Q How do you see your role as Senior Independent Director?

It is my responsibility to support the Chairman on a number of levels. A major part is to ensure that he has a direct channel of communication to understand the issues that are especially important to the Board's independent Non-Executive Directors and to the Company's shareholders.

I am based in the UK which allows me to keep in touch with shareholders, directors at other UK-listed companies and advisers, to ensure that the Chairman, the Board and the Group as a whole receive independent and objective feedback and challenge.

#### Q Are there any additional responsibilities attaching to this role given the Company has a controlling shareholder?

The Company has had a controlling shareholder for 36 years. Although the controlling shareholder's track record has been excellent and speaks for itself, the Company's obligations towards all its shareholders are always given the highest level of importance. It is part of my role to ensure that this continues to be the case and to give all shareholders a route by which they can make their opinions known.

In addition to the regulatory requirement for related party transactions outside the ordinary course of business to be subject to independent assessment and approval, the Company has for many years presented any such proposed related party transaction (regardless of its size) between the Company and the controlling shareholder

or its associates to a committee of Directors who are independent from the controlling shareholder for approval.

In addition, as a Board, we are satisfied that the balance of the Board, in terms of background and independence, limits the scope for an individual or small group of individuals to dominate the Board's decision-making.

#### Q What steps were taken by the Board to provide for an orderly succession to the role of Senior Independent Director?

I have been a Director of the Company since 2011. Since then, I have had a number of opportunities to gather perspectives on the Group from independent Directors and shareholders and other stakeholders.

Before my appointment as Senior Independent Director, I was approached by former Senior Independent Director, William Hayes, and the Chairman to discuss the responsibilities and expectations of the role. Together, we decided that the transition should commence with a number of meetings with shareholders and proxy voting advisers to gauge their views on the change and also on management and the Board. These meetings also enabled us to continue to foster the channels of communication and relationships established by Mr Hayes during his tenure as Senior Independent Director.

**OLLIE OLIVEIRA**  
SENIOR INDEPENDENT  
DIRECTOR

#### /// OLLIE OLIVEIRA, SENIOR INDEPENDENT DIRECTOR

## THE COMPANY'S OBLIGATIONS TOWARDS SHAREHOLDERS ARE ALWAYS GIVEN THE HIGHEST LEVELS OF IMPORTANCE

### SUBSTANTIAL SHAREHOLDINGS

As at 31 December 2016 and 13 March 2017, the following significant holdings of voting rights in the share capital of the Company had been disclosed to the Company under Disclosure and Transparency Rule 5:

| SHAREHOLDER                 | ORDINARY SHARE CAPITAL % | PREFERENCE SHARE CAPITAL % | TOTAL SHARE CAPITAL % |
|-----------------------------|--------------------------|----------------------------|-----------------------|
| 1 Metalinvest Establishment | 50.72                    | 94.12                      | 58.04                 |
| 2 Kupferberg Establishment  | 9.94                     | -                          | 8.27                  |
| 3 Aureberg Establishment    | 4.26                     | -                          | 3.54                  |

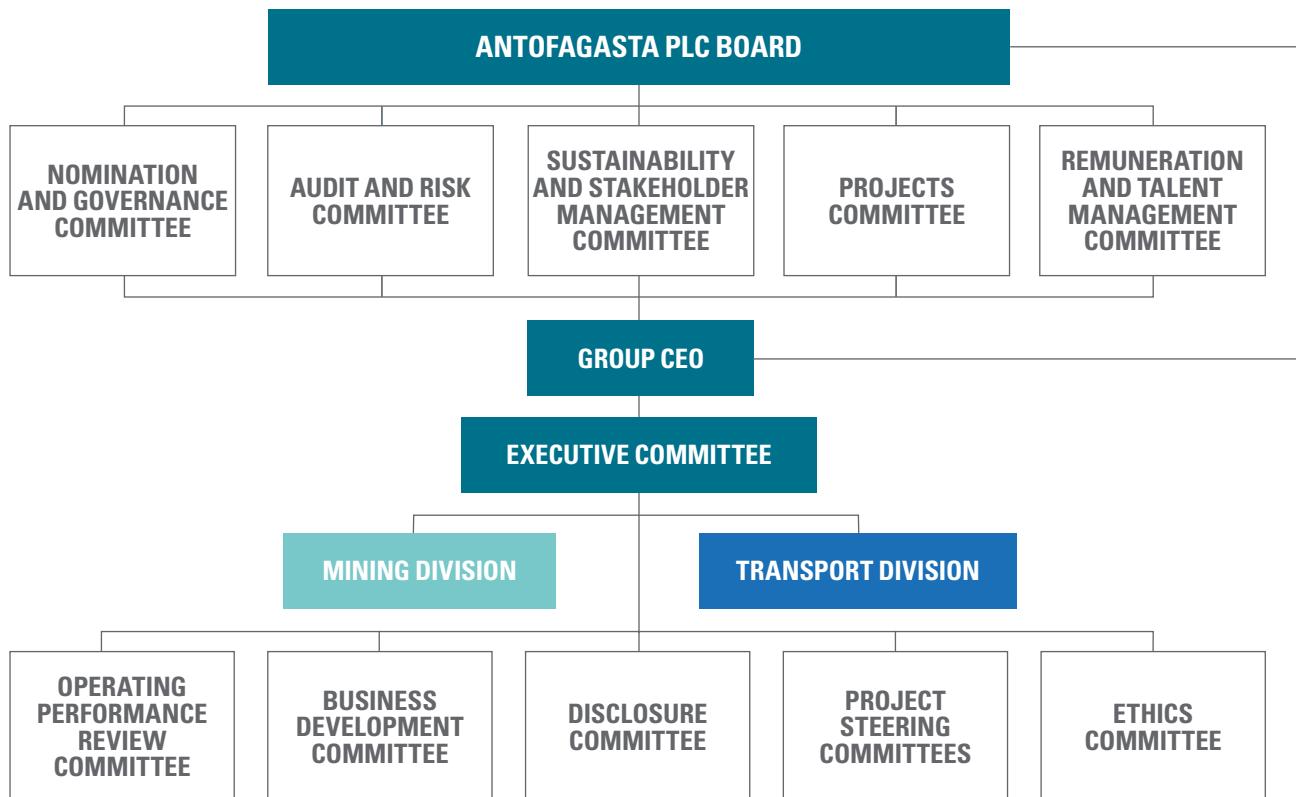
Metalinvest Establishment and Kupferberg Establishment are both controlled by the E. Abaroa Foundation ("Abaroa"), in which members of the Lukšić family are interested. As explained in Note 37 to the Financial Statements, Metalinvest Establishment is the immediate Parent Company of the Group and the E. Abaroa Foundation is the ultimate Parent Company. Aureberg Establishment is controlled by the Severe Studere Foundation that, in turn, is controlled by Jean-Paul Lukšić, the Chairman of the Company.

### RELATIONSHIP AGREEMENT

Abaroa is a controlling shareholder of the Company under the Listing Rules and certain other shareholders of the Company (including Aureberg Establishment) are also treated as controlling shareholders.

In 2014 the Company entered into relationship agreements in respect of each controlling shareholder, which contain the mandatory independence provisions required by the Listing Rules. The Company has complied and, so far as the Directors are aware, each controlling shareholder and its associates has complied, with the mandatory independence provisions at all times during 2016. So far as the Directors are aware, Abaroa has procured of that each of Metalinvest Establishment and Kupferberg Establishment have also complied with these provisions.

## HOW WE ARE GOVERNED



### ANTOFAGASTA PLC BOARD

The Board is collectively responsible for the long-term success of the Group. It is responsible for its leadership and strategic direction, for the oversight of the Group's performance, risk and internal control systems and for ensuring that the Company acts in the best interests of all shareholders and has regard for the interests of stakeholders.

#### KEY RESPONSIBILITIES

- Strategy
- Governance
- Internal controls and risk management
- Approving material transactions
- Financial and performance reporting
- Shareholder engagement

**+ Matters which need to be decided by the Board are set out in the Schedule of Matters Reserved for the Board, which is available on the Company's website at [www.antofagasta.co.uk](http://www.antofagasta.co.uk)**

### BOARD COMMITTEES

The Board is assisted in the fulfilment of its responsibilities by five Board Committees. The Board has delegated authority to the Committees to perform certain activities as set out in their terms of reference.

The Chairman of each Committee reports to the Board following each Committee meeting, allowing the Board to understand and discuss matters considered in detail by the Committees and to consider their recommendations.

In 2016, the terms of reference for each Committee were reviewed, and where necessary, amended. They are available on the Company's website at [www.antofagasta.co.uk](http://www.antofagasta.co.uk).

#### KEY RESPONSIBILITIES

The key responsibilities of each Committee are set out on page 84.

**+ A summary of the activities of each of the committees during the year is set out on pages 85 to 98.**

### GROUP CEO AND EXECUTIVE COMMITTEE

The Board has delegated responsibility for implementing the Group's strategy to the Company's CEO, Iván Arriagada.

Mr Arriagada is not a Director of the Company but is invited to attend all Board and Committee meetings and is supported by the members of the Executive Committee who each have executive responsibility for their functions. Mr Arriagada chairs the Executive Committee.

The Executive Committee reviews significant matters and approves capital expenditure within designated authority levels.

The Executive Committee leads the annual budgeting and planning processes, monitors the performance of the Group's operations and investments, and promotes the sharing of best practices and policies across the Group.

**+ Executive Committee biographies are set out on pages 76 and 77.**

### SUBCOMMITTEES OF THE EXECUTIVE COMMITTEE

The Executive Committee is assisted in the performance of its responsibilities by the Operating Performance Review Committee, the Business Development Committee, the Disclosure Committee and, from time to time, Project Steering Committees.

Members of the Executive Committee also sit on the boards of the Group's operating companies and report to the Board, Mr Arriagada and the Executive Committee on the activities of those companies.

The Disclosure Committee was formally established following the introduction of the EU Market Abuse Regulation and is responsible for identifying and managing the disclosure of information to investors.

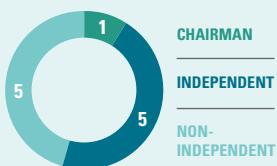
The Ethics Committee is responsible for implementing, developing and updating the Group's Code of Ethics and monitoring compliance.

**+ Executive Committee members' roles are set out on pages 76 and 77.**

# STRINGENT OVERSIGHT

## BOARD BALANCE

### INDEPENDENCE



### GENDER DIVERSITY



### TENURE



### NATIONALITY



In addition, "A Report into the Ethnic Diversity of UK Boards" (Sir John Parker, The Parker Review Committee, 2 November 2016), identified seven Directors as being from an ethnic minority background (which includes individuals with South American heritage).



From left to right: Jorge Bande, Juan Claro, Gonzalo Menéndez, Francisca Castro, Jean-Paul Luksic, Vivianne Blanlot, Ollie Oliveira, Tim Baker, William Hayes, Andrónico Luksic C, Ramón Jara.

### JEAN-PAUL LUKSIC

Chairman, 52



*Independent:* No

*Appointed to the Board 1990*

*Appointed Chairman 2004\**

Over 25 years' experience with Antofagasta, including responsibility for overseeing development of the Los Pelambres and El Tesoro (Centinela Cathodes) mines.

\* Non-Executive since 2014.

### PREVIOUS ROLES

- CEO of the Group's mining division

### CURRENT POSITIONS

- Chairman of the Consejo Minero, the industry body representing the largest mining companies in Chile
- Non-Executive Director of Quiñenco S.A. and other listed companies in the Quiñenco group, including Banco de Chile and Sociedad Matriz SAAM S.A.



Meeting attendance

### OLIE OLIVEIRA

Senior Independent Director, 65



*Independent:* Yes

*Appointed to the Board 2011*

*Appointed Senior Independent Director 2016*

Chartered accountant, management accountant and economist with over 35 years of strategic and operating experience in the mining industry and corporate finance.

### PREVIOUS ROLES

- Senior executive positions within the Anglo American group, including Executive Director Corporate Finance and Head of Strategy and Business Development of De Beers S.A.



Meeting attendance

### GONZALO MENÉNZ

Non-Executive Director, 68

*Independent:* No

*Appointed to the Board 1985*

Commercial engineer and economist with extensive experience in commercial and financial businesses across South America.

### CURRENT POSITIONS

- Chairman of the Board of Directors of Banco Latinoamericano de Comercio Exterior S.A. (Bladex)
- Director of Quiñenco S.A. and other listed companies in the Quiñenco group, including Banco de Chile



Meeting attendance

### COMMITTEES

AR Audit and Risk

PC Projects

RT Remuneration and Talent Management

NG Nomination and Governance

ST Sustainability and Stakeholder Management

C Chairman

## BOARD SKILLS MATRIX

| DIRECTOR           | INDEPENDENCE | CEO EXPERIENCE | MINING EXPERIENCE | MINING OPERATIONS EXPERIENCE | BOARD GOVERNANCE | FINANCIAL | LEGAL | EXECUTIVE COMPENSATION | LATIN AMERICAN EXPERIENCE | UK MARKET | PROJECT MANAGEMENT | SUSTAINABILITY | ENERGY | GOVERNMENT RELATIONS | COMMUNICATION |
|--------------------|--------------|----------------|-------------------|------------------------------|------------------|-----------|-------|------------------------|---------------------------|-----------|--------------------|----------------|--------|----------------------|---------------|
| Jean-Paul Luksic   |              | ✓              | ✓                 |                              | ✓                | ✓         |       | ✓                      | ✓                         | ✓         | ✓                  |                | ✓      | ✓                    |               |
| Ollie Oliveira     | ✓            | ✓              | ✓                 |                              | ✓                | ✓         |       | ✓                      | ✓                         | ✓         | ✓                  |                | ✓      | ✓                    |               |
| Gonzalo Menéndez   | ✓            | ✓              |                   |                              | ✓                | ✓         |       | ✓                      | ✓                         |           |                    |                | ✓      | ✓                    |               |
| Ramón Jara         |              |                | ✓                 |                              | ✓                | ✓         | ✓     |                        | ✓                         |           |                    | ✓              | ✓      | ✓                    | ✓             |
| Juan Claro         |              | ✓              |                   |                              | ✓                |           |       | ✓                      | ✓                         |           |                    | ✓              | ✓      | ✓                    | ✓             |
| William Hayes      | *            | ✓              | ✓                 |                              | ✓                | ✓         |       | ✓                      | ✓                         |           | ✓                  |                | ✓      | ✓                    |               |
| Tim Baker          | ✓            |                | ✓                 | ✓                            | ✓                |           |       | ✓                      | ✓                         |           | ✓                  | ✓              |        |                      |               |
| Andrónico Luksic C |              | ✓              |                   |                              | ✓                | ✓         |       | ✓                      | ✓                         |           |                    |                | ✓      | ✓                    |               |
| Vivianne Blanlot   | ✓            |                |                   |                              | ✓                |           |       | ✓                      |                           |           |                    | ✓              | ✓      | ✓                    | ✓             |
| Jorge Bande        | ✓            | ✓              | ✓                 |                              | ✓                | ✓         |       | ✓                      | ✓                         |           | ✓                  |                | ✓      | ✓                    | ✓             |
| Francisca Castro   | ✓            |                | ✓                 |                              | ✓                | ✓         |       | ✓                      |                           |           | ✓                  |                | ✓      | ✓                    |               |

\* The Board reviews the independence of all Directors annually. On 24 January 2017, the Board determined that Mr Hayes should be re-designated as a non-independent Director on the basis that, as at the date of the 2017 Annual General Meeting, Mr. Hayes will have served on the Board for ten years following the date of his first election by shareholders. In reaching this decision, the Board noted that apart from length of service, none of the other indications of non-independence set out in Provision B.1.1. of the UK Corporate Governance Code apply to Mr. Hayes.

### RAMÓN JARA

Non-Executive Director, 63



Independent: No

Appointed to the Board 2003  
Lawyer with considerable legal and commercial experience in Chile.

### CURRENT POSITIONS

- Chairman of the Fundación Minera Los Pelambres (charitable foundation)
- Director of the Fundación Andrónico Luksic A (charitable foundation)



Meeting attendance

### JUAN CLARO

Non-Executive Director, 66



Independent: No

Appointed to the Board 2005  
Extensive industrial experience in Chile, including an active role representing Chilean industrial interests nationally and internationally.

### PREVIOUS ROLES

- Chairman of the Sociedad de Fomento Fabril (Chilean Society of Industrialists)
- Chairman of the Confederación de la Producción y del Comercio (Confederation of Chilean Business)
- Chairman of the Consejo Binacional de Negocios Chile-China (Council for Bilateral Business Chile-China)

### CURRENT POSITIONS

- Chairman of Coca-Cola Andina S.A. and Energía Coyanco S.A.
- Director of several other companies in Chile, including Empresas Cementos Melon and Agrosuper
- Member of the governing board of Centro de Estudios Públicos, a Chilean not-for-profit foundation



Meeting attendance

### WILLIAM HAYES

Non-Executive Director, 72



Independent: No\*

Appointed to the Board 2006  
Extensive financial and operating experience in the copper and gold mining industries, in Chile, Latin America, North America and South Africa.

### PREVIOUS ROLES

- Senior executive with Placer Dome Inc.
- Chairman of the Consejo Minero, the industry body representing the largest mining companies operating in Chile
- Chairman of the Gold Institute in Washington DC

### CURRENT POSITIONS

- Chairman of Royal Gold Inc



Meeting attendance

### TIM BAKER

Non-Executive Director, 64



Independent: Yes

Appointed to the Board 2011  
Geologist with significant mining operations experience across North and South America and Africa, which has included managing mines in Chile, the United States, Tanzania and Venezuela and geological and operating roles in Kenya and Liberia.

### PREVIOUS ROLES

- Vice President and Chief Operating Officer at Kinross Gold Corporation
- General Manager of Placer Dome Chile

### CURRENT POSITIONS

- Chairman of Golden Star Resources
- Director of Sherritt International Corporation
- Director of Rye Patch Gold Corporation



Meeting attendance

## LEADERSHIP

### BOARD OF DIRECTORS CONTINUED

#### ANDRÓNICO LUKSIC C

Non-Executive Director, 62

*Independent:* No

*Appointed to the Board 2013*  
Extensive experience across a range of business sectors throughout Chile, Latin America and Europe.

#### CURRENT POSITIONS

- Chairman of Quiñenco S.A. and Compañía Cervecerías Unidas S.A., Vice Chairman of Banco de Chile and Compañía Sudamericana de Vapores S.A., and a director of Tech Pack S.A., all of which are listed companies in the Quiñenco group
- Director of Nexans S.A., a company listed on NYSE Euronext Paris.



**Meeting attendance**

#### VIVIANNE BLANLOT

Non-Executive Director, 62



*Independent:* Yes

*Appointed to the Board 2014*  
Economist with extensive experience across the energy, mining, water and environmental sectors in the public and private sectors in Chile.

#### PREVIOUS ROLES

- Executive Director of the Comisión Nacional de Medio Ambiente (Environmental Agency in Chile)
- Undersecretary of Comisión Nacional de Energía (National Energy Commission in Chile)
- Minister of Defence

#### CURRENT POSITIONS

- Director of Colbún S.A., an energy company listed in Chile
- Director of Scotiabank Chile
- Member of the Consejo para la Transparencia (Transparency Council), the Chilean body responsible for enforcing transparency in the public sector



**Meeting attendance**

#### JORGE BANDE

Non-Executive Director, 64



*Independent:* Yes

*Appointed to the Board 2014*  
Economist with over 30 years' experience in the mining industry.

#### PREVIOUS ROLES

- Co-founder and Executive Director of Copper and Mining Studies ("CESCO"), an independent not-for-profit think tank focused on mining policy issues
- Vice President of Development and later director of Codelco
- CEO of AMP Chile
- Adviser to the World Bank
- Member of the Global Agenda Council for Responsible Minerals Resource Management at the World Economic Forum
- Director of Edelnor S.A., Electroandina S.A. (now E-CL S.A.) and Bupa Chile S.A.

#### CURRENT POSITIONS

- Director of CESCO, Inversiones Aguas Metropolitanas S.A.
- Professor of the International Post-Graduate Programme in Mineral Economics at the University of Chile
- Member of the Experts Committee for Copper Prices for the Chilean Ministry of Finance



**Meeting attendance**

#### FRANCISCA CASTRO

Non-Executive Director, 54



*Independent:* Yes

*Appointed to the Board 2016*  
Commercial engineer with over 25 years' experience in industries including mining, energy, finance and public/private infrastructure projects in the US and in Chile.

#### PREVIOUS ROLES

- Business Development Manager at Codelco
- Various roles within the Chilean Government
- World Bank, Washington



**Meeting attendance**

## CULTURE CASE STUDY

A steering committee was established in 2013 under the supervision of the Remuneration and Talent Management Committee to engage with employees to develop and adopt a charter of values and leadership model for the Group. 75% of the Group's employees participated in the process and in the Group's 2014 engagement survey, 90% of employees confirmed their understanding and alignment with these values.

A management committee has been established in 2017 to design and implement a cultural reinforcement process in consultation with employees and key stakeholders. This committee will:

- Review existing data to understand the current state of development of the Group's organisational culture.
- Analyse the results to identify key areas for improvement.
- Propose action plans to the Executive Committee.
- Present results to the Remuneration and Talent Management Committee for discussion at the Board.
- Monitor and reinforce the effectiveness of the Group's organisational culture assessment.



## LEADERSHIP

### THE BOARDROOM



**CHAIRMAN**  
**GROUP CEO**  
**EXECUTIVE COMMITTEE MEMBERS**  
**SENIOR INDEPENDENT DIRECTOR**

**NON-INDEPENDENT DIRECTOR**  
**INDEPENDENT DIRECTOR**  
**SECRETARY TO THE BOARD/ COMPANY SECRETARY**

## ROLES

### CHAIRMAN

Jean-Paul Luksic Non-Executive Chairman

- Leads the Board and ensures its effectiveness in all aspects of its duties.
- Promotes the highest standards of integrity, probity and corporate governance.
- Sets the agenda for Board meetings in consultation with the Secretary to the Board, other Directors and members of senior management.
- Chairs meetings and ensures that there is adequate time available for discussions of all agenda items with a focus on strategic, rather than routine, issues.
- Promotes a culture of openness and debate within the Board by facilitating the effective contribution of all Directors.
- Oversees Director development, induction, performance review and relations with shareholders.

### SENIOR INDEPENDENT DIRECTOR

Ollie Oliveira

- Provides a sounding board for the Chairman and supports the Chairman in the delivery of his objectives as required.
- Where necessary, acts as an intermediary between the Chairman and the other members of the Board or the Group CEO.
- Acts as an additional point of contact for shareholders, focusing on the Group's governance and strategy, and gives shareholders a means of raising concerns other than with the Chairman or senior management.

### NON-EXECUTIVE DIRECTORS

Ramón Jara  
Andrónico Luksic C  
Gonzalo Menéndez  
Juan Claro  
William Hayes

The Board does not consider these Directors to be independent because they do not meet one or more of the independence criteria set out in the UK Corporate Governance Code.\*

- Provide a range of outside perspectives to the Group and encourage robust debate with, and challenge of, the Group's executive management.
- Ensure that no individual or small group of individuals can dominate the Board's decision-making.

### INDEPENDENT NON-EXECUTIVE DIRECTORS

Tim Baker  
Ollie Oliveira  
Vivianne Blanlot  
Jorge Bande  
Francisca Castro

These Directors meet the independence criteria set out in the UK Corporate Governance Code and the Board is satisfied that they are independent.

- No connection with the Group or any other Director which could be perceived to compromise independence.
- Provide a range of outside perspectives to the Group and encourage robust debate with, and challenge of, the Group's executive management.
- Ensure that no individual or small group of individuals can dominate the Board's decision-making.

### GROUP CEO

Iván Arriagada Not a Director

- Leads the implementation of the Group's strategy set by the Board.
- Leads the Executive Committee and ensures its effectiveness in all aspects of its duties.
- Provides information to the Board and participates in Board discussion in connection with day-to-day activities of the Group.

### EXECUTIVE COMMITTEE MEMBERS

See pages 76 to 77 Not Directors

- Present proposals, recommendations and information to the Board within their areas of responsibility.

### SECRETARY TO THE BOARD / COMPANY SECRETARY

Sebastián Conde

- Provides a conduit for Board and Committee communications and provides a link between the Board and management.
- Ensures Board members have access to the information they need to perform their roles.

Julian Anderson

- Based in London. Works closely with the Secretary to the Board to provide a conduit between shareholders, the Board and management in connection with UK Corporate Governance and listing obligations.

\* Ramón Jara provides advisory services to the Group. Andrónico Luksic C is the brother of Jean-Paul Luksic, the Chairman of the Company and is Chairman of Quiñenco S.A. and Chairman or a Director of Quiñenco's other listed subsidiaries. Jean-Paul Luksic and Gonzalo Menéndez are also Non-Executive Directors of Quiñenco and some of its listed subsidiaries. Like Antofagasta plc, Quiñenco is controlled by a foundation in which members of the Luksic family are interested. Juan Claro and William Hayes have served on the Board for more than nine years from the date of their first election. The Board re-designated William Hayes as a non-independent Director on 24 January 2017.

# AN EXPERIENCED MANAGEMENT TEAM



## ① IVÁN ARRIAGADA

Group CEO



*Joined the Group in 2015*

Commercial engineer and economist with over 20 years' experience in the mining and oil and gas sectors.

## PREVIOUS ROLES

- Chief Financial Officer of Codelco
- Various positions at BHP Billiton, including President of Pampa Norte (Spence and Cerro Colorado), Vice President Operations and Chief Financial Officer of the Base Metals division
- Over 15 years of international experience with Shell in Chile, the United Kingdom, Argentina and the United States

## ⑥ ANDRÓNICO LUKSIC L.

Vice President of Development



*Joined the Group in 2006*

Business administrator with broad mining experience in sales, exploration, development and general management.

## PREVIOUS ROLES

- Corporate Manager at Antofagasta Minerals
- Director, Antofagasta Minerals Toronto Office
- Various positions at Banco de Chile

## KEY TO COMMITTEES

- OP** Operating Performance Review Committee
- BD** Business Development Committee
- E** Ethics Committee
- D** Disclosure Committee

**② ALFREDO ATUCHA**

Group CFO



*Joined the Group in 2013*  
 Accountant and economist with over 30 years of financial experience in the mining, metals, energy and fast moving consumer goods sectors.

**PREVIOUS ROLES**

- 10 years' service at BHP Billiton as Vice President of Finance for Minera Escondida and Senior Manager of Base Metals Major Projects
- Finance and Administration Manager at Chilquinta Energía (part of Sempra Energy and PSG Group)
- CFO at Reckitt Benckiser in Spain, Brazil and Chile
- Tax Planning and Treasury at British American Tobacco

**⑦ ANA MARÍA RABAGLIATI**

Vice President of Human Resources



*Joined the Group in 2013*  
 Human resources specialist with more than 25 years' experience in international companies across a range of sectors, including financial services, industrials and oil and gas.

**PREVIOUS ROLES**

- Corporate Human Resources Manager at Masisa
- Country Human Resources Vice President at Citigroup
- Human Resources Manager at the Lafarge Group in Chile
- Various positions at Shell, including Human Resources Manager at the Lubricants Business of Shell Oil Latin America

**③ HERNÁN MENARES**

Vice President of Operations



*Joined the Group in 2008*  
 Mining engineer and mineral economist, with 30 years' experience in mining.

**PREVIOUS ROLES**

- Project Development Manager for the Centinela District
- Operating and business planning roles at Codelco
- Various positions at Compañía Minera del Pacífico and Compañía Minera Huasco S.A.

**④ RENÉ AGUILAR**

Vice President of Corporate Affairs and Sustainability



*Joined the Group in 2017*  
 Industrial psychologist with 20 years' experience in mining, including in sustainability, safety, human resources and corporate affairs.

**PREVIOUS ROLES**

- Group Head of Safety at Anglo American plc, London
- Vice President of Corporate Affairs and Sustainability at Codelco, Chile
- Health and Safety Director at International Council on Mining and Metals (ICMM), London

**⑤ PATRICIO ENEI**

Vice President of Legal



*Joined the Group in 2014*  
 Lawyer with over 20 years' experience in mining, including roles at some of the largest international copper companies operating in Chile.

**PREVIOUS ROLES**

- General Counsel at Codelco
- Corporate Affairs Manager of Minera Escondida
- Senior lawyer at BHP Billiton in Chile
- Chief Legal Counsel at Minera Doña Inés de Collahuasi
- Lawyer at the Instituto de Normalización Provisional and in private practice

**⑧ GONZALO SÁNCHEZ**

Vice President of Sales

*Joined the Group in 1996*  
 Civil engineer with over 25 years' experience in marketing and hedging metals.

**PREVIOUS ROLES**

- Deputy Commercial Director, Antofagasta Minerals
- Copper sales at Codelco

**⑨ FRANCISCO VELOSO**

Vice President of Institutional Relations



*Joined the Group in 1993*  
 Lawyer with over 20 years' experience with Antofagasta Minerals, including oversight of critical phases of development at Los Pelambres.

**PREVIOUS ROLES**

- Vice President of Corporate Affairs and Sustainability at Antofagasta Minerals
- Vice President of Legal and Corporate Affairs at Antofagasta Minerals
- Vice President of Human Resources at Antofagasta Minerals
- General Counsel at Los Pelambres
- Legal Manager at VTR
- Chief lawyer at Michilla

# THE BOARD'S ACTIVITIES

## 2016 BOARD ACTIVITIES\*

### STRATEGY AND MANAGEMENT

- Held a standalone strategy day with particular focus on operating strategy, risk management, Board decision-making, competitiveness and costs, and culture
- Reviewed the Group's mining, transport and energy strategies, including projects and business development opportunities
- Reviewed and monitored the implementation of strategy and the performance of each Executive Committee members' team during the year
- Met consultants and experts to discuss copper market fundamentals and expectations for the future
- Reviewed the Group's labour relations strategy following the implementation of new labour legislation in Chile

### INTERNAL CONTROLS AND RISK MANAGEMENT

- Oversaw a review of the Group's internal control and risk management systems
- Oversaw the successful implementation of SAP, the new Group enterprise resource planning ("ERP") system
- Oversaw the continued optimisation of the Group's corporate structure
- Reviewed compliance with financial, regulatory and environmental commitments

### GOVERNANCE AND STAKEHOLDER ENGAGEMENT

- Met shareholders and proxy advisers to discuss corporate governance issues
- Facilitated an external review of the Board's effectiveness
- Following implementation of the EU Market Abuse Regulation, approved amendments to the Group's systems and procedures, including formally establishing the Disclosure Committee

### BOARD AND SENIOR MANAGEMENT STRUCTURE

- Approved the appointment of Francisca Castro as an independent Non-Executive Director
- Reviewed succession plans for all Directors and members of senior management
- Oversaw the CEO transition from Diego Hernández to Iván Arriagada
- Implemented the functional simplification project to minimise inefficiencies and focus the Group's operating companies on safety, achieving production targets and cost control

### OPERATIONS AND MATERIAL TRANSACTIONS

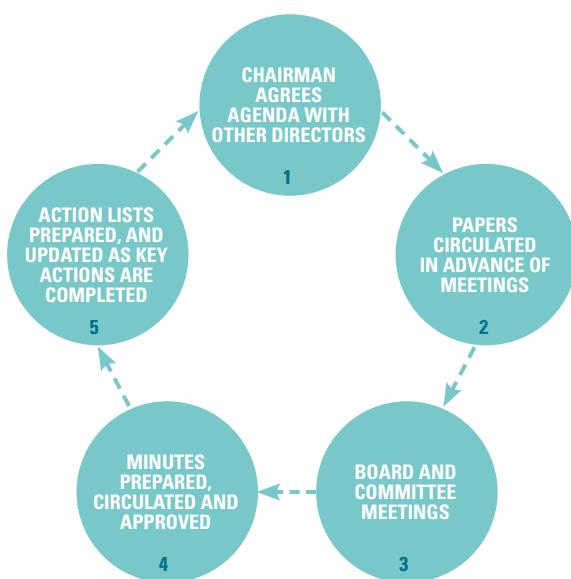
- Approved key steps in the Group's growth plans
- Oversaw the resolution of challenges with thickeners at Centinela and dust control at Antucoya
- Oversaw the resolution of a long-running disputes with the Caimanes community at Los Pelambres
- Oversaw enhancement of the Group's maintenance, organisation and reliability strategy
- Approved the sale of Michilla
- Approved the transfer of the Group's 40% interest in the Alto Maipo project to AES Gener
- Visited the Group's operations and projects

### FINANCIAL AND PERFORMANCE REPORTING

- Approved the Group's annual and half-year results
- Reviewed the Group's ongoing capital management strategy and approved the interim dividends paid out to shareholders during 2016
- Reviewed the Group's performance against KPIs, including safety indicators
- Reviewed and monitored the Group's operating and project performance
- Supported and encouraged management in cutting costs, both generally and as part of the Cost and Competitiveness Programme
- Approved the Group's 2016 budget, scorecard, commercial and financial parameters, and base case and development case production scenarios
- Incorporated a captive insurance company to optimise the Group's insurance coverage and costs

\* The Board met nine times during the year. Each Director withdrew from any meeting when his or her own position was being considered. All Directors then in office attended the 2016 Annual General Meeting.

## BOARD AND COMMITTEE MEETING INFORMATION FLOWS



## 2017 BOARD CALENDAR

### TOPICS\*

| Q1   | Q2  | Q3  | Q4   |
|--|---|---|--|
| <ul style="list-style-type: none"> <li>- 2016 Q4 production report</li> <li>- 2016 performance scorecard results</li> <li>- Compliance report</li> <li>- Insurance strategy and risk review</li> <li>- Conflicts of interest review</li> </ul> | <ul style="list-style-type: none"> <li>- 2016 full-year results</li> <li>- Risk strategy and principal risk review</li> <li>- Human resources strategy and risk review</li> <li>- Competitiveness and costs programme – 2017</li> </ul> | <ul style="list-style-type: none"> <li>- Q1 production report</li> <li>- Projects strategy and risk review</li> <li>- Sustainability strategy and risk review</li> <li>- Sustainability report</li> <li>- Legal strategy</li> <li>- AGM agenda</li> </ul> | <ul style="list-style-type: none"> <li>- Operations base case</li> <li>- Exploration strategy and risk review</li> <li>- Resources and reserves</li> <li>- Safety and health strategy and risk review</li> <li>- Group strategy and risk review</li> <li>- Development case</li> </ul> |
| <ul style="list-style-type: none"> <li>- Q2 production report</li> <li>- Half-year financial report</li> <li>- 2018 sales strategy and risk review</li> <li>- Commercial and financial budget parameters</li> </ul>                            | <ul style="list-style-type: none"> <li>- Sulphuric acid strategy and risk review</li> <li>- Compliance report</li> <li>- Talent/succession plans</li> </ul>   | <ul style="list-style-type: none"> <li>- Q3 production report</li> <li>- Energy strategy and risk review</li> <li>- 2018 board calendar and agenda topics</li> </ul>  | <ul style="list-style-type: none"> <li>- Financing strategy and risk review</li> <li>- 2018 budget</li> <li>- 2018 performance scorecard</li> <li>- Human resources update</li> </ul>  |

\* These are the standing topics to be considered by the Board in 2017. Each Board meeting starts and ends with a short session without management present to allow Directors to set expectations for the meeting and to reflect and evaluate the session at the end of the meeting.

# INFORMATION AND PROFESSIONAL DEVELOPMENT

All new Directors receive a thorough induction on joining the Board. This typically includes meetings with the Chairman, other Directors and senior executives, briefings on the Group's operations and projects, and visits to the Group's operations. All Directors receive detailed briefings on legal, regulatory and other developments that are relevant to directors of UK-listed companies.

The Company provides Directors with the necessary resources to maintain and enhance their knowledge and capabilities. Directors are regularly updated on the Group's businesses, the competitive and regulatory environment in which they operate and other changes affecting the Group as a whole. In 2016, this included a Board strategy session and briefings from industry experts on copper market dynamics and key changes to the regulatory and legal environment impacting the Group.

Directors based outside Chile visit Chile regularly to attend Board and Committee meetings and for other meetings with management. All Directors come to the UK at least once a year to attend the Company's Annual General Meeting in London.

The Board and its Committees receive briefing materials in advance of each meeting. Directors also receive regular reports including analysis of key metrics in respect of safety, operating, financial, environmental and social performance, as well as key developments in the Group's exploration, projects and business development activities, information on the commodity markets, the Group's talent management activities and analysis of the Group's financial investments.

Regular topics to be covered in Board meetings are agreed at the beginning of each year as shown on page 79. The CEO provides timely updates to the Board on emerging issues. Materials are sent to Board and Committee members a week in advance of each meeting. Each presentation has a summary sheet setting out the objective, background, proposal, justification and risk analysis, and next steps. Materials include the CEO's report, an open and candid summary of his views on evolving challenges, changes in risk assessments and emerging issues, as well as a management report, with detailed information on the Group's performance against key performance indicators. Directors receive flash reports monthly with key monthly and year-to-date production and financial results, ensuring that the Board is continuously updated on the Group's performance. The Board and each Committee maintain an action list that is reviewed at the beginning of each meeting to ensure that Directors' enquiries and concerns are clearly identified and addressed.

All Directors have access to management and to such further information as is needed to discharge their duties and responsibilities fully and effectively. Executives present to the Board and its Committees on operating and development matters, allowing close interaction between Board members and a wide range of executive management.

All Directors are entitled to seek independent professional advice concerning the affairs of the Group at the Company's expense. The Company has appropriate insurance in place to cover Directors against any claims that may be made against them.

## SITE VISITS

Directors are actively encouraged to visit the Group's operations. This ensures that there is a strong connection between the strategic decisions being made by the Board and the realities and challenges being faced day-to-day in the Group's operations. In 2016, individual Directors attended the Group's operations and projects, including the new operations Zaldívar and Antucoya. The Projects Committee also visited Los Pelambres and Centinela to see first-hand the challenges associated with the Los Pelambres Incremental Expansion Project, the Centinela Second Concentrator Project, the Centinela Molybdenum Plant and the Encuentro Oxides Project.



**FRANCISCA CASTRO, NON-EXECUTIVE DIRECTOR**

**MY THOROUGH INDUCTION HAS ENABLED ME TO UNDERSTAND THE GROUP'S BUSINESSES AND TO HEAR ABOUT THE CHALLENGES FACING THE GROUP FROM THE PEOPLE WHO DEAL WITH THEM EVERY DAY**

**FRANCISCA CASTRO – INDUCTION PROGRAMME****1 1 NOVEMBER 2016 – JOINED THE BOARD****NOVEMBER / DECEMBER 2016****BOARD INTRODUCTIONS, MEETINGS AND BRIEFINGS**

Inductions, meetings and briefings with the Chairman and other Directors, the Chairmen of the Audit and Risk and Remuneration and Talent Management Committees, the Group CEO, each member of the Executive Committee, the Company Secretary and the Secretary to the Board.

**SITE VISIT TO LOS PELAMBRES**

Tour of the mine and concentrator plant to review challenges and opportunities.

**MANAGEMENT BRIEFINGS***Group CEO:*

- Implementation of the Group's Strategy
- Culture
- Challenges and opportunities facing the Group
- Safety
- Production
- Costs
- Projects
- Business development

*Vice Presidents:*

- Financial position and outlook
- Audit plan
- Talent management strategy and compensation mechanisms
- Legal strategy and outstanding claims
- Exploration and business development opportunities
- Projects under execution and studies for future project development
- Challenges of the current copper market and the sales strategy
- The Group's new community relations model
- UK financial and tax regulations
- Overview of the Group's operations and the new Operating Model

*Company Secretary and Secretary to the Board:*

- Information flows and expectations of Directors
- Directors' duties and liabilities
- The Company's share dealing policy
- The Company's disclosure procedures
- The UK Corporate Governance Code
- Requirements of the EU Market Abuse Regulation
- Latest annual report and sustainability report

**3****1 JANUARY 2017 – JOINED THE AUDIT AND RISK AND REMUNERATION AND TALENT MANAGEMENT COMMITTEES**

# REVIEWING THE BOARD'S EFFECTIVENESS

Regular and candid effectiveness reviews are part of the Board's continuous improvement process.

## EXTERNAL REVIEW



### WHAT WE DID

As envisaged in the 2015 Annual Report, we asked Independent Audit Limited\* ("Independent Audit") to conduct an externally-facilitated review of the effectiveness of the Board and its Committees in January 2016 to:

- assess the Company's progress in closing gaps that were identified in the 2013 external review;
- evaluate the Company's response to the changes made to the UK Corporate Governance Code in 2014;
- analyse the Company's response to the new FRC guidance on Internal Control and Risk Management; and
- benchmark Board and Committee effectiveness against other large publicly-listed companies in the UK.

We then worked on addressing the opportunities for improvement identified by Independent Audit.

Independent Audit provided a progress report in January 2017 based on further interviews and observations so that we could focus further on specific areas for improvement in 2017 and beyond.

Significant improvements have been made to Board effectiveness over the last three years.

### WHAT WE ARE GOING TO DO

We will use the findings of the January 2017 progress report to make targeted additional improvements to Board and Committee effectiveness in 2017. This will include maintaining the strengths and continuing to address those areas identified in January 2016 as in need of further improvement.

## AREAS OF IMPROVEMENT IDENTIFIED IN JANUARY 2016

Independent Audit reported that significant improvements have been made to Board effectiveness following the changes that had been made to address the areas for improvement identified in 2013. In particular:

- the appointment of new independent Non-Executive Directors has improved Board balance and diversity;
- the appointment of a Santiago-based Secretary to the Board has significantly improved Board planning, organisation, focus and follow-up;
- specific requests made by the Board are followed through into agreed actions which are tracked and reviewed until they have been reported back to the Board;
- the Committees are functioning well, allowing the Board to receive more detail and enhanced visibility across the business;
- the introduction of a Projects Committee has improved Board oversight of project development and execution, informed capital allocation decisions and allowed the members of that Committee to add additional value to the management team; and
- the management team has been strengthened, resulting in the Board having even greater confidence in management.

## INTERNAL REVIEW

During the year, led by the Senior Independent Director, the Non-Executive Directors met without the Chairman present and reviewed the Chairman's effectiveness. The Senior Independent Director subsequently met with the Chairman to provide feedback. The Chairman used these comments to develop further the effective operation of the Board. In turn, the Chairman reviewed the individual effectiveness of each of the Non-Executive Directors.

\* Independent Audit Limited is an external independent adviser with no other connection to the Company.

## REVIEW OF THE EFFECTIVENESS OF THE BOARD 2016: UPDATE FEBRUARY 2017

# THE COMPANY HAS ADOPTED A RIGOROUS APPROACH TO REVIEWING THE EFFECTIVENESS OF ITS BOARD AND COMMITTEES

## OPPORTUNITIES FOR FURTHER IMPROVEMENT IDENTIFIED IN JANUARY 2016

Independent Audit reported that, although no major issues needed to be addressed in order to ensure that the Board and Committees continue to operate effectively, further improvements could be made by:

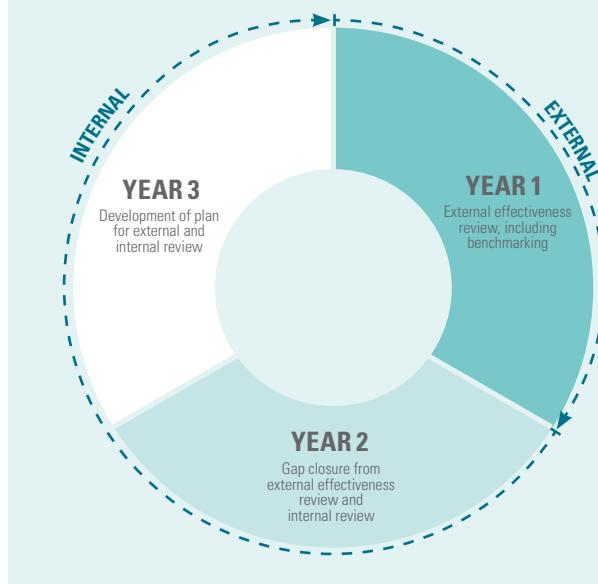
- reflecting on the Group's culture and how it affects the Group's ability to cope with change, to work within controls, and to respect the Group's values; and
- changing the structure of materials circulated ahead of meetings to further enhance the quality of discussion, use of time, and ability for Directors to focus on key strategic issues and risks;

## JANUARY 2017 PROGRESS REPORT

Improvement is a continuous process and Independent Audit's January 2017 progress report noted that:

- a very thorough approach to follow-through of the agreed actions has been adopted;
- considerable progress has been made across many aspects of the Board's activity, including a strong focus on cost and competitiveness as well as considerable attention given to other crucial areas, including relations with local communities, and to safety and health; and
- looking ahead, management will need to focus on the further development of the information provided to Directors to help support discussion of the main challenges and risks, and the Board will need to assess how the Group will respond to industry trends, macroeconomic developments and innovation.

## EVALUATING BOARD EFFECTIVENESS



### ● 2013

External review completed by Independent Audit.

### ● ● 2014-2015

- Implementation of 2013 recommendations facilitated by the Company Secretary and the newly-appointed Secretary to the Board
- Internal reviews to identify areas and opportunities for improvement in the implementation of the recommendations made following the external review
- Annual review of the Chairman by the Non-Executive Directors, led by the Senior Independent Director
- Annual review of the Non-Executive Directors by the Chairman

### ● 2016-2017

- External review conducted by Independent Audit in January 2016
- Implementation of recommendations during the year
- Annual review of the Chairman's effectiveness by the Non-Executive Directors, led by the Senior Independent Director
- Annual review of the Non-Executive Directors' effectiveness by the Chairman
- Independent Audit progress report in January 2017

# BOARD COMMITTEES

The Board relies on the Committees to ensure that deliberations by the Board are focused on the most important issues and that proposals are subject to specialist debate and rigorous challenge.



## NOMINATION AND GOVERNANCE COMMITTEE

**Chairman:** Jean-Paul Luksic

Ollie Oliveira  
Tim Baker

### Key responsibilities:

- Corporate governance
- Succession planning for the Board and Group CEO
- Board and Committee composition
- Board effectiveness reviews

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## AUDIT AND RISK COMMITTEE

**Chairman:** Ollie Oliveira

Jorge Bande  
Vivianne Blanlot  
Francisca Castro

### Key responsibilities:

- Financial reporting
- External audit
- Internal audit
- Risk and internal control
- Compliance

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## SUSTAINABILITY AND STAKEHOLDER MANAGEMENT COMMITTEE

**Chairman:** Vivianne Blanlot

Juan Claro  
William Hayes  
Jorge Bande

### Key responsibilities:

- Policies and commitments
- Safety and health
- Community relations
- Environment

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## PROJECTS COMMITTEE

**Chairman:** Ollie Oliveira

Tim Baker  
Jorge Bande  
Ramón Jara

### Key responsibilities:

- Policies and commitments
- Reviews all major projects
- Reviews lessons learned from projects

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## REMUNERATION AND TALENT MANAGEMENT COMMITTEE

**Chairman:** Tim Baker

Vivianne Blanlot  
Francisca Castro

### Key responsibilities:

- Directors' remuneration
- Executive remuneration
- Group pay structures
- Talent management and succession planning for the Executive Committee

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**ACCOUNTABILITY**

NOMINATION AND GOVERNANCE COMMITTEE

# COMPLEMENTARY SKILLS & EXPERIENCE

## JEAN-PAUL LUKSIC, CHAIRMAN

THE NOMINATION AND GOVERNANCE COMMITTEE SUPPORTS THE BOARD IN ENSURING THAT THE GROUP HAS EFFECTIVE GOVERNANCE STRUCTURES IN PLACE AND THAT THE BOARD AND ITS COMMITTEES OPERATE EFFECTIVELY



## 2016 MEMBERSHIP AND MEETING ATTENDANCE

|                             | NUMBER ATTENDED  |
|-----------------------------|------------------|
| Jean-Paul Luksic (Chairman) | 5/6 <sup>1</sup> |
| William Hayes               | 6/6              |
| Tim Baker                   | 6/6              |

1. The Chairman was unable to attend one meeting due to a last-minute commitment

- Other regular attendees include the Group CEO, Company Secretary and Secretary to the Board.
- Effective 1 January 2017, William Hayes rotated off the Committee and Ollie Oliveira joined the Committee.
- The Committee meets as necessary and at least twice per year.
- Except for the Chairman, all Committee members are independent.

## KEY ACTIVITIES IN 2016

### CORPORATE GOVERNANCE

- Reviewed the Governance section of the 2015 Annual Report and recommended it to the Board for approval.
- Reviewed the Committee's terms of reference and recommended amendments to the Board for approval.
- Recommended that the transition of the Senior Independent Director include meetings with shareholders to discuss corporate governance matters.
- Reviewed revised versions of the Group's Share Dealing Code and Disclosure Procedures updated for the EU Market Abuse Regulation and recommended them to the Board for approval.

### SUCCESSION PLANNING

- Reviewed and updated the written succession plans for the Board and its Committees.
- Implemented succession plans and oversaw the appointment of a new CEO, Senior Independent Director, Audit and Risk Committee Chairman and Sustainability and Stakeholder Management Committee Chairman.

### BOARD AND COMMITTEE COMPOSITION

- Recommended the appointment of independent Non-Executive Director, Francisca Castro.
- Recommended the appointment of independent Non-Executive Director, Ollie Oliveira, to the roles of Senior Independent Director and Audit and Risk Committee Chairman.
- Recommended the appointment of independent Non-Executive Director, Vivianne Blanlot, to the role of Sustainability and Stakeholder Management Committee Chairman.
- Recommended changes to the composition of all Committees.
- Reviewed the independence of all Directors, making recommendations to the Board.

### BOARD EFFECTIVENESS REVIEWS

- Commissioned an externally-facilitated review of the effectiveness of the Board and its Committees.
- Oversaw the implementation of the recommendations arising from the review.

## ACCOUNTABILITY

### NOMINATION AND GOVERNANCE COMMITTEE CONTINUED

#### Q What is the main function of the Nomination and Governance Committee?

We support the Board in ensuring that the Group has effective governance structures in place, that the Board and its Committees are operating effectively and that the Board and its Committees are comprised of Directors with necessary and appropriate skills. We make recommendations for change where appropriate.

This involves:

- monitoring trends, initiatives and proposals in relation to corporate governance;
- overseeing and facilitating annual reviews of the Chairman, Directors and the Board, including externally facilitated reviews;
- evaluating and overseeing the balance of skills, knowledge and experience on the Board and its Committees and reviewing the independence of Directors; and
- overseeing Board and CEO succession plans and leading the process of identifying suitable candidates to fill vacancies, nominating such candidates for approval by the Board and ensuring that the appointments are made on merit and against objective criteria.

#### Q What has the Committee been working on during 2016?

2016 has been a period of significant activity and the Committee met on six occasions, recommending the implementation of, and changes to, Board and Committee succession plans, culminating in the changes set out on page 68 and overseeing the externally facilitated Board effectiveness review as described on pages 82 and 83.

#### Q What are the steps that you take to identify and appoint new Directors?

When we are looking for a new Director, we consider the skills, experience and knowledge of the existing Directors and identify potential candidates who would best meet a number of criteria, including relevant experience, skills, personality type, contribution to Board diversity and whether they have sufficient time to devote to the role. The steps taken to identify and appoint independent Non-Executive Director Francisca Castro are set out on page 87.

#### Q How important is a comprehensive induction process for new Directors?

It is essential both for the new Director and for the Company. I am responsible for ensuring that any new Directors receive a full induction on joining the Board, and the Secretary to the Board and the Company Secretary both assist with this process.

Details of the induction process for Francisca Castro are set out on page 81.

#### Q Do you think it is important to have a Board review each year?

Improvement is a continuous process and we welcome the opportunity to regularly assess how effectively we operate as a Board and how we can improve even further.

The assessment of the Board and its Committees through an annual review has now become part of the normal governance cycle and we consider it to be a very useful process. We plan our reviews on the basis that at least every three years we will conduct an external effectiveness review. An external review was held in 2013 and again in 2016 and the details of the most recent review are set out on pages 82 and 83.

It is useful to assess the commitment of individual Directors to ensure that they have enough time available to devote to their roles, and I am satisfied that this is true for all our Directors.

#### JEAN-PAUL LUKSIC, CHAIRMAN

THE BOARD BELIEVES IN THE BENEFITS OF DIVERSITY, INCLUDING GENDER, AND IN 2016 THE APPOINTMENT OF FRANCISCA CASTRO INCREASED THE NUMBER OF FEMALE DIRECTORS TO TWO

#### THE BOARD'S APPROACH TO SUCCESSION PLANNING

The Committee periodically reviews the composition of the Board and its Committees. The Committee regularly discusses relevant profiles for future appointments and, when required, assists the Board in identifying appropriate candidates.

The Committee reviewed succession plans for all Board and Committee roles in 2016.

The Committee regularly reviews the written succession plans in place for the Board and Committees to ensure that vacancies can be appropriately filled. Contingency plans are in place for a range of situations, including the loss of key personnel.

During 2016, the Committee thoroughly reviewed the skills matrix which sets out the core competencies and areas of expertise on the Board, highlighting areas to be addressed in the future and amending the skills in the matrix to reflect changes in the Group's strategy and in the current market environment.

## APPOINTMENT OF FRANCISCA CASTRO

The process was led by the Nomination and Governance Committee with the assistance of the Secretary to the Board.

- ● – Board and Committee succession plans tabled for review.

**JUN**

- ● – Key business experience and skills required agreed by the Committee. Intertrust Head Hunting\* engaged to assist with the search.

**AUG**

- ● – Intertrust Head Hunting provided longlist of potential candidates for consideration.

**SEP**

- ● – Four candidates shortlisted and interviewed by the Chairman and the members of the Committee.
- Committee considered shortlisted candidates and made recommendation to the Board.
- Board appointed Francisca Castro.

**OCT**

\* Intertrust Head Hunting is an independent external adviser with no other connection to the Company.

### Q What prompted the changes to the composition of the Board Committees in November 2016?

We review the membership of each Board Committee annually and, following the 2016 review, recommended a number of changes for approval by the Board. This was with the intention of refreshing and strengthening the performance of each Committee.

We expect the composition of the Board and its Committees to remain unchanged in 2017.

### Q How is diversity taken into account when making Board appointments?

The Board comprises highly capable and committed individuals with a diverse range of technical skills, backgrounds, expertise, cultures, nationalities and perspectives.

The Board benefits from the diversity of personal attributes among Board members. Diversity of culture, views, attitudes, background and gender is important to ensure that the Board is not composed solely of like-minded individuals. As part of the annual review process, the Board assesses its effectiveness in meeting its diversity goals.

The Board believes in the benefits of diversity, including gender, and in 2016 the appointment of Francisca Castro increased the number of female Directors to two.

The Board plans to continue to have at least one female Director and will keep looking for opportunities to increase female representation further, while continuing to appoint Directors based on merit.

### Q How does corporate governance fit in with the other responsibilities of the Committee?

Sound corporate governance is fundamental to Board effectiveness. The Company's shares are admitted to a Premium listing on the London Stock Exchange and the Company reports against, and complies with, all of the provisions of the UK Corporate Governance Code.

The Committee is responsible for monitoring the Board's corporate governance arrangements, reviewing the Company's corporate governance framework at least annually and recommending any changes to the Board.

In performing these functions, the Committee uses the UK Corporate Governance Code as a benchmark and takes into account the nature and location of the

Group's businesses and any local expectations that may apply.

The Committee has reviewed and discussed the Corporate Governance Reform Green Paper published by the UK Government's Department for Business, Energy & Industrial Strategy and will continue to monitor any further developments in 2017.

**JEAN-PAUL LUKSIC,  
CHAIRMAN OF THE  
NOMINATION AND  
GOVERNANCE COMMITTEE**

## GENDER DIVERSITY

It is widely reported that companies in the mining sector face particular challenges in recruiting and retaining female talent. One of the main challenges is the low level of female participation at all levels of the mining industry. This industry-wide challenge is particularly relevant for Antofagasta as its operations and corporate centre are located in Chile where less than half of women currently participate in the job market. Furthermore, it is less common for women in Chile to pursue higher education in the fields of engineering, mathematics and sciences – disciplines that, of necessity, feed into participation in the mining industry.

During 2017 the Group will be initiating a programme to improve opportunities for female employees and to ensure that the working environment throughout the Group encourages the recruitment and retention of female talent. This programme includes measurable deliverables which are part of the Group's Annual Bonus Plan metrics for 2017.

# MANAGING RISK EFFECTIVELY



“ OLLIE OLIVEIRA, CHAIRMAN

THE AUDIT AND RISK COMMITTEE HAS BEEN INCREASINGLY FOCUSED ON RISK MANAGEMENT AND I BELIEVE THAT THIS TREND WILL CONTINUE

## 2016 MEMBERSHIP AND MEETING ATTENDANCE

|   | NUMBER ATTENDED |
|---|-----------------|
| Ollie Oliveira (Chairman from 1 September 2016) | 4/4             |
| William Hayes (Chairman until 31 August 2016)   | 4/4             |
| Jorge Bande                                     | 4/4             |

- Other regular attendees include the Group CEO, CFO, Group Financial Controller, Head of Internal Audit, Strategic Planning Manager, Head of Risk and Secretary to the Board.
- Effective 1 September 2016 Ollie Oliveira became Chairman, effective 1 January 2017 William Hayes rotated off the Committee and Vivianne Blanlot and Francisca Castro joined the Committee.
- The Committee meets as necessary and at least twice per year.
- All Committee members are independent.
- Ollie Oliveira, William Hayes, Jorge Bande and Francisca Castro are all considered to have recent and relevant financial experience.

## KEY ACTIVITIES IN 2016

### FINANCIAL REPORTING

- Reviewed the year-end and half-year financial reporting, with a focus on the significant accounting issues relating to the Group's results.
- Assisted the Board in ensuring that the Annual Report is fair, balanced and understandable, and reviewed the long-term viability statement contained in the Annual Report.
- Monitored the functioning of the new SAP accounting system.

### EXTERNAL AUDIT

- Reviewed and approved the 2016 audit plan, including fees.
- Assessed the effectiveness of the external audit process.

### INTERNAL AUDIT

- Reviewed the key findings from the Internal Audit reviews conducted during 2016.
- Agreed the scope and areas of focus for the 2017 internal audit plan with the Head of Internal Audit, and then approved the final 2017 plan.

### RISK AND INTERNAL CONTROL

- Conducted detailed reviews with the General Managers of each of the Group's operations, covering the operations' key risks.
- Reviewed the status of key controls in connection with the SAP system.
- Reviewed developments in the Group's standard risk management processes during the year.
- Assisted the Board with its assessment of the Group's key risks and its review of the effectiveness of the risk management and internal control processes.

### COMPLIANCE

- Reviewed whistleblowing incidents during the year, updates to the conflict of interest declarations by the Group's employees and suppliers, and analysed the Group's relationships with Politically Exposed Persons.
- Reviewed the Group's policies and procedures relevant to the requirements of the UK Modern Slavery Act.
- Reviewed developments in the Group's standard compliance processes during the year.

**Q What are the main responsibilities of the Committee?**

The purpose of the Audit and Risk Committee is to assist the Board in meeting its responsibilities relating to financial reporting and control. The Committee's main responsibilities cover financial reporting, the external audit process, internal audit, risk and internal control, and compliance.

**Q You were appointed Chairman of the Audit and Risk Committee in September 2016. What has been your experience so far, and what do you think will be your main focus during the next year?**

Firstly, I'd like to thank William Hayes for his excellent work in chairing the Committee over the past five years. During that time the Committee has been increasingly focused on risk, and I think that this trend will continue.

I was very pleased that Vivianne Blanlot and Francisca Castro agreed to join the Committee on 1 January 2017. This has been a valuable addition to the Committee's breadth of experience and expertise. It also means that the size of the Committee has increased from three to four members from the start of 2017, which will be very helpful in dealing with the significant responsibilities of the Committee. This also means that we now have members of the Audit and Risk Committee participating on the Projects Committee and the Sustainability and Stakeholder Management Committee. This allows close linkage between the overall review of the Group's risks and risk management processes by the Audit and Risk Committee, with the more specific risks relating to project execution, safety, environmental and community issues considered in detail by the other committees.

While risk management is considered at every meeting, I have decided to have an additional meeting each year at which the Committee will focus on risk management, to reflect the increasing importance of this area. Having a larger Committee will help manage this additional workload.

## FINANCIAL REPORTING

**Q What are the Committee's main activities in respect of the Group's financial reporting?**

We review the year-end Financial Statements and half-yearly financial report, and ensure that the key accounting policies, estimates and judgements applied in those financial statements are reasonable.

We also monitor the overall financial reporting process to ensure it is robust and well controlled. This includes ensuring that the Group's accounting and finance function is adequately resourced with appropriate segregation of duties, that there are appropriate internal review processes, that the Group's accounting policies are appropriate and clearly communicated, and that the Group's accounting and consolidation systems are also appropriate. This final area has been a particular area of focus for the Committee, as the Group has implemented a new SAP accounting system, which went live on 1 January 2016. We've been closely monitoring the implementation of the system, and its functioning and control since the go-live date.

**Q What are your particular responsibilities with respect to the Annual Report?**

We assist the Board in its assessment that the Annual Report is, taken as a whole, fair, balanced and understandable, and provides the necessary information to allow shareholders to assess the Group's position and performance, business model and strategy. As part of this, we use our detailed knowledge of the financial results and the key accounting judgements applied in the Financial Statements to ensure that the tone and content of the narrative reporting fairly reflects the financial results for the year.

We also review the going concern basis adopted in the Financial Statements, as well as the detailed long-term viability statement contained within the Annual Report.

**Q What were the significant accounting issues in relation to the Financial Statements considered by the Committee during 2016?**

The main issues considered in detail by the Committee were:

- The impairment provisions recorded in respect of Antucoya and Alto Maipo. With Antucoya,

the Committee reviewed the key assumptions used in the impairment review, including copper price forecasts, future cost and production levels. This included a number of meetings with both management and the external auditors to review the methodologies and data used in determining key parameters such as the copper price forecasts. The Committee considered information provided by the external auditors in respect of their own consensus estimates relating to relevant parameters, and the auditors' own calculation of an appropriate discount rate. The Committee also requested that management perform a number of sensitivity analyses showing the impact of changes in key assumptions on the value of the operation. Following this process the Committee agreed that the management's estimate of the recoverable amount of Antucoya's assets was reasonable, and therefore the level of the impairment provision was appropriate.

- With respect to Alto Maipo, the Committee members had been receiving (along with all other Directors) regular updates in respect of the project since the identification of a significant forecast cost overrun during 2016. As part of the Committee's review of the appropriate accounting for the Group's investment in the project they considered the key terms of the Group's agreement to dispose of its investment for a nominal amount and the remaining steps required to complete the disposal. Following this review the Committee concurred with management's view that a full impairment provision was appropriate for the carrying value of the Group's investment.

- Details of the impairment reviews are set out in Note 4 to the Financial Statements.
- The finalisation of the fair value adjustments relating to the Zaldivar acquisition: following the acquisition of our 50% interest in Zaldivar in December 2015, during 2016 the Group finalised its valuation of the individual assets and liabilities acquired. The Committee reviewed the key assumptions and conclusions of this process.

- Consideration of the impact of the non-renewal of two mining leases at the Twin Metals project. Following the non-renewal of these licenses the Group is undertaking legal action to protect its position. The Committee has reviewed in detail the current status of the legal action with the Group's legal team. They also reviewed the potential operating and financial impact of the non-renewal of these leases with the Group's projects team, including an analysis of the potential impact on the mine plan and value of the project of excluding the mineral resources relating to these two leases. This resulted in the conclusion that no adjustment to the carrying value of the assets relating to the Twin Metals project was appropriate.

## EXTERNAL AUDIT

**Q What are the Committee's activities in respect of the external audit process?**

We are responsible for overseeing Antofagasta's relationship with PwC, the Group's external auditor. I personally have a key direct relationship with Jason Burkitt, the lead PwC audit partner. We review and approve the scope of the external audit, the terms of engagement and fees. The Committee monitors the effectiveness of the audit process and we are responsible for ensuring the independence of the external auditor. We also make recommendations to the Board in respect of the appointment, reappointment or removal of the external auditor. The Committee formally meets with PwC without management present at least once a year.

**Q How long has PwC been the Group's auditor?**

PwC has been our external auditor for two years. We carried out a tender process during 2014, which resulted in PwC being appointed. In line with the relevant regulatory guidance, we would expect to undertake a tender process in respect of the external audit at least every ten years.

## ACCOUNTABILITY

### AUDIT AND RISK COMMITTEE CONTINUED

The Statutory Audit Services for Large Companies Market Investigation (Mandatory Use of Competitive Tender Processes and Audit Committee Responsibilities) Order 2014 – statement of compliance

The Company confirms that it complied with the provisions of the Competition and Markets Authority's Order for the financial year under review.

#### Q How do you assess the effectiveness of the external audit process?

We considered the following factors as part of our review of the effectiveness of the external audit process during the year:

- the appropriateness of the proposed audit plan, the significant risk areas and areas of focus, and the effective performance of the audit;
- the technical skills and industry experience of the audit engagement partner and the wider audit team;
- the quality of the external auditor's reporting to the Committee;

- the effectiveness of the co-ordination between the UK and Chilean audit teams;
- the effectiveness of the interaction and relationship between the Group's management and the external auditor;
- feedback from management in respect of the effectiveness of the audit processes for the individual operations and the Group overall; and
- the review of reports from the external auditor detailing its own internal quality control procedures, as well as its annual transparency report.

In light of this assessment, the Committee considers it appropriate that PwC be re-appointed as external auditor.

## INTERNAL AUDIT

#### Q What are your main activities in relation to Internal Audit?

The Committee monitors and reviews the effectiveness of the Group's Internal Audit function. The Head of Internal Audit reports directly to the Committee and meets with us without management present at least once a year.

The Committee reviews and approves Internal Audit's plan of work for the coming year, including the department's budget, head count and other resources. We make sure there are sufficient resources in the plan to allow for special reviews which may be required during the year.

We also monitor the resources available to the Internal Audit team to make sure it has the right mix of skills and experience. Internal Audit utilises a mix of permanent team members, temporary secondees from elsewhere in the Group and third parties, particularly for areas such as IT-related reviews. We're particularly keen on ensuring the team has the right level of

mining technical expertise to be able to deliver highly effective operating reviews.

Internal Audit presents summaries of the key findings from the reviews conducted during the year to the Committee. All Internal Audit reports are distributed to the Committee members once they have been finalised.

The Committee monitors the interaction between Internal Audit and PwC, to ensure an efficient relationship between the internal and external audit processes, avoiding duplication of work, and ensuring the effective and timely sharing of findings.

## RISK MANAGEMENT AND INTERNAL CONTROL

#### Q What are the Committee's responsibilities for risk management and internal control?

We play an important role in assisting the Board with its responsibilities in respect of risk management and related controls. The Board has ultimate responsibility for overseeing the Group's principal risks, as well as for maintaining control systems. Our internal control systems are designed to identify and manage, rather than eliminate, the risk of failure to achieve our business objectives, and can only provide reasonable, and not absolute, assurance against material misstatement or loss. The Committee assists the Board with its assessment of the Group's principal risks and its review of the effectiveness of the risk management process.

#### Q What were the Committee's main activities during the year relating to risk?

The risk management function presents to the Committee several times during the year, covering developments in the Group's risk management processes and Group-level strategic risks.

The General Managers of the Group's operations also present to the Committee at least once a year, covering their assessment of their operation's key potential risks and any significant materialised risks. The analysis of key risks includes an assessment of the significance of the risks based on the probability of the risk materialising and the potential economic impact of the

## INDEPENDENCE AND OBJECTIVITY OF THE EXTERNAL AUDITOR

The Committee monitors the external auditor's independence and objectivity. The Company has a policy in place that aims to safeguard the independence and objectivity of the external auditor. This includes measures in respect of the potential employment of former auditors, the types of non-audit services that the external auditor may and may not provide to the Group, and the approval process in respect of permitted non-audit services.

The policy in place during 2016 specifies the non-audit services that the external auditor is not permitted to provide; these include Internal Audit outsourcing, valuation services that would be used for financial accounting purposes, preparation of the Group's accounting records or financial statements, and financial information systems' design and implementation. Under the policy in place during 2016, certain permitted non-audit services always required prior approval by the Committee, whereas certain other non-audit services required prior approval by the Committee when the related fees were above specified levels (\$50,000 for a single engagement or a cumulative annual amount of \$400,000). In addition to this approval process for specific non-audit services, the Audit and Risk Committee monitors the total level of non-audit services provided by the external auditor to ensure that neither the auditor's objectivity nor its independence is put at risk.

An updated policy has been applied from 1 January 2017, reflecting the implementation of the EU Audit Regulation and Directive. The updated policy increases the scope of prohibited non-audit services, particularly in respect of tax services. The policy also requires prior approval by the Committee for all non-audit services, other than services which are considered to be clearly trivial, which the Committee has defined as being services with fees of not more than \$25,000.

A breakdown of the audit and non-audit fees is disclosed in Note 7 to the financial statements. The Company's external auditor, PwC, has provided non-audit services (excluding audit-related services) which amounted to \$0.2 million, or 11% of the fees for audit and audit-related services. This mainly related to assurance services in respect of the Group's sustainability reporting and tax services. In general, where the external auditor is selected to provide non-audit services it is because they are considered to have specific expertise or experience in the relevant area which means they are the most suitable provider of those services. The Committee has reviewed the level of these services in the course of the year and is confident that the objectivity and independence of the auditor is not impaired by reason of such non-audit work.

The external auditor provides a report to the Committee at least once a year, setting out its firm's policies and procedures for maintaining its independence.

The Committee considers that PwC remained independent and objective throughout 2016.

risk, as well as an evaluation of the quality of the controls in place in respect of those specific risks. We also look at whether those risks have been increasing or decreasing in significance. The General Managers present their forecast of any expected change in key risks over the coming 12 months. If there is a specific issue at one of the operations that requires more detailed understanding, we will ask the General Manager to attend the next meeting to discuss that issue. I find this direct interaction between the Committee and the General Managers extremely valuable – not only in terms of the direct insight into each operation it affords the Committee, but also in allowing us to convey the importance we attach to strong risk management processes.

The Committee also reviewed the implementation of the Group's standard risk management processes at Zaldívar during the year.

#### **Q How does the Committee interact with the Board and other Committees?**

I report to the Board following each Committee meeting, summarising the main matters reviewed by the Committee. These regular reports allow Directors to understand the main issues being considered by the Committee, and, when relevant, to discuss these matters in more detail with the Board.

The Risk Management function also presents directly to the Board, providing updates of the analysis of the Group's key risks and relevant developments in the risk management and compliance processes. However, we try to ensure that the review of risk by the Board is not compartmentalised into isolated sessions, but permeates everything that the Board considers. So the operating update which the CEO provides to the Board at each meeting covers any significant materialised risks, and all proposals which are presented to the Board incorporate an analysis of the principal risks relevant to the proposal.

These processes have assisted the Board in carrying out a robust assessment of the principal risks facing the Company, including those that would threaten its business model, future performance, solvency or liquidity, and to assess the acceptability of the level of risks that arise from the Group's operations and development activities. Each year the Board, with the support of the Committee, reviews the effectiveness of the

Further information relating to the Group's key risks and risk management processes are given in the Risk Management section of the Strategic Report on pages 20 to 27.

Group's risk management and internal control systems. The review covers all material controls, including financial, operating and compliance controls. No significant failures or weaknesses were identified as a result of this review during 2016.

As I explained earlier, from the start of 2017 we now have members of the Audit and Risk Committee participating on the Projects Committee and the Sustainability and Stakeholder Management Committee, which allows close co-ordination between these committees.

#### **COMPLIANCE**

#### **Q What are the Committee's responsibilities relating to compliance?**

We ensure that appropriate compliance policies and procedures are observed throughout the Group. The Group's Risk Management function makes regular presentations to the Committee covering developments in the Group's compliance processes and significant compliance issues.

Chilean law requires the Group to appoint a Crime Prevention Officer. The Committee is responsible for making recommendations to the Board in respect of the appointment of the Crime Prevention Officer, and generally monitors and oversees the

performance of the role. The Crime Prevention Officer is currently Alfredo Atucha, the Vice President of Finance and Administration. The Committee receives reports from the Risk Management function in respect of the Group's Crime Prevention Model, in accordance with Chilean anti-corruption legislation.

#### **Q What were your main activities during the year in respect of compliance?**

We reviewed the Group's whistleblowing arrangements, which enable staff and contractors to raise concerns in confidence about possible improprieties or non-compliance with the Group's Code of Ethics. This is an important facility to allow any potential issues to be raised. We received regular reports on any reported whistleblowing incidents, which detail the number and type of incidents, along with details of the most significant ones and the actions resulting from their investigation.

The Committee reviewed updates to the conflict of interest declarations by the Group's employees and suppliers, including details of the types of potential conflicts being declared. We also reviewed the analysis of suppliers who are Politically Exposed Persons, (ie individuals who hold prominent public positions).

We also reviewed the Group's policies and procedures relevant to the requirements of the UK Modern Slavery Act.

As with the risk management processes noted above, we reviewed the implementation of the Group's standard compliance processes at Zaldívar during the year.

## **AUDIT AND RISK COMMITTEE, BOARD AND RISK MANAGEMENT FUNCTION INTERACTION**

### **BOARD**

Chairman of the Audit and Risk Committee reports to the Board following each Committee meeting, allowing a wider discussion of the risk and compliance issues reviewed in detail by the Committee

### **AUDIT AND RISK COMMITTEE**

The Committee supports the Board in its review of the effectiveness of the Group's risk management and internal control systems

### **GENERAL MANAGERS OF THE OPERATIONS**

The General Managers give detailed presentations to the Committee at least once a year including each operation's key risks and materialised risks

The Risk Management Function provides regular presentations covering changes in the Group's key risks, major materialised risks, and updates on the risk management and compliance processes

### **RISK MANAGEMENT FUNCTION**

There are detailed presentations at each Committee meeting covering the risk management process, details of significant whistleblowing reports, and updates in respect of compliance processes and activities

**OLIE OLIVEIRA**  
CHAIRMAN OF THE AUDIT AND RISK COMMITTEE

## ACCOUNTABILITY

SUSTAINABILITY AND STAKEHOLDER MANAGEMENT COMMITTEE

# COMMITMENT TO STAKEHOLDERS

### VIVIANNE BLANLOT, CHAIRMAN

DURING 2016 THE SUSTAINABILITY AND STAKEHOLDER MANAGEMENT COMMITTEE OVERSAW THE DESIGN AND IMPLEMENTATION OF STRATEGIES TO STRENGTHEN THE GROUP'S SAFETY, ENVIRONMENTAL AND COMMUNITY RELATIONS PERFORMANCE, WHILE MONITORING THE GROUP'S RESPONSE TO CHALLENGES FACED DURING THE YEAR.



### 2016 MEMBERSHIP AND MEETING ATTENDANCE

|                       | NUMBER ATTENDED |
|-----------------------|-----------------|
| Ramón Jara (Chairman) | 4/4             |
| Juan Claro            | 4/4             |
| Vivianne Blanlot      | 4/4             |
| Tim Baker             | 4/4             |

- Other regular attendees include the Group CEO, the Vice President of Corporate Affairs and Sustainability and the Secretary to the Board.
- Effective 1 January 2017, Ramón Jara and Tim Baker rotated off the Committee, Vivianne Blanlot assumed the Committee Chairmanship, and William Hayes and Jorge Bande joined the Committee.
- The Committee meets as necessary and at least twice per year.

### KEY ACTIVITIES IN 2016

#### POLICIES AND COMMITMENTS

- Confirmed the role and objectives of the Committee and updated its responsibilities as part of the annual review of its terms of reference.
- Reviewed and approved the 2016 Antofagasta Minerals Sustainability Report.
- Reviewed sustainability aspects of the Group's development projects at Los Pelambres and Centinela.

#### SAFETY AND HEALTH

- Reviewed the Group's safety and health strategy including external consultants' recommendations and accident reports.
- Followed up on committed actions to prevent recurrence.

#### COMMUNITY RELATIONS

- Oversaw the process for entering into agreements with the local communities at Los Pelambres.
- Oversaw the implementation of a community relations strategy for the Group's mining and transport operating companies in the north of Chile.
- Reviewed the Group's expenditure relating to social plans.

#### ENVIRONMENT

- Reviewed the Group's environmental compliance.
- Evaluated environmental risks and mitigating actions.
- Oversaw the process by which Antofagasta Minerals is fulfilling commitments made to the ICMM.

**Q What is the main function of the Sustainability and Stakeholder Management Committee?**

The Committee assists the Board in the stewardship of the Group's social responsibility programmes and makes recommendations to the Board to ensure that ethical, safety and health, environmental, social and community considerations are taken into account in the Board's deliberations.

The Committee provides guidance to the Board in relation to sustainability matters generally, reviewing and updating the Group's framework of strategies and policies, (including safety and health, environmental, climate change, human rights, community and other stakeholder issues), and monitoring and reviewing the Group's performance in respect of sustainability matters, indicators and targets.

During 2016, the Committee reviewed and updated its terms of reference, adding climate change as an area of responsibility and clarifying the interconnection between sustainability and stakeholder management risks and the risk oversight function performed by the Audit and Risk Committee.

**Q What achievements did the Committee oversee during 2016?**

We have overseen and promoted significant improvements in the Group's strategies and systems to improve the Group's safety, environmental and community relations performance. These improvements have been demonstrated by the milestones that were achieved during 2016, including the Group's admission as a full member of the ICMM, reaching an agreement with the local communities at Los Pelambres and implementing a new community relations programme (Somos Choapa) at Los Pelambres.

**Q What were the biggest failures?**

Two people died at the Group's operations during the year. The Group's stated objective is to ensure that there are no fatalities. The Committee oversaw the appointment of internationally-renowned consultants, SAFEmap, to review the mining division's safety strategy. This involved a safety culture survey answered by over 2,600 employees and contractors. SAFEmap's recommendations were reviewed by the Committee and the Board and action plans were developed to close the gaps that were identified.

We must be resolute in our efforts to ensure that a safety culture is, and continues to be, embedded in everything that the Group does.

**Q Significant progress has been made in relation to community relations at Los Pelambres. What about elsewhere in the Group?**

The future of our operating companies depends on committed and sustained collaboration between local communities, local, regional and national government and the Group. During 2016, the Committee oversaw the implementation of a new community engagement model, based on the Somos Choapa model deployed at Los Pelambres, at the other mining operating companies and transport division in the north of Chile. The model fosters close engagement with local communities and authorities to jointly identify challenges, opportunities and solutions.

The Committee also oversaw progress in the implementation of commitments made as part of the Somos Choapa programme at Los Pelambres, which included the endorsement of the development of a technical training centre at Los Vilos, in partnership with a local technical education provider.

**Q What trends did the Committee observe in 2016?**

Several events in 2016 highlighted the increased importance of careful environmental management.

In October 2016, the Environmental Authority (SMA) brought nine charges based on inspections conducted at Los Pelambres in 2014-2015 and other activities being undertaken in respect of third parties. Los Pelambres remains committed to full compliance and is working to address these changes.

In November 2016, a compliance programme was proposed for the Los Pelambres Incremental Expansion, which in its final form should address all material issues that might create a risk of non-compliance in the future.

**Q What are the Committee's three main priorities in 2017?**

- Our number one priority is the safety of our employees and contractors. The steps taken to close the gaps identified in SAFEmap's review of the mining group's safety strategy will be carefully monitored.
- The Committee will continue to oversee the implementation of commitments made to the new community relations model in the north of Chile and as part of the Somos Choapa programme at Los Pelambres.
- The Committee has asked management to strengthen the Group's environmental compliance monitoring system by appointing a third party to perform an external review with the aim of taking compliance to a level of excellence.

**+ For details of the Group's sustainability performance in 2016, see the Sustainability Report on pages 52 to 59.**

**+ The Antofagasta Minerals Sustainability Report provides further information about its social and environmental performance. It is available on the Company's website at [www.antofagasta.co.uk](http://www.antofagasta.co.uk) from May 2017.**

**VIVIANNE BLANLOT**  
CHAIRMAN OF THE  
SUSTAINABILITY  
AND STAKEHOLDER  
MANAGEMENT COMMITTEE

# RIGOROUS PROJECT REVIEW

## OLLIE OLIVEIRA, CHAIRMAN

THE PROJECTS COMMITTEE PROVIDES OVERSIGHT AND CHALLENGE, AND OBJECTIVELY BENCHMARKS THE GROUP'S PROJECTS TO ENSURE THAT INVESTMENT DECISIONS SUBMITTED TO THE BOARD HAVE BEEN THOROUGHLY TESTED



## 2016 MEMBERSHIP AND MEETING ATTENDANCE

|                           | NUMBER ATTENDED |
|---------------------------|-----------------|
| Ollie Oliveira (Chairman) | 5/5             |
| Jorge Bande               | 5/5             |
| Tim Baker                 | 5/5             |

- Other regular attendees include the Group CEO, Corporate Project Manager, Project Control Manager and Secretary to the Board
- Effective 1 January 2017, Ramón Jara joined the Projects Committee.
- The Committee meets as necessary and at least twice per year.

## KEY ACTIVITIES IN 2016

### POLICIES AND COMMITMENTS

- Confirmed the role, responsibilities and objectives of the Committee as part of the annual review of its terms of reference.
- Reviewed updates to the Asset Delivery System ("ADS") and its application to the Group's mining projects.
- Reviewed the Group's mining projects portfolio.
- Reviewed Centinela's long-term plan and productivity.

### PROJECTS IN STUDY/EXECUTION PHASE

- Reviewed progress in relation to the Los Pelambres Incremental Expansion project.
- Reviewed the Centinela Second Concentrator project.

### PROJECT COMMISSIONING

- Reviewed Antucoya's commissioning progress and challenges, and actions taken.

### LESSONS LEARNED FROM PROJECTS

- Reviewed lessons learned from the Esperanza and Centinela debottlenecking projects and evaluated Centinela's tailings management system.

### **Q What is the main function of the Projects Committee?**

The Committee reviews all aspects of projects to be submitted to the Board for approval, highlighting key matters for the Board's consideration throughout the project lifecycle and making recommendations to management to ensure that all projects submitted to the Board are in line with the Group's strategy.

The Committee adds an important level of governance and control for the evaluation of the Group's projects, and plays a key role in providing the Board with additional oversight of the projects portfolio, development proposals, milestones and performance against key indicators.

### **Q What is the balance between decisions made by the Projects Committee and decisions made by the Board?**

The Committee is not responsible for approving projects – that is for the Board to decide. Our role is to assist the Board by ensuring that all the Group's projects follow a standard, structured process with consistent analysis, execution and evaluation practices. As part of its review, the Committee invites management to consider different perspectives, ideas and improvements, with the aim of fostering focused discussion within the Board and, ultimately, enhancing the value of the Group's projects.

### **Q What tools does the Committee use to assist with benchmarking?**

The Committee provides guidance to the project managers leading each individual project and to the Board from the early stages of project planning, to ensure that policies, strategies, and the Group's standard implementation framework are applied to all projects. The use of the Group's ADS framework is an essential component of this.

ADS uses processes and practices commonly utilised in the mining industry for project management from conception to execution. It defines standards and common criteria, including governance by a steering committee, functional quality assurance reviews and risk management.

During 2016, the Committee reviewed and endorsed enhancements to the ADS framework, including front-end loading deliverables:

- making comparisons with industry systems and assessing alignment with best practices;
- the project control and reporting system;
- the project accounting start-up point policy (which clarifies treatment of revenues generated during the start-up period); and
- Board and Committee involvement in the ADS stage gate process.

### **Q What were the key activities of the Committee in 2016?**

The Committee reviewed project proposals against flat-price sensitivities, execution milestones and key performance indicators, and provided guidance when there was evidence of a deviation in costs or schedule from the plans approved by the Board.

The Committee considered the drop in commodity prices and reviewed the Group's mining projects portfolio with the objective of maximising cash preservation in 2016. It endorsed a spending reduction for the Encuentro Oxides and Molybdenum Plant projects (which are currently in the execution phase) by reducing the rate and intensity of construction.

When necessary, the Committee will also commission reviews of specific matters by external advisers.

The Committee reviewed progress in relation to the Los Pelambres Incremental Expansion Project, including an analysis of project management organisation, an evaluation of comminution technology alternatives and a review of the tailings dam capacity studies.

The Committee also reviewed Centinela's Second Concentrator project, including a detailed analysis of grinding technology alternatives. It also reviewed Centinela's long-term plan and productivity effects.

As explained on page 80, the Committee visited the Group's projects during the year and met management and employees to understand the precise stage of development (including projects in the study phase and construction phase) and the specific issues relevant to individuals working at the site.

### **Q What does the Committee do to ensure continuous improvement?**

The Committee reviews close-out reports to derive lessons learned that will be applied to future projects. In 2016, the Committee reviewed the lessons learned from the Antucoya project. In particular, it reviewed a cost reconciliation of the project, and identified that project economics should capture all costs involved. The Committee ensured that future projects' submissions for approval should include the cost of studies, project execution, commissioning, accumulated interest, working capital and related items in order to present a full picture of the funding required.

The Committee also reviewed lessons learned from the construction of Esperanza and the Centinela debottlenecking project and evaluated the investment in Centinela's tailings management system.

### **Q What are the Committee's priorities in 2017?**

- To play a key role in reviewing the commissioning and ramp-up of the Encuentro Oxides and Molybdenum Plant projects.
- To carefully assess progress of studies of the Los Pelambres Incremental Expansion and Centinela Second Concentrator projects, particularly with respect to critical path items, such as the necessary Environmental Impact Studies.
- To review Zaldívar's and the transport division's projects.
- To continue to review and further enhance the ADS framework.

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**OLIE OLIVEIRA**  
CHAIRMAN OF THE  
PROJECTS COMMITTEE

# ENCOURAGING THE RIGHT BEHAVIOURS



**|| TIM BAKER, CHAIRMAN**

AS A COMMITTEE, OUR OBJECTIVES FOR 2017 ARE THE SAME AS FOR THE REST OF THE GROUP – TO REDUCE COSTS SUSTAINABLY, PRODUCE PROFITABLE TONNES AND DELIVER POSITIVE FREE CASH FLOW THROUGHOUT THE CYCLE

Dear Shareholder,

**Q What is the function of the Remuneration and Talent Management Committee?**

The Remuneration and Talent Management Committee is responsible for ensuring that the Group's remuneration arrangements promote effective execution of the Group's strategy and enable the recruitment, motivation, retention and development of talent.

The Committee is responsible for preparing the Directors' Remuneration Policy and reviewing the remuneration of any Executive Directors (although there are currently none and none are expected to be appointed). The Board comprises solely of Non-Executive Directors as explained by the Chairman on page 68. The Committee also reviews and approves the remuneration of the Chairman and the Group CEO, and determines the performance-related elements of the Group CEO's compensation.

Remuneration for members of the Executive Committee, including awards granted under the long-term incentive plan (LTIP) and annual bonus plan (Annual Bonus Plan), is proposed to the Committee by the Group CEO for approval.

Awards under both the LTIP and the Annual Bonus Plan are subject to performance against financial and non-financial metrics and take into account the interests

of the Group's stakeholders. The Committee reviews these metrics at the beginning of the year and, if necessary, recommends amendments before approving the metrics (in the case of the LTIP) or recommending the metrics to the Board for approval (in the case of the Annual Bonus Plan).

The Committee also reviews succession plans for members of the Executive Committee, assessing any changes in compensation policies across the Group that may have a significant long-term impact on labour costs, and oversees compensation and talent management strategies for the Group as a whole.

**Q What were the areas of focus for the Committee in 2016?**

The Committee reviewed the principles and application of the 2014 Directors' Remuneration Policy, resulting in the development of the 2017 Directors' Remuneration Policy, which is set out on pages 112 to 114. Shareholders are invited to vote on this policy at the 2017 AGM.

At the management level, the Committee reviewed Diego Hernández's performance against the performance criteria that applied to the Strategic Awards that he received in 2015. These criteria are set out on page 108 and primarily relate to the successful implementation of a succession plan allowing for the transition of the role of Group CEO to Iván Arriagada

(whose pay arrangements were also reviewed during the year).

The Committee also oversaw the functional simplification programme implemented during 2016. The programme centralised certain functions that support our mining operations (including finance, human resources, legal and external affairs and sustainability) in the locations most appropriate for supporting the Group's portfolio of operations.

Finally, the Committee considered the progress made in attaining the Group's strategic performance targets for the year and how this impacted executive remuneration. As reported by the Chairman in his introduction to this year's Annual Report, good progress was made during 2016 as demonstrated by the reduction in costs and increase in production as the full impact from the new mining operations in our portfolio flowed through. As a result, the Group's performance score for 2016 under the Annual Bonus Plan, which forms the basis for calculating 70% of the Group CEO's and Executive Committee's annual bonus, was determined to be 99.7 within a range of 90 (Threshold) – 110 (Maximum).

**Q How does the 2017 Directors' Remuneration Policy differ from the 2014 policy?**

There is very little change between the two policies. The main difference is that the 2017 policy does not include a recruitment policy for Executive Directors. As

noted on page 68, the Board does not currently have an Executive Director and does not anticipate a new appointment during the 2017-2020 policy period.

Further details of the minor differences between the 2014 and 2017 policies are set out within the 2017 Directors' Remuneration Policy itself on page 112.

**Q Did the Committee apply discretion to adjust remuneration outcomes during the year?**

No discretion has been applied to remuneration outcomes for any payments to Directors or the Group CEO during the year.

**Q What information about executive pay is being provided in this 2016 Remuneration Report?**

We feel it is important to embrace the broad governance requirements of the UK regime, so voluntarily continue to report the Group CEO's remuneration as if he were a member of the Board. We also provide detailed information relating to the structure and components of the other Executive Committee members' remuneration. As explained on page 68, the Committee needs to consider the market conditions and remuneration structures available in Chile when setting executive remuneration and some elements of the Group's LTIP may therefore differ slightly from arrangements that would typically be expected for a UK-based CEO and management team.

**Q Have any changes been made to the fees payable to Non-Executive Directors in 2017?**

The sole change is the introduction of a separate fee for the Senior Independent Director. The Committee works with remuneration consultants to review Non-Executive Directors' remuneration against relevant markets and makes recommendations to the Board based on those results. The remuneration of Non-Executive Directors is determined by the Board as a whole and no Non-Executive Director participates in the determination of his or her own remuneration.

Fee levels for the Non-Executive Directors have remained unchanged since 2012 and will remain unchanged in 2017 except for the Senior Independent Director fee of \$20,000 pa. This fee is in accordance with the 2014 Directors' Remuneration Policy and provides recognition of the additional time commitment and responsibilities attached to the role.

**Q What arrangement does the Committee have in place with remuneration consultants?**

During the year, the Committee reappointed remuneration consultants Willis Towers Watson to provide advice to the Committee. In past years Willis Towers Watson has provided the Committee with useful advice on such matters as compensation benchmarking, new legislative requirements and market practice.

Willis Towers Watson is a widely-recognised independent global professional services firm that is a signatory to, and adheres to, the Code of Conduct for Remuneration Committee Consultants. This can be found at [www.remunerationconsultantsgroup.com](http://www.remunerationconsultantsgroup.com).

The Committee is satisfied that the advice provided by Willis Towers Watson in 2016 was objective and independent, that no conflict of interest arose as a result of these

services and that it had no other connection with the Company. Willis Towers Watson's fees for this work were charged in accordance with normal billing practices and amounted to £93,848.

The Committee also re-appointed the Company's legal advisers, Clifford Chance LLP, to provide advice on the operation of the Group's LTIP and other compensation-related legal issues during 2016. This re-appointment was also based on the Committee's satisfaction with advice received in previous years.

The Committee Chairman and the Committee as a whole regularly speak with these advisers without management present, to provide a forum for open discussion and the sharing of views and opinions on compensation issues. Additionally, part of each Committee meeting is held without management present to ensure that individual views or areas of concern are debated between the Committee members as necessary.

The Committee also received assistance from the Chairman, the Group CEO, the Vice President of Human Resources and the Company Secretary during 2016, none of whom participated in discussions relating to their own remuneration.

**Q What role does the Committee play in talent management and succession planning?**

Talent management and succession planning enable the Group to adapt to the challenges and changes that arise over the copper price cycle. Under the agreed succession planning policy, when a key management position becomes vacant a replacement will first be sought from within the Group, taking into account the succession plan agreed for that position. In 2016, the appointment of Iván Arriagada as Group CEO was an internal appointment in accordance with this policy.

In the event that candidates are being considered for a role that reports into the Group CEO, the Committee Chairman participates in the interview process to ensure that the candidate receives input on, and is capable of meeting, the Board's expectations.

We encourage and review progress in the development and internal promotion of professional talent and the movement of that talent between the Group's operations and closely monitor and encourage the development of high potential employees.

**Q What are the key objectives for the Committee in 2017?**

The Committee's objectives for 2017, as with the rest of the Group, are to reduce costs sustainably, produce profitable tonnes and deliver positive free cash flow throughout the cycle. In order to ensure that these objectives are met, the Committee has commissioned a thorough review of the Group's variable remuneration models in 2017.

As set out on page 74, the Committee will also oversee the activities of the culture committee, update the talent management programme and oversee labour union negotiations at Centinela and Zaldívar.

Shareholders are invited to vote on the 2017 Directors' Remuneration Policy and on the 2016 Remuneration Report and it is hoped that there will be continued support for the Group's pay arrangements.

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**TIM BAKER**  
CHAIRMAN OF THE  
REMUNERATION AND TALENT  
MANAGEMENT COMMITTEE

## 2016 MEMBERSHIP AND MEETING ATTENDANCE

|                            | NUMBER ATTENDED |
|----------------------------|-----------------|
| Tim Baker (Chairman)       | 9/9             |
| William Hayes <sup>1</sup> | 8/9             |
| Ollie Oliveira             | 9/9             |

1. William Hayes was unable to attend one meeting due to aircraft delay. This meeting was not included in the schedule of planned meetings at the beginning of the year.
- Other regular attendees include the Group CEO, Vice President of Human Resources, Company Secretary and Secretary to the Board.
  - Effective 1 January 2017, William Hayes and Ollie Oliveira rotated off the Committee and Vivianne Blanlot and Francisca Castro joined the Committee.
  - Mrs Blanlot and Mrs Castro received briefings on the UK remuneration reporting regulations and Corporate Governance Code as part of the induction process following their appointments as Directors and will undertake further specific technical briefings in 2017.
  - The Committee meets as necessary and at least twice per year.
  - All Committee members are independent.

## KEY ACTIVITIES IN 2016

### DIRECTORS' REMUNERATION

- Evaluated Chairman, Director and Committee fees, recommending to the Board that all fees remain unchanged except for a new separate fee payable to the Senior Independent Director.
- Reviewed the Company's 2015 Remuneration Report prior to its approval by the Board and subsequent approval by shareholders at the 2016 AGM.

### EXECUTIVE REMUNERATION

- Determined Iván Arriagada's remuneration on his appointment to the role of Group CEO.
- Evaluated the performance of the Group CEO and determined variable compensation payable under the 2015 Annual Bonus Plan and Strategic Awards.
- Reviewed the structure of the Group's Annual Bonus Plan and LTIP and recommended minor changes to the Board for approval.
- Reviewed LTIP eligibility, participants and performance against set criteria and approved the vesting of awards.
- Analysed Group performance against the 2016 Annual Bonus Plan and performance metrics to apply to the 2017 Annual Bonus Plan.
- Reviewed and approved the performance of the members of the Executive Committee under the 2015 Annual Bonus Plan.

### GROUP PAY STRUCTURES

- Oversaw implementation of the functional simplification programme which involved the centralisation of support functions.
- Reviewed compensation across the Group to ensure that it remains competitive, motivating and appropriately aligned with the Group's performance and strategy.

### TALENT MANAGEMENT AND SUCCESSION PLANNING

- Oversaw transition arrangements relating to the implementation of the succession plan for the Group CEO.
- Reviewed the application of the Group's talent management and succession planning policies, including further development of the graduate trainee programme.

## REMUNERATION AT A GLANCE

Introductory letter from the Chairman of the Remuneration and Talent Management Committee

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Relative change in remuneration

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2017 Directors' Remuneration Policy

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## COMPANY SHARE PRICE PERFORMANCE



The calculation metrics are set out on page 110.

## GROUP CEO 2017 POTENTIAL TOTAL REMUNERATION

|                       |                                 |          |                                    |          |
|-----------------------|---------------------------------|----------|------------------------------------|----------|
| MAXIMUM               | 43%                             | 43%      | 14%                                | \$1.366m |
| TARGET                | 55%                             | 27%      | 18%                                | \$1.074m |
| MINIMUM               | 100%                            | \$0.592m |                                    |          |
| <b>FIXED ELEMENTS</b> | <b>ANNUAL VARIABLE ELEMENTS</b> |          | <b>LONG-TERM VARIABLE ELEMENTS</b> |          |
|                       |                                 |          |                                    |          |

Figures are based on the assumptions set out in detail on page 109.

## 2014 REMUNERATION POLICY

# SUMMARY OF 2014 DIRECTORS' REMUNERATION POLICY

The 2014 Directors' Remuneration Policy was approved by shareholders at the AGM held on 21 May 2014 and took effect from that date. The summary policy table below is provided for reference, and covers elements of the policy that apply to all Directors. It does not formally form part of the Remuneration Report and has not been separated into elements relating to the role of Executive Chairman and Non-Executive Director following Jean-Paul Luksic's re-designation as Non-Executive Chairman in 2014.

The full Remuneration Policy approved by shareholders at the 2014 AGM can be found in the Remuneration and Talent Management section of the Company's website at [www.antofagasta.co.uk/investors/corporate-governance/board-committees](http://www.antofagasta.co.uk/investors/corporate-governance/board-committees).

The Company's policy is to ensure that Directors are fairly rewarded with regard to their responsibilities, and to consider comparable pay levels and structures in the UK and Chile, and in the international mining industry. Remuneration levels for Directors are reviewed annually in comparison with companies of a similar nature, size and complexity and take into account the specific responsibilities undertaken and the structure of the Board.

| PURPOSE                      | OPERATION   | MAXIMUM OPPORTUNITY  |
|------------------------------|---|--|
| <b>Fees</b>                  | To attract and retain high-calibre, experienced Non-Executive Directors by offering globally competitive fee levels.  | In normal circumstances, the maximum annual fee increase will be 7%. However, the Committee has discretion to exceed this in exceptional circumstances, for example: <ul style="list-style-type: none"> <li>- if there is a sustained period of high inflation;</li> <li>- if fees are out of line with the market; and/or</li> <li>- if fees for chairing or serving as a member of any of the Board's committees are out of line with the market.</li> </ul> Any increases will take into account the factors described under "operation" and will not be excessive. Fee levels for additional roles within the Antofagasta Group are based on the needs and time commitment expected and may be determined and/or paid in a combination of currencies, including US dollars and Chilean pesos. Fees will also be increased to take account of Chilean inflation and may be reported as an increase or decrease as a result of the exchange rate impact of Chilean peso-denominated fees, given all amounts in this report are reported in US dollars. |
| <b>Variable remuneration</b> | Given the non-executive composition of the Board, there are no arrangements for Directors to acquire benefits through the acquisition of shares in the Company or any of its subsidiary undertakings, to benefit through performance-related pay or to participate in long-term incentive schemes. The Corporate Governance Code states that remuneration for Non-Executive Directors should not include share options or other performance-related elements. |  |
| <b>Benefits</b>              | To provide appropriate benefits required in the performance of the duties of Non-Executive Directors.   | In normal circumstances, the maximum value of benefits will be \$22,000. However, the Committee has discretion to exceed this should the underlying cost of providing the pre-existing benefits increase, or if additional benefits are provided and are deemed appropriate.   |
| <b>Pension</b>               | No Director receives pension contributions. The Corporate Governance Code considers that the participation by a Non-Executive Director in a company's pension scheme could potentially affect the independence of that Non-Executive Director.  |  |

As Directors do not receive variable remuneration, there are no provisions in place to recover sums paid or withhold payments.

No Executive Directors were appointed, or served, on the Board in 2016.

# 2016 REMUNERATION REPORT

## STATEMENT OF SHAREHOLDER VOTING

The table below shows the voting results on the 2014 Directors' Remuneration Policy at the 2014 AGM and on the Company's 2015 Remuneration Report at the 2016 AGM:

### RESOLUTION TO APPROVE THE 2014 DIRECTORS' REMUNERATION POLICY

|  |             |
|--|-------------|
| Votes for  | 965,357,216 |
|  | 91.8%       |
| Votes against                                      | 86,053,542  |
|  | 8.2%        |
| Votes cast as a percentage of Issued Share Capital | 88.7%       |
| Votes withheld                                     | 1,350,645   |

### RESOLUTION TO APPROVE THE COMPANY'S 2015 REMUNERATION REPORT

|  |               |
|--|---------------|
| Votes for  | 1,052,359,607 |
|  | 99.89%        |
| Votes against                                      | 1,138,173     |
|  | 0.11%         |
| Votes cast as a percentage of Issued Share Capital | 88.84%        |
| Votes withheld                                     | 61,608        |

The considerable vote in favour of the 2014 Directors' Remuneration Policy and the Company's 2015 Remuneration Report confirms the strong support the Group has received from shareholders for the Group's remuneration arrangements in recent years.

## IMPLEMENTATION OF THE DIRECTORS' REMUNERATION POLICY IN 2016

### CHAIRMAN

Mr Jean-Paul Luksic was appointed Executive Chairman in 2004 and was re-designated as Non-Executive Chairman in 2014. Mr Luksic's total 2016 fee was \$1,000,000, comprising, for his services as Chairman of the Board: \$730,000 per annum, Chairman of the Nomination and Governance Committee: \$10,000 per annum, and Chairman of the Antofagasta Minerals board: \$260,000 per annum.

Since the last policy review in 2014, this reflects a decrease of 61%, reflecting his role change from Executive to Non-Executive and his continuing responsibility, experience and time commitment to the role.

### SENIOR INDEPENDENT DIRECTOR

Ollie Oliveira was appointed Senior Independent Director with effect from 1 September 2016. On 24 January 2017, the Board approved an annual fee of \$20,000 for performing this role in recognition of its importance, and the additional time commitment, which is in line with market practice.

## REMUNERATION REPORTING FRAMEWORK

This Remuneration Report has been prepared in accordance with Schedule 8 of the Large and Medium-sized Companies and Groups (Accounts and Reports) Regulations 2008 (as amended). It also describes how the Board has applied the principles of good governance as set out in the Corporate Governance Code.

### NON-EXECUTIVE DIRECTORS

There has been no change to Non-Executive Director fees since 2012. The base Non-Executive Director's fee in respect of the Board remains at \$130,000 per annum. Given the core role which Antofagasta Minerals plays in the management of the mining operations and projects, all Directors also serve as directors of Antofagasta Minerals. The annual fee payable to directors of Antofagasta Minerals remains at \$130,000. Therefore, the combined base fees payable to Non-Executive Directors amounted to \$260,000 per annum.

The Board remains satisfied that the current fee levels and structure are aligned with the Group's international peers and is not recommending any change this year, but will continue to review fee levels from time to time, in accordance with the Remuneration Policy.

In addition to Board fees, Non-Executive Directors also received fees for their participation on Board Committees during the year. In 2016, with the assistance of Willis Towers Watson, the Committee reviewed the fee levels and decided that other than recommending a new annual fee for the Senior Independent Director, the existing Committee fees should remain unchanged, as they have since 2012.

| ROLE   | ADDITIONAL FEES (\$'000) |
|--|--------------------------|
| Senior Independent Director                                  | 20 <sup>1</sup>          |
| Audit and Risk Committee Chairman                            | 20                       |
| Audit and Risk Committee member                              | 10                       |
| Nomination and Governance Committee Chairman                 | 10                       |
| Nomination and Governance Committee member                   | 4                        |
| Projects Committee Chairman                                  | 16                       |
| Projects Committee member                                    | 10                       |
| Remuneration and Talent Management Committee Chairman        | 16                       |
| Remuneration and Talent Management Committee member          | 10                       |
| Sustainability and Stakeholder Management Committee Chairman | 16                       |
| Sustainability and Stakeholder Management Committee member   | 10                       |

1. This fee was approved by the Board on 24 January 2017 and took effect from that date.

The 2014 Directors' Remuneration Policy does not allow for the payment of variable remuneration to the Chairman or Non-Executive Directors.

## AUDITED SINGLE FIGURE REMUNERATION TABLE

The remuneration of the Directors and the Group CEO for the year is set out below in US dollars. Unless otherwise noted, amounts paid in Chilean pesos have been converted at the exchange rate on the first day of the month following the date of payment.

Any additional fees payable for membership of subsidiary and joint venture company boards are included within the amounts attributable to the Directors in the table below.

As explained in the Remuneration Policy, Director do not receive pensions or performance-related pay and are not eligible to participate in the LTIP.

|  | RECRUITMENT AWARDS / STRATEGIC AWARDS |              |                       |            |                           |            |                         |                         |                                       |            |              |              |
|--|---------------------------------------|--------------|-----------------------|------------|---------------------------|------------|-------------------------|-------------------------|---------------------------------------|------------|--------------|--------------|
|  | SALARY/FEES                           |              | BENEFITS <sup>5</sup> |            | ANNUAL BONUS <sup>6</sup> |            | LTIP <sup>7</sup>       |                         | RECRUITMENT AWARDS / STRATEGIC AWARDS |            | TOTAL        |              |
|  | 2016 \$000                            | 2015 \$000   | 2016 \$000            | 2015 \$000 | 2016 \$000                | 2015 \$000 | 2016 <sup>8</sup> \$000 | 2015 <sup>9</sup> \$000 | 2016 <sup>10</sup> \$000              | 2015 \$000 | 2016 \$000   | 2015 \$000   |
| <b>Chairman</b>  |                                       |              |                       |            |                           |            |                         |                         |                                       |            |              |              |
| Jean-Paul Luksic   | 1,000                                 | 1,098        | 14                    | 39         | –                         | –          | –                       | –                       | –                                     | –          | 1,014        | 1,137        |
| <b>Non-Executive Directors</b>                                 |                                       |              |                       |            |                           |            |                         |                         |                                       |            |              |              |
| Ollie Oliveira <sup>1</sup>                                    | 299                                   | 288          | 6                     | 14         | –                         | –          | –                       | –                       | –                                     | –          | 305          | 302          |
| Gonzalo Menéndez   | 260                                   | 313          | 15                    | 77         | –                         | –          | –                       | –                       | –                                     | –          | 275          | 390          |
| Ramón Jara <sup>2</sup>  | 833                                   | 876          | 20                    | 45         | –                         | –          | –                       | –                       | –                                     | –          | 853          | 921          |
| Juan Claro   | 270                                   | 270          | 6                     | 21         | –                         | –          | –                       | –                       | –                                     | –          | 276          | 291          |
| Hugo Dryland (retired effective 31 October 2016)               | 217                                   | 260          | 11                    | 12         | –                         | –          | –                       | –                       | –                                     | –          | 228          | 272          |
| William Hayes  | 339                                   | 342          | 13                    | 66         | –                         | –          | –                       | –                       | –                                     | –          | 352          | 408          |
| Tim Baker  | 300                                   | 294          | 7                     | 21         | –                         | –          | –                       | –                       | –                                     | –          | 307          | 315          |
| Andrónico Luksic C   | 260                                   | 260          | 4                     | 24         | –                         | –          | –                       | –                       | –                                     | –          | 264          | 284          |
| Vivianne Blanlot   | 270                                   | 270          | 6                     | 12         | –                         | –          | –                       | –                       | –                                     | –          | 276          | 282          |
| Jorge Bande  | 280                                   | 275          | 4                     | 12         | –                         | –          | –                       | –                       | –                                     | –          | 284          | 287          |
| Francisca Castro (appointed effective November 2016)           | 43                                    | –            | 2                     | –          | –                         | –          | –                       | –                       | –                                     | –          | 45           | –            |
| <b>Total Board</b>   | <b>4,371</b>                          | <b>4,545</b> | <b>108</b>            | <b>343</b> |                           |            | –                       | –                       | –                                     | –          | <b>4,479</b> | <b>4,888</b> |
| <b>Group CEO (not on the Board)</b>                            |                                       |              |                       |            |                           |            |                         |                         |                                       |            |              |              |
| Diego Hernández <sup>3</sup> (Group CEO until 8 April 2016)    | 226                                   | 847          | 2                     | 11         | 117                       | 325        | –                       | 528                     | 1,180                                 | 734        | 1,525        | 2,445        |
| Iván Arriagada <sup>4</sup> (appointed Group CEO 8 April 2016) | 417                                   | –            | 6                     | –          | 260                       | –          | 60                      | –                       | –                                     | –          | 742          | –            |
| <b>Total Group CEO</b>   | <b>643</b>                            | <b>847</b>   | <b>8</b>              | <b>11</b>  | <b>377</b>                | <b>325</b> | <b>60</b>               | <b>528</b>              | <b>1,180</b>                          | <b>734</b> | <b>2,266</b> | <b>2,445</b> |
| <b>Grand total</b>   | <b>5,013</b>                          | <b>5,392</b> | <b>116</b>            | <b>354</b> | <b>377</b>                | <b>325</b> | <b>60</b>               | <b>528</b>              | <b>1,180</b>                          | <b>734</b> | <b>6,745</b> | <b>7,333</b> |

- From 1 January 2016 until 30 April 2016, fees payable in respect of Ollie Oliveira's service as a Director were paid to Greengrove Capital LLP, a partnership in which Ollie Oliveira was a partner.
- During 2016, remuneration of \$533,000 (2015 – \$524,000) for the provision of services by Ramón Jara was paid to Asesorías Ramón F Jara Ltda. This amount is included in the amounts attributable to Ramón Jara of \$833,000 (2015 – \$876,000).
- Amounts disclosed for Diego Hernández in 2016 relate to (i) the pro rata value of his base salary, benefits and annual bonus from 1 January 2016 until 8 April 2016; and (ii) Strategic Awards that vested on 30 April and 1 August 2016 – after his transition out of the role of Group CEO (as set out in detail on page 107) – and which have not been pro-rated in the single figure table. The LTIP awards granted to Diego Hernández in 2014 which were due to vest on 19 March 2017 were forfeited by Mr Hernández as a condition of entitlement to the Strategic Awards. No pension was payable to Diego Hernández. The benefits expense represents the provision of life and health insurance and does not include taxable benefits relating to expenses.
- The amounts disclosed for 2016 relate to remuneration paid to Iván Arriagada from 8 April 2016, including base salary and benefits and the pro rata value of his annual bonus and LTIP awards vesting in 2016. No pension is payable to Iván Arriagada. The benefits expense represents the provision of life and health insurance and does not include taxable benefits relating to expenses.
- Includes amounts which are deemed by UK tax authorities to be taxable benefits relating largely to the costs of Non-Executive Directors' expenses in attending Board meetings in the UK (including associated hotel and subsistence expenses). Given these expenses are incurred by Directors in the fulfilment of their duties, the Company also pays the tax incurred by Directors on these expenses. These amounts were not disclosed in the 2015 Remuneration Report because the Company was not alerted until after the 2016 Annual General Meeting that these

amounts were taxable. The figures for 2015 are higher than for 2016 because there were more meetings in London in 2015 than in 2016 and the 2015 figures include spouse travel costs which did not apply in 2016. Amounts for Jean-Paul Luksic include the provision of life, accident and health insurance. Amounts for Ramón Jara include the provision of accident insurance.

- The annual bonus paid to Diego Hernández in 2015 is reported based on the exchange rate as at 1 April 2015. In the 2015 Remuneration Report a slightly lower figure of \$321,000 was reported, which reflected the anticipated exchange rate at the date the 2015 Remuneration Report was published.
- As explained on page 105, awards granted pursuant to the LTIP are split between Restricted Share Awards and Performance Share Awards. Amounts relating to Restricted Share Awards are reported in the year that they vest. Performance Share Awards are reported in the year that the performance period ends.
- The 2016 amounts payable to Iván Arriagada under the LTIP relate to Restricted Share Awards granted in 2015 that vested in 2016. The amount is the pro rata portion of the payment in relation to the period from 8 April 2016 until 31 December 2016.
- The 2015 amounts payable to Diego Hernández under the LTIP relate to Restricted Share Awards and Performance Share Awards granted in 2013 and to Restricted Share Awards granted in 2012 and 2014. The performance period for Performance Share Awards granted in 2013 concluded on 31 December 2015 and the awards vested on 8 April 2016. This figure is the final amount paid for the entire performance period. In the 2015 Annual Report an estimate was used because the 2013 Performance Share Awards had not yet vested.
- Details of the performance conditions and vesting dates attaching to this award are explained in more detail on page 107.

## DIRECTORS' INTERESTS (AUDITED)

The Directors who held office at 31 December 2016 had the following interests in ordinary shares of the Company:

|                               | ORDINARY SHARES OF 5P EACH |                   |
|-------------------------------|----------------------------|-------------------|
|                               | 31 DECEMBER<br>2016        | 1 JANUARY<br>2016 |
| Jean-Paul Luksic <sup>1</sup> | 41,963,110                 | 41,963,110        |
| Ramón Jara <sup>2</sup>       | 5,260                      | 5,260             |

1. Jean-Paul Luksic's interest relates to shares held by Aureberg Establishment, an entity that he ultimately controls.

2. Ramón Jara's interest relates to shares held by a close family member.

There have been no changes to the Directors' interests in the shares of the Company between 31 December 2016 and the date of this report.

The Directors had no interests in the shares of the Company during the year other than the interests set out in the table above. No Director had any material interest in any contract (other than a service contract) with the Company or its subsidiary undertakings during the year other than in the ordinary course of business.

## SHAREHOLDING GUIDELINES

The Group does not have shareholding guidelines or requirements for Directors, all of whom are non-executive, or for the Group CEO and Executive Committee members, all of whom are based in Chile.

Chairman Jean-Paul Luksic and Non-Executive Director Andrónico Luksic C are members of the Luksic family; members of the Luksic family are interested in the E. Abaroa Foundation which controls the Metalinvest Establishment and Kupferberg Establishment (which, in aggregate, hold approximately 60.66% of the Company's ordinary shares and approximately 94.12% of the Company's preference shares). In addition, Mr Jean-Paul Luksic controls the Severe Studere Foundation which, in turn, controls Aureberg Establishment (which holds approximately 4.26% of the Company's ordinary shares). This creates significant alignment between these members of the Board and shareholders.

Certain senior executives participate in the Group's LTIP, which entitles them to cash-based contingent share awards linked to Antofagasta's share price. Further details of the LTIP are set out on page 105.

The Committee believes that cash-based awards are appropriate because share based awards would be taxable on the date of grant for Chilean employees.

During the period, no Non-Executive Director was eligible for any short-term or long-term incentive awards and no Non-Executive Director owns any shares that have resulted from the achievement of performance conditions.

## LETTERS OF APPOINTMENT

Each Non-Executive Director has a letter of appointment from the Company. The Company has a policy of putting all Directors forward for re-election at each AGM, in accordance with the UK Corporate Governance Code. Under the terms of the letters, if the shareholders do not confirm a Director's appointment, the appointment will terminate with immediate effect. In other circumstances, the appointment may be terminated by either party on one month's written notice.

There is a contract between Antofagasta Minerals and Asesorías Ramón F Jara Ltda dated 2 November 2004 for the provision of advisory services by Ramón Jara. This contract does not have an expiry date but may be terminated by either party on one month's notice. No other Director is party to a service contract with the Group.

## VOLUNTARY DISCLOSURES – EXECUTIVE REMUNERATION

Iván Arriagada is responsible for leading the senior management team and for the executive management of the Group. Members of the Executive Committee report to Mr. Arriagada and are responsible for leading the day-to-day operation of the Group's mining and transport businesses. No member of the Executive Committee, nor the Group CEO, sits on the Board of the Company. Consequently, the following disclosures have been made voluntarily to demonstrate the remuneration arrangements that the Committee believe are appropriate for the Group CEO and the Group's executives including the variable pay mechanisms (Annual Bonus Plans and LTIP) which are designed to motivate the Group CEO and the Group as a whole to effectively implement the Group's strategy.

## REMUNERATION PRINCIPLES

The remuneration arrangements in place for Iván Arriagada and the Executive Committee align remuneration with performance, the Group's strategic objectives and shareholders' interests. Iván Arriagada and each Executive Committee member are eligible to receive a combination of base salary and other benefits, as well as variable remuneration in the form of an annual cash bonus and cash-based contingent awards linked to the Company's share price pursuant to the LTIP.

The performance components of variable remuneration are selected to incentivise the delivery of the Group's strategy, to reward Group and individual performance and to motivate Iván Arriagada and the Executive Committee.

The table on page 110 shows the total remuneration for the Group's CEO over the last eight years. The total remuneration for the Group CEO in 2016 was 7% lower than in 2015.

Iván Arriagada's base salary and potential remuneration are currently significantly lower than they were for Diego Hernández.

The Committee will closely monitor Iván Arriagada's performance and pay arrangements. If the Committee determines that an above-inflation base salary increase is necessary, the Committee will explain the rationale for the increase in the Remuneration Report for the relevant financial year within the voluntary disclosures.

## EXTERNAL APPOINTMENTS

The Board will consider any proposal for an executive to serve as a Non-Executive Director of another company on a case-by-case basis. The Board would carefully consider the time commitments of the proposed role, the industry of the company, whether or not it is a supplier, customer or competitor and whether it would be appropriate for the executive to retain remuneration for the position.

## LEAVING ARRANGEMENTS FOR DIEGO HERNÁNDEZ

Diego Hernández did not receive any payments upon leaving other than the entitlement to one month's base salary for each year of service as envisaged in his employment contract, the details of which have previously been disclosed.

## SALARY AND BENEFITS

The total remuneration paid to Diego Hernández and Iván Arriagada in 2016 in the role of Group CEO was \$2.27 million. Fixed remuneration comprises base salary and benefits, and in 2016 represented less than 29% of total remuneration.

Benefits payable to Diego Hernández and Iván Arriagada reflect amounts paid to maintain life and health insurance policies.

According to Chilean law, all employees are required to pay their own pension and compulsory healthcare contributions. No additional contributions are made by the Group.

Iván Arriagada's total remuneration package is determined by the Committee, taking into account the performance of the Group and his personal performance. The Company also benchmarks each element of his remuneration and his total remuneration package by reference to peers in the FTSE 100 and FTSE mining indices and comparable international mining companies.

## EMPLOYMENT CONTRACT

Iván Arriagada is employed under a contract of employment with Antofagasta Minerals, a subsidiary of the Company. His contract is governed by Chilean labour law. It does not have a fixed term and can be terminated by either party on 30 days' notice in writing. Except in the case of termination for breach of contract or misconduct under the Chilean Labour Code, Iván Arriagada is entitled to receive one month's base salary for each year of service on termination, otherwise no other compensation or benefits are payable on termination of his employment. The salary payable to Iván Arriagada under his employment contract as of 8 April 2016 was Ch\$31,500,814 (\$47,484) per month and his salary is adjusted for inflation in Chile every three months.

Iván Arriagada was appointed Group CEO on 8 April 2016. His total salary payments for 2016 from that date were Ch\$278,182,966 (\$416,856) and, other than adjustments for inflation, there were no other adjustments to his salary in 2016. Under his employment agreement, Iván Arriagada is entitled to 20 working days' paid holiday per year. He is also entitled to life and health insurance.

Because Iván Arriagada's salary is paid in Chilean pesos, it is subject to annual exchange rate movements when reported in US dollars.

## ANNUAL BONUS PLAN

Employees are eligible to receive cash bonuses under the Annual Bonus Plan based on Group and individual performance. The Annual Bonus Plan focuses on the delivery of annual financial and non-financial targets designed to align remuneration with the Group's strategy and create a platform for sustainable future performance. Individual award levels are calibrated at the conclusion of each annual performance period to ensure that performance targets remain stretching and that high or maximum payments under the plan are received only for exceptional performance.

In 2016, the bonus payable to the Group CEO and members of the Executive Committee was 70% attributable to the performance of the Group and 30% to personal performance, according to metrics that were fixed at the beginning of the year.

The bonus payable to the Group CEO for achieving both Group and personal performance targets in 2016 was 50% of annual base salary. The maximum bonus receivable by the Group CEO for achieving stretch performance targets in 2016 was 100% of annual base salary.

The average maximum available bonus for the Executive Committee members under the Annual Bonus Plan, for achieving their maximum individual and Group performance targets, is 70% of base salary. In 2016, the average bonus for the Executive Committee members was approximately 38% of base salary.

The Group performance criteria for the Annual Bonus Plan and the individual performance criteria for the Group CEO are set annually by the Committee. The individual performance criteria for the Executive Committee are set by the Group CEO and reviewed by the Committee.

We have provided greater detail on the Annual Bonus Plan metrics this year, on a voluntary basis, including the outcomes against each of the performance metrics relating to business development and sustainability and organisational capabilities. This is to provide shareholders with even further clarity on the structure of the metrics and reassurance that the metrics are based on stretching performance.

A critical issue for a mining company is the commodity price and we carefully review the impact of changes in this price on our long-term and annual performance targets to ensure there is fair opportunity for achievement under each metric.

## GROUP PERFORMANCE UNDER THE 2016 ANNUAL BONUS PLAN

In 2016, Group performance under the Annual Bonus Plan was as follows. The choice of these criteria, and their respective weightings, reflects the Committee's belief that any incentive compensation should be tied both to the overall performance of the Group and to those areas of the business that the relevant individual can directly influence.

| WEIGHTING                             | OBJECTIVE  | MEASURE | 2016 THRESHOLD<br>(90)   | 2016 TARGET<br>(100) | 2016 MAXIMUM<br>(110) | 2016 OUTCOME | 2016 RESULT <sup>1</sup> |
|---------------------------------------|--|---------|--|----------------------|-----------------------|--------------|--------------------------|
| <b>70%</b>                            | <b>Core Business</b>                                   |         |  |                      |                       |              | <b>100.3</b>             |
| 10%                                   | EBITDA <sup>2</sup>                                    | \$m     | 1,277  | 1,419                | 1,516                 | 1,534        | 108                      |
| 25%                                   | Copper Production <sup>3</sup>                         | kt      | 691  | 735                  | 757                   | 709          | 94                       |
| 30%                                   | Costs  |         |  |                      |                       |              |                          |
|                                       | Cash costs before by-product credits (24%)             | \$/lb   | 165  | 155.4                | 151                   | 154.1        | 103                      |
|                                       | Corporate Expenditure (6%)                             | \$m     | 86   | 82                   | 78                    | 78           | 110                      |
| 5%                                    | Operating Companies' Capex <sup>4</sup>                |         | Measured according to schedule and budget as described in more detail in the footnotes     |                      |                       |              | 92                       |
| <b>5%</b>                             | <b>Business Development</b>                            |         |  |                      |                       |              | <b>104.0</b>             |
| 3%                                    | Growth Projects' Execution <sup>5</sup>                |         | Measured according to schedule/budget/quality as described in more detail in the footnotes |                      |                       |              | 100                      |
| 2%                                    | Business Development Savings <sup>6</sup>              |         | Measured according to KPIs and milestones as described in more detail in the footnotes     |                      |                       |              | 110                      |
| <b>25%</b>                            | <b>Sustainability and Organisational Capabilities</b>  |         |  |                      |                       |              | <b>104.1</b>             |
| 5%                                    | Safety – KPIs, Reporting and Safety Model <sup>7</sup> |         |  |                      |                       |              | 107                      |
| 5%                                    | People – Productivity, Talent Management <sup>8</sup>  |         | Measured according to KPIs and milestones as described in more detail in the footnotes     |                      |                       |              | 105                      |
| 5%                                    | Environmental Performance <sup>9</sup>                 |         |  |                      |                       |              | 100                      |
| 10%                                   | Social Programmes <sup>10</sup>                        |         |  |                      |                       |              | 105                      |
| <b>Total – pre-adjustments</b>        |  |         |  |                      |                       |              | <b>101.4</b>             |
| Adjustment for fatality <sup>11</sup> |  |         |  |                      |                       |              | -1.7                     |
| <b>Total – post-adjustments</b>       |  |         |  |                      |                       |              | <b>99.7</b>              |

1. Performance range is 90-110 where 90 = threshold (0% bonus), 100 = target (50% bonus), and 110 = stretch (100% bonus).
2. Mining division only. Net of copper price and exchange rate fluctuations and adjusted for the impact of IFRIC 2016 which results in an outcome of 108, not 110.
3. 100% basis, except for Zaldívar (50%).
4. Measured against the implementation of planned works at each of the Group's mining operations to sustain the mining operations during the year and progress against the budget for the year associated with those works where Threshold is 85% completion of planned works on budget, Target is between 90% and 100% of progress on budget and Maximum is more than 105% of planned works within budget. The weighted outcome for the Group's mining operations was 92.
5. Split between the Encuentro Oxides (1.5%) and Centinela Molybdenum Plant (1.5%). Specific targets based on budgets for costs incurred, capex and PEM date with opportunity for Maximum if capex 5% lower than the 2016 budget. Dates and capex for both projects matched budget with costs incurred slightly below budget for Encuentro Oxides.
6. Split between closing the Brisbane office (1%) – Target 30 June 2016, with Maximum achieved if closed before 1 May 2016 and mining property savings (1%) achieved by consolidating mining properties in high potential areas with a target of discarding 100,000 Ha, with Maximum achieved if 150,000 Ha or more discarded. The Brisbane office closed in April 2016 and 214,000 Ha of mining property was discarded.
7. Split between fatality risk management at the Group's operations (3%) through the implementation of critical controls for fatality risks, as verified by the executive team with responsibility for Sustainability and Corporate Affairs, and performance against global lost time accidents frequency index (1%) and performance in reporting near-miss accidents with high potential (1%). Outcomes were 110 for fatality risk management and reporting of near-miss accidents with high potential and 94.6 for global lost time accidents.
8. Split between the implementation of an action plan for organisational skills analysis and talent upgrade programme (2.5%) with a Target of 31 December 2016 and Maximum implemented by 30 November 2016, and (2.5%) for implementing permanent productivity improvements at the Group's operations with a Target of a 5% productivity increase for the year to 31 December 2016 and Maximum achieved if the improvement is 10% or more. Outcomes were 105 for both criteria.
9. Split between the control of critical environmental risks (2.5%) with Target of no operating incidents with environmental impact of high potential and Maximum where additional compliance with corrective measures is defined for high potential incidents as reported in 2015/2016, submission of the EIA for the Los Pelambres Incremental Expansion project (1.25%) with a Target submission date of 30 April 2016 and Maximum performance subject to responding to initial comments before 31 December 2016 and improvement of processes to control critical environmental risks (1.25%) with a Target implementation date of 31 December 2016 and Maximum if implemented before 31 October 2016. Outcomes were 104 for the control of critical environmental risks, 100 for submission of the EIA and 90 for the improvement of processes to control critical environmental risks.
10. Split between the control of risks relating to social incidents (3%) performance of certain steps set out in the Somos Choapa programme within budget and reaching an agreement with the Caimanes community to improve social relations at Los Pelambres (4%), and approval of a Social and Communications strategy for the Antofagasta Region, including a work plan by the Sustainability and Stakeholder Management Committee (3%). Outcomes were 104 for the control of risks, 109 for progress on Somos Choapa and the Caimanes agreement and 100 for the Social and Communications strategy.
11. As noted in the Company's 2015 Remuneration Report, stand-alone adjustment triggers apply to the Annual Bonus Plan, which includes a 15% adjustment to the performance score – upwards if there are no fatalities during the year and downwards if there are one or more fatalities during the year. This resulted in an automatic reduction of 1.7 to the final Group performance score (ie 15% of 101.4 – 90).

## IVÁN ARRIAGADA – INDIVIDUAL PERFORMANCE UNDER THE 2016 ANNUAL BONUS PLAN

The Committee, with input from the Board, assessed Iván Arriagada's performance against his individual objectives as 108 (within a range of 90 (Threshold) to 110 (Maximum)) for his individual contribution to the business during the year. This performance score counts towards 30% of his annual bonus. Iván Arriagada's performance against his individual objectives is summarised below:

| CATEGORY              | PERFORMANCE   |
|-----------------------|---|
| Results               | <p>Substantially met the key objectives set out by the Board at the beginning of the year:</p> <ul style="list-style-type: none"> <li>- Production guidance for the year was met.</li> <li>- Net cash costs were 20% lower than the previous year.</li> <li>- Centinela thickener issues were resolved and production improved by 7% compared with 2015.</li> <li>- The start-up of Antucoya was in line with guidance.</li> </ul>  |
| Leadership            | <p>Strong leadership was demonstrated by:</p> <ul style="list-style-type: none"> <li>- Initiation of processes to drive safety leadership across the Group.</li> <li>- Introduction of an operating excellence programme at the Group's operations, targeting maintenance, planning and execution.</li> <li>- Following through on the cost reduction programmes started in 2015 to deliver measurable savings in 2016.</li> <li>- Development of succession plans and the creation of synergies across the Group's operations.</li> <li>- Successful integration of Zaldívar, with operating improvements now underway.</li> </ul> |
| Strategic development | <p>Focused on the priorities established by the Board, namely to cut costs and improve performance of the Group's operations, in order to maintain competitiveness in a low copper price environment.</p>   |
| Capital projects      | Capital projects progressed on time and on budget.  |

Based on performance achieved against targets during the 2016 financial year, the Committee determined that Iván Arriagada would receive a bonus payment of \$356,754 for 2016. This figure was determined as follows:

$$\text{Overall Performance Score} \quad (70\% \times 99.7) + (30\% \times 108) = 102.19$$

$$\text{Overall Performance Score as a percentage to be applied to the Maximum} \quad (102.19 - 90) \div 20 = 60.95\%$$

$$\text{Gross Annual Bonus} \quad 60.95\% \text{ of Ch\$386,020,102 (Maximum)} = \text{Ch\$235,279,252}$$

$$\text{In USD using exchange rate of \$1 = Ch\$659.5} \quad \$356,754$$

As the annual bonus is paid in Chilean pesos, it is subject to annual exchange rate movements when reported in US dollars.

## LONG-TERM INCENTIVE PLAN (LTIP)

The Company introduced the LTIP at the end of 2011. Eligibility to participate in the LTIP is determined by the Committee each year on an individual basis and all members of the Executive Committee currently participate. Awards are normally granted annually. Directors are not eligible to participate.

Under the LTIP, participants are eligible to receive "phantom" share awards (conditional rights to receive a cash payment by reference to a specified number of the Company's ordinary shares), which are paid in cash upon vesting based on the price of the Company's ordinary shares at the time of vesting.

LTIP awards are split between Restricted Share Awards (RSAs) and Performance Share Awards (PSAs). The RSAs vest only if the relevant employee remains employed by the Group on the vesting date. The PSAs vest subject to both the satisfaction of performance conditions and the relevant employee remaining employed by the Group on the vesting date. The same performance criteria apply to all participants in the LTIP and are designed to link business objectives, shareholder value and senior management rewards.

- PSAs reward performance over three years. There is no additional holding period before these amounts are paid.
- RSAs vest one-third in each year over a three-year period following grant of the award.

The number of PSAs and RSAs awarded to each member of the Executive Committee is calculated as a percentage of salary up to a limit of 200% of base salary or 325% of base salary if the Committee determines that exceptional circumstances apply. The market value of shares in relation to which the award is to be granted is equal to the closing price on the dealing day before the grant, or, if the Committee determines, the average closing price during a period set by the Committee not exceeding five dealing days ending with the last dealing day before the grant.

Iván Arriagada participates in the LTIP and received total payments of \$59,608 in respect of the RSAs granted in 2015 that vested in 2016, which amounted to 14% of his base salary.

## 2016 REMUNERATION REPORT CONTINUED

During 2017 the PSAs granted in 2014 will vest. Iván Arriagada does not hold these PSAs and performance will not be finally determined by the Committee until after the date of this report, once the Group's 2016 results have been released to the market. The performance criteria attaching to these PSAs and the anticipated performance against these criteria, based on estimates as at the date of this report, are as follows:

| WEIGHTING | OBJECTIVE   | MEASURE   |  |  | ANTICIPATED PERFORMANCE  | ANTICIPATED ACHIEVEMENT <sup>1</sup> |
|-----------|---|---|--|--|--|--------------------------------------|
|           |   | THRESHOLD (0%)  | TARGET (50%)   | MAXIMUM (100%)   |  |                                      |
| 25%       | Relative Total Shareholder Return <sup>2</sup>  | 0% vesting at performance below the index during the three year period  | 33% vesting at performance equal to the index during the three-year period   | 100% vesting at performance equal to or greater than the index plus 5% during the three-year period  | To be updated at the vesting date.   | 100%                                 |
| 30%       | EBITDA <sup>3</sup>   | 0% vesting at \$5,385 million or below  | 75% vesting at \$6,058 million   | 100% vesting at \$6,731 million  | EBITDA for the period was \$4,891 million  | 0%                                   |
| 7%        | Mineral Resources Increase  | 0% vesting at 75,236 million tonnes of contained copper or below as at 31 December 2016, which takes into account 1.0 million tonnes of expected extraction by the operating companies in Chile over the performance period | 50% vesting at 76,236 million tonnes of contained copper   | 100% vesting at 77,236 million tonnes of contained copper, of which 1.0 million tonnes of the increase is in Chile   | Resources increased to 84,211 million tonnes of contained copper   | 100%                                 |
| 5%        | Mineral Reserves Increase   | 0% vesting at 18,372 million tonnes of contained copper or below  | 33% vesting at 21,684 million tonnes of contained copper   | 100% vesting at 23,692 million tonnes of contained copper  | Reserves increased to 20,164 million tonnes of contained copper + 184 attributable to Zaldivar                     | 31.6%                                |
| 33%       | Projects, Development and Sustainability  |   |  |  |  |                                      |
| 1.        | Encuentro Oxides and Centinela Second Concentrator (four project specific goals) (8%) | At least two of the four goals achieved   | At least three of the four goals achieved  | All four goals achieved  |  | 100%*                                |
| 2.        | Antucaya (four project specific goals) (10%)  | At least two of the four goals achieved   | At least three of the four goals achieved  | All four goals achieved  | None of these goals were met   | 0%                                   |
| 3.        | Safety – mining division (5%)   | Over the three-year period, zero fatalities and LTIFR less than an average of 1.3. Achieving certain milestones associated with the Safety and Health Model.  | Over the three-year period, zero fatalities and LTIFR less than an average of 1.1. Achieving certain milestones associated with the Safety and Health Model. | Over the three-year period, zero fatalities and LTIFR less than an average of 1.0. Achieving certain milestones associated with the Safety and Health Model. | There were five fatalities in the period. The milestones associated with the Safety and Health Model were achieved | 35%                                  |
| 4.        | Los Pelambres expansion project (6%)  | EIA submitted by 31 December 2015   | Feasibility study completed and EIA submitted by 31 December 2015  | EIA approved and project approved for execution by 31 December 2016  |  | 100%*                                |
| 5.        | Twin Metals project (4%)  | Pre-feasibility study completed by 31 December 2014   | Pre-feasibility study and basic information for the mine plan of operation completed by 31 December 2014   | Pre-feasibility study with definitive mine plan of operation completed and environmental review process ongoing by 31 December 2015                          | This objective was not met   | 0%                                   |
| Total     |   |   |  |  |  | 49.4%                                |

\* Due to market conditions in 2015 and 2016, the Board made certain decisions that resulted in a slow-down of the execution timetable for the Group's projects portfolio. As a result, the Committee has agreed to adjust the outcome of the performance criteria that apply to PSAs granted in 2014 relating to execution of the Encuentro Oxides and Centinela Second Concentrator projects and the Los Pelambres expansion project.

1. Anticipated performance is based on estimates made as at the date of this report. These awards will not vest until after the Group's 2016 results have been released to the market.
2. Total shareholder return is calculated to show a theoretical change in the value of a shareholding over a specified period, assuming that dividends are reinvested to purchase additional shares at the closing price applicable on the ex-dividend date. Total shareholder return for the Euromoney Global Mining Index is calculated by aggregating the returns of all individual constituents of that index and, for the purposes of comparison with the Company's share performance, taking an average of the index over three months before the beginning and the end of the period respectively.
3. Targets are calculated based on the Group's accumulated EBITDA over the period from 2014-2016, versus the 2014 budget figure and the Group's 2014 internal base case figures for 2015 and 2016. The final calculation will not be adjusted for commodity price or exchange rate fluctuations.

The following LTIP awards with one or more outstanding tranches have been granted to Iván Arriagada.

| YEAR OF GRANT | AWARD TYPE               | NUMBER OF SHARES OVER WHICH THE GRANT RELATES | DATE OF AWARD | VESTING DATES                                   | FACE VALUE OF AWARD (USING MARKET PRICE AT GRANT) \$'000 | MARKET PRICE AT THE DATE OF GRANT \$ <sup>1</sup> | END OF PERFORMANCE PERIOD | % OF AWARD RECEIVABLE IF THRESHOLD PERFORMANCE ACHIEVED | % OF AWARD RECEIVABLE IF TARGET PERFORMANCE ACHIEVED | % OF AWARD RECEIVABLE IF MAXIMUM PERFORMANCE ACHIEVED |
|---------------|--------------------------|---|---------------|---|--|---|---------------------------|---|--|---|
| 2015          | Performance Share Awards | 35,645  | 25 March 2015 | 25 March 2018                                   | 375  | 10.77   | 31 December 2017          | 0%  | 50%  | 100%  |
|               | Restricted Share Awards  | 35,645  | 25 March 2015 | 25 March 2016<br>25 March 2017<br>25 March 2018 | 375  | 10.77   | N/A                       | 0%  | 100%   | 100%  |
| 2016          | Performance Share Awards | 85,559  | 22 March 2016 | 22 March 2017                                   | 630  | 7.14  | 31 December 2018          | 0%  | 50%  | 100%  |
|               | Restricted Share Awards  | 36,668  | 22 March 2016 | 22 March 2017<br>22 March 2018<br>22 March 2019 | 270  | 7.14  | N/A                       | 0%  | 100%   | 100%  |

1. The market price used at the date of grant was the closing price on the dealing day before the grant date.

## DIEGO HERNÁNDEZ – STRATEGIC AWARDS

Diego Hernández received Strategic Awards in 2015, in lieu of the LTIP awards that he may otherwise have received and in substitution for the PSAs and RSAs granted in 2014. The purpose of these Strategic Awards was to align his performance goals with the Group's strategy, taking into account his new role and its associated responsibilities, and also his planned retirement in 2016 following a smooth handover to his successor.

The Strategic Awards were cash awards not linked to the Company's share price. The amount paid to Diego Hernández during 2016 in relation to these awards was \$1,180,000, 77% of the maximum.

| AWARD TYPE  | GRANT DATE  | FACE VALUE OF AWARD (% OF BASE SALARY) | FACE VALUE OF AWARD ('000) <sup>1</sup> | ACTUAL VALUE OF AWARD ('000) <sup>1</sup> | END OF PERFORMANCE PERIOD OVER WHICH THE PERFORMANCE CONDITIONS HAVE BEEN FULFILLED <sup>2</sup> |
|-------------|-------------|--|---|---|--|
| Cash Awards | 21 May 2015 | 27%                                    | \$230                                   | \$230                                     | 30 April 2016  |
| Cash Awards | 21 May 2015 | 153%                                   | \$1,300                                 | \$950                                     | 1 August 2016  |

1. The face value represents the maximum value of the award.

2. The actual value of the award was paid in April and August 2016, and the total amount was 77% of the face value, or \$1,180,000.

The Committee determined actual performance against the set performance conditions as follows in relation to the Strategic Awards.

| PERFORMANCE CONDITION   | MAXIMUM CASH AWARD | ACTUAL CASH AWARD |
|---|--------------------|-------------------|
| Delivery of Antucaya on time and on budget, including commissioning   | \$250,000          | \$0               |
| Successful mentoring and integration of a replacement CEO, with the replacement CEO taking up the position on or before August 2016 | \$250,000          | \$250,000         |
| Strengthening of the management team to ensure successful transition of the Group CEO role  | \$250,000          | \$250,000         |
| Growth strategy framework implemented and in operation  | \$250,000          | \$150,000         |
| Remaining in employment with Antofagasta Minerals until 1 August 2016   | \$300,000          | \$300,000         |

## INDICATIVE CEO'S TOTAL REMUNERATION IN 2017

The Group CEO's total remuneration in 2017 will consist of the same elements as in 2016, including:

- Annual base salary of Ch\$386,040,204 (\$567,706) as at 1 January 2017, subject to adjustments for Chilean inflation, as described above, and using an exchange rate of \$1 = Ch\$680
- An annual bonus equivalent to 50% of base salary if Target performance is achieved, with a Maximum of 100% if stretch targets are met
- The vesting of LTIP awards granted before 8 April 2016, equivalent to a maximum of 33% of base salary (using the average share price for the last quarter of 2016)
- A significant proportion of the remuneration available to Iván Arriagada is dependent on the performance of the Group.

## 2017 ANNUAL BONUS PLAN

The Board has agreed Group performance criteria for the 2017 Annual Bonus Plan as follows:

| WEIGHTING   | OBJECTIVE                                       | MEASURE | THRESHOLD | TARGET   | MAXIMUM |
|---|---|---------|-----------|--|---------|
| <b>60% Core Business</b>                                    |   |         |           |  |         |
| 10%   | EBITDA  | \$m     | ≤-10%     | The Group's future metals price assumptions are commercially sensitive and therefore the target for EBITDA will not be disclosed in advance. However, the Company will disclose the 2017 target and outcome in the 2017 Annual Report. | ≥+10%   |
| 25%   | Copper Production                               | tonnes  | 663,000   | 685-720,000  | 726,000 |
| 20% Costs   |   |         |           |  |         |
|   | Cash costs before by-product credits (17%)      | \$/lb   | 164.6     | 1.55   | 150.6   |
|   | Corporate Expenditure (3%)                      | \$m     | 71.9      | 68.4   | 65      |
| 5%  | Sustaining Capital Expenditure                  |         |           | Measured according to schedule and budget. The Company will disclose the 2017 target and outcome in the 2017 Annual Report.  |         |
| <b>15% Business Development – Growth Projects Execution</b> |   |         |           |  |         |
| 10%   | Encuentro Oxides and Centinela Molybdenum Plant |         |           | Measured according to KPIs and milestones. The Company will disclose the 2017 target and outcome in the 2017 Annual Report.  |         |
| 5%  | Exploration                                     |         |           |  |         |
| <b>25% Sustainability and Organisation Capabilities</b>     |   |         |           |  |         |
| 5%  | Safety  |         |           |  |         |
| 5%  | People  |         |           | Measured according to KPIs and milestones. The Company will disclose the 2017 target and outcome in the 2017 Annual Report.  |         |
| 10%   | Environmental                                   |         |           |  |         |
| 5%  | Social  |         |           |  |         |

The weighting attributable to core business has decreased from 70% of the total scorecard in 2016 to 60% in 2017, and the weighting attributable to Business Development – Growth Projects Execution has increased from 5% in 2016 to 15% in 2017. This reflects the importance of the Group's current project portfolio and an increasing focus on exploration at this point in the copper price cycle.

## 2017 LTIP AWARDS

The Committee commenced a review of the LTIP in 2016. This included reviewing the plan's objectives, methodology, participants, performance KPIs and targets. As part of this process, the plan was benchmarked against peers both globally and in the UK. Participants were asked to give feedback on the plan, including whether or not the performance KPIs adequately reflect current business challenges. As a consequence, total shareholder return will account for 35% of the performance criteria attaching to 2017 PSAs (decreased from 40% in 2016), resources increase will account for 15% (increased from 5% in 2016), and project development and sustainability will account for 30% (decreased from 35% in 2016).

The PSAs granted in 2017 will be measured over a three-year performance period. The specific targets will be determined by the Committee after the publication of the Group's 2016 results. The performance conditions are anticipated to be those set out below as at the date of this report. If the performance conditions set by the Committee end up being materially different from those disclosed below, the revised performance conditions will be disclosed in the 2017 Annual Report.

| WEIGHTING | OBJECTIVE                                | MEASURE   |
|-----------|--|---|
| 35%       | Relative Total Shareholder Return        | Comparison against Euromoney Global Mining Index with 33% vesting at performance equal to the index and 100% vesting at performance equal to or greater than the index plus 5% during the three-year period.  |
| 20%       | EBITDA                                   | Measured according to the accumulated EBITDA over the period 2017-2019. Anticipated Maximum is \$5,832 million, anticipated Target is \$5,249 million and anticipated Threshold is \$4,666 million. For 2017, this is calculated using the budget figure. For 2018 and 2019, the figures will be from the internal base case prepared during 2017. The final calculation will not take into account price and exchange rate fluctuations. |
| 15%       | Mineral Resources Increase               | Tonnes of contained copper at the end of 2019. Maximum is expected to be 81,841 million tonnes of contained copper, with an anticipated Target and Threshold of 79,795 and 77,745 million tonnes of contained copper respectively.  |
| 30%       | Projects, Development and Sustainability | Relate to the Group's priority projects (15%) and environmental and community relations performance (15%).  |

The Committee is continuing to review the structure of the LTIP with the purpose of simplifying the plan and ensuring that it is valued by participants.

## GROUP CEO'S POTENTIAL TOTAL REMUNERATION IN 2017

The following chart outlines the potential total remuneration of the Group CEO in 2017 under different performance scenarios. The chart is forward-looking and does not include information on the vesting of awards in 2016 shown in the single figure remuneration table on page 101.

### GROUP CEO

|         |      |          |     |          |
|---------|------|----------|-----|----------|
| MAXIMUM | 43%  | 43%      | 14% | \$1.366m |
| TARGET  | 55%  | 27%      | 18% | \$1.074m |
| MINIMUM | 100% | \$0.592m |     |          |

FIXED ELEMENTS      ANNUAL VARIABLE ELEMENTS      LONG-TERM VARIABLE ELEMENTS

Figures do not include PSAs (because the first tranche of PSAs awarded in 2015 will not vest until 2018) and are based on the following assumptions:

- Minimum consists of base salary plus benefits only and excludes adjustments for inflation.
- Target consists of base salary, benefits and incentive awards at 50% of the maximum potential award.
- Maximum consists of base salary, benefits and incentive awards at 100% of the maximum potential award.
- There is no change in the share price in calculating potential awards.
- Long-term variable elements are calculated using the average closing share price for the last quarter of 2016 of 630.5p and an exchange rate of £1 = \$1.242.
- Base salary, benefits and incentive awards are estimated in Chilean pesos and long-term variable elements are estimated by reference to the Company's share price, which is in sterling. These figures are therefore subject to exchange rate fluctuations.

## REMUNERATION STRUCTURE

The Committee is satisfied that the remuneration arrangements for Iván Arriagada and the Executive Committee are linked to performance, appropriately stretching and aligned to the Group's strategy. Variable remuneration is a core component of Executive Committee remuneration and in 2017 up to 60% of the Executive Committee's total annual remuneration may be received under the Annual Bonus Plan and the LTIP.

## COMPARISON OF OVERALL PERFORMANCE AND REMUNERATION

The following graph shows the Company's performance compared with the performance of the FTSE All-Share Index and the Euromoney Global Mining Index over an eight-year period, measured by total shareholder return (as defined below). The FTSE All-Share Index has been selected as an appropriate benchmark as it is the most broadly-based index to which the Company belongs and relates to the London Stock Exchange, where the Company's ordinary shares are traded.

Total shareholder return represents share price growth plus dividends reinvested over the period. Total Return Basis Index – 31 December 2008 = 100.

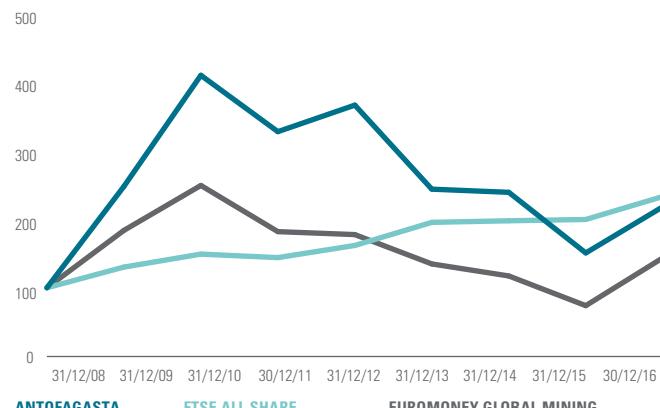
Total shareholder return performance in comparison with the Euromoney Global Mining Index is one of the performance criteria for PSAs granted pursuant to the LTIP, as described above.

Total shareholder return is calculated to show a theoretical change in the value of a shareholding over a period, assuming that dividends are reinvested to purchase additional shares at the closing price applicable on the ex-dividend date. Total shareholder return for the FTSE All-Share Index and the Euromoney Global Mining Index is calculated by aggregating the returns of all individual constituents of those indices at the end of an eight-year period.

The total remuneration of the lead executive in the Group for the past eight years, in US dollars, is as follows:

| SINGLE FIGURE<br>REMUNERATION FOR THE<br>GROUP'S LEAD EXECUTIVE<br>\$'000               | 2009         | 2010         | 2011         | 2012         | 2013         | 2014 <sup>1,2</sup> | 2015         | 2016         |
|---|--------------|--------------|--------------|--------------|--------------|---------------------|--------------|--------------|
| Chairman –<br>Jean-Paul Luksic  | 3,184        | 3,330        | 3,521        | 3,598        | 3,615        | 2,196               | –            | –            |
| Group CEO –<br>Diego Hernández  | –            | –            | –            | –            | –            | 688                 | 2,445        | 1,525        |
| Group CEO –<br>Iván Arriagada   | –            | –            | –            | –            | –            | –                   | –            | 742          |
| <b>Total</b>  | <b>3,184</b> | <b>3,330</b> | <b>3,521</b> | <b>3,598</b> | <b>3,615</b> | <b>2,884</b>        | <b>2,445</b> | <b>2,266</b> |
| Percentage change on<br>previous year   |              |              |              |              |              |                     |              | (7)%         |
| Proportion of maximum<br>annual bonus paid to the<br>Group CEO                          | –            | –            | –            | –            | –            | 69%                 | 39%          | 61%          |
| Proportion of maximum<br>LTIP awards vesting in<br>favour of the Group CEO <sup>3</sup> | –            | –            | –            | –            | –            | 76%                 | 16%          | N/A          |

1. The single figure remuneration for the Group's lead executive in 2014 comprises Jean-Paul Luksic's remuneration until 1 September 2014 (when he became Non-Executive Chairman) and Diego Hernández's remuneration from 1 September 2014 (when he became Group CEO).
2. The Chairman was not eligible for variable remuneration and the 2014 percentage figures therefore only relate to the 2014 annual bonus and LTIP awards vesting for the Group CEO.
3. The 2015 figure has been restated – an estimate was included in the 2015 Remuneration Report because these awards had not yet vested as at the date of that report. No PSAs will vest for the Group CEO for 2016. As RSAs do not have a performance element, they are not included in these calculations.



Source: Datastream.

## RELATIVE CHANGE IN REMUNERATION

The aggregated total remuneration paid to Diego Hernández and Iván Arriagada as Group CEO for 2016 was 7% lower than the total remuneration paid to Diego Hernández as Group CEO in 2015. This included a 24% decrease in fees/base salary and a 36% decrease in benefits.

The equivalent average percentage change in total remuneration for Group employees as a whole was an increase of 4%. This comprised a 2.6% increase in salaries, a 2.6% increase in benefits and an 11% increase in annual bonus. It is common for employment contracts in Chile to include an annual adjustment for Chilean inflation and most Group employees' base salaries in Chile are linked to inflation. In 2016, Chilean inflation was 2.7%.

The table below compares the changes from 2015 to 2016 in fees/base salary, benefits and annual bonus paid to the Group CEO and Group employees as a whole. The underlying elements of Group CEO pay are calculated using the values reported in the single figure remuneration table on page 101.

|                        | PERCENTAGE<br>CHANGE IN<br>BASE SALARY | PERCENTAGE<br>CHANGE IN<br>BENEFITS | PERCENTAGE<br>CHANGE IN<br>ANNUAL BONUS |
|------------------------|--|-------------------------------------|---|
| Group CEO <sup>1</sup> | (24)%                                  | (36)%                               | 16% <sup>2</sup>                        |
| Group employees        | 2.6%                                   | 0%                                  | 11% <sup>3</sup>                        |

1. The figures for Group CEO relate to the percentage changes for the aggregate amount paid to Diego Hernández and Iván Arriagada in 2016 and the amount paid to Diego Hernández in 2015.
2. The percentage change in annual bonus for the Group CEO is higher than for Group employees because under the terms of the Annual Bonus Plan employees are entitled to their full annual bonus if their employment terminates during the last six months of the year. Because Diego Hernández's employment terminated in August 2016, the element of Group CEO Annual Bonus attributable to Diego Hernández is therefore higher than for the equivalent period in 2015.
3. This figure relates to the percentage change in average annual bonus for mining division employees and does not include a one-off bonus paid to employees as a result of the conclusion of collective bargaining agreements with labour unions at Antucoya, Los Pelambres and Zaldívar in 2016. Mining division employees were chosen as the comparator group because the mining division accounts for more than 90% of the Group's revenue and the Annual Bonus Plan that applies to the Executive Committee is the same plan that applies to the mining division as a whole.

## RELATIVE IMPORTANCE OF REMUNERATION SPEND

The table below shows the total expenditure on employee remuneration, the levels of distribution to shareholders and the taxation cost in 2015 and 2016.

|   | 2015<br>(\$M) | 2016<br>(\$M) | PERCENTAGE<br>CHANGE |
|---|---------------|---------------|----------------------|
| A Employee remuneration <sup>1</sup>        | 422.3         | 379.2         | (10.2)%              |
| B Distribution to shareholders <sup>2</sup> | 30.6          | 181.4         | 493%                 |
| C Taxation <sup>3</sup>                     | 89.1          | 261.2         | 193.2%               |

1. The employee remuneration cost includes salaries and social security costs, as set out in Note 8 to the Financial Statements.
2. The distributions to shareholders represent the dividends proposed in relation to the year as set out in Note 13 to the Financial Statements.
3. Taxation has been included because it provides an indication of the tax contribution of the Group's operations in Chile to the Chilean state. The taxation cost represents the current tax charge in respect of corporate tax, mining tax (royalty) and withholding tax, as set out in Note 10 to the Financial Statements. As shown in the Financial Statements, the 2015 figure has been restated to exclude discontinued operations.

## OTHER INFORMATION

As described in this report, Directors are not entitled to payments for loss of office and do not receive pension benefits and no such payments were made, or benefits received, during the year. No payments were made to past Directors.

By order of the Board

### TIM BAKER

CHAIRMAN OF THE REMUNERATION AND TALENT MANAGEMENT COMMITTEE

13 March 2017

# 2017 DIRECTORS' REMUNERATION POLICY

The Committee presents the 2017 Directors' Remuneration Policy (Policy), which will be put to a binding vote of shareholders at the Company's 2017 Annual General Meeting.

Subject to shareholder approval, this Policy will take effect from the 2017 Annual General Meeting with the intention that it will supersede the remuneration policy approved by shareholders at the 2014 Annual General Meeting (2014 Policy) and will remain in place for three years. Once the Policy is approved, the Company will only make remuneration payments to current or prospective Directors, or payments for loss of office, if the payment is in line with the Policy.

If the Committee is required, or wishes, to change the Policy within this period, it will submit a revised Policy to shareholders for approval.

The policies that are summarised in this section are consistent with those that have been in place at the Company for a number of years which the Committee believes are effective and simple to understand.

## CHANGES TO 2014 POLICY

On 1 September 2014, Jean-Paul Luksic stepped back from his position of Executive Chairman to become Non-Executive Chairman. As there are currently no executives on the Board and the Company does not expect an Executive Director to be appointed during the next three years, the Policy does not include components relating to Executive Directors which were included in the 2014 Policy.

## POLICY SCOPE

The policies that are summarised in this section apply to Non-Executive Directors only. The Board has considered the pros and cons of having executives on the Board and continues to be of the view that the existing structure is effective in ensuring that the Board maintains objectivity and independence from management and appropriate given the CEO, Executive Committee and most senior managers are based in Chile where local company law prohibits CEOs of public companies from serving as directors of those companies.

Although the policies that are summarised in this section do not cover executive remuneration, the Company will continue to embrace the spirit of the UK remuneration reporting regulations and the UK Corporate Governance Code by voluntarily reporting each year on the remuneration and incentive pay design for the Company's CEO as if he were a Director and by providing detailed information in relation to the structure and components of the other Executive Committee members' remuneration.

The Policy is broken into a number of sections:

- remuneration policies that relate solely to Non-Executive Directors; and
- statements regarding the contextual information the Committee considers when reaching remuneration decisions in respect of the Non-Executive Directors.

The Company's policy is to ensure that Non-Executive Directors are fairly rewarded with regard to the responsibilities undertaken, and to consider comparable pay levels and structures in the UK, Chile and the international mining industry.

The Chairman's fees and other terms are set by the Committee. Non-Executive Directors' fees and other terms are set by the Board upon recommendation of the Committee.

|                              | PURPOSE  | OPERATION  | MAXIMUM OPPORTUNITY   |
|------------------------------|--|--|---|
| DIRECTORS                    |  |  |   |
| <b>Fees</b>                  | To attract and retain high-calibre, experienced Directors by offering globally competitive fee levels.   | <p>Fees are reviewed annually and the competitiveness of total fees is assessed against companies of a similar nature, size and complexity.</p> <p>Directors receive a base fee for services to the Company's Board as well as additional fees for chairing or serving as a member of any of the Board's Committees or serving as Senior Independent Director. The Chairman receives a higher base fee which reflects his responsibility, experience and time commitment to the role.</p> <p>Separate base fees are paid for services to the Antofagasta Minerals board (all Non-Executive Directors are members of both boards), and for serving as a director, or chairing, any subsidiary or joint-venture company Boards.</p> <p>Ramón Jara also receives a base fee for advisory services provided to Antofagasta Minerals pursuant to a separate service contract. This fee is currently denominated in Chilean pesos and is automatically adjusted for Chilean inflation</p> <p>All other fee levels are currently denominated in US dollars and are not automatically adjusted for inflation. The Committee may determine fee levels and/or pay fees in any other currency if deemed necessary or appropriate.</p> | <p>In normal circumstances, the maximum annual fee increase will be 7%. However, the Committee has discretion to exceed this in exceptional circumstances, for example:</p> <ul style="list-style-type: none"> <li>- if there is a sustained period of high inflation;</li> <li>- if fees are out of line with the market; and/or</li> <li>- if fees for chairing or serving as a member of any of the Board's Committees or performing a specific role on the Board such as Senior Independent Director are out of line with the market.</li> </ul> <p>Any increases will take into account the factors described under "operation", will not be excessive, and the rationale for the increase will be disclosed in the remuneration report for the relevant financial year.</p> <p>Fee levels for additional roles within the Group are set based on the needs and time commitment expected and may be determined and/or paid in a combination of currencies including US dollars and Chilean pesos.</p> <p>Chilean peso denominated fees will be increased to take account of Chilean inflation and may be reported from one year to the next as an increase or decrease as a result of exchange rate movements only. Because all amounts are reported in US dollars, any exchange rate impact will not be taken into account when applying the maximum annual fee increase described above.</p> |
| <b>Variable remuneration</b> | Given the non-executive composition of the Board, there are no arrangements for Directors to acquire benefits through the acquisition of shares in the Company or any of its subsidiary undertakings, to benefit through performance-related pay or to participate in long-term incentive schemes. The Code states that remuneration for Non-Executive Directors should not include share options or other performance-related elements. |  |   |
| <b>Benefits</b>              | To provide appropriate benefits and reimburse appropriate expenses that are incurred in the performance of duties of the Directors.  | <p>Benefits include the provision of life, accident and health insurance and may also include professional advice and certain other minor benefits including occasional spousal travel in connection with the business and any Company business expenses which are deemed to be taxable. The Company will pay any tax payable on those benefits on behalf of Directors.</p> <p>The Committee retains the discretion to provide additional insurance benefits in accordance with Company policy, should this be deemed necessary.</p>   | <p>Set at a level appropriate to the individual's role and circumstances. The maximum opportunity will depend on the type of benefit and cost of its provision, which will vary according to the market and individual circumstances.</p>   |
| <b>Pension</b>               | No Director receives pension contributions. The Code considers that the participation by a Non-Executive Director in a company's pension scheme could potentially impact on the independence of that Non-Executive Director.   |  |   |

As Directors do not receive variable remuneration, there are no provisions in place to recover sums paid or to withhold payments made to Directors.

## SHAREHOLDING REQUIREMENTS

The Company does not currently have shareholding guidelines or requirements for Directors. However, Chairman Jean-Paul Luksic and Non-Executive Director Andrónico Luksic C are members of the Luksic family; members of the Luksic family are interested in the E. Abaroa Foundation which controls the Metalinvest Establishment and Kupferberg Establishment (which, in aggregate, hold approximately 60.66% of the Company's ordinary shares and approximately 94.12% of the Company's preference shares). In addition, Mr Jean-Paul Luksic controls the Severe Studere Foundation which in turn, controls Aureberg Establishment (which holds approximately 4.26% of the Company's ordinary shares). This creates significant alignment between these members of the Board and shareholders.

## RECRUITMENT POLICY

The appointment of Non-Executive Directors (including the Chairman) is handled through the Nomination and Governance Committee and Board processes. The current fee levels are set out in the Directors' Remuneration Report. Details of each element of remuneration paid to the Chairman and Directors are set out in the 2016 Directors' Remuneration Report on page 100.

The terms of appointment for any new Non-Executive Director will be consistent with those in place for current Non-Executive Directors as summarised in the service contracts and letters of appointment policy.

Variable pay will not be considered and, as such, no maximum applies. Fees will be consistent with the policy at the time of appointment.

A timely announcement with respect to any Director appointment will be made to the regulatory news services and posted on the Company's website.

## TERMINATION POLICY

The letters of appointment for the Non-Executive Directors do not provide for any compensation for loss of office beyond payments in lieu of notice, and therefore the maximum amount payable upon termination of these letters is limited to one month's payment.

## SERVICE CONTRACTS AND LETTERS OF APPOINTMENT

All Directors' service contracts and letters of appointment are available for inspection at the Company's registered office during normal business hours and at the Annual General Meeting (for 15 minutes prior to and during the meeting).

Each Director has a letter of appointment with the Company. The Company has a policy of putting all Directors forward for re-election at each Annual General Meeting in accordance with the Code. Under the terms of the letters, if shareholders do not confirm a Director's appointment or reappointment, the appointment will terminate with immediate effect. In other circumstances, the appointment may be terminated by either the Director or the Company on one month's prior written notice. The letters require the Directors to undertake that they will have sufficient time to discharge their responsibilities.

A summary of the key terms of the letters of appointment for all Directors is set out below.

| NAME  | TERMINATION PAYMENT | DATE OF LAST REAPPOINTMENT                                  | NOTICE PERIOD              |
|---|---------------------|---|----------------------------|
| Jean-Paul Luksic  |                     | 18 May 2016   | One month's written notice |
| Manuel Lino Silva De Sousa-Oliveira<br>(Ollie Oliveira) |                     | 18 May 2016   | One month's written notice |
| Gonzalo Menéndez  |                     | 18 May 2016   | One month's written notice |
| Ramón Jara  |                     | 18 May 2016   | One month's written notice |
| Juan Claro  |                     | 18 May 2016   | One month's written notice |
| William Hayes   |                     | 18 May 2016   | One month's written notice |
| Tim Baker   |                     | 18 May 2016   | One month's written notice |
| Andrónico Luksic C.                                     |                     | 18 May 2016   | One month's written notice |
| Vivianne Blanlot  |                     | 18 May 2016   | One month's written notice |
| Jorge Bande   |                     | 18 May 2016   | One month's written notice |
| Francisca Castro  |                     | N/A – appointed by the Board effective from 1 November 2016 | One month's written notice |

There is also a contract between Antofagasta Minerals and Asesorías Ramón F Jara Ltda (formerly E.I.R.L.) dated 2 November 2004 for the provision of advisory services by Ramón Jara. This contract does not have an expiry date but can be terminated by either party on one month's notice. The amounts payable under this contract for services are denominated in Chilean pesos and, as is typical for employment contracts or contracts for services in Chile, are adjusted in line with Chilean inflation, and are also reviewed periodically in line with the Company's policy on Directors' pay.

## CONSIDERATION OF EMPLOYMENT CONDITIONS ELSEWHERE IN THE COMPANY

When the Committee reviews Director compensation, it also reviews pay conditions across the rest of the Group. This is set in the context of very different working environments and geographies and therefore is not a mechanical process. However, this acts as one input into the pay review process. The Committee does not currently use any other remuneration comparison metrics when determining the quantum and structure of Director compensation and does not solicit employees' views.

## REMUNERATION POLICY FOR OTHER EMPLOYEES

Remuneration arrangements are determined throughout the Group based on the principle that reward should be granted for delivery of the Group's strategy. A significant proportion of the CEO and Executive Committee members' remuneration is in the form of variable pay. The CEO and Executive Committee are eligible to participate in the LTIP and Annual Bonus Plan, which are both subject to performance criteria aligned with the Group's strategy. The remuneration structure for other Group employees varies according to their role, location and working environment.

## CONSIDERATION OF SHAREHOLDER VIEWS

The Company maintains a dialogue with institutional shareholders and sell-side analysts, as well as potential shareholders. This communication is managed by the Investor Relations team, and includes a formal programme of presentations to update institutional shareholders and analysts on developments in the Group following the announcement of the half-year and full-year results. The Board receives regular summaries and feedback in respect of the meetings held as part of the Investor Relations programme, as well as receiving analysts' reports on the Company.

The Senior Independent Director meets with shareholders regularly and the Chairman, and the Chairman of the Committee, are also regularly available to meet shareholders to discuss matters of importance, including the Group's remuneration structures.

The Company's Annual General Meeting is also used as an opportunity to communicate with both institutional and private shareholders.

This ongoing dialogue allows us to respond to the needs and concerns of all shareholders throughout the year and the Directors' pay arrangements will continue to be reviewed each year in line with the policy, taking into account the views of all of the Company's shareholders.

## RELATIONS WITH SHAREHOLDERS

# ENGAGING WITH OUR SHAREHOLDERS

The shares of Antofagasta plc are listed on the main market of the London Stock Exchange. As explained in the Corporate Governance Report on page 70, the controlling shareholders of the Company hold approximately 65% of the Company's ordinary shares. The majority of the Company's remaining ordinary shares are held by institutional investors, mainly based in the UK and North America.

The Company maintains an active dialogue with institutional shareholders and sell-side analysts, as well as potential shareholders. This communication is managed by the investor relations team in London, and includes a formal programme of presentations and roadshows to update institutional shareholders and analysts on developments in the Group.

The Company held regular meetings with institutional investors and sell-side analysts throughout the year, which included international investor roadshows, and presenting at industry conferences and to banks' equity sales forces. These were attended by the CEO and various members of the management team, including the CFO, the Vice President of Sales and the Vice President of Development.

The Company publishes quarterly production figures as well as the half-year and full-year financial results. Copies of these production reports, financial results, presentations and other press releases issued by the Company are available on the Company's website. The Group also publishes a separate Sustainability Report to provide further information on its social and environmental performance, which is available on the Company's website in both Spanish and English.

## WHAT OUR INVESTORS FOCUSED ON MOST IN 2016

- cost reduction programmes to control operating and capital costs and the generation of free cash flow;
- capital allocation;
- commissioning of the newly constructed Antucoya mine;
- integration of the Zaldívar copper mine and capture of associated synergies;
- impact of events in Chile, including changes to environmental regulations, labour laws and availability of energy and water;
- conclusion of the long-standing issues with the local community and legal issues surrounding the Mauro tailings storage facility at Los Pelambres;
- the Group's focus on brownfield development projects and the potential from longer-term growth projects;
- the capital distribution policy of the Group; and
- supply and demand factors in the world copper market.

The Board receives regular summaries and feedback in respect of the meetings held as part of the investor relations programme. The Company's Annual General Meeting is also used as an opportunity to communicate with both institutional and private shareholders. All of the Directors then in office met shareholders at the 2016 Annual General Meeting.

## SHAREHOLDERS AND ANALYSTS VISIT CHILE

In December 2016, the Company hosted a group of shareholders and analysts at the Group's corporate headquarters and each of the Group's mining operations in Chile.

The visit began with briefings from the CEO and members of the Executive Committee on current challenges and recent achievements at the Group's corporate headquarters in Santiago and was followed by a dinner reception hosted by the Chairman, who engaged with shareholders on a broad range of topics.

The General Managers of Los Pelambres, Centinela and Antucoya hosted shareholders and analysts at their respective operations, where they demonstrated the initiatives that have been implemented, the functionality of the operations and the specific risks and steps being taken to manage them.



 Copies of the presentation given to the shareholders and analysts are available online [www.antofagasta.co.uk/investors](http://www.antofagasta.co.uk/investors)

## SENIOR INDEPENDENT DIRECTOR – CORPORATE GOVERNANCE ROADSHOW

Senior Independent Director, Ollie Oliveira, met with a number of proxy advisers and major shareholders in London in October to discuss corporate governance and associated matters relating to the Company, its strategy and the performance of management. These meetings were also attended by Non-Executive Director and former Senior Independent Director, William Hayes, the Company Secretary and the Director of the London Office.

During these meetings a wide range of topics were discussed, including:

- the role of Senior Independent Director in controlled companies;
- succession planning;
- the Board's composition and role, including why there are no executives on the Board;

- diversity;
- the performance of the CEO;
- the link between Group pay structures and incentives and strategy;
- the pay structure and quantum for the CEO;
- the structure of the Group's LTIP;
- the use of discretion by the Remuneration and Talent Management Committee;
- the impact of safety performance on remuneration outcomes;
- progress in the court cases involving Los Pelambres;
- community relations and sustainability issues involving Los Pelambres; and
- the BEIS Corporate Governance Green Paper.

## 2016 SHAREHOLDER ENGAGEMENT CALENDAR

|  |  |
|--|--|
|   |   |
| <ul style="list-style-type: none"> <li>- Group CEO presented at industry conference for institutional investors</li> </ul>                 | <ul style="list-style-type: none"> <li>- 3 days of 1-on-1 meetings with over 50 investors</li> </ul>   |
|   |   |
| <ul style="list-style-type: none"> <li>- Presentation at industry conference for institutional investors by Diego Hernández</li> </ul>     | <ul style="list-style-type: none"> <li>- 2 days of 1-on-1 meetings with over 40 investors</li> <li>- Annual General Meeting in London</li> </ul>   |
|   |   |
| <ul style="list-style-type: none"> <li>- Presentation of half-year 2016 results</li> <li>- Europe roadshow – 1 day</li> </ul>              | <ul style="list-style-type: none"> <li>- London roadshow – 2 days</li> <li>- US east coast roadshow – 3 days</li> </ul>  |
|   |   |
| <ul style="list-style-type: none"> <li>- Corporate governance Roadshow London – 3 days – led by the Senior Independent Director</li> </ul> | <ul style="list-style-type: none"> <li>- Nordea sustainability team visit to operations – 4 days</li> <li>- Investor relations team attended three industry conferences in the UK</li> </ul> |
|   |  |
| <ul style="list-style-type: none"> <li>- Site visit to Chile with analysts and investors – 4 days</li> </ul>                               | <ul style="list-style-type: none"> <li>- Investor relations team attended three industry conferences in the UK</li> <li>- Sustainability roadshow London – 1 day</li> </ul>                  |

**DIRECTORS' REPORT**

# DIRECTORS' REPORT

## **DIRECTORS**

Directors that have served during the year and summaries of current Directors' key skills and experience are set out in the Corporate Governance Report on pages 72 to 74.

## **POST BALANCE SHEET EVENTS**

There have been no post balance sheet events.

## **FINANCIAL RISK MANAGEMENT**

Details of the Company's policies on financial risk management are set out in Note 25 to the Financial Statements.

## **RESULTS AND DIVIDENDS**

The consolidated profit before tax (excluding exceptional items) has increased from \$242.8 million in 2015 to \$875.9 million in 2016.

The Board has recommended a final dividend of 15.3 cents per ordinary share. No final dividend for the year ended 31 December 2015 was paid. An interim dividend of 3.1 cents was paid on 30 September 2016 (2015 interim dividend – 3.1 cents). This gives total dividends per share proposed in relation to 2016 of 18.4 cents (2015 – 3.1 cents) and a total dividend amount in relation to 2016 of \$181.4 million (2015 – \$30.6 million).

Preference shares carry the right to a fixed cumulative dividend of 5% per annum. The preference shares are classified within borrowings and preference dividends are included within finance costs. The total cost of dividends paid on preference shares and recognised as an expense in the income statement was \$0.2 million (2015 – \$0.2 million). Further information relating to dividends is set out in the Financial Review on page 64 and in Note 13 to the Financial Statements.

## **POLITICAL CONTRIBUTIONS**

The Group did not make political donations during the year ended 31 December 2016 (2015 – nil).

## **AUDITORS**

The auditors, PwC LLP have indicated their willingness to continue in office and a resolution seeking to reappoint them will be proposed at the Annual General Meeting.

## **DISCLOSURE OF INFORMATION TO AUDITORS**

The Directors in office at the date of this report have each confirmed that:

- (a) so far as they are aware, there is no relevant audit information of which the Group's auditors are unaware; and
- (b) they have taken all the steps that they ought to have taken as Directors in order to make themselves aware of any relevant audit information and to establish that the Group's auditors are aware of that information.

## **CAPITAL STRUCTURE**

Details of the authorised and issued ordinary share capital, including details of any movements in the issued share capital during the year, are shown in Note 30 to the Financial Statements. The Company has one class of

ordinary shares, which carry no right to fixed income. Each ordinary share carries one vote at any general meeting of the Company.

Details of the preference share capital are shown in Note 23 to the Financial Statements. The preference shares are non-redeemable and are entitled to a fixed cumulative dividend of 5% per annum. Each preference share carries 100 votes on a poll at any general meeting of the Company.

The nominal value of the issued ordinary share capital is approximately 96.1% of the total Sterling nominal value of all issued share capital, and the nominal value of the issued preference share capital is approximately 3.9% of the total Sterling nominal value of all issued share capital. Originally, the ordinary shares and preference shares had the same voting rights. However, the number of ordinary shares has increased over time through stock splits and bonus issues so that a holding of one ordinary share in 1982 would now amount to a holding of 100 ordinary shares (before taking into account all the rights issues since then).

The preference shares were not split at the same time as the ordinary shares, and the voting rights attaching to these shares were increased purely to maintain the relative votes of each class, not to give additional weighting to the preference shares.

There are no specific restrictions on the transfer of shares or on their voting rights beyond those standard provisions set out in the Company's Articles of Association and other provisions of applicable law and regulation (including, in particular, following a failure to provide the Company with information about interests in shares as required by the Companies Act 2006). The Company is not aware of any agreements between holders of the Company's shares that may result in restrictions on the transfer of securities or on voting rights.

With regard to the appointment and replacement of Directors, the Company is governed by, and has regard to, its Articles of Association, the UK Corporate Governance Code 2014, the Companies Act 2006 and related legislation. The Articles of Association may be amended by special resolution of the shareholders. There are no significant agreements in place that take effect, alter or terminate upon a change of control of the Company. There are no agreements in place between the Company and its Directors or employees that provide for compensation for loss of office resulting from a change of control of the Company.

## **AUTHORITY TO ISSUE SHARES AND AUTHORITY TO PURCHASE OWN SHARES**

At the 2016 AGM, held on 18 May 2016, authority was given to the Directors to allot unissued relevant securities in the Company up to a maximum amount equivalent to two-thirds of the shares in issue (of which one-third may only be offered by way of rights issue). This authority expires on the date of this year's AGM, scheduled to be held on 24 May 2017. No such shares have been issued. The Directors propose to renew this authority at this year's AGM for the following year.

A further special resolution passed at the 2016 AGM granted authority to the Directors to allot equity securities in the Company for cash, without regard to the pre-emption provisions of the Companies Act 2006. This authority also expires on the date of this year's AGM and the Directors will seek to renew this authority on similar terms for the following year by way of two separate resolutions, in line with the Investment Association's guidance and the Pre-Emption Group's Statement of Principles.

The Company was also authorised by a shareholders' resolution passed at the 2016 AGM to purchase up to 10% of its issued ordinary share capital. Any shares which have been bought back may be held as treasury shares or, if not so held, must be cancelled immediately upon completion of the purchase, thereby reducing the amount of the Company's issued and authorised share capital. This authority will expire at this year's AGM and a resolution to renew the authority for a further year will be proposed. No shares were purchased by the Company during the year.

## DIRECTORS' INTERESTS AND INDEMNITIES

Details of Directors' contracts and letters of appointment, remuneration and emoluments, and their interests in the shares of the Company as at 31 December 2016 are given in the Directors' Remuneration Report. No Director had any material interest in a contract of significance (other than a service contract) with the Company or any subsidiary company during the year.

In accordance with the Company's Articles of Association and to the extent permitted by the laws of England and Wales, Directors are granted an indemnity from the Company in respect of liabilities personally incurred as a result of their office. The Company also maintained a Directors' and Officers' liability insurance policy throughout the financial year. A new policy has been entered into for the current financial year.

## CONFLICTS OF INTEREST

The Companies Act 2006 requires that a Director must avoid a situation where he has, or can have, a direct or indirect interest that conflicts, or possibly may conflict, with the Company's interests. The Company has undertaken a process to identify and, where appropriate, authorise and manage potential and actual conflicts. Each Director has identified his or her interests that may constitute conflicts including, for example, directorships in other companies. The Board, with detailed assistance from the Nomination and Governance Committee, has considered the potential and actual conflict situations of each of the Directors and decided in relation to each situation whether to authorise it and the steps, if any, which need to be taken to manage it. The authorisation process is not regarded as a substitute for managing an actual conflict of interest if one arises. The monitoring and, if appropriate, authorisation of actual and potential conflicts of interest is an ongoing process. Directors are required to notify the Company of any material changes in those positions or situations that have already been considered, as well as to notify the Company of any other new positions or situations that may arise. In addition to considering any new situations as they arise, the Board usually considers the conflict position of all Directors formally each year.

## SUBSTANTIAL SHAREHOLDINGS

Notifiable major share interests in which the Company has been made aware are set out on page 70.

## EXPLORATION AND RESEARCH AND DEVELOPMENT

The Group's operating companies carry out exploration and research and development activities that are necessary to support and expand their operations.

## OTHER STATUTORY DISCLOSURES

The Corporate Governance Report on pages 66 to 116, the Statement of Directors' Responsibilities on page 119 of this Annual Report and Note 25 to the financial statements are incorporated into the Directors' Report by reference.

Other information can be found in the following sections of the Strategic Report:

| LOCATION IN STRATEGIC REPORT                     |                |
|--|----------------|
| Future developments in the business of the Group | Pages 32 to 51 |
| Viability and going concern statement            | Page 22        |
| Subsidiaries, associates and joint ventures      | Pages 32 to 51 |
| Employee consultation                            | Pages 35 to 37 |
| Greenhouse gas emissions                         | Page 57        |

Disclosures required pursuant to Listing Rule 9.8.4R can be found on the following pages of the Annual Report:

| LOCATION IN ANNUAL REPORT                                    |   |
|--|---|
| Statement of interest capitalised by the Group (LR 9.8.4(1)) | See Notes 5, 9 and 15 to the financial statements on Pages 139 to 143, 149 and 154 and 155. |
| Relationship agreement (LR 9.8.4(14))                        | Page 70   |
| By order of the Board  |   |

**JULIAN ANDERSON  
COMPANY SECRETARY**

13 March 2017

## STATEMENT OF DIRECTORS' RESPONSIBILITIES

# STATEMENT OF DIRECTORS' RESPONSIBILITIES

## STATEMENT OF DIRECTORS' RESPONSIBILITIES IN RELATION TO THE FINANCIAL STATEMENTS

The Directors are responsible for preparing the Annual Report, the Directors' Remuneration Report and the Financial Statements in accordance with applicable law and regulations.

Company law requires the Directors to prepare Financial Statements for each financial year. Under that law, the Directors have prepared the Group Financial Statements in accordance with International Financial Reporting Standards ("IFRSs") as adopted by the European Union, and the Parent Company Financial Statements in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards and applicable law), including Financial Reporting Standard 101 Reduced Disclosure Framework ("FRS 101"). Under company law, the Directors must not approve the Financial Statements unless they are satisfied that they give a true and fair view of the state of affairs of the Group and the Company and of the profit or loss of the Group for that period. In preparing these financial statements, the Directors are required to:

- select suitable accounting policies and then apply them consistently;
- make judgements and accounting estimates that are reasonable and prudent;
- state whether IFRSs as adopted by the European Union and applicable UK Accounting Standards, including FRS 101, have been followed, subject to any material departures disclosed and explained in the Group and Parent Company Financial Statements respectively; and
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Company will continue in business.

The Directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Company's transactions and disclose with reasonable accuracy at any time the financial position of the Company and the Group and enable them to ensure that the Financial Statements and the Directors' Remuneration Report comply with the Companies Act 2006 and, as regards the Group Financial Statements, Article 4 of the IAS Regulation. They are also responsible for safeguarding the assets of the Company and the Group and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The Directors are responsible for the maintenance and integrity of the Company's website. Legislation in the United Kingdom governing the preparation and dissemination of Financial Statements may differ from legislation in other jurisdictions.

The Directors consider that the Annual Report and Financial Statements, taken as a whole, is fair, balanced and understandable and provides the information necessary for shareholders to assess the Company's position and performance, business model and strategy.

Each of the Directors, whose names and functions are listed in the Corporate Governance Report, confirm that to the best of their knowledge:

- the Group Financial Statements, which have been prepared in accordance with IFRSs as adopted by the EU, give a true and fair view of the assets, liabilities, financial position and profit of the Group; and
- the Strategic Report and the Directors' Report include a fair review of the development and performance of the business and the position of the Group, together with a description of the principal risks and uncertainties that it faces.

By order of the Board

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**JEAN-PAUL LUKSIC**  
CHAIRMAN

**OLIE OLIVEIRA**  
SENIOR INDEPENDENT  
DIRECTOR

13 March 2017

# FINANCIAL STATEMENTS

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**ZALDÍVAR**

Solvent Extraction – Electro Winning plant



## REPORT ON THE FINANCIAL STATEMENTS

### OUR OPINION

#### IN OUR OPINION:

Antofagasta plc's Group financial statements and Parent Company financial statements (the 'financial statements') give a true and fair view of the state of the Group's and of the Parent Company's affairs as at 31 December 2016 and of the Group's profit and cash flows for the year then ended;

- the Group financial statements have been properly prepared in accordance with International Financial Reporting Standards ('IFRSs') as adopted by the European Union;
- the Parent Company financial statements have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006 and, as regards the Group financial statements, Article 4 of the IAS Regulation.

### WHAT WE HAVE AUDITED

The financial statements, included within the Annual Report and Financial Statements (the 'Annual Report'), comprise:

- the Consolidated Balance Sheet as at 31 December 2016;
- the Balance Sheet of the Parent Company as at 31 December 2016;
- the Consolidated Income Statement and Consolidated Statement of Comprehensive Income for the year then ended;
- the Consolidated Statement of Cash Flow for the year then ended;
- the Consolidated Statement of Changes in Equity for the year then ended;
- the Statement of Changes in Equity of the Parent Company for the year then ended; and
- the notes to the financial statements, which include a summary of significant accounting policies and other explanatory information.

Certain required disclosures have been presented elsewhere in the Annual Report, rather than in the notes to the financial statements. These are cross-referenced from the financial statements and are identified as audited.

The financial reporting framework that has been applied in the preparation of the Group financial statements is IFRSs as adopted by the European Union, and applicable law. The financial reporting framework that has been applied in the preparation of the Parent Company financial statements is United Kingdom Accounting Standards, comprising FRS 101 'Reduced Disclosure Framework' (United Kingdom Generally Accepted Accounting Practice), and applicable law.

### OUR AUDIT APPROACH OVERVIEW



- Overall Group materiality: \$45 million which represents 5% of the three-year average of profit before tax adjusted for one-off items.
- We identified the four mine sites, Los Pelambres, Centinela, Antucoya and Zaldívar, which in our view, required an audit of their complete financial information.
- Taken together, the locations and functions where we performed our audit work accounted for 96% of revenue and approximately 85% of absolute adjusted profit before tax (i.e. the sum of the numerical values without regard to whether they were profits or losses for the relevant locations and functions).
- Impairment assessments at Antucoya, Twin Metals and Alto Maipo.
- Finalisation of Zaldívar purchase price accounting

### THE SCOPE OF OUR AUDIT AND OUR AREAS OF FOCUS

We conducted our audit in accordance with International Standards on Auditing (UK and Ireland) ('ISAs (UK & Ireland)').

We designed our audit by determining materiality and assessing the risks of material misstatement in the financial statements. In particular, we looked at where the Directors made subjective judgements, for example in respect of significant accounting estimates that involved making assumptions and considering future events that are inherently uncertain. As in all of our audits we also addressed the risk of management override of internal controls, including evaluating whether there was evidence of bias by the Directors that represented a risk of material misstatement due to fraud.

The risks of material misstatement that had the greatest effect on our audit, including the allocation of our resources and effort, are identified as 'areas of focus' in the table below. We have also set out how we tailored our audit to address these specific areas in order to provide an opinion on the financial statements as a whole, and any comments we make on the results of our procedures should be read in this context. This is not a complete list of all risks identified by our audit.

## AREA OF FOCUS

## HOW OUR AUDIT ADDRESSED THE AREA OF FOCUS

**IMPAIRMENT ASSESSMENTS – MINING PROPERTIES**

In accordance with IAS 36 “Impairment of assets” the Directors are required to perform a review for impairment of long-lived assets at any time an indicator of impairment exists.

The Directors identified that impairment indicators existed at Antucoya where post declaration of commercial production the higher carrying value did not appear supported by the latest estimate of the recoverable value.

The resulting impairment review determined that the recoverable amount was below their carrying value. Accordingly an impairment provision of \$215.6 m was recognised, along with a deferred tax credit of \$99.4m, resulting in a post-tax impairment of \$116.2m. The Directors determined that there were no indicators of impairment at Centinela. The Directors considered if there were impairment indicators at the Group’s other mines, including considering the results of a carrying value review, but concluded that there were not.

The determination of recoverable amount was based on the higher of value-in-use and fair value less costs of disposal (“FVLCD”), which requires judgement on the part of the Directors in valuing the relevant CGUs. As a value-in-use methodology does not permit future expansion or optimisation plans to be included within the discounted cash flow model, the Directors have used a FVLCD valuation methodology to determine the recoverable amount, applying assumptions that a market participant would use to determine fair value.

Refer to Note 4 Exceptional items.

We considered the Directors’ impairment trigger analysis and agree that impairment indicators existed at Antucoya and that this was the appropriate CGU for impairment testing purposes. We considered whether impairment indicators existed for other CGUs and concluded they did not.

We evaluated the Directors’ future cash flow forecasts, and the process by which they were drawn up, including verifying the mathematical accuracy of the cash flow models and agreeing future capital and operating expenditure to the latest Board approved budgets, modified as required for FVLCD modelling purposes, and the latest approved Life of Mine plans. We assessed the reasonableness of the Directors’ future capital and operating expenses in light of their historical accuracy and the current operating results and concluded the forecasts had been appropriately prepared, based on updated assessments of future operating performance and cost savings initiatives.

Utilising our valuation experts, we evaluated the appropriateness of key market related assumptions in the Directors’ valuation models, including the copper prices, discount rates and foreign currency exchange rates. We noted that the required impairment charge was particularly sensitive to changes in the long-term copper price and discount rate assumptions.

We formed an independent view of the copper price that a market participant might use in a fair value less cost to dispose scenario. We found that the Directors’ long-term copper price assumption of \$3.00/lb was at the higher end of a reasonable range. We independently calculated a weighted average cost of capital by making reference to market data, and considering the CGU specific risks. The discount rate used by the Directors of 8% fell within a reasonable range. We performed sensitivity analysis around the key assumptions within the cash flow forecasts using a range of higher discount rates and lower long term copper prices.

In light of the above, we reviewed the appropriateness of the related disclosures in Note 4 of the financial statements, including the sensitivities provided, and concluded they were appropriate.

## AREA OF FOCUS

## HOW OUR AUDIT ADDRESSED THE AREA OF FOCUS

**IMPAIRMENT ASSESSMENTS – OTHER ASSETS**

In accordance with IAS 36 “Impairment of assets” the Directors are required to perform a review for impairment of long-lived assets at any time an indicator of impairment exists.

The Directors identified that impairment indicators existed at its wholly owned exploration subsidiary Twin Metals in the US where the Bureau of Land Management declined to renew two federal mineral leases. In response a federal lawsuit has been filed, noting that rescinding of the leases is inconsistent with federal law, the terms of leases themselves, and the federal government’s established precedent in supporting and renewing the leases over the past five decades. The Directors have announced that they remain committed to progressing the project and will continue to pursue legal avenues to protect the Group’s contractual mineral rights, carried at \$150m. Accordingly no impairment has been recognised at this time.

The Directors also concluded that there was an indication that the Group’s interest in the Alto Maipo hydro project was impaired following the announcement of forecast cost increases and the Group’s subsequent decision to exit the project for nominal consideration.

Accordingly, an impairment provision of \$367.6m was recognised, comprising \$74.0m with respect to the investment in associate balance and \$52.6m of mark-to-market losses in respect of derivative financial instruments held by Alto Maipo previously deferred in reserves, resulting in a \$126.6m loss reflected in the profit from associates and joint ventures lines and \$241.0m of loan financing (including interest receivable) reflected in operating cost. This impairment provision resulted in a deferred tax credit of \$95.0 million resulting in a post-tax impact of \$272.6m.

Refer to Note 4 Exceptional items.

We discussed the impact of the actions of the Bureau of Land Management with management to help us assess the implications on the Group’s ability to continue to progress the Twin Metals project. We noted the Directors remain committed to the project, have filed a federal lawsuit and believe that the Group’s contractual mineral rights can be protected through this legal avenue. We corroborated these views with management’s external counsel.

The actions and resulting lawsuit are very recent which makes predicting the outcome inherently judgemental. Additionally, the actions only relate to two of the mineral leases, rather than all leases, further complicating the assessment. However we concluded no impairment had occurred by the balance sheet date.

With respect to Alto Maipo, we reviewed the terms of the agreements and concluded that a full impairment of related balances was appropriate. We also reviewed the work of management’s tax expert as part of our assessment of the related tax consequences.

We reviewed the appropriateness of the related disclosures in Notes 36 and 4 of the financial statements and concluded they were appropriate.

| AREA OF FOCUS   | HOW OUR AUDIT ADDRESSED THE AREA OF FOCUS   |
|---|---|
| <b>FINALISATION OF ZALDÍVAR PURCHASE PRICE ACCOUNTING</b> | <p>Accounting for acquisitions of joint ventures under IFRS is inherently complex, requiring the Directors to perform a purchase price allocation exercise to fair value the assets and liabilities of the acquired business. As Zaldívar was acquired on 1 December 2015, there was limited time to conduct this exercise in the prior year and in particular, the working capital adjustment period remained open.</p> <p>Following an adjustment to the final consideration for the purchase to \$949.7m, the provisional purchase price allocations previously recorded have now been finalised.</p> <p>The main adjustment was a revision to working capital balances.</p> <p>Refer to Note 19 – Compania Minera Zaldívar SPA transaction.</p> |

## HOW WE TAILORED THE AUDIT SCOPE

We tailored the scope of our audit to ensure that we performed enough work to be able to give an opinion on the financial statements as a whole, taking into account the geographic structure of the Group, the accounting processes and controls, and the industry in which the Group operates.

The core mining business consists of four assets: Los Pelambres; Centinela; Antucoya, which has commenced production during the year; and Zaldívar, a joint venture with Barrick Gold Corporation operated by the Group. These mines produce copper cathodes, copper concentrates and significant volumes of by-products.

In addition to mining, the Group has a transport division that provides rail and road cargo services in northern Chile predominantly to mining customers, including to the Group's own operations.

All of the above operations are located in Chile. In addition, the Group has corporate head offices located in both Santiago, Chile (Antofagasta Minerals) and London, UK (Antofagasta plc). The Group also has exploration projects in various countries.

In establishing the overall approach to the Group audit, we determined the type of work that needed to be performed at each of the four mine sites and the corporate offices in Chile, by us, as the Group engagement team and by component auditors from PwC Chile operating under our instruction. Los Pelambres and Centinela were considered to be financially significant components of the Group, due to their contribution towards Group profit before tax, and so required audits of their complete financial information. Antucoya and Zaldívar were also subject to an audit of their complete financial information, in response to the risks of impairment to Antucoya's carrying value and the carrying value of inventory at Zaldívar.

We also requested that component auditors perform specified procedures over the corporate offices in Chile, and specific line items of other entities within the Group to ensure that we had sufficient coverage from our audit work for each line of the Group's financial statements. For all other non-financially significant components, the Group team performed analytical review procedures.

Where work was performed by component auditors, we determined the level of involvement we needed to have in the audit work to be able to conclude whether sufficient appropriate audit evidence had been obtained as a basis for our opinion on the Group financial statements as a whole.

A UK senior manager was seconded to PwC Chile to be an integral part of the team. In addition the Senior Statutory Auditor visited Chile four times, including two mine site visits, key audit meetings with management and meetings with our component auditors. The Group team also reviewed the component auditor working papers, attended local audit clearance meetings, and reviewed other forms of communications dealing with significant accounting and auditing issues.

We obtained and reviewed the purchase agreements and related amendments and confirmed that the appropriate consideration had been recorded. We also reviewed the amendments to the initial purchase price allocations and considered if these were supportable and noted no exceptions.

The Group engaged an independent valuation expert to perform the purchase price allocation exercise and we assessed the competency and objectivity of the expert, and the scope of their work. Specifically in relation to ore stockpiles we read the expert's report and discussed with the expert their valuation methodology for inventory, along with the key judgements they made in determining the fair values. We determined that the methods used by the Directors' expert were appropriate and the fair values appeared reasonable based on the judgements made.

We concurred with the Directors' expert's assessment of the purchase price allocation and the appropriateness of the related disclosures in Note 19 of the financial statements.

## MATERIALITY

The scope of our audit was influenced by our application of materiality. We set certain quantitative thresholds for materiality. These, together with qualitative considerations, helped us to determine the scope of our audit and the nature, timing and extent of our audit procedures on the individual financial statement line items and disclosures and in evaluating the effect of misstatements, both individually and on the financial statements as a whole.

Based on our professional judgement, we determined materiality for the financial statements as a whole as follows:

|                                 |  |
|---------------------------------|--|
| OVERALL GROUP MATERIALITY       | \$45 million (2015: \$65 million).   |
| HOW WE DETERMINED IT            | 5% of the three-year average of profit before tax adjusted for one-off items.  |
| RATIONALE FOR BENCHMARK APPLIED | We believe that profit before tax is the primary measure in assessing the performance of the Group, and is a generally accepted auditing benchmark. We used a three-year average due to the impact on profit before tax of the inherent volatility in copper commodity prices, and adjusted for one-off items to eliminate the volatility that they introduce. |
| COMPONENT MATERIALITY           | For each component in our audit scope, we allocated a materiality that is less than our overall Group materiality. The range of materiality allocated across components was between \$12 million and \$30 million. Certain components were audited to a local statutory audit materiality that was also less than our overall Group materiality.               |

We agreed with the Audit Committee that we would report to them misstatements identified during our audit above \$1.5 million (2015: \$3 million) as well as misstatements below that amount that, in our view, warranted reporting for qualitative reasons.

## GOING CONCERN

Under the Listing Rules we are required to review the Directors' statement, set out on page 22, in relation to going concern. We have nothing to report having performed our review.

Under ISAs (UK & Ireland) we are required to report to you if we have anything material to add or to draw attention to in relation to the Directors' statement about whether they considered it appropriate to adopt the going concern basis in preparing the financial statements. We have nothing material to add or to draw attention to.

As noted in the Directors' statement, the Directors have concluded that it is appropriate to adopt the going concern basis in preparing the financial statements. The going concern basis presumes that the Group and Parent Company have adequate resources to remain in operation, and that the Directors intend them to do so, for at least one year from the date the

financial statements were signed. As part of our audit we have concluded that the Directors' use of the going concern basis is appropriate. However, because not all future events or conditions can be predicted, these statements are not a guarantee as to the Group's and Parent Company's ability to continue as a going concern.

## OTHER REQUIRED REPORTING

### CONSISTENCY OF OTHER INFORMATION AND COMPLIANCE WITH APPLICABLE REQUIREMENTS COMPANIES ACT 2006 REPORTING

In our opinion, based on the work undertaken in the course of the audit:

- the information given in the Strategic Report and the Directors' Report for the financial year for which the financial statements are prepared is consistent with the financial statements; and
- the Strategic Report and the Directors' Report have been prepared in accordance with applicable legal requirements.

In addition, in light of the knowledge and understanding of the Group, the Parent Company and their environment obtained in the course of the audit, we are required to report if we have identified any material misstatements in the Strategic Report and the Directors' Report. We have nothing to report in this respect.

### ISAS (UK & IRELAND) REPORTING

Under ISAs (UK & Ireland) we are required to report to you if, in our opinion:

- |  |                                  |
|--|----------------------------------|
| <ul style="list-style-type: none"> <li>- information in the Annual Report is: materially inconsistent with the information in the audited financial statements; or apparently materially incorrect based on, or materially inconsistent with, our knowledge of the Group and Parent Company acquired in the course of performing our audit; or otherwise misleading.</li> </ul>  | We have no exceptions to report  |
| <ul style="list-style-type: none"> <li>- the statement given by the Directors on page 119, in accordance with provision C.1.1 of the UK Corporate Governance Code (the 'Code'), that they consider the Annual Report taken as a whole to be fair, balanced and understandable and provides the information necessary for members to assess the Group's and Parent Company's position and performance, business model and strategy is materially inconsistent with our knowledge of the Group and Parent Company acquired in the course of performing our audit.</li> </ul> | We have no exceptions to report. |
| <ul style="list-style-type: none"> <li>- the section of the Annual Report on pages 88 to 91, as required by provision C.3.8 of the Code, describing the work of the Audit Committee does not appropriately address matters communicated by us to the Audit Committee.</li> </ul>   | We have no exceptions to report. |

### THE DIRECTORS' ASSESSMENT OF THE PROSPECTS OF THE GROUP AND OF THE PRINCIPAL RISKS THAT WOULD THREATEN THE SOLVENCY OR LIQUIDITY OF THE GROUP:

Under ISAs (UK & Ireland) we are required to report to you if we have anything material to add or to draw attention to in relation to:

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>- the Directors' confirmation on page 23 of the Annual Report, in accordance with provision C.2.1 of the Code, that they have carried out a robust assessment of the principal risks facing the Group, including those that would threaten its business model, future performance, solvency or liquidity.</li> </ul>   | We have nothing material to add or to draw attention to. |
| <ul style="list-style-type: none"> <li>- the disclosures in the Annual Report that describe those risks and explain how they are being managed or mitigated.</li> </ul>   | We have nothing material to add or to draw attention to. |
| <ul style="list-style-type: none"> <li>- the Directors' explanation on page 22 of the Annual Report, in accordance with provision C.2.2 of the Code, as to how they have assessed the prospects of the Group, over what period they have done so and why they consider that period to be appropriate, and their statement as to whether they have a reasonable expectation that the Group will be able to continue in operation and meet its liabilities as they fall due over the period of their assessment, including any related disclosures drawing attention to any necessary qualifications or assumptions.</li> </ul> | We have nothing material to add or to draw attention to. |

Under the Listing Rules we are required to review the Directors' statement that they have carried out a robust assessment of the principal risks facing the Group and the Directors' statement in relation to the longer-term viability of the Group. Our review was substantially less in scope than an audit and only consisted of making inquiries and considering the Directors' process supporting their statements; checking that the statements are in alignment with the relevant provisions of the Code; and considering whether the statements are consistent with the knowledge acquired by us in the course of performing our audit. We have nothing to report having performed our review.

## ADEQUACY OF ACCOUNTING RECORDS AND INFORMATION AND EXPLANATION RECEIVED

Under the Companies Act 2006 we are required to report to you if, in our opinion:

- we have not received all the information and explanations we require for our audit; or
- adequate accounting records have not been kept by the Parent Company, or returns adequate for our audit have not been received from branches not visited by us; or
- the Parent Company financial statements and the part of the Directors' Remuneration Report to be audited are not in agreement with the accounting records and returns.

We have no exceptions to report arising from this responsibility.

## DIRECTORS' REMUNERATION

### DIRECTORS' REMUNERATION REPORT – COMPANIES ACT 2006 OPINION

In our opinion, the part of the Directors' Remuneration Report to be audited has been properly prepared in accordance with the Companies Act 2006.

## OTHER COMPANIES ACT 2006 REPORTING

Under the Companies Act 2006 we are required to report to you if, in our opinion, certain disclosures of Directors' remuneration specified by law are not made. We have no exceptions to report arising from this responsibility.

## CORPORATE GOVERNANCE STATEMENT

Under the Listing Rules we are required to review the part of the Corporate Governance Statement relating to ten further provisions of the Code. We have nothing to report having performed our review.

## RESPONSIBILITIES FOR THE FINANCIAL STATEMENTS AND THE AUDIT

### OUR RESPONSIBILITIES AND THOSE OF THE DIRECTORS

As explained more fully in the Statement of Directors' Responsibilities set out on page 119, the Directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view.

Our responsibility is to audit and express an opinion on the financial statements in accordance with applicable law and ISAs (UK & Ireland). Those standards require us to comply with the Auditing Practices Board's Ethical Standards for Auditors.

This report, including the opinions, has been prepared for and only for the Parent Company's members as a body in accordance with Chapter 3 of Part 16 of the Companies Act 2006 and for no other purpose. We do not, in giving these opinions, accept or assume responsibility for any other purpose or to any other person to whom this report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

## WHAT AN AUDIT OF FINANCIAL STATEMENTS INVOLVES

An audit involves obtaining evidence about the amounts and disclosures in the financial statements sufficient to give reasonable assurance that the financial statements are free from material misstatement, whether caused by fraud or error. This includes an assessment of:

- whether the accounting policies are appropriate to the Group's and the Parent Company's circumstances and have been consistently applied and adequately disclosed;
- the reasonableness of significant accounting estimates made by the Directors; and
- the overall presentation of the financial statements.

We primarily focus our work in these areas by assessing the Directors' judgements against available evidence, forming our own judgements, and evaluating the disclosures in the financial statements.

We test and examine information, using sampling and other auditing techniques, to the extent we consider necessary to provide a reasonable basis for us to draw conclusions. We obtain audit evidence through testing the effectiveness of controls, substantive procedures or a combination of both.

In addition, we read all the financial and non-financial information in the Annual Report to identify material inconsistencies with the audited financial statements and to identify any information that is apparently materially incorrect based on, or materially inconsistent with, the knowledge acquired by us in the course of performing the audit. If we become aware of any apparent material misstatements or inconsistencies we consider the implications for our report. With respect to the Strategic Report and Directors' Report, we consider whether those reports include the disclosures required by applicable legal requirements.

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**JASON BURKITT**

SENIOR STATUTORY AUDITOR

for and on behalf of PricewaterhouseCoopers LLP  
Chartered Accountants and Statutory Auditors

London

13 March 2017

## FINANCIAL STATEMENTS

**CONSOLIDATED INCOME STATEMENT**

For the year ended 31 December 2016

|   | NOTES | BEFORE<br>EXCEPTIONAL<br>ITEMS<br>\$M | EXCEPTIONAL<br>ITEMS<br>(NOTE 4)<br>\$M | 2016<br>\$M     | 2015<br>(RESTATED)<br>\$M |
|---|-------|---------------------------------------|---|-----------------|---------------------------|
| <b>Group revenue</b>  | 5,6   | 3,621.7                               | –                                       | 3,621.7         | 3,225.7                   |
| Total operating costs   |       | (2,698.1)                             | (456.6)                                 | (3,154.7)       | (2,936.7)                 |
| <b>Operating profit/(loss) from subsidiaries</b>                          | 5,7   | 923.6                                 | (456.6)                                 | 467.0           | 289.0                     |
| Net share of results from associates and joint ventures                   | 5,17  | 23.4                                  | (134.7)                                 | (111.3)         | (5.8)                     |
| <b>Total profit/(loss) from operations, associates and joint ventures</b> | 5,7   | 947.0                                 | (591.3)                                 | 355.7           | 283.2                     |
| Investment income   |       | 26.9                                  | –                                       | 26.9            | 17.5                      |
| Interest expense  |       | (86.1)                                | –                                       | (86.1)          | (33.7)                    |
| Other finance items   |       | (11.9)                                | –                                       | (11.9)          | (24.2)                    |
| <b>Net finance expense</b>  | 9     | (71.1)                                | –                                       | (71.1)          | (40.4)                    |
| <b>Profit/(loss) before tax</b>   | 5     | 875.9                                 | (591.3)                                 | 284.6           | 242.8                     |
| Income tax (expense)/credit   | 10    | (313.5)                               | 204.9                                   | (108.6)         | (154.4)                   |
| <b>Profit/(loss) for the financial year from continuing operations</b>    | 5     | 562.4                                 | (386.4)                                 | 176.0           | 88.4                      |
| <b>Profit for the financial year from discontinued operations</b>         | 11    | 38.3                                  | –                                       | 38.3            | 613.3                     |
| <b>Profit/(loss) for the year</b>   |       | 600.7                                 | (386.4)                                 | 214.3           | 701.7                     |
| Attributable to:  |       |                                       |   |                 |                           |
| Non-controlling interests   | 31    | 220.9                                 | (164.6)                                 | 56.3            | 93.5                      |
| <b>Owners of the parent</b>   | 12    | 379.8                                 | (221.8)                                 | 158.0           | 608.2                     |
| <b>US CENTS</b>   |       |                                       |   |                 |                           |
| <b>Basic earnings/(losses) per share</b>                                  | 12    |                                       |   | <b>US CENTS</b> | <b>US CENTS</b>           |
| From continuing operations  |       | 34.7                                  | (22.6)                                  | 12.1            | (0.5)                     |
| From discontinued operations  |       | 3.9                                   | –                                       | 3.9             | 62.2                      |
| <b>Total continuing and discontinued operations</b>                       |       | 38.6                                  | (22.6)                                  | 16.0            | 61.7                      |

## CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

For the year ended 31 December 2016

|  | NOTE | 2016<br>\$M | 2015<br>\$M |
|--|------|-------------|-------------|
| <b>Profit for the year</b>   | 5    | 214.3       | 701.7       |
| <i>Items that may be reclassified subsequently to profit or loss:</i>                              |      |             |             |
| (Losses)/gains in fair value of cash flow hedges deferred in reserves                              | 25   | (3.5)       | 1.7         |
| Share of other comprehensive gains/(losses) of associates and joint ventures, net of tax           | 17   | 4.4         | (16.0)      |
| Gains/(losses) in fair value of available for sale investments                                     | 18   | 1.7         | (3.2)       |
| Currency translation adjustment  |      | –           | (1.8)       |
| Deferred tax effects arising on cash flow hedges deferred in reserves                              | 25   | 0.6         | –           |
| Losses in fair value of cash flow hedges transferred to the income statement                       | 25   | 5.8         | 5.8         |
| Share of other comprehensive loss of equity accounted units transferred to the income statement    |      | 52.6        | –           |
| Losses in fair value of available-for-sale investments transferred to income statement             | 18   | –           | 1.0         |
| Deferred tax effects arising on amounts transferred to the income statement                        | 28   | (1.4)       | (1.3)       |
| <b>Total items that may be reclassified subsequently to profit or loss</b>                         |      | 60.2        | (13.8)      |
| <i>Items that will not be subsequently reclassified to profit or loss</i>                          |      |             |             |
| Actuarial gains on defined benefit plans   | 27   | 7.8         | 3.8         |
| Tax on items recognised through OCI which will not be reclassified to profit or loss in the future |      | (1.3)       | (1.2)       |
| <b>Total items that will not be subsequently reclassified to profit or loss</b>                    |      | 6.5         | 2.6         |
| <b>Total other comprehensive income/(expense)</b>  |      | 66.7        | (11.2)      |
| <b>Total comprehensive income for the year</b>   | 31   | 281.0       | 690.5       |
| Attributable to:   |      |             |             |
| Non-controlling interests  |      | 24.9        | 90.9        |
| Owners of the parent   |      | 256.1       | 599.6       |

## CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

For the year ended 31 December 2016

|  | SHARE CAPITAL<br>\$M | SHARE PREMIUM<br>\$M | OTHER RESERVES<br>(NOTE 30)<br>\$M | RETAINED EARNINGS<br>(NOTE 30)<br>\$M | EQUITY ATTRIBUTABLE<br>TO EQUITY OWNERS OF<br>THE PARENT<br>\$M | NON-CONTROLLING<br>INTERESTS<br>\$M | TOTAL<br>EQUITY<br>\$M |
|--|----------------------|----------------------|------------------------------------|---------------------------------------|---|-------------------------------------|------------------------|
| At 1 January 2015                                  | 89.8                 | 199.2                | (47.4)                             | 5,932.1                               | 6,173.7   | 1,861.0                             | 8,034.7                |
| Profit for the year                                | –                    | –                    | –                                  | 608.2                                 | 608.2   | 93.5                                | 701.7                  |
| Other comprehensive (expense)/income for the year  | –                    | –                    | (11.9)                             | 3.3                                   | (8.6)   | (2.6)                               | (11.2)                 |
| Loss of control in subsidiaries                    | –                    | –                    | –                                  | –                                     | –   | (13.3)                              | (13.3)                 |
| Capital contribution from non-controlling interest | –                    | –                    | –                                  | –                                     | –   | 14.6                                | 14.6                   |
| Dividends  | –                    | –                    | –                                  | (127.2)                               | (127.2)   | (80.0)                              | (207.2)                |
| At 31 December 2015                                | 89.8                 | 199.2                | (59.3)                             | 6,416.4                               | 6,646.1   | 1,873.2                             | 8,519.3                |
| Profit for the year                                | –                    | –                    | –                                  | 158.0                                 | 158.0   | 56.3                                | 214.3                  |
| Other comprehensive income for the year            | –                    | –                    | 37.0                               | 4.8                                   | 41.8  | 24.9                                | 66.7                   |
| Dividends  | –                    | –                    | –                                  | (30.6)                                | (30.6)  | (260.0)                             | (290.6)                |
| <b>At 31 December 2016</b>                         | <b>89.8</b>          | <b>199.2</b>         | <b>(22.3)</b>                      | <b>6,548.6</b>                        | <b>6,815.3</b>  | <b>1,694.4</b>                      | <b>8,509.7</b>         |

## CONSOLIDATED BALANCE SHEET

As at 31 December 2016

|  | NOTE | 2016<br>\$M | 2015<br>(RESTATED)<br>\$M |
|--|------|-------------|---------------------------|
| <b>Non-current assets</b>                                    |      |             |                           |
| Intangible assets  | 14   | 150.1       | 150.1                     |
| Property, plant and equipment                                | 15   | 8,737.5     | 8,601.1                   |
| Other non-current assets                                     |      | 2.6         | 2.0                       |
| Inventories  | 20   | 157.3       | 263.9                     |
| Investment in associates and joint ventures                  | 17   | 1,086.6     | 1,149.1                   |
| Trade and other receivables                                  | 21   | 66.7        | 292.9                     |
| Derivative financial instruments                             |      | 0.2         | -                         |
| Available-for-sale investments                               | 18   | 4.6         | 2.7                       |
| Deferred tax assets  | 28   | 82.8        | 124.6                     |
|  |      | 10,288.4    | 10,586.4                  |
| <b>Current assets</b>  |      |             |                           |
| Inventories  | 20   | 393.4       | 297.1                     |
| Trade and other receivables                                  | 21   | 736.1       | 604.8                     |
| Current tax assets   |      | 255.2       | 319.5                     |
| Derivative financial instruments                             | 25   | 2.2         | 0.2                       |
| Liquid investments   | 22   | 1,332.2     | 924.1                     |
| Cash and cash equivalents                                    | 22   | 716.3       | 807.5                     |
|  |      | 3,435.4     | 2,953.2                   |
| <b>Total assets</b>  |      | 13,723.8    | 13,539.6                  |
| <b>Current liabilities</b>                                   |      |             |                           |
| Short-term borrowings  | 23   | (836.8)     | (758.9)                   |
| Derivative financial instruments                             | 25   | (2.0)       | (2.0)                     |
| Trade and other payables                                     | 24   | (595.8)     | (478.9)                   |
| Current tax liabilities                                      |      | (119.4)     | (198.8)                   |
|  |      | (1,554.0)   | (1,438.6)                 |
| <b>Non-current liabilities</b>                               |      |             |                           |
| Medium and long-term borrowings                              | 23   | (2,283.4)   | (1,996.2)                 |
| Derivative financial instruments                             | 25   | (0.5)       | (1.5)                     |
| Trade and other payables                                     | 24   | (7.9)       | (24.4)                    |
| Liabilities in relation to joint venture                     | 17   | (3.1)       | (2.5)                     |
| Post-employment benefit obligations                          | 27   | (92.2)      | (86.9)                    |
| Decommissioning & restoration and other long term provisions | 29   | (392.1)     | (394.0)                   |
| Deferred tax liabilities                                     | 28   | (880.9)     | (1,076.2)                 |
|  |      | (3,660.1)   | (3,581.7)                 |
| <b>Total liabilities</b>                                     |      | (5,214.1)   | (5,020.3)                 |
| <b>Net assets</b>  |      | 8,509.7     | 8,519.3                   |
| <b>Equity</b>  |      |             |                           |
| Share capital  | 30   | 89.8        | 89.8                      |
| Share premium  |      | 199.2       | 199.2                     |
| Other reserves   | 30   | (22.3)      | (59.3)                    |
| Retained earnings  | 30   | 6,548.6     | 6,416.4                   |
| <b>Equity attributable to equity owners of the parent</b>    |      | 6,815.3     | 6,646.1                   |
| Non-controlling interests                                    | 31   | 1,694.4     | 1,873.2                   |
| <b>Total equity</b>  |      | 8,509.7     | 8,519.3                   |

Approved by the Board and signed on its behalf on 13 March 2017.

**JEAN-PAUL LUKSIC**  
CHAIRMAN

**OLLIE OLIVEIRA**  
SENIOR INDEPENDENT DIRECTOR

FINANCIAL STATEMENTS CONTINUED

## CONSOLIDATED CASH FLOW STATEMENT

For the year ended 31 December 2016

|  | NOTES | 2016<br>\$M       | 2015<br>\$M    |
|--|-------|-------------------|----------------|
| <b>Cash flow from operations</b>                               | 32    | 1,457.3           | 858.3          |
| Interest paid  |       | (46.3)            | (38.6)         |
| Income tax paid  |       | (272.6)           | (427.1)        |
| <b>Net cash from operating activities</b>                      |       | <b>1,138.4</b>    | <b>392.6</b>   |
| <b>Investing activities</b>                                    |       |                   |                |
| Capital contribution and loan to associates and joint ventures | 17    | (10.1)            | (112.0)        |
| Acquisition of joint ventures                                  | 19    | 20.0 <sup>1</sup> | (972.8)        |
| Dividends from associate                                       | 17    | 10.2              | 12.1           |
| Acquisition of available-for-sale investments                  | 18    | –                 | (0.2)          |
| Disposal of subsidiary   | 10    | 10.0              | 942.9          |
| Acquisition of mining properties                               | 19    | (7.0)             | (78.0)         |
| Proceeds from sale of property plant and equipment             |       | 0.5               | 1.6            |
| Purchases of property, plant and equipment                     |       | (795.1)           | (1,048.5)      |
| Net (increase)/decrease in liquid investments                  | 22    | (408.1)           | 605.0          |
| Interest received  |       | 14.4              | 11.0           |
| <b>Net cash used in investing activities</b>                   |       | <b>(1,165.2)</b>  | <b>(638.9)</b> |
| <b>Financing activities</b>                                    |       |                   |                |
| Dividends paid to equity holders of the Company                | 13    | (30.6)            | (127.2)        |
| Dividends paid to preference shareholders of the Company       | 13    | (0.1)             | (0.2)          |
| Dividends paid to non-controlling interests                    | 31    | (260.0)           | (80.0)         |
| Capital contribution from non-controlling interests            |       | –                 | 14.6           |
| Proceeds from issue of new borrowings                          | 32    | 938.8             | 725.9          |
| Repayments of borrowings                                       | 32    | (693.1)           | (276.4)        |
| Repayments of obligations under finance leases                 | 32    | (31.3)            | (11.9)         |
| Net cash (used in)/from financing activities                   |       | (76.3)            | 244.8          |
| <b>Net (decrease)in cash and cash equivalents</b>              |       | <b>(103.1)</b>    | <b>(1.5)</b>   |
| Cash and cash equivalents at beginning of the year             |       | 807.5             | 845.4          |
| <b>Net decrease in cash and cash equivalents</b>               | 32    | <b>(103.1)</b>    | <b>(1.5)</b>   |
| Effect of foreign exchange rate changes                        | 32    | 11.9              | (36.4)         |
| Cash and cash equivalents at end of the year                   | 22,32 | <b>716.3</b>      | <b>807.5</b>   |

1. Represents cash refunded to the Group as part of the final adjustments to the consideration relating to the acquisition of the 50% stake in Zaldívar as detailed in Note 19.

## 1 BASIS OF PREPARATION

The financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") and with those parts of the Companies Act 2006 applicable to companies reporting under IFRS. For these purposes, IFRS comprise the standards issued by the International Accounting Standards Board ("IASB") and IFRS Interpretations Committee ("IFRS IC") that have been endorsed by the European Union ("EU").

The financial statements have been prepared on the going concern basis. Details of the factors which have been taken into account in assessing the Group's going concern status are set out within the Directors' Report.

Antofagasta Plc is a company limited by shares, incorporated and domiciled in the United Kingdom at Cleveland House, 33 King Street, St James's London SW1Y 6RJ.

The immediate parent of the Group is Metalinvest Establishment, which is controlled by E. Abaroa Foundation, in which members of the Lukšić family are interested.

The nature of the Group entities' operations are mainly related with mining and exploration activities, rail and road cargo.

## SIGNIFICANT EVENTS DURING 2016

The Antucoya operation achieved commercial production on 1 April 2016, and its revenue and costs have accordingly been recognised in the income statement from that date onwards.

The Group has revised its estimation of deferred stripping costs which has resulted in the capitalisation of \$118.1 million of deferred stripping costs for Los Pelambres mine during 2016.

In 2015 Antofagasta acquired a 50% stake in Compañía Minera Zaldívar SpA ("Zaldívar") from Barrick Gold Corporation. Total preliminary consideration for the transaction was \$1,005.0 million in cash, subject to adjustments based on the net debt and working capital levels of Zaldívar at the completion date. The net debt and working capital adjustments were finalised in August 2016 and resulted in a final adjusted consideration of \$949.7 million.

The Group completed the sale of Minera Michilla SA to Haldeman Mining Company S.A., on 30 December 2016. In these financial statements the net results of Michilla for the twelve months to December 2016 are shown in the income statement on the line for "Profit for the period from discontinued operations". The comparative results for the prior year have been restated in order to present the comparative net result on the "Profit for the period from discontinued operations" line.

Impairment charges have been recognised during 2016 in respect of Minera Antucoya SA, the Alto Maipo and the Energia Andina joint venture.

The investment in associate balance relating to Tethyan Copper Company Limited ("Tethyan") is a negative balance \$3.1 million. The negative balance has been recognised because the Group funds the on-going expenses and liabilities of Tethyan. Given the balance is negative it has been included within non-current liabilities. The prior year negative balance of \$2.5 million has been reclassified to non-current liabilities.

## A) ADOPTION OF NEW ACCOUNTING STANDARDS

The following accounting standards, amendments and interpretations became effective in the current reporting period:

- IFRS 14, *Regulatory Deferral Accounts*
- IAS 19, *Defined Benefit Plans, Employee Contributions (Amendments to IAS 19)*
- Annual improvements 2010 – 2012 Cycle – improvements to six IFRSs
- Accounting for Acquisitions of Interests in Joint Operations (Amendments to IFRS 11)
- Clarification of Acceptable Methods of Depreciation and Amortisation (Amendments to IAS 16 and IAS 38)
- Agriculture: Bearer Plants (Amendments to IAS 16 and IAS 41)
- Equity Method in Separate Financial Statements (Amendments to IAS 27)
- Sale or Contribution of Assets between an Investor and its Associate or Joint Venture (Amendments to IFRS 10 and IAS 28)

- Investment Entities: Applying the Consolidation Exception (Amendments to IFRS 10, IFRS 12 and IAS 28)
- Disclosure Initiative (Amendments to IAS 1)
- Annual improvements 2012 – 2014 Cycle – improvements to four IFRSs

The application of these standards and interpretations effective for the first time in the current year has had no significant impact on the amounts reported in these financial statements.

## B) ACCOUNTING STANDARDS ISSUED BUT NOT YET EFFECTIVE

At the date of authorisation of these financial statements, the following Standards and Interpretations which have not been applied in these financial statements were in issue but not yet effective:

- IFRS 9, *Financial Instruments*
- IFRS 15, *Revenue from Contracts with Customers*
- IFRS 16, *Leases*
- IFRIC 22, *Foreign Currency Transactions and Advance Consideration*
- Recognition of Deferred Tax Assets for Unrealized Losses (Amendments to IAS 12)
- Disclosure Initiative (Amendments to IAS 7)
- Classification and Measurement of Share-based Payment Transactions (Amendments to IFRS 2)
- Applying IFRS 9 'Financial Instruments' with IFRS 4 'Insurance Contracts' (Amendments to IFRS 4)
- Transfers of Investment Property (Amendments to IAS 40)
- Annual Improvements to three IFRS Standards 2014–2016 Cycle

The Group is continuing to evaluate in detail the potential impact of IFRS 9 and IFRIC 22.

In respect of IFRS 15 Revenue from contracts the current expectation is that the principal impact will relate to situations where the Group is effectively providing a shipping service to customers who have purchased copper from the Group, to transport that copper to a destination port specified by the customer. Such shipping services will represent a separate performance obligation and should be accounted for over time separately from the sale of goods. The impact of recognising shipping revenue over time rather than at a point in time is not expected to have a material impact on the financial statements.

IFRS 16 Leases will result in most of the Group's existing operating leases being accounted for similarly to finance leases under the current IAS 17, resulting in the recognition of additional assets within property, plant and equipment in respect of the right of use of the lease assets, and additional lease liabilities. The operating lease charges currently reflected within operating expenses (and EBITDA) will be eliminated, and instead depreciation and finance charges will be recognised in respect of the lease assets and liabilities. Based on the operating leases in place at 31 December 2016 it is currently estimated that this would result in the recognition of additional lease assets within property, plant & equipment and additional lease liabilities as at 1 January 2017 of approximately \$100 million in each case. It is also estimated that this would result in a decrease in annual operating expenses before depreciation (and therefore an increase in EBITDA) of approximately \$75 million, an increase in annual depreciation of approximately \$70 million, an increase in finance costs of less than \$15 million, and a net impact on profit before tax of less than \$15 million.

## NOTES TO THE FINANCIAL STATEMENTS

### 2 PRINCIPAL ACCOUNTING POLICIES

#### A) ACCOUNTING CONVENTION

The financial statements have been prepared under the historical cost convention as modified by the use of fair values to measure certain financial instruments, principally provisionally priced sales as explained in Note 2(f) and financial derivative contracts as explained in Note 2(x).

#### B) BASIS OF CONSOLIDATION

The financial statements comprise the consolidated financial statements of Antofagasta plc ("the Company") and its subsidiaries (collectively "the Group").

- a) **Subsidiaries** – A subsidiary is an entity over which the Group has control, which is the case when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. The consolidated financial statements include all the assets, liabilities, revenues, expenses and cash flows of the Company and its subsidiaries after eliminating inter-company balances and transactions. For partly-owned subsidiaries, the net assets and profit attributable to non-controlling shareholders are presented as "Non-controlling interests" in the consolidated balance sheet and consolidated income statement.

Non-controlling interests that are present ownership interests and entitle their holders to a proportionate share of the entity's net assets in the event of liquidation may be initially measured either at fair value or at the non-controlling interests' proportionate share of the recognised amounts of the acquiree's identifiable net assets. The choice of measurement basis is made on an acquisition-by-acquisition basis. Other types of non-controlling interests are measured at fair value or, when applicable, on the basis specified in another IFRS. Subsequent to acquisition, the carrying amount of non-controlling interests is the amount of those interests at initial recognition plus the non-controlling interests' share of subsequent changes in equity. Total comprehensive income is attributed to non-controlling interests even if this results in the non-controlling interests having a deficit balance.

Changes in the Group's ownership interests in subsidiaries that do not result in the Group losing control over the subsidiaries are accounted for as equity transactions. The carrying amounts of the Group's interests and the non-controlling interests are adjusted to reflect the changes in their relative interests in the subsidiaries. Any difference between the amount by which the non-controlling interests are adjusted and the fair value of the consideration paid or received is recognised directly in equity and attributed to owners of the Company.

When the Group loses control of a subsidiary, a gain or loss is recognised in profit or loss and is calculated as the difference between (i) the aggregate of the fair value of the consideration received and the fair value of any retained interest and (ii) the previous carrying amount of the assets (including goodwill), and liabilities of the subsidiary and any non-controlling interests. When assets of the subsidiary are carried at revalued amounts or fair values and the related cumulative gain or loss has been recognised in other comprehensive income and accumulated in equity, the amounts previously recognised in other comprehensive income and accumulated in equity are accounted for as if the Group had directly disposed of the relevant assets (i.e. reclassified to profit or loss or transferred directly to retained earnings as specified by applicable IFRSs). The fair value of any investment retained in the former subsidiary at the date when control is lost is regarded as the fair value on initial recognition for subsequent accounting under IAS 39 Financial Instruments: Recognition and Measurement or, when applicable, the cost on initial recognition of an investment in an associate or a joint venture.

Acquisitions and disposals are treated as explained in Note 2(g) relating to business combinations and goodwill.

#### C) INVESTMENTS IN ASSOCIATES

An associate is an entity over which the Group is in a position to exercise significant influence, but not control or joint control, through the power to participate in the financial and operating policy decisions of that entity. The results and assets and liabilities of associates are incorporated in these consolidated financial statements using the equity method of accounting.

This requires recording the investment initially at cost to the Group and then, in subsequent periods, adjusting the carrying amount of the investment to reflect the Group's share of the associate's results less any impairment and any other changes to the associate's net assets such as dividends. When the Group loses control of a former subsidiary but retains an investment in associate in that entity the initial carrying value of the investment in associate is recorded at its fair value at that point. When the Group's share of losses of an associate exceeds the Group's interest in that associate the Group discontinues recognising its share of further losses. Additional losses are recognised only to the extent that the Group has incurred legal or constructive obligations or made payments on behalf of the associate.

#### D) JOINT ARRANGEMENTS

A joint arrangement is an arrangement of which two or more parties have joint control. Joint arrangements are accounted depending on the nature of the arrangement.

- i) Joint ventures – are accounted for using equity method in accordance with IAS 28 Investment in Associates and Joint Ventures as described in Note 21.
- ii) Joint operations – are accounted for recognising directly the assets, obligations, revenues and expenses of the joint operator in the joint arrangement. The assets, liabilities, revenues and expenses are accounted for in accordance with the relevant IFRS.

When a Group entity transacts with its joint arrangements, profits and losses resulting from the transactions with the joint arrangements are recognised in the Group's consolidated financial statements only to the extent of interests in the joint arrangements that are not related to the Group.

#### E) CURRENCY TRANSLATION

The functional currency for each entity in the Group is determined as the currency of the primary economic environment in which it operates. Transactions in currencies other than the functional currency of the entity are translated at the exchange rate ruling at the date of the transaction. Monetary assets and liabilities denominated in currencies other than the functional currency are retranslated at year end exchange rates. Gains and losses on retranslation are included in net profit or loss for the period within other finance items.

The presentational currency of the Group and the functional currency of the Company is the US dollar. On consolidation, income statement items for entities with a functional currency other than the US dollar are translated into US dollars at average rates of exchange. Balance sheet items are translated at period-end exchange rates. Exchange differences on translation of the net assets of such entities are taken to equity and recorded in a separate currency translation reserve. Cumulative translation differences arising after the transition date to IFRS are recognised as income or as expenses in the income statement in the period in which an operation is disposed of.

On consolidation, exchange gains and losses which arise on balances between Group entities are taken to reserves where that balance is, in substance, part of the net investment in a foreign operation, i.e. where settlement is neither planned nor likely to occur in the foreseeable future. All other exchange gains and losses on Group balances are dealt with in the income statement.

Fair value adjustments and any goodwill arising on the acquisition of a foreign entity are treated as assets of the foreign entity and translated at the period-end rate.

#### F) REVENUErecognition

Revenue represents the value of goods and services supplied to third parties during the year. Revenue is measured at the fair value of consideration received or receivable, and excludes any applicable sales tax.

A sale is recognised when the significant risks and rewards of ownership have passed. This is generally when title and any insurance risk has passed to the customer, and the goods have been delivered to a contractually agreed location or when any services have been provided.

Revenue from mining activities is recorded at the invoiced amounts with an adjustment for provisional pricing at each reporting date, as explained below. For copper and molybdenum concentrates, which are sold to smelters and roasting plants for further processing, the invoiced amount is the market value of the metal payable by the customer, net of deductions for tolling charges. Revenue includes amounts from the sale of by-products.

Copper and molybdenum concentrate sale agreements and copper cathode sale agreements generally provide for provisional pricing of sales at the time of shipment, with final pricing based on the monthly average London Metal Exchange ("LME") copper price or the monthly average market molybdenum price for specified future periods. This normally ranges from one to five months after delivery to the customer. Such a provisional sale contains an embedded derivative which is required to be separated from the host contract. The host contract is the sale of metals contained in the concentrate or cathode at the provisional invoice price less tolling charges deducted, and the embedded derivative is the forward contract for which the provisional sale is subsequently adjusted. At each reporting date, the provisionally priced metal sales together with any related tolling charges are marked-to-market, with adjustments (both gains and losses) being recorded in revenue in the Consolidated income statement and in trade debtors in the balance sheet. Forward prices at the period end are used for copper concentrate and cathode sales, while period-end average prices are used for molybdenum concentrate sales due to the absence of a futures market.

Interest income is accrued on a time basis, by reference to the principal outstanding and the effective interest rate applicable, which is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount.

Dividend income from available-for-sale investments, associates and joint ventures is recognised when the shareholders' right to receive payment has been established and for associates and joint venture is recorded as decrease of the investment at balance level.

## G) BUSINESS COMBINATIONS AND GOODWILL

Acquisitions of businesses are accounted for using the acquisition method. The consideration transferred in a business combination is measured at fair value, which is calculated as the sum of the acquisition-date fair values of the assets transferred by the Group, liabilities incurred by the Group to the former owners of the acquiree and the equity interests issued by the Group in exchange for control of the acquiree. The results of businesses acquired during the year are brought into the consolidated financial statements from the effective date of acquisition. The identifiable assets, liabilities and contingent liabilities of a business which can be measured reliably are recorded at their provisional fair values at the date of acquisition. Provisional fair values are finalised within 12 months of the acquisition date. Acquisition-related costs are expensed as incurred.

When the consideration transferred by the Group in a business combination includes assets or liabilities resulting from a contingent consideration arrangement, the contingent consideration is measured at its acquisition-date fair value and included as part of the consideration transferred in a business combination. Changes in the fair value of the contingent consideration that qualify as measurement period adjustments are adjusted retrospectively, with corresponding adjustments against goodwill. Measurement period adjustments are adjustments that arise from additional information obtained during the "measurement period" (which cannot exceed one year from the acquisition date) about facts and circumstances that existed at the acquisition date.

The subsequent accounting for changes in the fair value of the contingent consideration that do not qualify as "measurement period" adjustments depends on how the contingent consideration is classified. Contingent consideration that is classified as equity is not remeasured at subsequent reporting dates and its subsequent settlement is accounted for within equity. Contingent consideration that is classified as an asset or a liability is remeasured at subsequent reporting dates in accordance with IAS 39.

When a business combination is achieved in stages, the Group's previously held equity interest in the acquiree is remeasured to fair value at the acquisition date (i.e. the date when the Group obtains control) and the

resulting gain or loss, if any, is recognised in profit or loss. Amounts arising from interests in the acquiree prior to the acquisition date that have previously been recognised in other comprehensive income are reclassified to profit or loss where such treatment would be appropriate if that interest were disposed of.

If the initial accounting for a business combination is incomplete by the end of the reporting period in which the combination occurs, the Group reports provisional amounts for the items for which the accounting is incomplete. Those provisional amounts are adjusted during the measurement period (see above), or additional assets or liabilities are recognised, to reflect new information obtained about facts and circumstances that existed at the acquisition date that, if known, would have affected the amounts recognised at that date.

Goodwill arising in a business combination is measured as the excess of the sum of the consideration transferred, the amount of any non-controlling interest in the acquiree and the fair value of the acquirer's previously held equity interest in the acquiree (if any) over the net identifiable assets acquired and liabilities assumed. Any goodwill on the acquisition of subsidiaries is separately disclosed, while any goodwill on the acquisition of associates and joint ventures is included within investments in equity accounted entities. Internally generated goodwill is not recognised. Where the fair values of the identifiable net assets acquired exceed the sum of the consideration transferred, the surplus is credited to the profit or loss in the period of acquisition as a bargain purchase gain.

The Group often enters into earn-in arrangements whereby the Group acquires an interest in a project company in exchange for funding exploration and evaluation expenditure up to a specified level of expenditure or a specified stage in the life of the project. Funding is usually conditional on the achievement of key milestones by the partner. Typically there is no consideration transferred or funding liability on the effective date of acquisition of the interest in the project company and no goodwill is recognised on this type of transaction.

The results of businesses sold during the year are included in the consolidated financial statements for the period up to the effective date of disposal. Gains or losses on disposal are calculated as the difference between the sales' proceeds (net of expenses) and the net assets attributable to the interest which has been sold. Where a disposal represents a separate major line of business or geographical area of operations, the net results attributable to the disposed entity are shown separately in the income statement as a discontinued operation.

## H) EXPLORATION AND EVALUATION EXPENDITURE

Exploration and evaluation costs, other than those incurred in acquiring exploration licences, are expensed in the year in which they are incurred. When a mining project is considered to be commercially viable (normally when the project has completed a pre-feasibility study, and the start of a feasibility study has been approved) all further directly attributable pre-production expenditure is capitalised. Capitalisation of pre-production expenditure ceases when commercial levels of production are achieved.

Costs incurred in acquiring exploration licences are accounted for as mining properties included in property, plant and equipment in accordance with the policy in Note 2(k) and are stated at cost less accumulated amortisation and accumulated impairment losses.

## I) STRIPPING COSTS

Pre-stripping and operating stripping costs are incurred in the course of the development and operation of open-pit mining operations.

Pre-stripping costs relate to the removal of waste material as part of the initial development of an open-pit, in order to allow access to the ore body. These costs are capitalised within mining properties within property, plant and equipment. The capitalised costs are depreciated once production commences on a unit of production basis, in proportion to the volume of ore extracted in the year compared with total proven and probable reserves for that pit at the beginning of the year.

## NOTES TO THE FINANCIAL STATEMENTS

### 2 PRINCIPAL ACCOUNTING POLICIES CONTINUED

Operating stripping costs relate to the costs of extracting waste material as part of the ongoing mining process. The on-going mining and development of the Group's open-pit mines is generally performed via a succession of individual phases. The costs of extracting material from an open-pit mine are generally allocated between ore and waste stripping in proportion to the tonnes of material extracted. The waste stripping costs are generally absorbed into inventory and expensed as that inventory is processed and sold. Where the stripping costs relate to a significant stripping campaign which is expected to provide improved access to an identifiable component of the ore body (typically an individual phase within the overall mine plan), the costs of removing waste in order to improve access to that part of the ore body will be capitalised within mining properties within property, plant and equipment. The capitalised costs will then be amortised on a unit of production basis, in proportion to the volume of ore extracted compared with the total ore contained in the component of the pit to which the stripping campaign relates.

### J) INTANGIBLE ASSETS

Intangible assets with finite useful lives that are acquired separately are carried at cost less accumulated amortisation and accumulated impairment losses. Intangible assets include the cost of acquiring exploration licences. Amortisation is recognised on a straight-line basis over their estimated useful lives. The estimated useful life and amortisation method are reviewed at the end of each reporting period, with the effect of any changes in estimate being accounted for on a prospective basis. Intangible assets with indefinite useful lives that are acquired separately are carried at cost less accumulated impairment losses.

Intangible assets acquired in a business combination and recognised separately from goodwill are initially recognised at their fair value at the acquisition date (which is regarded as their cost).

Subsequent to initial recognition, intangible assets acquired in a business combination are reported at cost less accumulated amortisation and accumulated impairment losses, on the same basis as intangible assets that are acquired separately.

An intangible asset is derecognised on disposal, or when no future economic benefits are expected from use or disposal. Gains or losses arising from derecognition of an intangible asset, measured as the difference between the net disposal proceeds and the carrying amount of the asset, are recognised in profit or loss when the asset is derecognised.

### K) PROPERTY, PLANT AND EQUIPMENT

The costs of mining properties and leases, which include the costs of acquiring and developing mining properties and mineral rights, are capitalised as property, plant and equipment in the year in which they are incurred, when a mining project is considered to be commercially viable (normally when the project has completed a pre-feasibility study, and the start of a feasibility study has been approved). The cost of property, plant and equipment comprises the purchase price and any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended. Once a project has been established as commercially viable, related development expenditure is capitalised. This includes costs incurred in preparing the site for mining operations, including pre-stripping costs. Capitalisation ceases when the mine is capable of commercial production, with the exception of development costs which give rise to a future benefit.

Interest on borrowings related to construction or development of projects is capitalised, until such time as the assets are substantially ready for their intended use or sale which, in the case of mining properties, is when they are capable of commercial production.

### L) DEPRECIATION OF PROPERTY, PLANT AND EQUIPMENT AND AMORTISATION OF INTANGIBLE ASSETS

Property, plant and equipment is depreciated over its useful life, or over the remaining life of the operation if shorter, to residual value. The major categories of property, plant and equipment are depreciated as follows:

- (i) **Land** – freehold land is not depreciated unless the value of the land is considered to relate directly to a particular mining operation, in which case the land is depreciated on a straight-line basis over the expected mine life.
- (ii) **Mining properties** – mining properties, including capitalised financing costs, are depreciated on a unit of production basis, in proportion to the volume of ore extracted in the year compared with total proven and probable reserves at the beginning of the year.
- (iii) **Buildings and infrastructure** – straight-line basis over 10 to 25 years.
- (iv) **Railway track** (including trackside equipment) – straight-line basis over 20 to 25 years.
- (v) **Wagons and rolling stock** – straight-line basis over 10 to 20 years.
- (vi) **Machinery, equipment and other assets** – are depreciated on a unit of production basis, in proportion to the volume of ore / material processed or on a straight-line basis over 5 to 20 years.
- (vii) **Assets under construction** – no depreciation until asset is available for use.
- (viii) **Assets held under finance lease** – are depreciated over the shorter of the lease term and their useful life.

Residual values and useful lives are reviewed, and adjusted if appropriate, at least annually, and changes to residual values and useful lives are accounted for prospectively.

The concession right is amortised on a straight-line basis over the life of the concession, or the useful life of any component part if less.

### M) IMPAIRMENT OF PROPERTY, PLANT AND EQUIPMENT AND INTANGIBLE ASSETS (EXCLUDING GOODWILL)

Property, plant and equipment and finite life intangible assets are reviewed for impairment if there is any indication that the carrying amount may not be recoverable. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment (if any). Where the asset does not generate cash flows that are independent from other assets, the Group estimates the recoverable amount of the cash-generating unit to which the asset belongs. Any intangible asset with an indefinite useful life is tested for impairment annually and whenever there is an indication that the asset may be impaired.

Recoverable amount is the higher of fair value less costs of disposal and value in use. Fair value less costs of disposal reflects the net amount the Group would receive from the sale of the asset in an orderly transaction between market participants. For mining assets this would generally be determined based on the present value of the estimated future cash flows arising from the continued use, further development or eventual disposal of the asset. The estimates used in determining the present value of those cash flows are those that an independent market participant would consider appropriate.

If the recoverable amount of an asset or cash-generating unit is estimated to be less than its carrying amount, the carrying amount is reduced to the recoverable amount. An impairment charge is recognised in the income statement immediately. Where an impairment subsequently reverses, the carrying amount is increased to the revised estimate of recoverable amount, but so that the increased carrying amount does not exceed the carrying value that would have been determined if no impairment had previously been recognised. A reversal is recognised in the income statement immediately.

## N) INVENTORY

Inventory consists of raw materials and consumables, work-in-progress and finished goods. Work-in-progress represents material that is in the process of being converted into finished goods. The conversion process for mining operations depends on the nature of the copper ore. For sulphide ores, processing includes milling and concentrating and results in the production of copper concentrate. For oxide ores, processing includes leaching of stockpiles, solvent extraction and electrowinning and results in the production of copper cathodes. Finished goods consist of copper concentrate containing gold and silver at Los Pelambres and Centinela and copper cathodes at Centinela, Antucoya and Michilla. Los Pelambres also produces molybdenum as a by-product.

Inventory is valued at the lower of cost, on a weighted average basis, and net realisable value. Net realisable value represents estimated selling price less all estimated costs of completion and costs to be incurred in marketing, selling and distribution. Cost of finished goods and work-in-progress is production cost and for raw materials and consumables it is purchase price. Production cost includes:

- labour costs, raw material costs and other costs directly attributable to the extraction and processing of ore;
- depreciation of plant, equipment and mining properties directly involved in the production process; and
- an appropriate portion of production overheads.

Stockpiles represent ore that is extracted and is available for further processing. Costs directly attributable to the extraction of ore are generally allocated as part of production cost in proportion to the tonnes of material extracted. Operating stripping costs are generally absorbed into inventory, and therefore expensed as that inventory is processed and sold. If ore is not processed within 12 months of the statement of financial position date it is included within non-current assets. If there is significant uncertainty as to when any stockpiled ore will be processed it is expensed as incurred.

## O) TAXATION

Tax expense comprises the charges or credits for the year relating to both current and deferred tax.

Current tax is based on taxable profit for the year. Taxable profit may differ from net profit as reported in the income statement because it excludes items of income or expense that are taxable and deductible in different years and also excludes items that are not taxable or deductible. The liability for current tax is calculated using tax rates for each entity in the consolidated financial statements which have been enacted or substantively enacted at the balance sheet date.

Deferred tax is the tax expected to be payable or recoverable on temporary differences (i.e. differences between the carrying amount of assets and liabilities in the financial statements and the corresponding tax basis used in the computation of taxable profit). Deferred tax is accounted for using the balance sheet liability method and is provided on all temporary differences with certain limited exceptions as follows:

- (i) tax payable on undistributed earnings of subsidiaries, associates and joint ventures is provided except where the Group is able to control the remittance of profits and it is probable that there will be no remittance of past profits earned in the foreseeable future;
- (ii) deferred tax is not provided on the initial recognition of an asset or liability in a transaction that does not affect accounting profit or taxable profit and is not a business combination; nor is deferred tax provided on subsequent changes in the carrying value of such assets and liabilities, for example where they are depreciated; and
- (iii) the initial recognition of any goodwill.

Deferred tax assets are recognised only to the extent that it is probable that they will be recovered through sufficient future taxable profit. The carrying amount of deferred tax assets is reviewed at each balance sheet date.

Deferred tax is calculated at the tax rates that are expected to apply in the period when the liability is settled or the asset is realised. Deferred tax is charged or credited in the income statement, except when it relates to items charged or credited directly to equity, in which case the deferred tax is also taken directly to equity.

## P) PROVISIONS

Provisions are recognised when the Group has a present obligation (legal or constructive) as a result of a past event, it is probable that the Group will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation.

The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the end of the reporting period, taking into account the risks and uncertainties surrounding the obligation. When a provision is measured using the cash flows estimated to settle the present obligation, its carrying amount is the present value of those cash flows (when the effect of the time value of money is material).

When some or all of the economic benefits required to settle a provision are expected to be recovered from a third party, a receivable is recognised as an asset if it is virtually certain that reimbursement will be received and the amount of the receivable can be measured reliably.

## Q) PROVISIONS FOR DECOMMISSIONING AND RESTORATION COSTS

An obligation to incur decommissioning and restoration costs occurs when environmental disturbance is caused by the development or ongoing production of a mining property. Costs are estimated on the basis of a formal closure plan and are subject to regular formal review.

Such costs arising from the installation of plant and other site preparation work, discounted to their net present value, are provided and capitalised at the start of each project, as soon as the obligation to incur such costs arises. These decommissioning costs are charged against profits over the life of the mine, through depreciation of the asset and unwinding or amortisation of the discount on the provision. Depreciation is included in operating costs while the unwinding of the discount is included as financing costs. Changes in the measurement of a liability relating to the decommissioning of plant or other site preparation work are added to, or deducted from, the cost of the related asset in the current year.

The costs for restoration of site damage, which is created on an ongoing basis during production, are provided for at their net present values and charged against operating profits as extraction progresses. Changes in the measurement of a liability relating to site damage created during production is charged against operating profit.

## R) SHARE-BASED PAYMENTS

For cash-settled share-based payments, a liability is recognised for the goods or services acquired, measured initially at the fair value of the liability. At the end of each reporting period until the liability is settled, and at the date of settlement, the fair value of the liability is remeasured, with any changes in fair value recognised in profit or loss for the year. The Group currently does not have any equity settled share-based payments to employees or third parties.

## S) POST-EMPLOYMENT BENEFITS

The Group operates defined contribution schemes for a limited number of employees. For such schemes, the amount charged to the income statement is the contributions paid or payable in the year.

Employment terms may also provide for payment of a severance indemnity when an employment contract comes to an end. This is typically at the rate of one month for each year of service (subject in most cases to a cap as to the number of qualifying years of service) and based on final salary level. The severance indemnity obligation is treated as an unfunded defined benefit plan, and the calculation is based on valuations performed by an independent actuary using the projected unit credit method, which are regularly updated. The obligation recognised in the balance sheet represents the present value of the severance indemnity obligation. Actuarial gains and losses are immediately recognised in other comprehensive income.

## NOTES TO THE FINANCIAL STATEMENTS

### 2 PRINCIPAL ACCOUNTING POLICIES CONTINUED

#### T) CASH AND CASH EQUIVALENTS

Cash and cash equivalents comprise cash on hand, deposits held on call with banks, highly liquid investments that are readily convertible into known amounts of cash and which are subject to insignificant risk of changes in value, net of bank overdrafts which are repayable on demand. Cash and cash equivalents normally have a maturity period of 90 days or less.

#### U) LIQUID INVESTMENTS

Liquid investments represent highly liquid current asset investments such as term deposits and managed funds invested in high quality fixed income instruments. They do not meet the IAS 7 definition of cash and cash equivalents, normally because even if readily accessible, the underlying investments have an average maturity profile greater than 90 days from the date first entered into. These assets are designated as fair value through profit or loss.

#### V) LEASES

Rental costs under operating leases are charged to the income statement account in equal annual amounts over the term of the lease.

Assets under finance leases are recognised as assets of the Group at inception of the lease at the lower of fair value or the present value of the minimum lease payments derived by discounting at the interest rate implicit in the lease. The interest element is charged within financing costs so as to produce a constant periodic rate of interest on the remaining balance of the liability.

#### W) OTHER FINANCIAL INSTRUMENTS

Financial assets and financial liabilities are recognised on the Group's balance sheet when the Group becomes a party to the contractual provisions of the instrument

- (i) **Investments** – Investments which are not subsidiaries, associates or joint ventures are initially measured at cost, including transaction costs.

Investments are classified as either held for trading or available-for-sale, and are normally measured at subsequent reporting dates at fair value. Fair value is determined in the manner described in Note 26(b). Investments in equity instruments that do not have a quoted market price in an active market and whose fair value cannot be reliably measured are measured at cost. Securities are classified as "held-for-trading" when they are acquired principally for the purpose of sale in the short term, and gains and losses arising from changes in fair value are included in profit or loss for the period. Other investments are classified as "available-for-sale", and gains and losses arising from changes in fair value are recognised directly in equity, within the "Fair value reserve", until the security is disposed of or is determined to be impaired, at which time the cumulative gain or loss previously recognised in equity is included in profit or loss for the period. Dividends on available-for-sale and held-for-trading equity investments are recognised in the income statement when the right to receive payment is established.

- (ii) **Trade and other receivables** – Trade and other receivables do not generally carry any interest and are normally stated at their nominal value less any impairment. Impairment losses on trade receivables are recognised within an allowance account unless the Group considers that no recovery of the amount is possible, in which case the carrying value of the asset is reduced directly.

- (iii) **Trade and other payables** – Trade and other payables are generally not interest-bearing and are normally stated at their nominal value.

- (iv) **Borrowings (loans and preference shares)** – Interest-bearing loans and bank overdrafts are initially recorded at the proceeds received, net of direct issue costs. They are subsequently measured at amortised cost using the effective interest method, with interest expense recognised on an effective yield basis. The effective interest method is a method of calculating the amortised cost of a financial liability and of allocating interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments through the expected life of the financial liability, or, where appropriate, a shorter period. Finance charges, including premiums payable on settlement or redemption and direct issue costs, are accounted for on an accruals basis using the effective interest rate method. Amounts are either recorded as financing costs in profit or loss or capitalised in accordance with the accounting policy set out in Note 2(k). Finance charges are added to the carrying amount of the instrument to the extent that they are not settled in the period in which they arise.

The Sterling-denominated preference shares issued by the Company carry a fixed rate of return without the right to participate in any surplus. They are accordingly classified within borrowings and translated into US dollars at period-end rates of exchange. Preference share dividends are included within finance costs.

- (v) **Equity instruments** – Equity instruments issued are recorded at the proceeds received, net of direct issue costs. Equity instruments of the Company comprise its Sterling-denominated issued ordinary share capital and related share premium. As explained in Note 2(e), the presentational currency of the Group and the functional currency of the Company is US dollars, and ordinary share capital and share premium are translated into US dollars at historical rates of exchange based on dates of issue.

- (vi) **Derivative financial instruments** – As explained in Note 25(d), the Group uses derivative financial instruments to reduce exposure to foreign exchange, interest rate and commodity price movements. The Group does not use such derivative instruments for trading purposes. The Group has applied the hedge accounting provisions of IAS 39 "Financial Instruments: Recognition and Measurement". The effective portion of changes in the fair value of derivative financial instruments that are designated and qualify as hedges of future cash flows have been recognised directly in equity, with such amounts subsequently recognised in profit or loss in the period when the hedged item affects profit or loss. Any ineffective portion is recognised immediately in profit or loss. Realised gains and losses on commodity derivatives recognised in profit or loss are recorded within revenue. The time value element of changes in the fair value of derivative options is excluded from the designated hedging relationship, and is therefore recognised directly in profit or loss within other finance items. Derivatives embedded in other financial instruments or other host contracts are treated as separate derivatives when their risks and characteristics are not closely related to those of host contracts and the host contracts are not carried at fair value. Changes in fair value are reported in profit or loss for the year. The treatment of embedded derivatives arising from provisionally-priced commodity sales contracts is set out in further detail in Note 2(f) relating to revenue.

- (vii) **Impairment of financial assets** – Financial assets, other than those at fair value through profit or loss, are assessed for indicators of impairment at each balance sheet date. Financial assets are impaired where there is objective evidence that as a result of one or more events that occurred after the initial recognition of the financial asset the estimated future cash flows of the investment have been impacted. For loans and receivables the amount of the impairment is the difference between the asset's carrying value and the present value of estimated future cash flows, discounted at the original effective interest rate. Any impairment loss is recognised in profit or loss immediately.

The carrying amount of the financial asset is reduced by the impairment loss directly for all financial assets with the exception of trade receivables.

With the exception of available-for-sale equity instruments, if, in a subsequent period, the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognised, the previously recognised impairment loss is reversed through profit or loss immediately to the extent that the carrying amount of the investment at the date the impairment is reversed does not exceed what the amortised cost would have been had the impairment not been recognised. In respect of available-for-sale equity instruments, any increase in fair value subsequent to an impairment loss is recognised directly in equity.

#### X) EXCEPTIONAL ITEMS

Exceptional items are material items of income and expense which are non-regular or non-operating and typically non-cash movements.

#### Y) ROUNDING

All amounts disclosed in the Financial Statements and notes have been rounded off to the nearest million dollars unless otherwise stated.

These policies have been consistently applied to all the years presented, unless otherwise stated.

### 3 CRITICAL ACCOUNTING JUDGEMENTS AND KEY SOURCES OF ESTIMATION UNCERTAINTY

Determining many of the amounts included in the Financial Statements involves the use of judgement and/or estimation. These judgements and estimates are based on management's best knowledge of the relevant facts and circumstances having regard to prior experience, but actual results may differ from the amounts included in the Financial Statements. Information about such judgements and estimates is included in the principal accounting policies in Note 2 or the other notes to the Financial Statements, and the key areas are set out below.

#### A) CAPITALISATION OF PROPERTY, PLANT AND EQUIPMENT AND OF PROJECT COSTS

As explained in Note 2(k) the costs of developing mining properties are capitalised as property, plant and equipment in the year in which they are incurred, when the mining project is considered to be commercially viable. Management reviews amounts capitalised to ensure that the treatment of that expenditure as capital rather than operating expenditure is reasonable, in particular in respect of the commercial viability of the project. Commercial viability is normally considered to be demonstrable when the project has completed a pre-feasibility study, and the start of a feasibility study has been approved.

#### B) USEFUL ECONOMIC LIVES OF PROPERTY, PLANT AND EQUIPMENT AND ORE RESERVES ESTIMATES

As explained in Note 2(l), mining properties, including capitalised financing costs, are depreciated in proportion to the volume of ore extracted in the year compared with total proven and probable reserves at the beginning of the year.

There are numerous uncertainties inherent in estimating ore reserves, and assumptions that were valid at the time of estimation may change when new information becomes available. These include assumptions as to grade estimates and cut-off grades, recovery rates, commodity prices, exchange rates, production costs, capital costs, processing and reclamation costs and

discount rates. The actual volume of ore extracted and any changes in these assumptions could affect prospective depreciation rates and carrying values.

The majority of other items of property, plant and equipment are depreciated on a straight-line basis over their useful economic lives. Management reviews the appropriateness of useful economic lives at least annually and, again, any changes could affect prospective depreciation rates and asset carrying values.

#### C) IMPAIRMENT OF ASSETS

As explained in Note 2(m), the Group reviews the carrying value of its intangible assets and property, plant and equipment to determine whether there is any indication that those assets are impaired. In making assessments for impairment, assets that do not generate independent cash flows are allocated to an appropriate cash-generating unit ("CGU"). The recoverable amount of those assets, or CGU, is measured at the higher of their fair value less costs to sell and value in use. Details of the impairment reviews undertaken as at 31 December 2016 are set out in Note 4.

Management necessarily applies its judgement in allocating assets to CGUs, in estimating the probability, timing and value of underlying cash flows and in selecting appropriate discount rates to be applied within the fair value less cost to dispose calculation. The key assumptions are set out in Note 2(m) and Note 4. Subsequent changes to CGU allocation, licencing status, reserves and resources, price assumptions or other estimates and assumptions in the fair value less cost to dispose calculation could impact the carrying value of the respective assets.

#### D) PROVISIONS FOR DECOMMISSIONING AND SITE RESTORATION COSTS

As explained in Note 2(q), provision is made, based on net present values, for decommissioning and site rehabilitation costs as soon as the obligation arises following the development or ongoing production of a mining property. The provision is based on a closure plan prepared with the assistance of external consultants.

Management uses its judgement and experience to provide for and (in the case of capitalised decommissioning costs) amortise these estimated costs over the life of the mine. The ultimate cost of decommissioning and site rehabilitation is uncertain and cost estimates can vary in response to many factors including changes to relevant legal requirements, the emergence of new restoration techniques or experience at other mine sites.

The expected timing and extent of expenditure can also change, for example in response to changes in ore reserves or processing levels. As a result, there could be significant adjustments to the provisions established which would affect future financial results.

#### E) DEFERRED TAXATION

As explained in Note 2(o), deferred tax is not provided for future tax payable on undistributed earnings where the Group is able to control the remittance of profits and it is probable that there will be no remittance of past profits earned in the foreseeable future.

Management uses its judgement in estimating the probability of such remittances. These are based on Group forecasts and include assumptions as to future profits and cash flows (which depend on several factors including commodity prices, operating costs, production levels, capital expenditures, interest costs, debt repayment and tax rates) and cash requirements (which may also depend on several factors including future dividend levels). A change in the assumptions used or in the estimate as to the probability that past profits will be remitted would impact the deferred tax charge and balance sheet provision.

## NOTES TO THE FINANCIAL STATEMENTS

### 4 EXCEPTIONAL ITEMS

Exceptional items are material items of income and expense which are non-regular or non-operating and typically non-cash movements. The exceptional items in the year ended 31 December 2016 and their impact on the results are set out below. There were no exceptional items in 2015.

|   | OPERATING PROFIT |          | SHARE OF RESULTS FROM ASSOCIATES AND JOINT VENTURES |          | PROFIT BEFORE TAX |          | EARNINGS PER SHARE |          |
|---|------------------|----------|---|----------|-------------------|----------|--------------------|----------|
|   | 2016 \$M         | 2015 \$M | 2016 \$M  | 2015 \$M | 2016 \$M          | 2015 \$M | 2016 \$M           | 2015 \$M |
| Before exceptional items                                    | 923.6            | 289.0    | 23.4  | (5.8)    | 875.9             | 242.8    | 38.6               | 61.7     |
| <b>Provision against the carrying value of assets:</b>      |                  |          |   |          |                   |          |                    |          |
| Alto Maipo – Loan   | (241.0)          | –        | –   | –        | (241.0)           | –        | 6.3                | –        |
| Alto Maipo – Investment                                     | –                | –        | (126.6)   | –        | (126.6)           | –        | 5.8                | –        |
| Antucoya – PPE  | (215.6)          | –        | –   | –        | (215.6)           | –        | 10.7               | –        |
| Energia Andina – Investment                                 | –                | –        | (8.1)   | –        | (8.1)             | –        | (0.2)              | –        |
| <b>Total provision against the carrying value of assets</b> | <b>(456.6)</b>   | <b>–</b> | <b>(134.7)</b>                                      | <b>–</b> | <b>(591.3)</b>    | <b>–</b> | <b>(22.6)</b>      | <b>–</b> |
| After exceptional items                                     | 467.0            | 289.0    | (111.3)   | (5.8)    | 284.6             | 242.8    | 16.0               | 61.7     |

#### (i) Alto Maipo

The Group has a 40% interest in Alto Maipo SpA ("Alto Maipo"), which is developing two run-of-river hydroelectric power stations located in the upper section of the Maipo River, approximately 50 km to the southeast of Santiago. The remaining 60% interest is held by AES Gener ("Gener"). The Group has been reviewing its options with respect to its investment in Alto Maipo following the announcement of a significant forecast cost overrun for the project. In January 2017 the Group entered into an agreement with Gener to dispose of its stake in Alto Maipo to Gener for a nominal consideration. Accordingly, an impairment provision of \$367.6 million has been recognised in respect of the total carrying value relating to the project, comprising the \$74.0 million investment in associate balance and \$52.6 million of mark-to-market losses in respect of derivative financial instruments held by Alto Maipo previously deferred in reserves, resulting in a \$126.6 million loss reflected on the profit from associates and joint ventures line and \$241.0 million of loan financing (including accrued interest) reflected in operating cost. This impairment provision resulted in a deferred tax credit of \$95.0 million and so the post-tax impact is \$272.6 million.

#### (ii) Antucoya

An impairment review has been conducted for the Antucoya operation. Following the completion of construction, Antucoya achieved commercial production in April 2016 and then reached full production capacity in August 2016. This process was slower than originally forecast, meaning that the costs capitalised during the ramp-up period were greater than originally forecast and net depreciation of the assets commenced later than originally anticipated. The achievement of commercial production and full capacity during the year has allowed a final determination of the total capital cost of the project, including costs capitalised during the ramp-up to commercial production, along with an understanding of the actual operating performance of the mine.

The impairment review determined that the recoverable amount (fair value less costs of disposal) of Antucoya's assets was \$1,502.3 million, compared with the carrying value of \$1,717.9 million, and accordingly an impairment provision of \$215.6 million (on a pre-tax basis) has been reflected in respect of Antucoya. This impairment provision resulted in a deferred tax credit of \$99.4 million and so the post-tax impact is \$116.2 million. All of the provision has been allocated against Antucoya's property, plant and equipment.

The key assumptions to which the value of the assets are most sensitive are future commodity prices, the discount rate used to determine the present value of the future cash flows, future operating costs, sustaining and development capital expenditure and ore reserve estimates. The commodity price forecasts (representing the Group's estimates of the assumptions that would be used by independent market participants in valuing the assets) are based on the forward curve for the short term and consensus analyst forecasts including both investment banks and commodity consultants for the longer term. A long term copper price of 300 c/lb has been used in the calculations. A real post-tax discount rate of 8% has been used in determining the present value of the forecast future cash flow from the assets.

To illustrate the sensitivity of the valuation of Antucoya to negative movements in these parameters, a 5% decrease in the forecast long-term copper price would result in an increase in the impairment of \$121 million, and an increase in the discount rate from 8% to 9% would result in an increase in the impairment of \$89 million. These are simple sensitivities, looking at illustrative movements in the long-term copper price and discount rate in isolation. In reality, a deterioration in the long-term copper price environment is likely to result in corresponding improvements in a range of input cost factors, as well as potential operating changes, which could partly mitigate these estimated potential sensitivities.

#### (iii) Energia Andina

The Group's Energia Andina joint venture holds an investment in the Javiera solar plant in Chile. In February 2017 the disposal of the interest in Javiera was agreed. The terms of the sale agreement indicate a recoverable value for the interest in Javiera which is \$8.1 million below the carrying value, and accordingly an impairment provision for this amount has been recognised. The terms of the sale agreement is subject to certain closing conditions, and the transaction is expected to complete during the first half of 2017.

#### (iv) Other asset sensitivities

There were no indicators of impairment for the Group's other mining operations, and accordingly no detailed impairment reviews have been performed for those operations. However, in order to provide an indication of the sensitivities of the valuations of these assets, a sensitivity analysis has been performed. For all of the other mining operations a valuation exercise using assumptions consistent with those used in the Antucoya impairment review confirmed that the recoverable amount of the assets was in excess of their carrying value. The recoverable amount of the assets still remained in excess of their carrying value for all of the other mining operations with either a 5% decrease in the forecast long-term copper price or an increase in the discount rate from 8% to 9%.

## 5 SEGMENT INFORMATION

The Group's reportable segments are as follows:

- Los Pelambres
- Centinela
- Michilla (sold in 2016)
- Antucoya
- Zaldívar
- Exploration and evaluation
- Railway and other transport services
- Water concession (sold in 2015)
- Corporate and other items

For management purposes, the Group is organised into two business divisions based on their products – Mining and Railway and other transport services. The Group disposed of its Water division in 2015. The mining division is split further for management reporting purposes to show results by mine and exploration activity. Los Pelambres, Centinela and Antucoya (since April 2016) are operating mines, Michilla was sold at the end of 2016 and Zaldívar,

in which the Group has acquired a 50% stake, was acquired in December 2015. The Michilla mine was placed on care and maintenance at the end of 2015, and was disposed of in December 2016. Los Pelambres produces primarily copper concentrate and molybdenum as a by-product. Centinela produces primarily copper concentrate containing gold as a by-product and copper cathodes. Antucoya and Zaldívar produce copper cathodes, as did Michilla. The transport division provides rail cargo (based in Chile and formerly Bolivia) and road cargo (based in Chile) together with a number of ancillary services (based in Chile). The water division, which produced and distributed potable water to domestic customers and untreated water to industrial customers in Chile's Antofagasta Region, was sold during 2015. The Exploration and evaluation segment incurs exploration and evaluation expenses. "Corporate and other items" comprises costs incurred by the Company, Antofagasta Minerals SA, the Group's mining corporate centre and other entities, that are not allocated to any individual business segment. Consistent with its internal management reporting, the Group's corporate and other items are included within the mining division.

The Chief Operating decision maker monitors the operating results of business segments separately for the purpose of making decisions about resources to be allocated and of assessing performance. Segment performance is evaluated based on the operating profit of each of the segments.

## NOTES TO THE FINANCIAL STATEMENTS

### 5 SEGMENT INFORMATION CONTINUED

#### A) SEGMENT REVENUES AND RESULTS

For the year ended 31 December 2016

|   | LOS<br>PELAMBRES<br>\$M | CENTINELA<br>\$M | ANTUCOYA<br>\$M | ZALDÍVAR<br>\$M | EXPLORATION<br>AND<br>EVALUATION<br>\$M | CORPORATE<br>AND OTHER<br>ITEMS<br>\$M | MINING<br>\$M  | RAILWAY<br>AND OTHER<br>TRANSPORT<br>SERVICES<br>\$M | TOTAL<br>\$M   |
|---|-------------------------|------------------|-----------------|-----------------|---|--|----------------|--|----------------|
| Revenue   | 1,845.6                 | 1,338.0          | 277.9           | -               | -                                       | -                                      | 3,461.5        | 160.2  | 3,621.7        |
| Operating cost excluding depreciation                           | (923.8)                 | (775.5)          | (213.0)         | -               | (44.3)                                  | (56.5)                                 | (2,013.1)      | (86.9)   | (2,100.0)      |
| Depreciation and amortisation                                   | (195.7)                 | (299.4)          | (62.7)          | -               | -                                       | (5.2)                                  | (563.0)        | (15.4)   | (578.4)        |
| (Loss)/gain on disposals  | (0.2)                   | (17.1)           | -               | -               | -                                       | (0.6)                                  | (17.9)         | (1.8)  | (19.7)         |
| Provision against the carrying value of assets                  | (241.0)                 | -                | (215.6)         | -               | -                                       | -                                      | (456.6)        | -  | (456.6)        |
| <b>Operating profit/(loss)</b>                                  | <b>484.9</b>            | <b>246.0</b>     | <b>(213.4)</b>  | <b>-</b>        | <b>(44.3)</b>                           | <b>(62.3)</b>                          | <b>410.9</b>   | <b>56.1</b>  | <b>467.0</b>   |
| <b>Equity accounting results</b>                                | <b>0.4</b>              | <b>-</b>         | <b>-</b>        | <b>29.5</b>     | <b>-</b>                                | <b>(11.2)</b>                          | <b>18.7</b>    | <b>4.7</b>   | <b>23.4</b>    |
| <b>Provision against the carrying value of assets</b>           | <b>(126.6)</b>          | <b>-</b>         | <b>-</b>        | <b>-</b>        | <b>-</b>                                | <b>(8.1)</b>                           | <b>(134.7)</b> | <b>-</b>   | <b>(134.7)</b> |
| <b>Net share of results from associates and joint ventures</b>  | <b>(126.2)</b>          | <b>-</b>         | <b>-</b>        | <b>29.5</b>     | <b>-</b>                                | <b>(19.3)</b>                          | <b>(116.0)</b> | <b>4.7</b>   | <b>(111.3)</b> |
| Investment income   | 15.7                    | 5.3              | 0.6             | -               | -                                       | 4.7                                    | 26.3           | 0.6  | 26.9           |
| Interest expense  | (6.5)                   | (32.0)           | (30.5)          | -               | -                                       | (14.6)                                 | (83.6)         | (2.5)  | (86.1)         |
| Other finance items   | (2.7)                   | (5.4)            | (5.0)           | -               | -                                       | 3.0                                    | (10.1)         | (1.8)  | (11.9)         |
| <b>Profit/(loss) before tax</b>                                 | <b>365.2</b>            | <b>213.9</b>     | <b>(248.3)</b>  | <b>29.5</b>     | <b>(44.3)</b>                           | <b>(88.5)</b>                          | <b>227.5</b>   | <b>57.1</b>  | <b>284.6</b>   |
| Tax   | (117.4)                 | (73.3)           | 94.3            | -               | -                                       | 5.3                                    | (91.1)         | (17.5)   | (108.6)        |
| Profit/(loss) for the year from continuing operations           | 247.8                   | 140.6            | (154.0)         | 29.5            | (44.3)                                  | (83.2)                                 | 136.4          | 39.6   | 176.0          |
| Profit for the year from discontinued operations                | -                       | -                | -               | -               | -                                       | 38.3                                   | 38.3           | -  | 38.3           |
| Profit/(loss) for the year                                      | 247.8                   | 140.6            | (154.0)         | 29.5            | (44.3)                                  | (44.9)                                 | 174.7          | 39.6   | 214.3          |
| Non-controlling interests                                       | (97.9)                  | (32.8)           | 74.3            | -               | -                                       | 0.1                                    | (56.3)         | -  | (56.3)         |
| <b>Profit/(losses) attributable to the owners of the parent</b> | <b>149.9</b>            | <b>107.8</b>     | <b>(79.7)</b>   | <b>29.5</b>     | <b>(44.3)</b>                           | <b>(44.8)</b>                          | <b>118.4</b>   | <b>39.6</b>  | <b>158.0</b>   |
| <b>EBITDA<sup>1</sup></b>                                       | <b>921.0</b>            | <b>562.5</b>     | <b>64.9</b>     | <b>85.1</b>     | <b>(44.3)</b>                           | <b>(50.8)</b>                          | <b>1,538.4</b> | <b>87.7</b>  | <b>1,626.1</b> |
| <b>Additions to non-current assets</b>                          |                         |                  |                 |                 |   |  |                |  |                |
| Capital expenditure   | 316.6                   | 617.4            | 27.4            | -               | -                                       | 31.0                                   | 992.4          | 16.9   | 1,009.3        |
| <b>Segment assets and liabilities</b>                           |                         |                  |                 |                 |   |  |                |  |                |
| Segment assets  | 3,606.2                 | 5,008.0          | 1,740.5         | -               | 9.5                                     | 1,867.2                                | 12,231.4       | 323.0  | 12,554.4       |
| Deferred tax assets   | -                       | -                | -               | -               | -                                       | 78.6                                   | 78.6           | 4.2  | 82.8           |
| Investment in associates and JV                                 | -                       | -                | -               | 983.7           | -                                       | 25.1                                   | 1,008.8        | 77.8   | 1,086.6        |
| Segment liabilities   | (1,368.2)               | (1,979.3)        | (1,085.3)       | -               | (4.5)                                   | (638.3)                                | (5,075.6)      | (138.5)  | (5,214.1)      |

1. EBITDA refers to Earnings Before Interest, Tax, Depreciation and Amortisation. EBITDA is calculated by adding back depreciation, amortisation, profit or loss on disposals and impairment charges to operating profit. This comprises 100% of the EBITDA from the Group's subsidiaries, and the Group's proportional share of the EBITDA of its associates and joint ventures.

2. Operating cash flow from exploration and evaluation was \$22.1 million.

## For the year ended 31 December 2015 (Restated)

|   | LOS<br>PELAMBRES<br>\$M | CENTINELA<br>\$M | MICHILLA<br>\$M | ANTUCOYA<br>\$M | ZALDÍVAR<br>\$M | EXPLORATION<br>AND<br>EVALUATION <sup>a</sup><br>\$M | CORPORATE<br>AND OTHER<br>ITEMS<br>\$M | MINING<br>\$M   | RAILWAY<br>AND OTHER<br>TRANSPORT<br>SERVICES<br>\$M | WATER<br>CONCESSION<br>\$M | TOTAL<br>\$M    |
|---|-------------------------|------------------|-----------------|-----------------|-----------------|--|--|-----------------|--|----------------------------|-----------------|
| Revenue   | 1,807.2                 | 1,266.1          | –               | –               | –               | –  | –                                      | 3,073.3         | 152.4  | –                          | 3,225.7         |
| Operating cost excluding depreciation                         | (1,057.9)               | (1,027.7)        | –               | –               | –               | (101.9)  | (67.6)                                 | (2,255.1)       | (94.0)   | –                          | (2,349.1)       |
| Depreciation and Amortisation                                 | (191.6)                 | (367.6)          | –               | –               | –               | –  | (3.1)                                  | (562.3)         | (13.8)   | –                          | (576.1)         |
| (Loss)/gain on disposals                                      | (2.7)                   | (1.8)            | –               | –               | –               | –  | (4.4)                                  | (8.9)           | (2.6)  | –                          | (11.5)          |
| <b>Operating profit/(loss)</b>                                | <b>555.0</b>            | <b>(131.0)</b>   | –               | –               | –               | (101.9)  | (75.1)                                 | <b>247.0</b>    | 42.0   | –                          | <b>289.0</b>    |
| Share of results from associates and joint ventures           | (3.7)                   | –                | –               | –               | (2.8)           | –  | (7.5)                                  | (14.0)          | 8.2  | –                          | (5.8)           |
| Investment income   | 10.2                    | 4.3              | –               | –               | –               | –  | 2.2                                    | 16.7            | 0.8  | –                          | 17.5            |
| Interest expense  | (1.8)                   | (27.1)           | –               | –               | –               | –  | (1.8)                                  | (30.7)          | (3.0)  | –                          | (33.7)          |
| Other finance items   | (4.6)                   | (9.7)            | –               | (3.4)           | –               | –  | (7.5)                                  | (25.2)          | 1.0  | –                          | (24.2)          |
| <b>Profit/(loss)<br/>before tax</b>                           | <b>555.1</b>            | <b>(163.5)</b>   | –               | (3.4)           | (2.8)           | (101.9)  | (89.7)                                 | <b>193.8</b>    | 49.0   | –                          | <b>242.8</b>    |
| Tax   | (161.8)                 | 49.6             | –               | (21.8)          | –               | –  | 1.8                                    | (132.2)         | (22.2)   | –                          | (154.4)         |
| <b>Profit/(loss) for the year from continuing operations</b>  | <b>393.3</b>            | <b>(113.9)</b>   | –               | (25.2)          | (2.8)           | (101.9)  | (87.9)                                 | <b>61.6</b>     | <b>26.8</b>  | –                          | <b>88.4</b>     |
| (Loss)/profit for the year from discontinued operations       |                         |                  | 10.6            |                 |                 |  |  | 10.6            | (13.1)   | 615.8                      | 613.3           |
| Profit/(loss) for the year                                    | 393.3                   | (113.9)          | 10.6            | (25.2)          | (2.8)           | (101.9)  | (87.9)                                 | <b>72.2</b>     | 13.7   | 615.8                      | <b>701.7</b>    |
| Non-controlling interests                                     | (151.8)                 | 46.5             | (0.2)           | 11.9            | –               | –  | –                                      | (93.6)          | 0.1  | –                          | (93.5)          |
| <b>Profit/losses)attributable to the owners of the parent</b> | <b>241.5</b>            | <b>(67.4)</b>    | <b>10.4</b>     | <b>(13.3)</b>   | <b>(2.8)</b>    | <b>(101.9)</b>                                       | <b>(87.9)</b>                          | <b>(21.4)</b>   | <b>13.8</b>  | <b>615.8</b>               | <b>608.2</b>    |
| <b>EBITDA<sup>1</sup></b>                                     | <b>748.7</b>            | <b>238.4</b>     | –               | –               | 6.8             | (101.9)  | (60.7)                                 | <b>831.3</b>    | 78.8   | –                          | <b>910.1</b>    |
| <b>Additions to non-current assets</b>                        |                         |                  |                 |                 |                 |  |  |                 |  |                            |                 |
| Capital expenditure   | 188.3                   | 535.1            | –               | 147.9           | –               | –  | 111.0                                  | <b>982.3</b>    | 13.9   | –                          | <b>1,012.6</b>  |
| <b>Segment assets and liabilities</b>                         |                         |                  |                 |                 |                 |  |  |                 |  |                            |                 |
| Segment assets  | 3,753.3                 | 4,969.5          | 122.7           | 1,974.4         | –               | –  | 950.9                                  | <b>11,770.8</b> | 497.6  | –                          | <b>12,268.4</b> |
| Deferred taxes assets   | –                       | 43.5             | –               | –               | –               | –  | 78.0                                   | <b>121.5</b>    | 3.1  | –                          | <b>124.6</b>    |
| Investment in associates and JV                               | 33.5                    | –                | –               | –               | 998.9           | –  | 31.0                                   | <b>1,063.4</b>  | 83.2   | –                          | <b>1,146.6</b>  |
| Segment liabilities   | (1,205.9)               | (2,068.9)        | (46.0)          | (1,185.5)       | –               | –  | (154.1)                                | (4,660.4)       | (359.9)  | –                          | (5,020.3)       |

1. EBITDA refers to Earnings Before Interest, Tax, Depreciation and Amortisation. EBITDA is calculated by adding back depreciation, amortisation, profit or loss on disposals and impairment charges to operating profit. This comprises 100% of the EBITDA from the Group's subsidiaries, and the Group's proportional share of the EBITDA of its associates and joint ventures.

2. During the year, operating cash outflow from exploration and evaluation was \$38.3 million.

## NOTES TO THE FINANCIAL STATEMENTS

### 5 SEGMENT INFORMATION CONTINUED

#### NOTES TO SEGMENT REVENUES AND RESULTS

- (i) Inter-segment revenues are eliminated on consolidation. Revenue from the Railway and other transport services segment is stated after eliminating inter-segmental sales to the mining division of \$1.2 million (year ended 31 December 2015 –\$1.6 million). Revenue from the Water concession is stated after eliminating inter-segmental sales to the mining division of nil (year ended 31 December 2015 –\$2.0 million) and after eliminating sales to the Railway and other transport services segment of nil (year ended 31 December 2015 –\$0.1 million).
- (ii) Revenue includes priced sales of copper and molybdenum concentrates and copper cathodes. Further details of such adjustments are given in Note 6.
- (iii) Revenue includes a realised gain at Michilla of nil (year ended 31 December 2015 – nil) and a realised loss at Centinela of \$2.2 million (year ended 31 December 2015 – loss of \$0.1 million) relating to commodity derivatives. Further details of such gains or losses are given in Note 25 (d).
- (iv) The copper and molybdenum concentrate sales are stated net of deductions for tolling charges. Tolling charges for copper and molybdenum concentrates are detailed in Note 6.
- (v) The effects of tax and non-controlling interests on the expenses within the Exploration and evaluation segment are allocated to the mine that the exploration work relates to.
- (vi) The assets of the Railway and transport services segment includes \$71.3 million (31 December 2015 – \$75.1 million) relating to the Group's 40% interest in Inversiones Hornitos SA ("Inversiones Hornitos"), which owns the 165MW Hornitos thermoelectric power plant in Mejillones in Chile's Antofagasta Region and \$6.5 million (31 December 2015 – \$8.1 million) relating to the Group's 30% interest in Antofagasta Terminal International SA ("ATI"), which operates a concession to manage installations in the port of Antofagasta. The assets of the Corporate and other items segment includes \$22.0 million (31 December 2015 – \$23.8 million) relating to the Group's 30% interest in Parque Eólico El Arrayan SA, an energy company which operates a wind farm in Chile and \$3.2 million (31 December 2015 – \$10.2 million) relating to the Group's 50.1% interest in the Energía Andina joint venture. The assets of Los Pelambres includes nil (31 December 2015 – \$33.0 million) relating to the Group's 40% interest in Alto Maipo SpA which is constructing a hydroelectric project in Chile. Further details of these investments are set out in Note 17.

#### B) ENTITY-WIDE DISCLOSURES

##### REVENUE BY PRODUCT

|                                       | 2016<br>\$M    | 2015<br>(RESTATED)<br>\$M |
|---------------------------------------|----------------|---------------------------|
| <b>Copper</b>                         |                |                           |
| – Los Pelambres                       | 1,627.0        | 1,606.7                   |
| – Centinela concentrate               | 778.7          | 626.6                     |
| – Centinela cathodes                  | 278.1          | 432.3                     |
| – Antucoya                            | 277.9          |                           |
| <b>Gold</b>                           |                |                           |
| – Los Pelambres                       | 78.5           | 60.7                      |
| – Centinela                           | 261.2          | 191.3                     |
| – Molybdenum                          |                |                           |
| – Los Pelambres                       | 94.0           | 105.3                     |
| <b>Silver</b>                         |                |                           |
| – Los Pelambres                       | 46.1           | 34.5                      |
| – Centinela                           | 20.0           | 15.9                      |
| <b>Total Mining</b>                   | 3,461.5        | 3,073.3                   |
| <b>Railway and transport services</b> | 160.2          | 152.4                     |
|                                       | <b>3,621.7</b> | <b>3,225.7</b>            |

## REVENUE BY LOCATION OF CUSTOMER

|                         | 2016<br>\$M    | 2015<br>(RESTATED)<br>\$M |
|-------------------------|----------------|---------------------------|
| <b>Europe</b>           |                |                           |
| – United Kingdom        | –              | 19.1                      |
| – Switzerland           | 217.7          | 175.2                     |
| – Spain                 | 115.6          | 54.1                      |
| – Germany               | 38.5           | 167.0                     |
| – Rest of Europe        | 157.3          | 68.9                      |
| <b>Latin America</b>    |                |                           |
| – Chile                 | 105.2          | 165.5                     |
| – Rest of Latin America | 126.4          | 74.1                      |
| <b>North America</b>    |                |                           |
| – United States         | 49.5           | 105.2                     |
| <b>Asia</b>             |                |                           |
| – Japan                 | 1,483.5        | 1,147.0                   |
| – China                 | 771.9          | 623.8                     |
| – Rest of Asia          | 556.1          | 625.8                     |
|                         | <b>3,621.7</b> | <b>3,225.7</b>            |

## INFORMATION ABOUT MAJOR CUSTOMERS

In the year ended 31 December 2016 the Group's mining revenues included \$694.7 million related to one large customer that individually accounted for more than 10% of the Group's revenues (year ended 31 December 2015 – one large customer representing \$426.0 million).

## NON-CURRENT ASSETS BY LOCATION OF ASSETS

|       | 2016<br>\$M     | 2015<br>\$M     |
|-------|-----------------|-----------------|
| Chile | 9,996.3         | 10,287.1        |
| USA   | 204.4           | 171.2           |
| Other | 0.1             | 0.8             |
|       | <b>10,200.8</b> | <b>10,459.1</b> |

The above non-current assets disclosed by location of assets exclude available for sale investments and deferred tax assets.

## NOTES TO THE FINANCIAL STATEMENTS

### 6 REVENUE

An analysis of the Group's total revenue is as follows:

|  | 2016<br>\$M    | 2015<br>(RESTATED)<br>\$M |
|--|----------------|---------------------------|
| Sales of goods   | 3,486.8        | 3,097.0                   |
| Rendering of services  | 134.9          | 128.7                     |
| <b>Group revenue</b>   | <b>3,621.7</b> | <b>3,225.7</b>            |
| Other operating income (included within net operating costs) | 20.2           | 33.9                      |
| Investment income  | 26.9           | 17.5                      |
| <b>Total income</b>  | <b>3,668.8</b> | <b>3,277.1</b>            |

Copper and molybdenum concentrate sale agreements and copper cathode sale agreements generally provide for provisional pricing of sales at the time of shipment, with final pricing being based on the monthly average London Metal Exchange copper price or monthly average molybdenum price for specified future periods. This normally ranges from one to five months after shipment to the customer. The provisional pricing mechanism within the sale agreements is an embedded derivative under IFRS. Gains and losses from the marking-to-market of open sales are recognised through adjustments to revenue in the income statement and to trade debtors in the balance sheet. The Group determines mark-to-market prices using forward prices at each period end for copper concentrate and cathode sales, and period-end month average prices for molybdenum concentrate sales due to the absence of a futures market in the market price references for that commodity in the majority of the Group's contracts.

In addition to mark-to-market and final pricing adjustments, revenue also includes realised gains and losses relating to derivative commodity instruments. Details of these realised gains or losses are shown in the tables below. Further details of derivative commodity instruments in place at the period end are given in Note 25.

Copper and molybdenum concentrate sales are stated net of deductions for tolling charges, as shown in the tables below.

#### For the year ended 31 December 2016

|  | LOS<br>PELAMBRES<br>COPPER<br>CONCENTRATE<br>\$M | CENTINELA<br>COPPER<br>CONCENTRATE<br>\$M | CENTINELA<br>COPPER<br>CATHODES<br>\$M | ANTUCOYA<br>COPPER<br>CATHODES<br>\$M | LOS<br>PELAMBRES<br>GOLD IN<br>CONCENTRATE<br>\$M | CENTINELA<br>GOLD IN<br>CONCENTRATE<br>\$M | LOS<br>PELAMBRES<br>MOLYBDENUM<br>CONCENTRATE<br>\$M |
|--|--|---|--|---------------------------------------|---|--|--|
| Provisionally invoiced gross sales   | 1,715.1  | 845.2                                     | 276.8                                  | 274.2                                 | 78.9  | 263.9                                      | 105.5  |
| Effects of pricing adjustments to previous year invoices                         |  |   |  |                                       |   |  |  |
| Reversal of mark-to-market adjustments at the end of the previous year           | 14.5   | 6.2                                       | (0.2)                                  | –                                     | –   | 2.2  | (1.0)  |
| Settlement of sales invoiced in the previous year                                | (18.9)   | (7.8)                                     | –                                      | –                                     | (0.1)   | (1.0)                                      | 1.7  |
| <b>Total effect of adjustments to previous year invoices in the current year</b> | <b>(4.4)</b>                                     | <b>(1.6)</b>                              | <b>(0.2)</b>                           | <b>–</b>                              | <b>(0.1)</b>                                      | <b>1.2</b>                                 | <b>0.7</b>   |
| Effects of pricing adjustments to current year invoices                          |  |   |  |                                       |   |  |  |
| Settlement of sales invoiced in the current year                                 | 80.5   | 28.7                                      | 4.1                                    | 4.3                                   | (0.1)   | (1.6)                                      | 2.4  |
| Mark-to-market adjustments at the end of the current year                        | 28.0   | 15.3                                      | (0.4)                                  | (0.6)                                 | –   | (1.3)                                      | (0.7)  |
| <b>Total effect of adjustments to current year invoices</b>                      | <b>108.5</b>                                     | <b>44.0</b>                               | <b>3.7</b>                             | <b>3.7</b>                            | <b>(0.1)</b>                                      | <b>(2.9)</b>                               | <b>1.7</b>   |
| Total pricing adjustments  | 104.1  | 42.4                                      | 3.5                                    | 3.7                                   | (0.2)   | (1.7)                                      | 2.4  |
| Realised gains on commodity derivatives  | –  | –   | (2.2)                                  | –                                     | –   | –  | –  |
| <b>Revenue before deducting tolling charges</b>                                  | <b>1,819.2</b>                                   | <b>887.6</b>                              | <b>278.1</b>                           | <b>277.9</b>                          | <b>78.7</b>                                       | <b>262.2</b>                               | <b>107.9</b>   |
| Tolling charges  | (192.2)  | (108.9)                                   | –                                      | –                                     | (0.2)   | (1.0)                                      | (13.9)   |
| <b>Revenue net of tolling charges</b>  | <b>1,627.0</b>                                   | <b>778.7</b>                              | <b>278.1</b>                           | <b>277.9</b>                          | <b>78.5</b>                                       | <b>261.2</b>                               | <b>94.0</b>  |

**For the year ended 31 December 2015**

|  | LOS PELAMBRES<br>COPPER<br>CONCENTRATE<br>\$M | CENTINELA<br>COPPER<br>CONCENTRATE<br>\$M | CENTINELA<br>COPPER<br>CATHODES<br>\$M | MICHILLA<br>COPPER<br>CATHODES<br>\$M | LOS PELAMBRES<br>GOLD IN<br>CONCENTRATE<br>\$M | CENTINELA<br>GOLD IN<br>CONCENTRATE<br>\$M | LOS PELAMBRES<br>MOLYBDENUM<br>CONCENTRATE<br>\$M |
|--|---|---|--|---------------------------------------|--|--|---|
| Provisionally invoiced gross sales   | 2,001.6                                       | 805.8                                     | 443.4                                  | 173.3                                 | 63.0   | 200.7                                      | 147.0   |
| Effects of pricing adjustments to previous year invoices                         |   |   |  |                                       |  |  |   |
| Reversal of mark-to-market adjustments at the end of the previous year           | 45.5  | 19.6                                      | 1.4                                    | 0.4                                   | –  | 1.8  | 2.0   |
| Settlement of sales invoiced in the previous year                                | (100.4)                                       | (49.8)                                    | (5.6)                                  | (2.3)                                 | –  | 3.6  | (7.1)   |
| <b>Total effect of adjustments to previous year invoices in the current year</b> | <b>(54.9)</b>                                 | <b>(30.2)</b>                             | <b>(4.2)</b>                           | <b>(1.9)</b>                          | –  | <b>5.4</b>                                 | <b>(5.1)</b>                                      |
| Effects of pricing adjustments to current year invoices                          |   |   |  |                                       |  |  |   |
| Settlement of sales invoiced in the current year                                 | (126.7)                                       | (47.6)                                    | (7.1)                                  | (2.6)                                 | (2.1)  | (11.8)                                     | (19.8)  |
| Mark-to-market adjustments at the end of the current year                        | (14.5)  | (6.2)                                     | 0.2                                    | 0.1                                   | –  | (2.2)                                      | 1.0   |
| <b>Total effect of adjustments to current year invoices</b>                      | <b>(141.2)</b>                                | <b>(53.8)</b>                             | <b>(6.9)</b>                           | <b>(2.5)</b>                          | <b>(2.1)</b>                                   | <b>(14.0)</b>                              | <b>(18.8)</b>                                     |
| Total pricing adjustments  | (196.1)                                       | (84.0)                                    | (11.1)                                 | (4.4)                                 | (2.1)  | (8.6)                                      | (23.9)  |
| Realised gains on commodity derivatives  | –   | –   | –                                      | –                                     | –  | –  | –   |
| <b>Revenue before deducting tolling charges</b>                                  | <b>1,805.5</b>                                | <b>721.8</b>                              | <b>432.3</b>                           | <b>168.9</b>                          | <b>60.9</b>                                    | <b>192.1</b>                               | <b>123.1</b>                                      |
| Tolling charges  | (198.8)                                       | (95.2)                                    | –                                      | –                                     | (0.2)  | (0.8)                                      | (17.8)  |
| <b>Revenue net of tolling charges</b>  | <b>1,606.7</b>                                | <b>626.6</b>                              | <b>432.3</b>                           | <b>168.9</b>                          | <b>60.7</b>                                    | <b>191.3</b>                               | <b>105.3</b>                                      |

## **(I) COPPER CONCENTRATE**

The typical period for which sales of copper concentrate remain open until settlement occurs is a range of approximately three to five months from shipment date.

|                                   |        | 2016    | 2015    |
|-----------------------------------|--------|---------|---------|
| Sales                             | Tonnes | 199,900 | 184,400 |
| Average mark-to-market price      | \$/lb  | 2.51    | 2.13    |
| Average provisional invoice price | \$/lb  | 2.41    | 2.18    |

## **(II) COPPER CATHODES**

The typical period for which sales of copper cathodes remain open until settlement occurs is approximately one month from shipment date.

|                                   |        | 2016   | 2015  |
|-----------------------------------|--------|--------|-------|
| Sales                             | Tonnes | 13,200 | 7,700 |
| Average mark-to-market price      | \$/lb  | 2.51   | 2.13  |
| Average provisional invoice price | \$/lb  | 2.54   | 2.12  |

## NOTES TO THE FINANCIAL STATEMENTS

### 6 REVENUE CONTINUED

#### (III) GOLD CONCENTRATES

The typical period for which sales of gold in concentrate remain open is approximately one month from shipment date.

|                                   |       | 2016   | 2015   |
|-----------------------------------|-------|--------|--------|
| Sales                             | Ounce | 36,400 | 50,300 |
| Average mark-to-market price      | \$/oz | 1,167  | 1,061  |
| Average provisional invoice price | \$/oz | 1,203  | 1,105  |

#### (IV) MOLYBDENUM CONCENTRATE

The typical period for which sales of molybdenum remain open is approximately two months from shipment date.

|                                   |        | 2016  | 2015  |
|-----------------------------------|--------|-------|-------|
| Sales                             | Tonnes | 1,300 | 1,900 |
| Average mark-to-market price      | \$/lb  | 6.6   | 5.1   |
| Average provisional invoice price | \$/lb  | 6.9   | 4.8   |

As detailed above, the effects of gains and losses from the marking-to-market of open sales are recognised through adjustments to revenue in the income statement and to trade debtors in the balance sheet. The effect of mark-to-market adjustments on the balance sheet at the end of each period are as follows:

|  | EFFECT ON DEBTORS OF YEAR END<br>MARK TO MARKET ADJUSTMENTS |               |
|--|---|---------------|
|  | 2016<br>\$M   | 2015<br>\$M   |
| Los Pelambres – copper concentrate     | 28.0  | (14.5)        |
| Los Pelambres – molybdenum concentrate | (0.7)   | 1.0           |
| Centinela – copper concentrate         | 14.8  | (6.2)         |
| Centinela – gold concentrate           | (1.3)   | (2.2)         |
| Centinela – copper cathodes            | 0.1   | 0.2           |
| Antucoya – copper cathodes             | (0.6)   | –             |
| Michilla – copper cathodes             | –   | 0.1           |
|  | <b>40.3</b>   | <b>(21.6)</b> |

### 7 PROFIT BEFORE TAX

Operating profit from subsidiaries and total profit from operations and associates and joint ventures is derived from Group revenue by deducting operating costs as follows:

|  | 2016<br>\$M    | 2015<br>(RESTATED)<br>\$M |
|--|----------------|---------------------------|
| <b>Group revenue</b>   | <b>3,621.7</b> | <b>3,225.7</b>            |
| Cost of sales  | (2,087.0)      | (2,349.0)                 |
| <b>Gross profit</b>  | <b>1,534.7</b> | <b>876.7</b>              |
| Administrative and distribution expenses                           | (479.1)        | (437.5)                   |
| Provision against carrying value of assets                         | (456.6)        | –                         |
| Other operating income   | 20.2           | 33.9                      |
| Other operating expenses   | (152.2)        | (184.1)                   |
| <b>Operating profit from subsidiaries</b>                          | <b>467.0</b>   | <b>289.0</b>              |
| <b>Equity accounting results</b>                                   | <b>23.4</b>    | <b>(5.8)</b>              |
| <b>Provision against carrying value of assets</b>                  | <b>(134.7)</b> | <b>–</b>                  |
| Net share of results from associates and joint ventures            | (111.3)        | (5.8)                     |
| <b>Total profit from operations, associates and joint ventures</b> | <b>355.7</b>   | <b>283.2</b>              |

Profit before tax is stated after (charging)/crediting:

|   | 2016<br>\$M | 2015<br>(RESTATED)<br>\$M |
|---|-------------|---------------------------|
| Foreign exchange (losses)/gains   |             |                           |
| – included in net finance costs   | (2.9)       | (14.8)                    |
| – included in income tax expense  | 4.5         | (1.0)                     |
| Depreciation of property, plant and equipment                                 |             |                           |
| – owned assets  | (552.6)     | (569.9)                   |
| – assets held under finance leases  | (25.8)      | (6.2)                     |
| Loss on disposal at property, plant and equipment                             | (19.7)      | (11.5)                    |
| Exceptional provision against carrying value of property, plant and equipment | (215.6)     | –                         |
| Cost of inventories recognised as expense                                     | (1,520.8)   | (1,762.1)                 |
| Employee benefit expense  | (368.2)     | (380.0)                   |
| Closure provision   | (9.3)       | (32.5)                    |
| Severance charges   | (15.6)      | (16.6)                    |
| Exploration and evaluation cost   | (44.3)      | (101.9)                   |
| Auditors' remuneration  | (1.6)       | (1.7)                     |

A more detailed analysis of auditors' remuneration on a worldwide basis is provided below:

| GROUP  | 2016<br>\$000 | 2015<br>\$000 |
|--|---------------|---------------|
| Fees payable to the Company's auditor and its associates for the audit of parent company and consolidated Financial Statements | 977           | 982           |
| Fees payable to the Company's auditor and its associates for other services:   |               |               |
| – The audit of the Company's subsidiaries  | 255           | 246           |
| – Audit-related assurance services   | 249           | 235           |
| – Tax advisory services  | 32            | 30            |
| – Tax compliance services  | 20            | 15            |
| – Other assurance services   | 90            | 48            |
| – Other non audit services   | 17            | 143           |
|  | <b>1,640</b>  | <b>1,699</b>  |

Details of the Company's policy on the use of auditors for non-audit services, the reason why the auditor was used rather than another supplier and how the auditors independence and objectivity was safeguarded are set out in the Audit Committee report on page 90. No services were provided pursuant to contingent fee arrangements.

## NOTES TO THE FINANCIAL STATEMENTS

### 8 EMPLOYEES

#### A) AVERAGE MONTHLY NUMBER OF EMPLOYEES

|   | 2016<br>NUMBER | 2015<br>NUMBER |
|---|----------------|----------------|
| Los Pelambres                               | 901            | 928            |
| Centinela                                   | 1,986          | 2,100          |
| Michilla                                    | 35             | 395            |
| Antucoya                                    | 726            | 698            |
| Exploration and evaluation                  | 53             | 58             |
| Corporate and other employees               |                |                |
| – Chile                                     | 379            | 417            |
| – United Kingdom                            | 6              | 5              |
| – Other                                     | 4              | 25             |
| <b>Mining</b>                               | <b>4,090</b>   | <b>4,626</b>   |
| <b>Railway and other transport services</b> | <b>1,337</b>   | <b>1,324</b>   |
| <b>Water concession</b>                     | <b>–</b>       | <b>–</b>       |
|   | <b>5,427</b>   | <b>5,950</b>   |

- (i) The average number of employees for the year includes all the employees of subsidiaries. The average number of employees does not include contractors who are not directly employed by the Group.
- (ii) The average number of employees does not include employees from associates and joint ventures.
- (iii) The average number of employees includes Non-Executive Directors.

#### B) AGGREGATED REMUNERATION

The aggregated remuneration of the employees included in the table above was as follows:

|                       | 2016<br>\$M    | 2015<br>\$M    |
|-----------------------|----------------|----------------|
| Wages and salaries    | (346.4)        | (407.7)        |
| Social security costs | (32.8)         | (14.6)         |
|                       | <b>(379.2)</b> | <b>(422.3)</b> |

During the year until 2016, the amount relating to Minera Antucoya of \$11.0 million (\$42.3 million in 2015) on wages, salaries and social security cost has been capitalised.

#### C) KEY MANAGEMENT PERSONNEL

In accordance with IAS 24, key management personnel are those persons having authority and responsibility for planning, directing and controlling the activities of the Group, directly or indirectly, including any Directors (Executive and Non-Executive) of the Company. Key management personnel who are not Directors have been treated as responsible senior management at the Corporate Centre and for the running of the key business divisions of the Group.

Compensation for key management personnel (including Directors) was as follows:

|   | 2016<br>\$M   | 2015<br>\$M   |
|---|---------------|---------------|
| Salaries and short-term employee benefits | (15.1)        | (19.2)        |
|   | <b>(15.1)</b> | <b>(19.2)</b> |

Disclosures on Directors' remuneration required by Schedule 8 of the Large and Medium-sized Companies and Group (Accounts and Reports) Regulations 2008 including those specified for audit by that Schedule are included in the Remuneration report on page 96.

## 9 NET FINANCE EXPENSE

|  | 2016<br>\$M   | 2015<br>(RESTATED)<br>\$M |
|--|---------------|---------------------------|
| <b>Investment income</b>                     |               |                           |
| Interest income                              | 20.4          | 16.1                      |
| Fair value through profit or loss            | 6.5           | 1.4                       |
|  | <b>26.9</b>   | <b>17.5</b>               |
| <b>Interest expense</b>                      |               |                           |
| Interest expense                             | (86.0)        | (33.5)                    |
| Preference dividends                         | (0.1)         | (0.2)                     |
|  | <b>(86.1)</b> | <b>(33.7)</b>             |
| <b>Other finance items</b>                   |               |                           |
| Time value effect of derivatives             | 1.0           | 0.1                       |
| Unwinding of discount on provisions          | (10.0)        | (8.5)                     |
| Impairment of available for sale investments | –             | (1.0)                     |
| Foreign exchange                             | (2.9)         | (14.8)                    |
|  | <b>(11.9)</b> | <b>(24.2)</b>             |
| <b>Net finance expense</b>                   | <b>(71.1)</b> | <b>(40.4)</b>             |

During 2016, \$9.2 million relating to net interest expense and other finance items at Antucoya (year ended 31 December 2015 – \$29.6 million), \$2.3 million at Centinela (year ended 31 December 2015 – \$4.1 million) and \$0.5 million at Los Pelambres (year ended 31 December 2015 – \$1.2 million) was capitalised, and is consequently not included within the above table.

The fair value through profit or loss line represents the fair value gains relating to liquid investments.

## NOTES TO THE FINANCIAL STATEMENTS

### 10 INCOME TAX EXPENSE

The tax charge for the year comprised the following:

|   | 2016<br>\$M    | 2015<br>(RESTATED)<br>\$M |
|---|----------------|---------------------------|
| <b>Current tax charge</b>                                 |                |                           |
| - Corporate tax (principally first category tax in Chile) | (222.1)        | (54.8)                    |
| - Mining tax (royalty)                                    | (35.3)         | (20.4)                    |
| - Withholding tax   | (3.8)          | (12.9)                    |
| - Exchange losses on corporate tax balances               | -              | (1.0)                     |
|   | <b>(261.2)</b> | <b>(89.1)</b>             |
| <b>Deferred tax charge</b>                                |                |                           |
| - Corporate tax (principally first category tax in Chile) | (27.5)         | (53.0)                    |
| - Exceptional items                                       | 204.9          | -                         |
| - Mining tax (royalty)                                    | (24.8)         | (10.4)                    |
| - Withholding tax provision                               | -              | (1.9)                     |
|   | <b>152.6</b>   | <b>(65.3)</b>             |
| <b>Total tax charge</b>                                   | <b>(108.6)</b> | <b>(154.4)</b>            |

The rate of first category (i.e. corporate) tax in Chile is currently 24% (2015 – 22.5%). The rate will increase to 25.5% in 2017 and then 27% from 2018 onwards.

In addition to first category tax, the Group incurs withholding taxes on remittance of profits from Chile and deferred tax is provided on undistributed earnings to the extent that remittance is probable in the foreseeable future. Withholding tax is levied on remittances of profits from Chile at 35% less first category (i.e. corporate) tax already paid in respect of the profits to which the remittances relate.

|  | 2016                     |             | 2016                    |             | 2015<br>(RESTATED) |             |
|--|--------------------------|-------------|-------------------------|-------------|--------------------|-------------|
|  | BEFORE EXCEPTIONAL ITEMS | %           | AFTER EXCEPTIONAL ITEMS | %           |                    |             |
|  | \$M                      | \$M         | \$M                     | \$M         |                    |             |
| <b>Profit before tax</b>   | <b>875.9</b>             | <b>24.0</b> | <b>284.6</b>            | <b>24.0</b> | 242.8              | 22.5        |
| <b>Tax at the Chilean corporate tax rate of 24% (2015 – 22.5%)</b>             | <b>(210.2)</b>           | <b>24.0</b> | <b>(68.3)</b>           | <b>24.0</b> | (54.6)             | 22.5        |
| Provision against carrying value of assets (exceptional items)                 | -                        | -           | 63.0                    | (22.1)      | -                  | -           |
| Effect of increase in future first category tax rates on deferred tax balances | (24.6)                   | 2.8         | (24.6)                  | 8.6         | (8.9)              | 3.7         |
| Items not deductible from first category tax                                   | (23.7)                   | 2.7         | (23.7)                  | 8.3         | (21.2)             | 8.7         |
| Items not subject to first category tax  | 8.5                      | (1.0)       | 8.5                     | (2.9)       | 4.1                | (1.7)       |
| Carry-back tax losses resulting in credits at historic tax rates               | (5.4)                    | 0.6         | (5.4)                   | 1.8         | (25.8)             | 10.6        |
| Mining tax (royalty)   | (60.1)                   | 6.9         | (60.1)                  | 21.1        | (31.8)             | 13.1        |
| Withholding taxes  | -                        | -           | -                       | -           | (14.8)             | 6.1         |
| Withholding taxes – adjustment to previous year                                | (3.8)                    | 0.4         | (3.8)                   | 1.3         | -                  | -           |
| Tax effect of share of results of associates and joint ventures                | 5.6                      | (0.6)       | 5.6                     | (1.9)       | (0.5)              | 0.2         |
| Net other items  | 0.2                      | (0.0)       | 0.2                     | (0.0)       | (0.9)              | 0.4         |
| <b>Tax expense and effective tax rate for the year</b>                         | <b>(313.5)</b>           | <b>35.8</b> | <b>(108.6)</b>          | <b>38.2</b> | <b>(154.4)</b>     | <b>63.6</b> |

The tax charge for 2016 was \$108.6 million and the effective tax rate was 38.2%. The exceptional impairment provisions had an impact on the overall tax charge and the reconciliation of the effective tax rate, and accordingly we have presented the tax reconciliation above both including and excluding the impact of the exceptional items. Excluding these exceptional impairment provisions, the 2016 tax charge was \$313.5 million and the effective tax rate was 35.8%. This effective tax rate varied from the statutory rate principally due to the effect of increase in future first category tax rates on deferred tax balances (impact of \$24.6 million / 2.8%), the effect of expenses not deductible for Chilean corporate tax purposes (principally the funding of expenses outside of Chile) and items not subject to first category tax (impact of \$15.2 million / 1.7%) and the mining tax (impact of \$60.1 million / 6.9%).

The current and deferred tax relating to items that are charged directly to equity was \$2.1 million (2015 – \$1.4 million).

The main factors which are expected to impact the sustainability of the Group's existing effective tax rate (excluding exceptional items) is the increase in the rate of first category (i.e. corporate) tax in Chile from the 2016 rate of 24% to 25.5% in 2017 and then 27% from 2018 onwards.

There are no significant tax uncertainties which would require critical judgements, estimates or potential provisions.

## 11 DISCONTINUED OPERATIONS

### (I) PROFIT FOR THE PERIOD FROM DISCONTINUED OPERATIONS

On 30 December 2016 the Group completed the disposal of Minera Michilla SA ("Michilla").

On 2 June 2015 the Group completed the disposal of its Water division, of Aguas de Antofagasta SA ("ADASA"). On 28 August, 2015 the Group completed the disposal of its transport operation in Bolivia, Empresa Ferroviaria Andina ("FCA").

The results of Michilla for the period prior to disposal as well as the profit on disposal have been presented on the "Profit for the period from discontinued operations" line in the income statement, as were ADASA and FCA in 2015, reflecting the following amounts:

|   | MICHILLA<br>\$M | YEAR ENDED<br>31 DECEMBER<br>2016<br>\$M | FCA<br>\$M    | ADASA<br>\$M | MICHILLA<br>\$M | YEAR ENDED<br>31 DECEMBER<br>2015<br>\$M |
|---|-----------------|--|---------------|--------------|-----------------|--|
| Revenue   | 3.8             | 3.8                                      | 12.9          | 53.9         | 168.9           | 235.7                                    |
| Total operating costs   | (10.2)          | (10.2)                                   | (20.2)        | (34.9)       | (153.5)         | (208.6)                                  |
| Net finance(expense)/ income  | (1.4)           | (1.4)                                    | (0.2)         | (0.1)        | 1.2             | 0.9                                      |
| (Loss)/profit before tax  | (7.8)           | (7.8)                                    | (7.5)         | 18.9         | 16.6            | 28.0                                     |
| Attributable tax expense  | 4.4             | 4.4                                      | –             | (3.9)        | (6.0)           | (9.9)                                    |
| <b>(Loss)/profit of discontinued operations</b>   | <b>(3.4)</b>    | <b>(3.4)</b>                             | <b>(7.5)</b>  | <b>15.0</b>  | <b>10.6</b>     | <b>18.1</b>                              |
| (Loss)/profit on disposal of discontinued operations  | 42.9            | 42.9                                     | (5.6)         | 853.2        | –               | 847.6                                    |
| Attributable tax expense  | (1.2)           | (1.2)                                    | –             | (252.4)      | –               | (252.4)                                  |
| <b>Net Profit attributable to discontinued operations<br/>(attributable to owners of the Company)</b> | <b>38.3</b>     | <b>38.3</b>                              | <b>(13.1)</b> | <b>615.8</b> | <b>10.6</b>     | <b>613.3</b>                             |

During the period Michilla contributed \$13.6 million cash outflow (2015 – \$23.0 million cash inflow) to the Group's net cash flow from operating activities, nil (2015 – nil) in respect to net cash used in investing activities and paid nil (2015 – nil) in net cash provided in financing activities.

During 2015 Aguas de Antofagasta SA contributed \$21.7 million (2014 – \$63.6 million) to the Group's net cash flow from operating activities, \$19.2 million (2014 – \$25.7 million) in respect to net cash used in investing activities and paid \$2.0 million (2014 – \$27.9 million) in net cash provided in financing activities.

During 2015 Empresa Ferroviaria Andina contributed \$2.2 million (2014 – \$4.8 million) to the Group's net cash flow from operating activities, \$2.1 million (2014 – \$4.5 million) in respect to net cash used in investing activities and paid \$0.1 million (2014 – \$0.3 million) in net cash provided in financing activities.

### (II) DISPOSAL OF MINERA MICHILLA SA

On 30 December 2016 the Group disposed of its 100% interest in Minera Michilla SA ("Michilla"). The proceeds on disposal of \$54.3 million were received in cash (\$52.3 million) and a short-term receivable (\$2.0 million). The gain on disposal of Michilla is analysed below. No investment was retained in the former subsidiary.

The net assets of Michilla at the date of disposal were as follows:

|   | AT 30<br>DECEMBER 2016<br>\$M |
|---|-------------------------------|
| Proceeds on disposal, cash and cash equivalents                         | 52.3                          |
| Receivables   | 2.0                           |
|   | 54.3                          |
| <b>Assets disposed of:</b>  |                               |
| Inventories   | (0.1)                         |
| Trade receivables and other receivables                                 | (0.7)                         |
| Cash and cash equivalents   | (42.3)                        |
| Long-term provision   | 35.8                          |
| Deferred tax liabilities  | (4.1)                         |
| <b>Total carrying amount disposed</b>                                   | <b>(11.4)</b>                 |
| <b>Profit on disposal of discontinued operations</b>                    | <b>42.9</b>                   |
| <b>Loss of the period</b>   | <b>(3.4)</b>                  |
| <b>Total profit on disposal of discontinued operations (before tax)</b> | <b>39.5</b>                   |
| Attributable tax expense  | (1.2)                         |
| <b>Profit on disposal of discontinued operations (after tax)</b>        | <b>38.3</b>                   |
| Net cash inflow arising on disposal:                                    |                               |
| Consideration received in cash and cash equivalents                     | 52.3                          |
| Less: Cash and cash equivalents disposed of                             | (42.3)                        |
|   | 10.0                          |

## NOTES TO THE FINANCIAL STATEMENTS

### 12 EARNINGS PER SHARE

|  | 2016<br>\$M      | 2015<br>\$M      |
|--|------------------|------------------|
| Profit for the year attributable to equity holders of the Company          | 158.0            | 608.2            |
|  | 2016<br>NUMBER   | 2015<br>NUMBER   |
| Ordinary shares in issue throughout each year                              | 985,856,695      | 985,856,695      |
|  | 2016<br>US CENTS | 2015<br>US CENTS |
| Basic earnings per share   |                  |                  |
| From continuing operations   | 12.1             | (0.5)            |
| From discontinued operations   | 3.9              | 62.2             |
| Total continuing and discontinued operations                               | 16.0             | 61.7             |
| Total continuing and discontinued operations (excluding exceptional items) | 38.6             | 61.7             |

Basic earnings per share are calculated as profit after tax and non-controlling interests, based on 985,856,695 ordinary shares.

There was no potential dilution of earnings per share in either year set out above, and therefore diluted earnings per share did not differ from basic earnings per share as disclosed above.

#### Reconciliation of basic earnings per share from continuing operations:

|   | 2016   | 2015        |
|---|--------|-------------|
| Profit for the year attributable to equity holders of the Company | \$m    | 158.0       |
| Less: profit for discontinued operations                          | \$m    | (38.3)      |
| Loss from continuing operations                                   | \$m    | 119.7       |
| Ordinary shares   | Number | 985,856,695 |
| Basic earnings per share from continuing operations               | \$m    | 12.1        |
|   |        | (0.5)       |

### 13 DIVIDENDS

Amounts recognised as distributions to equity holders in the year:

|   | 2016<br>\$M | 2015<br>\$M | 2016<br>CENTS<br>PER SHARE | 2015<br>CENTS<br>PER SHARE |
|---|-------------|-------------|----------------------------|----------------------------|
| Final dividend paid in June (proposed in relation to the previous year) |             |             |                            |                            |
| - ordinary  | -           | 96.6        | -                          | 9.8                        |
| Interim dividend paid in October  |             |             |                            |                            |
| - ordinary  | 30.6        | 30.6        | 3.1                        | 3.1                        |
|   | 30.6        | 127.2       | 3.1                        | 12.9                       |

The proposed final dividend for each year, which is subject to approval by shareholders at the Annual General Meeting and has therefore not been included as a liability in these Financial Statements, is as follows:

|   | 2016<br>\$M | 2015<br>\$M | 2016<br>CENTS<br>PER SHARE | 2015<br>CENTS<br>PER SHARE |
|---|-------------|-------------|----------------------------|----------------------------|
| Final dividend proposed in relation to the year |             |             |                            |                            |
| - ordinary                                      | 151.0       | -           | 15.3                       | -                          |
|   | 151.0       | -           | 15.3                       | -                          |

This gives total dividends proposed in relation to 2016 (including the interim dividend) of 18.4 cents per share or \$181.4 million (2015 – 3.1 cents per share or \$30.6 million).

In accordance with IAS 32, preference dividends have been included within interest expense (see Note 9) and amounted to \$0.1 million (2015 -\$0.2 million).

Further details of the currency election timing and process (including the default currency of payment) are available on the Antofagasta plc website ([www.antofagasta.co.uk](http://www.antofagasta.co.uk)) or from the Company's registrar, Computershare Investor Services PLC on +44 870 702 0159.

Further details relating to dividends for each year are given in the Directors' Report.

## 14 INTANGIBLE ASSETS

|  | \$M          |
|--|--------------|
| <b>Cost</b>                                    |              |
| At 1 January 2015                              | 233.4        |
| Additions through acquisition of Twin Metals   | 150.1        |
| Disposals                                      | (228.6)      |
| Foreign currency exchange difference           | (4.8)        |
| <b>At 31 December 2015</b>                     | <b>150.1</b> |
| Additions                                      | –            |
| Disposals                                      | –            |
| Foreign currency exchange difference           | –            |
| <b>At 31 December 2016</b>                     | <b>150.1</b> |
| <b>Accumulated amortisation and impairment</b> |              |
| At 1 January 2015                              | (114.8)      |
| Charge for the year                            | (2.4)        |
| Disposals                                      | 114.9        |
| Foreign currency exchange difference           | 2.3          |
| <b>At 31 December 2015</b>                     | <b>–</b>     |
| Charge for the year                            | –            |
| <b>At 31 December 2016</b>                     | <b>–</b>     |
| <b>Net book value</b>                          |              |
| <b>At 31 December 2016</b>                     | <b>150.1</b> |
| At 31 December 2015                            | 150.1        |

The \$150.1 million intangible asset reflects the value of Twin Metals' mining property assets. The mining properties will be amortised once production commences.

## NOTES TO THE FINANCIAL STATEMENTS

### 15 PROPERTY, PLANT AND EQUIPMENT

|   | LAND<br>\$M | MINING<br>PROPERTIES<br>\$M | BUILDINGS AND<br>INFRASTRUCTURE<br>\$M | RAILWAY<br>TRACK<br>\$M | WAGONS<br>AND ROLLING<br>STOCK<br>\$M | MACHINERY,<br>EQUIPMENT<br>AND OTHERS<br>\$M | ASSETS<br>UNDER<br>CONSTRUCTION<br>\$M | TOTAL<br>\$M |
|---|-------------|-----------------------------|--|-------------------------|---------------------------------------|--|--|--------------|
| <b>Cost</b>   |             |                             |  |                         |                                       |  |  |              |
| <b>At 1 January 2015</b>  | 26.4        | 1,326.9                     | 3,760.6                                | 75.3                    | 163.1                                 | 4,695.0                                      | 2,503.9                                | 12,551.2     |
| Additions   | –           | 81.1                        | 0.2                                    | –                       | 1.8                                   | 93.9   | 835.6                                  | 1,012.6      |
| Additions through acquisition of Twin Metals                    | 0.6         | 9.9                         | 0.1                                    | –                       | –                                     | 11.4   | –                                      | 22.0         |
| Adjustment to capitalised decommissioning provisions            | –           | –                           | (35.7)                                 | –                       | –                                     | –  | –                                      | (35.7)       |
| Reclassifications   | 12.0        | 95.5                        | 590.9                                  | 4.6                     | 6.4                                   | 1,227.9                                      | (1,813.3)                              | 124.0        |
| Disposal of subsidiary  | (0.8)       | (29.7)                      | (0.8)                                  | –                       | (35.9)                                | (55.4)                                       | (30.0)                                 | (152.6)      |
| Asset disposals   | –           | (4.1)                       | –                                      | (1.5)                   | (3.9)                                 | (14.1)                                       | (2.6)                                  | (26.2)       |
| Foreign currency exchange difference                            | –           | –                           | (5.1)                                  | –                       | –                                     | (0.8)  | (0.5)                                  | (6.4)        |
| <b>At 31 December 2015</b>                                      | 38.2        | 1,479.6                     | 4,310.2                                | 78.4                    | 131.5                                 | 5,957.9                                      | 1,493.1                                | 13,488.9     |
| Additions   | –           | 6.4                         | 0.2                                    | –                       | 1.5                                   | 376.2  | 537.4                                  | 921.7        |
| Additions – depreciation capitalised                            | –           | –                           | –                                      | –                       | –                                     | 87.6   | –                                      | 87.6         |
| Adjustment to capitalised decommissioning provisions            | –           | –                           | 16.9                                   | –                       | –                                     | –  | –                                      | 16.9         |
| Reclassifications   | –           | –                           | 398.6                                  | 4.6                     | 10.4                                  | 510.3  | (920.8)                                | 3.1          |
| Disposal of subsidiary  | –           | (12.9)                      | (68.0)                                 | –                       | –                                     | (298.7)                                      | –                                      | (379.6)      |
| Asset disposals   | –           | (0.6)                       | (4.5)                                  | (1.3)                   | (2.8)                                 | (46.2)                                       | (4.0)                                  | (59.4)       |
| <b>At 31 December 2016</b>                                      | 37.7        | 1,473.0                     | 4,653.4                                | 81.7                    | 140.6                                 | 6,587.1                                      | 1,105.7                                | 14,079.2     |
| <b>Accumulated depreciation and impairment</b>                  |             |                             |  |                         |                                       |  |  |              |
| <b>At 1 January 2015</b>  | –           | (726.0)                     | (1,173.6)                              | (19.9)                  | (100.3)                               | (1,869.9)                                    | (447.6)                                | (4,337.3)    |
| Charge for the year   | –           | (134.7)                     | (149.0)                                | (2.7)                   | (18.1)                                | (286.2)                                      | –                                      | (590.7)      |
| Additions through acquisition of Twin Metals                    | –           | –                           | –                                      | –                       | –                                     | (1.2)  | –                                      | (1.2)        |
| Depreciation capitalised in inventories                         | –           | –                           | –                                      | –                       | –                                     | (24.8)                                       | –                                      | (24.8)       |
| Depreciation capitalised in property, plant and equipment       | –           | –                           | –                                      | –                       | –                                     | (20.1)                                       | –                                      | (20.1)       |
| Disposal of subsidiary  | –           | –                           | 3.5                                    | –                       | 38.1                                  | 26.4   | –                                      | 68.0         |
| Reclassifications   | –           | –                           | (4.3)                                  | –                       | –                                     | 4.1  | –                                      | (0.2)        |
| Asset disposals   | –           | –                           | –                                      | (0.6)                   | 3.0                                   | 10.3   | –                                      | 13.9         |
| Foreign currency exchange difference                            | –           | –                           | 3.6                                    | –                       | (0.1)                                 | 1.1  | –                                      | 4.6          |
| <b>At 31 December 2015</b>                                      | –           | (860.7)                     | (1,319.8)                              | (22.0)                  | (77.4)                                | (2,160.3)                                    | (447.6)                                | (4,887.8)    |
| Charge for the year   | –           | (20.6)                      | (185.4)                                | (2.6)                   | (8.4)                                 | (361.4)                                      | –                                      | (578.4)      |
| Depreciation capitalised in inventories                         | –           | –                           | –                                      | –                       | –                                     | 8.4  | –                                      | 8.4          |
| Depreciation capitalised in property, plant and equipment       | –           | –                           | –                                      | –                       | –                                     | (87.6)                                       | –                                      | (87.6)       |
| Impairment  | –           | –                           | –                                      | –                       | –                                     | (215.6)                                      | –                                      | (215.6)      |
| Disposal of subsidiary  | –           | 12.9                        | 68.0                                   | –                       | –                                     | 298.7  | –                                      | 379.6        |
| Reclassifications   | –           | (4.6)                       | (3.9)                                  | –                       | –                                     | (438.5)                                      | 447.6                                  | 0.6          |
| Asset disposals   | –           | –                           | 4.5                                    | 0.5                     | 2.1                                   | 32.0   | –                                      | 39.1         |
| <b>At 31 December 2016</b>                                      | –           | (873.0)                     | (1,436.6)                              | (24.1)                  | (83.7)                                | (2,924.3)                                    | –                                      | (5,341.7)    |
| <b>Net book value</b>   |             |                             |  |                         |                                       |  |  |              |
| <b>At 31 December 2016</b>                                      | 37.7        | 600.0                       | 3,216.8                                | 57.6                    | 56.9                                  | 3,662.8                                      | 1,105.7                                | 8,737.5      |
| <b>At 31 December 2015</b>                                      | 38.2        | 618.9                       | 2,990.4                                | 56.4                    | 54.1                                  | 3,797.6                                      | 1,045.5                                | 8,601.1      |
| <b>Assets under finance leases included in the totals above</b> |             |                             |  |                         |                                       |  |  |              |
| <b>Net book value</b>   |             |                             |  |                         |                                       |  |  |              |
| <b>At 31 December 2016</b>                                      | –           | –                           | 26.6                                   | –                       | –                                     | 83.1   | –                                      | 109.7        |
| <b>At 31 December 2015</b>                                      | –           | –                           | 26.5                                   | –                       | –                                     | 9.9  | –                                      | 36.4         |

The depreciation charge for 2015 included \$2.8 million related to the charge of the period for Aguas de Antofagasta SA (until May 2015) and \$12.1 million related to Empresa Ferroviaria Andina (until August 2015) and shown as discontinued operations in Note 10.

The Group has pledged assets with a carrying value of \$1,086.4 million (2015 – \$301.4 million) as security against bank loans provided to the Group.

At 31 December 2015 the Group had entered into contractual commitments for the acquisition of property, plant and equipment amounting to \$196.1 million (2016 – \$283.1 million) of which \$129.8 million were related to the development of the Encuentro Oxides project.

Compensation from insurance companies related to property, plant and equipment included in the consolidated income statement was \$2.3 million in 2016 (2015 – \$15.2 million).

Borrowing costs of \$12.0 million were capitalised, mainly at Antucoya (2015 – \$60 million). The average interest rate for the amounts capitalised was 1.1% (2015 – 1.2%).

Reclassifications in additions of \$3.1 million are mainly related to the capitalisation of interest of \$9.3 million, depreciation of machinery used in construction of \$14.6m and other expenses incurred during the commissioning of Antucoya, and credits related to a refund from a contractor for contract underperformance of \$24.9 million and credits related to sales.

At 31 December 2016, assets capitalised relating to the decommissioning provision were \$147.2 million (at 31 December 2015 – \$137.4 million).

Depreciation capitalised in property, plant and equipment of \$87.6 million related to stripping cost depreciation of \$64.8 million at Los Pelambres and Centinela and \$22.8 million related to Antucoya depreciation capitalised during the commissioning period.

## NOTES TO THE FINANCIAL STATEMENTS

### 16 INVESTMENTS IN SUBSIDIARIES

The subsidiaries of the Group, the percentage of equity owned and the main country of operation are set out below. These interests are consolidated within these Financial Statements.

|   | COUNTRY OF INCORPORATION | COUNTRY OF OPERATIONS | REGISTERED OFFICE | NATURE OF BUSINESS | ECONOMIC INTEREST |
|---|--------------------------|-----------------------|-------------------|--------------------|-------------------|
| <b>Direct subsidiaries of the Parent Company</b>        |                          |                       |                   |                    |                   |
| Antofagasta Railway Company plc                         | UK                       | Chile                 | 1                 | Railway            | 100%              |
| Andes Trust Limited (The)                               | UK                       | UK                    | 1                 | Investment         | 100%              |
| Chilean Northern Mines Limited                          | UK                       | Chile                 | 1                 | Investment         | 100%              |
| Andes Re Limited  | Bermuda                  | Bermuda               | 4                 | Insurance          | 100%              |
| <b>Indirect subsidiaries of the Parent Company</b>      |                          |                       |                   |                    |                   |
| Minera Los Pelambres SCM                                | Chile                    | Chile                 | 2                 | Mining             | 60%               |
| Minera Centinela SCM                                    | Chile                    | Chile                 | 2                 | Mining             | 70%               |
| Minera Antucoya SCM                                     | Chile                    | Chile                 | 2                 | Mining             | 70%               |
| Compañía Minera Zaldívar SpA                            | Chile                    | Chile                 | 18                | Mining             | 50%               |
| Minera Encuentro SCM                                    | Chile                    | Chile                 | 2                 | Mining             | 100%              |
| Antofagasta Minerals SA                                 | Chile                    | Chile                 | 2                 | Mining             | 100%              |
| Alfa Estates Limited                                    | Jersey                   | Jersey                | 3                 | Investment         | 100%              |
| Centinela Transmision SA                                | Chile                    | Chile                 | 2                 | Energy             | 100%              |
| Zaldívar Transmision SA                                 | Chile                    | Chile                 | 18                | Energy             | 50%               |
| Atacama Copper Company Pty Limited                      | Australia                | Australia             | 5                 | Investment         | 50%               |
| Tethyan Copper Company Pty Limited                      | Australia                | Australia             | 5                 | Investment         | 50%               |
| Tethyan Copper Company Pakistan (Private) Limited       | Pakistan                 | Pakistan              | 6                 | Mining             | 50%               |
| Chagai Mineral Company Limited                          | Pakistan                 | Pakistan              | 6                 | Investment         | 50%               |
| Paktui Exploration Limited                              | Pakistan                 | Pakistan              | 6                 | Investment         | 50%               |
| Northern Minerals Investment (Jersey) Limited           | Jersey                   | Jersey                | 3                 | Investment         | 100%              |
| Northern Metals (UK) Limited                            | UK                       | UK                    | 1                 | Investment         | 100%              |
| Northern Minerals Holding Co                            | USA                      | USA                   | 7                 | Investment         | 100%              |
| Duluth Metals Limited                                   | Canada                   | Canada                | 9                 | Investment         | 100%              |
| Twin Metals (UK) Limited                                | UK                       | UK                    | 1                 | Investment         | 100%              |
| Twin Metals (USA) Inc                                   | USA                      | USA                   | 8                 | Investment         | 100%              |
| Twin Metals Minnesota LLC                               | USA                      | USA                   | 8                 | Mining             | 100%              |
| Duluth Metals Holdings (USA) Inc                        | USA                      | USA                   | 16                | Investment         | 100%              |
| Duluth Exploration (USA) Inc                            | USA                      | USA                   | 17                | Investment         | 100%              |
| DMC LLC (Minnesota)                                     | USA                      | USA                   | 16                | Investment         | 100%              |
| DMC (USA) LLC (Delaware)                                | USA                      | USA                   | 16                | Investment         | 100%              |
| DMC (USA) Corporation                                   | USA                      | USA                   | 16                | Investment         | 100%              |
| Antofagasta Investment Company Limited                  | Jersey                   | Jersey                | 3                 | Investment         | 100%              |
| Minprop Limited   | Jersey                   | Jersey                | 3                 | Mining             | 100%              |
| Antomin 2 Limited                                       | BVI                      | BVI                   | 10                | Mining             | 51%               |
| Antomin Investors Limited                               | BVI                      | BVI                   | 10                | Mining             | 51%               |
| Antofagasta Services Limited                            | UK                       | UK                    | 1                 | Group services     | 100%              |
| Antofagasta Energy Jersey PCC                           | Jersey                   | Jersey                | 3                 | Investment         | 100%              |
| Antofagasta Minerals Australia Pty Limited              | Australia                | Australia             | 11                | Mining             | 100%              |
| Antofagasta Minerals Adelaide Pty Limited               | Australia                | Australia             | 11                | Mining             | 100%              |
| Antofagasta Minerals Perth Pty Limited                  | Australia                | Australia             | 11                | Mining             | 100%              |
| Minera Anaconda Peru                                    | Peru                     | Peru                  | 12                | Mining             | 100%              |
| Los Pelambres Holding Company Limited                   | Jersey                   | Jersey                | 3                 | Investment         | 100%              |
| Los Pelambres Investment Company Limited                | Jersey                   | Jersey                | 3                 | Investment         | 100%              |
| Antofagasta Metals Limited                              | UK                       | UK                    | 1                 | Investment         | 100%              |
| Antofagasta Nickel Limited                              | UK                       | UK                    | 1                 | Investment         | 100%              |
| Antofagasta (Chili) and Bolivia Railway Company Limited | UK                       | UK                    | 1                 | Investment         | 100%              |
| Antofagasta Holdings Limited                            | UK                       | UK                    | 1                 | Investment         | 100%              |
| Antofagasta Minerals Limited                            | UK                       | UK                    | 1                 | Investment         | 100%              |

|   | COUNTRY OF INCORPORATION | COUNTRY OF OPERATIONS | REGISTERED OFFICE | NATURE OF BUSINESS    | ECONOMIC INTEREST |
|---|--------------------------|-----------------------|-------------------|-----------------------|-------------------|
| Antofagasta Gold Limited                                    | UK                       | UK                    | 1                 | Investment            | 100%              |
| Antofagasta Mining Limited                                  | UK                       | UK                    | 1                 | Investment            | 100%              |
| Antofagasta Copper Limited                                  | UK                       | UK                    | 1                 | Investment            | 100%              |
| Lamborn Land Co   | USA                      | Chile                 | 7                 | Investment            | 100%              |
| Anaconda South America Inc                                  | USA                      | USA                   | 24                | Investment            | 100%              |
| El Tesoro (SPV Bermuda) Limited                             | Bermuda                  | Bermuda               | 11                | Investment            | 100%              |
| Morrisville Holdings Co                                     | BVI                      | BVI                   | 10                | Investment            | 100%              |
| Antofagasta Minerals Canada                                 | Canada                   | Canada                | 25                | Mining                | 100%              |
| Andes Investments Company (Jersey) Limited                  | Jersey                   | Jersey                | 3                 | Investment            | 100%              |
| Bolivian Rail Investors Co Inc                              | USA                      | USA                   | 7                 | Investment            | 100%              |
| Blue Ocean Overseas Inc                                     | BVI                      | BVI                   | 10                | Investment            | 100%              |
| Inversiones FerroboL Limitada                               | Bolivia                  | Bolivia               | 14                | Investment            | 100%              |
| Inversiones Los Pelambres Chile Ltda.                       | Chile                    | Chile                 | 2                 | Investment            | 100%              |
| Equatorial Resources SpA                                    | Chile                    | Chile                 | 2                 | Investment            | 100%              |
| Minera Santa Margarita de Astillas SCM                      | Chile                    | Chile                 | 2                 | Mining                | 75.5%             |
| Minera Penacho Blanco SA                                    | Chile                    | Chile                 | 2                 | Mining                | 66.6%             |
| Energia Andina SA   | Chile                    | Chile                 | 2                 | Energy                | 50.1%             |
| Javiera SpA   | Chile                    | Chile                 | 22                | Energy                | 20.1%             |
| Parque Eolico El Arrayan SpA                                | Chile                    | Chile                 | 21                | Energy                | 30%               |
| Michilla Costa SpA  | Chile                    | Chile                 | 2                 | Logistics             | 99.9%             |
| Pampa Fenix SA  | Chile                    | Chile                 | 2                 | Mining                | 90%               |
| Minera Mulpun Limitada                                      | Chile                    | Chile                 | 2                 | Mining                | 100%              |
| Fundación Minera Los Pelambres                              | Chile                    | Chile                 | 2                 | Community development | 100%              |
| Alto Maipo SpA  | Chile                    | Chile                 | 23                | Energy                | 40%               |
| Inversiones Punta de Rieles Limitada                        | Chile                    | Chile                 | 15                | Investment            | 100%              |
| Inversiones Hornitos SA                                     | Chile                    | Chile                 | 20                | Energy                | 40%               |
| Antofagasta Terminal Internacional SA                       | Chile                    | Chile                 | 19                | Logistics             | 30%               |
| Ferrocarril Antofagasta a Bolivia (Permanent Establishment) | Chile                    | Chile                 | 15                | Railway               | 100%              |
| Inversiones Chilean Northern Mines Ltda                     | Chile                    | Chile                 | 15                | Investment            | 100%              |
| The Andes Trust Chile SA                                    | Chile                    | Chile                 | 15                | Investment            | 100%              |
| Forestal SA   | Chile                    | Chile                 | 15                | Forestry              | 100%              |
| Servicios de Transportes Integrados Limitada                | Chile                    | Chile                 | 15                | Road transport        | 100%              |
| Inversiones Train Limitada                                  | Chile                    | Chile                 | 15                | Investment            | 100%              |
| Servicios Logisticos Capricornio Limitada                   | Chile                    | Chile                 | 15                | Transport             | 100%              |
| Embarcadores Limitada                                       | Chile                    | Chile                 | 15                | Transport             | 100%              |
| FCAB Ingenieria y Servicios Limitada                        | Chile                    | Chile                 | 15                | Transport             | 100%              |
| Emisa Antofagasta SA  | Chile                    | Chile                 | 15                | Transport             | 100%              |

## Registered offices:

- 1 Cleveland House, 33 King Street, London, SW1Y 6RJ, United Kingdom
- 2 Avenida Apoquindo N° 4001, Piso 18, Las Condes, Santiago, Chile
- 3 22 Grenville Street, St Helier, Jersey, JE4 8PX3
- 4 Crawford House, 50 Cedar Avenue, Hamilton HM 11, Bermuda
- 5 Level 9, The Quadrant, 1 William Street, Perth, Western Australia, 6000, Australia
- 6 House 11, Street 3, F-8/3, Islamabad, Pakistan
- 7 1209 Orange Street, Wilmington, DE 19801, USA
- 8 6040 Earle Brown Drive, 480 Brooklyn Center, MN 55430, USA
- 9 161 Bay Street, Suite 4320, Toronto, Ontario, M5J 2S1, Canada
- 10 PO Box 958, Road Town, Tortola VG1110, British Virgin Islands
- 11 Riparian Plaza, Level 28, 71 Eagle Street, Brisbane, Qld 4001, Australia
- 12 Av. Paseo de la Republica N° 3245 Piso 3, Lima, Peru
- 13 Clarendon House, 2 Church Street, Hamilton, Bermuda
- 14 Avenida 16 de Julio N° 1440, piso 19 oficina 1905, La Paz, Bolivia
- 15 Simon Bolivar 255, Antofagasta, Chile
- 16 6041 Earle Brown Drive, 480 Brooklyn Center, MN 55430, USA
- 17 1010 Dale Street N, St Paul, MN 55117-5603 USA
- 18 Avenida Grecia N° 750, Antofagasta, Chile
- 19 Avenida Grecia S/N Costado Recinto Portuario, Antofagasta, Chile
- 20 Avenida El Bosque Norte N° 500 piso 9, Las Condes, Santiago, Chile
- 21 Avenida Presidente Riesco N° 5335, piso 9, Las Condes, Santiago, Chile
- 22 Avenida Vitacura N°2939, piso 27, oficina 2701, Las Condes, Santiago, Chile
- 23 Avenida Rosario Norte N° 532, piso 19, Las Condes, Santiago, Chile
- 24 2711 Centerville Rd, Suite 400, Wilmington, DE 19808, USA
- 25 161 Bay Street, Suite 4320, Toronto, Canada

## NOTES TO THE FINANCIAL STATEMENTS

### 16 INVESTMENTS IN SUBSIDIARIES CONTINUED

With the exception of the Antofagasta Railway Company plc, all of the above Group companies have only one class of ordinary share capital in issue. The Antofagasta Railway Company plc has ordinary and preference share capital in issue, with the ordinary share capital representing 76% of the company's total share capital, and the preference share capital representing 24% of the company's total share capital; Antofagasta plc holds 100% of both the ordinary and preference share capital of the Antofagasta Railway Company plc.

The proportion of the voting rights is proportional with the economic interest for the companies listed above.

During 2016, the Group sold its 100% participation in its subsidiary Minera Michilla SA. During 2015, the Group sold its 100% participation in its subsidiary Aguas de Antofagasta SA together with its investment in Atacama Aguas y Tecnología Limitada and the Group's 50% in Empresa Ferroviaria Andina. For more detail of these transactions see Note 11.

### 17 INVESTMENT IN ASSOCIATES AND JOINT VENTURES

|   | <b>INVERSIONES<br/>HORNITOS<br/>2016<br/>\$M</b> | <b>ATI<br/>2016<br/>\$M</b> | <b>EL ARRAYAN<br/>2016<br/>\$M</b> | <b>ALTO<br/>MAIPO<br/>2016<br/>\$M</b> | <b>MINERA<br/>ZALDIVAR<br/>2016<br/>\$M</b> | <b>ENERGÍA<br/>ANDINA<br/>2016<br/>\$M</b> | <b>TETHYAN<br/>COPPER<br/>2016<br/>\$M</b> | <b>TOTAL<br/>2016<br/>\$M</b> | <b>TOTAL<br/>2015<br/>\$M</b> |
|---|--|-----------------------------|------------------------------------|--|---|--|--|-------------------------------|-------------------------------|
| Balance at the beginning of the year  | 75.1   | 8.1                         | 23.2                               | 33.5                                   | 998.9                                       | 10.3                                       | –  | 1,149.1                       | 198.1                         |
| Obligations on behalf of JV   | –  | –                           | –                                  | –                                      | –   | –  | (2.5)                                      | (2.5)                         | –                             |
| Capital contribution  | –  | –                           | –                                  | 36.0                                   | –   | 1.0  | 10.0                                       | 47.0                          | 48.1                          |
| Capital decrease and others   | –  | –                           | (0.9)                              | –                                      | 0.3   | –  | –  | (0.6)                         | –                             |
| Adjustment to purchase price  | –  | –                           | –                                  | –                                      | (45.0)                                      | –  | –  | (45.0)                        | 1,001.7                       |
| Gains/(losses) in fair value of cash flow hedges deferred in reserves of associates | –  | –                           | 0.3                                | 4.1                                    | –   | –  | –  | 4.4                           | (16.0)                        |
| Derecognition of investment in associate upon reclassification to subsidiary        | –  | –                           | –                                  | –                                      | –   | –  | –  | –                             | (67.4)                        |
| Provision against carrying value of assets  | –  | –                           | –                                  | (74.0)                                 | –   | (8.1)                                      | –  | (82.1)                        | –                             |
| Share of net profit/(loss) before tax   | 8.9  | (1.9)                       | (1.0)                              | 0.4                                    | 41.9  | –  | (10.6)                                     | 36.4                          | (4.4)                         |
| Share of tax  | (2.5)  | 0.2                         | 0.4                                | –                                      | (12.4)                                      | –  | –  | (13.0)                        | (1.4)                         |
| Share of income/(loss) from associates  | 6.4  | (1.7)                       | (0.6)                              | 0.4                                    | 29.5  | –  | (10.6)                                     | 23.4                          | (5.8)                         |
| Dividends received  | (10.2)   | –                           | –                                  | –                                      | –   | –  | –  | (10.2)                        | (12.1)                        |
| <b>Balance at the end of the year</b>   | <b>71.3</b>                                      | <b>6.5</b>                  | <b>22.0</b>                        | <b>–</b>                               | <b>983.7</b>                                | <b>3.2</b>                                 | <b>–</b>                                   | <b>1,086.6</b>                | <b>1,149.1</b>                |
| <b>Obligations on behalf of JV</b>  | <b>–</b>   | <b>–</b>                    | <b>–</b>                           | <b>–</b>                               | <b>–</b>                                    | <b>–</b>                                   | <b>(3.1)</b>                               | <b>(3.1)</b>                  | <b>(2.5)</b>                  |
| Share of income/(loss) before tax   | 6.4  | (1.7)                       | (0.6)                              | 0.4                                    | 29.5  | –  | (10.6)                                     | 23.4                          | –                             |
| Provision against carrying value of assets (exceptional items)                      | –  | –                           | –                                  | (74.0)                                 | –   | (8.1)                                      | –  | (82.1)                        | –                             |
| Other comprehensive income of associates to profit for the year (exceptional items) | –  | –                           | –                                  | (52.6)                                 | –   | –  | –  | (52.6)                        | –                             |
| <b>Net share of results from associates and joint ventures</b>                      | <b>6.4</b>                                       | <b>(1.7)</b>                | <b>(0.6)</b>                       | <b>(126.2)</b>                         | <b>29.5</b>                                 | <b>(8.1)</b>                               | <b>(10.6)</b>                              | <b>(111.3)</b>                | <b>–</b>                      |

The investments which are included in the \$1,083.5 million balances at 31 December 2016 are set out below:

## INVESTMENT IN ASSOCIATES

- (i) The Group's 40% interest in Inversiones Hornitos SA, which owns the 165MW Hornitos thermoelectric power plant operating in Mejillones, in Chile's Antofagasta Region. The Group has a 16-year power purchase agreement with Inversiones Hornitos SA for the provision of up to 40MW of electricity for Centinela.
  - (ii) The Group's 30% interest in ATI, which operates a concession to manage installations in the port of Antofagasta.
  - (iii) The Group's 30% interest in El Arrayan, which operates a 115MW wind-farm project. The Group has a 20-year power purchase agreement with El Arrayan for the provision of up to 40MW of electricity for Los Pelambres.
  - (iv) The Group has a 40% interest in Alto Maipo SpA ("Alto Maipo"), which is developing two run-of-river hydroelectric power stations located in the upper section of the Maipo River, approximately 50 kilometres to the southeast of Santiago. The remaining 60% interest is held by AES Gener SA ("Gener"). As explained in Note 3, the Group has been reviewing its options with respect to its investment in Alto Maipo following the announcement of a significant forecast cost overrun for the project. In January 2017 the Group entered into an agreement with Gener to dispose of its stake in Alto Maipo to Gener for a nominal consideration. Accordingly, an impairment provision of \$367.6 million has been recognised in respect of the total carrying value relating to the project, comprising the \$74.0 million investment in associate balance as shown above, \$241.0 million of loan financing (including accrued interest) and \$52.6 million of mark-to-market losses in respect of derivative financial instruments held by Alto Maipo previously deferred in reserves. During 2016 the Group made provision for capital contributions of \$36.0 million (2015 – \$42.8 million). During the year the Group provided nil loan financing (2015 – \$63.9 million) to Alto Maipo. The balance due from Alto Maipo to the Group at 31 December 2016 was nil after provision (2015 – \$229.7 million) representing loan financing with an interest rate of LIBOR six-month rate plus 4.25%. During 2016 a fair value loss of \$4.1 million (2015 – \$14.4 million loss) was recognised in relation to the mark-to-market of the derivative financial instruments with this amount deferred in reserves as it formed part of a designated cash flow hedging relationship.
- The Group has a 20-year power purchase agreement with Alto Maipo for the provision of up to 110 MW of electricity for Los Pelambres from the completion date of the project.

## INVESTMENT IN JOINT VENTURES

- (v) The Group's 50% interest in Minera Zaldívar SpA ("Zaldívar"), was acquired on 1 December 2015 (see Note 19). Zaldívar is an open-pit, heap-leach copper mine located in Northern Chile, which produces approximately 100,000 tonnes of copper cathodes annually. Total preliminary consideration for the transaction was \$1,005.0 million in cash, subject to adjustments based on the net debt and working capital levels of Zaldívar at the completion date. The net debt and working capital adjustments were finalised in August 2016 and resulted in a final adjusted consideration of \$949.7 million. Including capitalised acquisition costs of \$7.0 million the initial investment in joint venture balance is therefore \$956.7 million. The allocation of the fair values of the individual assets and liabilities effectively contained within the overall investment in joint venture balance was also completed during 2016.
- (vi) The Group's 50.1% (2014 – 50.1%) interest in Energia Andina, which is a joint venture with Origin Geothermal Chile Limitada for the evaluation and development of potential sources of geothermal and solar energy. In February 2017 the disposal of the interest in Javiera was agreed. The terms of the sale agreement indicate a recoverable value for the interest in Javiera which is \$8.1 million below the carrying value, and accordingly an impairment provision for this amount has been recognised. The terms of the sale agreement is subject to certain closing conditions, and the transaction is expected to complete during the first half of 2017.
- (vii) The Group's 50% interest in Tethyan Copper Company Limited ("Tethyan"), which is a joint venture with Barrick Gold Corporation over Tethyan's mineral interest in Pakistan, which is now subject to international arbitration. As the net carrying value of the interest in Tethyan is negative it is included within non-current liabilities, as the Group is liable for its share of the joint venture's obligations.

Summarised financial information for the associates is as follows:

|   | <b>INVERSIONES HORNITOS<br/>2016 \$M</b> | <b>ATI<br/>2016 \$M</b> | <b>EL ARRAYAN<br/>2016 \$M</b> | <b>ALTO MAIPO<br/>2016 \$M</b> | <b>TOTAL<br/>2016 \$M</b> | <b>TOTAL<br/>2015 \$M</b> |
|---|--|-------------------------|--------------------------------|--------------------------------|---------------------------|---------------------------|
| Cash and cash equivalents   | 16.0                                     | 0.4                     | 3.1                            | 38.9                           | 58.4                      | 148.7                     |
| Current assets  | 37.7                                     | 13.5                    | 14.0                           | 56.4                           | 121.6                     | 111.5                     |
| Non-current assets  | 294.0                                    | 138.5                   | 248.7                          | 1,149.1                        | 1,830.3                   | 1,572.2                   |
| Current liabilities   | (25.7)                                   | (28.7)                  | (13.3)                         | (115.5)                        | (183.2)                   | (167.2)                   |
| Non-current liabilities   | (163.0)                                  | (104.3)                 | (191.3)                        | (1,070.2)                      | (1,528.8)                 | (1,289.8)                 |
| Revenue   | 136.2                                    | 46.1                    | 29.1                           | –                              | 211.4                     | 214.5                     |
| Profit/(loss) from continuing operations                            | 16.0                                     | (5.4)                   | (2.0)                          | (0.7)                          | 7.9                       | 10.0                      |
| Profit/(loss) after tax from continuing and discontinued operations | –  | –                       | –                              | –                              | –                         | 10.0                      |
| Other comprehensive income  | –  | –                       | –                              | 10.3                           | 10.3                      | (36.2)                    |
| Total comprehensive income/(expense)                                | 16.0                                     | (5.4)                   | (2.0)                          | 9.6                            | 18.2                      | 188.3                     |

## NOTES TO THE FINANCIAL STATEMENTS

### 17 INVESTMENT IN ASSOCIATES AND JOINT VENTURES CONTINUED

Summarised financial information for the joint ventures is as follows:

|   | MINERA<br>ZALDÍVAR<br>2016<br>\$M | ENERGÍA<br>ANDINA<br>2016<br>\$M | TETHYAN<br>COPPER<br>2016<br>\$M | TOTAL<br>2016<br>\$M | TOTAL<br>2015<br>\$M |
|---|-----------------------------------|----------------------------------|----------------------------------|----------------------|----------------------|
| Cash and cash equivalent  | 101.7                             | 0.3                              | 1.6                              | 103.6                | 20.8                 |
| Current assets  | 493.7                             | –                                | 0.1                              | 493.8                | 616.9                |
| Non-current assets  | 1,592.0                           | 11.4                             | 0.2                              | 1,603.6              | 1,609.7              |
| Current liabilities   | (107.6)                           | –                                | (7.8)                            | (115.4)              | (123.9)              |
| Non-current liabilities   | (112.8)                           | –                                | (0.2)                            | (113.0)              | (97.3)               |
| Revenue   | 517.7                             | –                                | –                                | 517.7                | 51.7                 |
| Depreciation and amortisation                                       | –                                 | –                                | –                                | –                    | –                    |
| Interest expenses   | –                                 | –                                | –                                | –                    | –                    |
| Profit/(loss) after tax from continuing and discontinued operations | 59.0                              | (10.8)                           | (21.1)                           | 27.1                 | (18.8)               |
| Other comprehensive income  | –                                 | –                                | –                                | –                    | (3.2)                |
| Total comprehensive income/(expense)                                | 59.0                              | (10.8)                           | (21.1)                           | 27.1                 | 29.7                 |

### NOTES TO THE SUMMARISED FINANCIAL INFORMATION

- (i) The summarised financial information is based on the amounts included in the IFRS Financial Statements of the associate or joint venture (ie. 100% of the results or balances of the associate or joint venture, rather than the Group's proportionate share), after the Group's fair value adjustments.
- (ii) Non-current liabilities at Alto Maipo include a loan related to the project finance and financial derivatives of \$454.9 million (2015 – \$192.7 million) and subordinated debt of \$602.9 million (2015 – \$574.8 million).

### 18 AVAILABLE-FOR-SALE INVESTMENTS

|                                       | 2016<br>\$M | 2015<br>\$M |
|---------------------------------------|-------------|-------------|
| Balance at the beginning of the year  | 2.7         | 15.6        |
| Additions                             | –           | 0.2         |
| Movement in fair value                | 1.7         | (3.2)       |
| Reclassification                      | –           | (9.4)       |
| Disposal                              | –           | (0.2)       |
| Foreign currency exchange differences | 0.2         | (0.3)       |
| <b>Balance at the end of the year</b> | <b>4.6</b>  | <b>2.7</b>  |

Available for sale investments represent those investments which are not subsidiaries, associates or joint ventures and are not held for trading purposes. The fair value of all equity investments are based on quoted market prices.

### 19 COMPAÑÍA MINERA ZALDÍVAR SPA TRANSACTION

On 1 December 2015 Antofagasta completed its acquisition of a 50% stake in Compañía Minera Zaldívar SpA ("Zaldívar") from Barrick Gold Corporation ("Barrick"), pursuant to an agreement entered into on 30 July 2015. As a result, Antofagasta has become operator of the Zaldívar mine. Zaldívar is an open-pit, heap-leach copper mine located in Northern Chile, which produces approximately 100,000 tonnes of copper cathodes annually.

Given that Antofagasta and Barrick have joint control over Zaldívar, Antofagasta is accounting for its 50% stake in Zaldívar as a joint venture.

Total preliminary consideration for the transaction was \$1,005.0 million in cash, subject to adjustments based on the net debt and working capital levels of Zaldívar at the completion date. The net debt and working capital adjustments were finalised in August 2016 and resulted in a final adjusted consideration of \$949.7 million. Including capitalised acquisition costs of \$7.0 million the initial investment in joint venture balance is therefore \$956.7 million. The allocation of the fair values of the individual assets and liabilities effectively contained within the overall investment in joint venture balance was also completed during 2016.

## 20 INVENTORIES

|                               | 2016<br>\$M | 2015<br>\$M |
|-------------------------------|-------------|-------------|
| Current:                      |             |             |
| Raw materials and consumables | 189.4       | 162.0       |
| Work in progress              | 141.9       | 97.7        |
| Finished goods                | 62.1        | 37.4        |
|                               | 393.4       | 297.1       |
| Non-current:                  |             |             |
| Work in progress              | 157.3       | 263.9       |
|                               | 157.3       | 263.9       |
| Total                         | 550.7       | 561.0       |

The amount of write down of inventory related to Net Realisable Value (NRV) recognised as an expense was nil at 31 December, 2016 (2015 – \$17.7 million).

Non-current work-in-progress represents inventory expected to be processed more than 12 months after the balance sheet date.

## 21 TRADE AND OTHER RECEIVABLES

Trade and other receivables do not generally carry any interest, are principally short term in nature and are normally stated at their nominal value less any impairment.

|   | DUE IN ONE YEAR |              | DUE AFTER ONE YEAR |              | TOTAL        |              |
|---|-----------------|--------------|--------------------|--------------|--------------|--------------|
|   | 2016<br>\$M     | 2015<br>\$M  | 2016<br>\$M        | 2015<br>\$M  | 2016<br>\$M  | 2015<br>\$M  |
| Trade debtors                                   | 606.1           | 382.8        | –                  | –            | 606.1        | 382.8        |
| Other debtors                                   | 130.0           | 222.0        | 66.7               | 76.6         | 196.7        | 298.6        |
| Loans provided to associates and joint ventures | –               | –            | –                  | 216.3        | –            | 216.3        |
|   | <b>736.1</b>    | <b>604.8</b> | <b>66.7</b>        | <b>292.9</b> | <b>802.8</b> | <b>897.7</b> |

The largest balances of trade receivables are held with equity participants in the key mining projects. Many other significant trade receivables are secured by letters of credit or other forms of security. The average credit period given on sale of goods and rendering of service is 60 days (2015 – 41 days). There is no material element which is interest-bearing. Trade debtors include mark-to-market adjustments in respect of provisionally priced sales of copper and molybdenum concentrates which remain open as to final pricing. Where these have resulted in credit balances, they have been reclassified to trade creditors. Other debtors are mainly related to interest receivables, VAT receivable and prepayment to suppliers.

During 2016 the loan provided to Alto Maipo was impaired (see Note 4).

Movements in the provision for doubtful debts were as follows:

|                                       |  | 2016<br>\$M  | 2015<br>\$M  |
|---------------------------------------|--|--------------|--------------|
| Balance at the beginning of the year  |  | (1.0)        | (4.9)        |
| Charge for the year                   |  | (0.1)        | (0.1)        |
| Amounts written off                   |  | –            | –            |
| Disposal of subsidiaries              |  | –            | 3.9          |
| Unused amounts reversed               |  | –            | 0.1          |
| Foreign currency exchange difference  |  | –            | –            |
| <b>Balance at the end of the year</b> |  | <b>(1.1)</b> | <b>(1.0)</b> |

The ageing analysis of the trade receivables balance is as follows:

|      | PAST DUE BUT NOT IMPAIRED                  |                                      |                               |  | TOTAL<br>\$M |
|------|--|--------------------------------------|-------------------------------|--|--------------|
|      | NEITHER<br>PAST DUE<br>NOR IMPAIRED<br>\$M | UP TO<br>3 MONTHS<br>PAST DUE<br>\$M | 3-6 MONTHS<br>PAST DUE<br>\$M | MORE THAN<br>6 MONTHS<br>PAST DUE<br>\$M |              |
| 2016 | 749.7                                      | 39.4                                 | –                             | 13.7                                     | 802.8        |
| 2015 | 892.4                                      | 1.0                                  | –                             | 4.3                                      | 897.7        |

With respect to the trade receivables that are neither past due nor impaired, there are no indications that the debtors will not meet their payment obligations. The carrying value of the trade receivables recorded in the Financial Statements represents the Group's maximum exposure to credit risk. The Group does not hold any collateral as security.

At 31 December 2016, the other debtors include \$6.2 million (2015 – \$35.3 million) relating to prepayments.

## NOTES TO THE FINANCIAL STATEMENTS

### 22 CASH, CASH EQUIVALENTS AND LIQUID INVESTMENTS

The fair value of cash, cash equivalents and liquid investments is not materially different from the carrying values presented. The credit risk on cash and cash equivalents is limited because the counterparties are banks with high credit ratings assigned by international credit-rating agencies.

Cash, cash equivalents and liquid investments comprised:

|                           | 2016<br>\$M    | 2015<br>\$M    |
|---------------------------|----------------|----------------|
| Cash and cash equivalents | 716.3          | 807.5          |
| Liquid investments        | 1,332.2        | 924.1          |
|                           | <b>2,048.5</b> | <b>1,731.6</b> |

At 31 December 2016 and 2015 there is no cash which is subject to restriction.

The currency exposure of cash, cash equivalents and liquid investments was as follows:

|                    | 2016<br>\$M    | 2015<br>\$M    |
|--------------------|----------------|----------------|
| US dollars         | 1,939.0        | 1,492.3        |
| Chilean pesos      | 95.8           | 237.5          |
| Australian dollars | –              | 0.2            |
| Sterling           | 1.2            | 0.5            |
| Other              | 12.5           | 1.1            |
|                    | <b>2,048.5</b> | <b>1,731.6</b> |

The credit quality of cash, cash equivalents and liquid investments are as follow:

| CASH AT BANK AND SHORT-TERM BANK DEPOSITS           | 2016<br>\$M    | 2015<br>\$M    |
|---|----------------|----------------|
| AAA   | 1,230.3        | 978.7          |
| AA+   | –              | 22.7           |
| AA  | 18.2           | 22.3           |
| AA-   | 149.1          | 59.0           |
| A+  | 262.8          | 139.6          |
| A   | 168.0          | 36.8           |
| BBB+  | –              | 15.0           |
| Total   | 1,828.4        | 1,274.0        |
| Cash in hand  | 220.1          | 457.6          |
| Total Cash, cash equivalents and liquid investments | <b>2,048.5</b> | <b>1,731.6</b> |

## 23 BORROWINGS

### A) ANALYSIS BY TYPE OF BORROWING

Borrowings may be analysed by business segment and type as follows:

|   | NOTES  | 2016<br>\$M | 2015<br>\$M |
|---|--------|-------------|-------------|
| <b>Los Pelambres</b>                        |        |             |             |
| – Corporate loans                           | (i)    | (17.5)      | (52.3)      |
| – Short-term loan                           | (ii)   | (312.0)     | (312.1)     |
| – Finance leases                            | (iii)  | (62.2)      | (7.9)       |
| <b>Centinela</b>                            |        |             |             |
| – Corporate loans                           | (iv)   | (743.8)     | (889.8)     |
| – Shareholder loan (subordinated debt)      | (v)    | (183.6)     | (174.5)     |
| – Short-term loan                           | (vi)   | (200.0)     | (200.0)     |
| <b>Antucoya</b>                             |        |             |             |
| – Project financing (senior debt)           | (vii)  | (608.7)     | (630.2)     |
| – Shareholder loan (subordinated debt)      | (viii) | (330.4)     | (308.7)     |
| – Short-term loan                           | (ix)   | (30.0)      | (30.0)      |
| – Finance leases                            | (x)    | (16.2)      | –           |
| <b>Corporate and other items</b>            |        |             |             |
| – Long-term loan                            | (xi)   | (497.2)     | –           |
| – Finance leases                            | (xii)  | (25.1)      | (24.6)      |
| <b>Railway and other transport services</b> |        |             |             |
| – Long-term loans                           | (xiii) | (89.4)      | (119.1)     |
| – Finance leases                            | (xvi)  | (1.6)       | (2.9)       |
| <b>Preference shares</b>                    |        |             |             |
| <b>Total</b>                                |        | (3,120.2)   | (2,755.1)   |

- (i) Corporate loans at Los Pelambres are unsecured and US dollar denominated. These loans have a remaining term of 1 year and have an interest rate of LIBOR six-month rate plus margins of between 0.9% – 1.6%.
- (ii) The short-term loan (PAE) is US dollar denominated, comprising a working capital loan for an average period of 1 year and has an interest rate of LIBOR six-month rate plus margin of between 0.05% – 0.16%.
- (iii) Finance leases at Los Pelambres are US dollar denominated, comprising \$62.2 million at an interest rate of LIBOR six months rate plus 3.43% with a remaining duration of 8.4 years.
- (iv) Senior debt at Centinela is US dollar denominated, comprising \$743.8 million in respect of syndicated loans. These loans are for a remaining term of 3.5 years and have an interest rate of LIBOR six-month rate plus 1%. The loans are subject to financial covenants which require that specified net debt to EBITDA and EBITDA to finance expense ratios are maintained. The Group has used interest rate swaps to swap the floating rate interest for fixed rate interest. At 31 December 2016 the current notional amount hedged of the senior debt at Centinela was \$70 million.
- (v) The long-term subordinated debt is US dollar denominated, provided to Centinela by Marubeni Corporation with a duration of 5.5 years and weighted average interest rate of LIBOR six-month rate plus 3.75%. Long term subordinated debt provided by Group companies to Centinela has been eliminated on consolidation.
- (vi) The short-term loan (PAE) is US dollar denominated, comprising a range of working capital loans for an average period of 1 year and has an interest rate of LIBOR six-month plus margins of between 0.1% – 0.3%
- (vii) Senior debt at Antucoya is US dollar denominated, comprising \$608.7 million in respect of syndicated loans. These loans are for a remaining term of 10.5 years and have an interest rate of LIBOR six-month rate plus 1.9%.
- (viii) The long-term subordinated debt is US dollar denominated, provided to Antucoya by Marubeni with duration of 10.5 years and an interest rate of LIBOR six-month rate plus 3.65%. Long-term subordinated debt provided by Group companies to Antucoya has been eliminated on consolidation.
- (ix) The short-term loan is US dollar denominated, comprising a working capital loan for an average period of 1 year and has an interest rate of LIBOR six-month rate plus 0.9%
- (x) Finance leases at Antucoya are US dollar denominated, with a maximum remaining duration of 7 years and with an average interest rate of approximately LIBOR three-month rate plus 2.0%.
- (xi) The long term loan at Corporate (Antofagasta plc) of \$497.2 million has variable interest rate of LIBOR six-month rate plus 1.5% with a duration of five years.
- (xii) Finance leases at Corporate and other items are denominated in Unidades de Fomento (i.e. inflation-linked Chilean pesos) and have a remaining duration of 11.5 years and are at fixed rates with an average interest rate of 5.29%.
- (xiii) Long-term loans at Railway and other transport services are US dollar denominated, mainly comprise a loan for \$89.4 million with a duration of 3.5 years and with an interest rate of LIBOR six-month rate plus 0.48%. The Group has used interest rate swaps to swap the floating rate interest for fixed rate interest. At 31 December 2016 the current notional amount hedged of the long-term debt at Railway and other transport services was \$90.0 million.
- (xiv) Finance leasing at Railway and other transport services are Chilean peso denominated, with a maximum remaining duration of 1.5 years and with a fixed interest rate of 4.8%
- (xv) The preference shares are sterling-denominated and issued by the Company. There were 2 million shares of £1 each authorised, issued and fully paid at 31 December 2016. The preference shares are non-redeemable and are entitled to a fixed cumulative dividend of 5% per annum. On winding up they are entitled to repayment and any arrears of dividend in priority to ordinary shareholders, but are not entitled to participate further in any surplus. Each preference share carries 100 votes in any general meeting of the Company.

## NOTES TO THE FINANCIAL STATEMENTS

### 23 BORROWINGS CONTINUED

#### B) ANALYSIS OF BORROWINGS BY CURRENCY

The exposure of the Group's borrowings to currency risk is as follows:

| AT 31 DECEMBER 2016                      | CHILEAN PESOS \$M | STERLING \$M | OTHER \$M | US DOLLARS \$M | 2016 TOTAL \$M |
|--|-------------------|--------------|-----------|----------------|----------------|
| Corporate loans                          | –                 | –            | –         | (1,370.0)      | (1,370.0)      |
| Other loans (including short-term loans) | –                 | –            | –         | (1,642.6)      | (1,642.6)      |
| Finance leases                           | (26.8)            | –            | –         | (78.3)         | (105.1)        |
| Preference shares                        | –                 | (2.5)        | –         | –              | (2.5)          |
|  | (26.8)            | (2.5)        | –         | (3,090.9)      | (3,120.2)      |

| AT 31 DECEMBER 2015                      | CHILEAN PESOS \$M | STERLING \$M | OTHER \$M | US DOLLARS \$M | 2015 TOTAL \$M |
|--|-------------------|--------------|-----------|----------------|----------------|
| Corporate loans                          | –                 | –            | –         | (1,572.3)      | (1,572.3)      |
| Other loans (including short-term loans) | –                 | –            | –         | (1,144.4)      | (1,144.4)      |
| Finance leases                           | (27.4)            | –            | –         | (8.0)          | (35.4)         |
| Preference shares                        | –                 | (3.0)        | –         | –              | (3.0)          |
|  | (27.4)            | (3.0)        | –         | (2,724.7)      | (2,755.1)      |

#### C) ANALYSIS OF BORROWINGS BY TYPE OF INTEREST RATE

The exposure of the Group's borrowings to interest rate risk is as follows:

| AT 31 DECEMBER 2016                      | FIXED \$M | FLOATING \$M | 2016 TOTAL \$M |
|--|-----------|--------------|----------------|
| Corporate loans                          | –         | (1,370.0)    | (1,370.0)      |
| Other loans (including short-term loans) | –         | (1,642.6)    | (1,642.6)      |
| Finance leases                           | (29.1)    | (76.0)       | (105.1)        |
| Preference shares                        | (2.5)     | –            | (2.5)          |
|  | (31.6)    | (3,088.6)    | (3,120.2)      |

| AT 31 DECEMBER 2015                      | FIXED \$M | FLOATING \$M | 2015 TOTAL \$M |
|--|-----------|--------------|----------------|
| Corporate loans                          | –         | (1,572.3)    | (1,572.3)      |
| Other loans (including short-term loans) | –         | (1,144.4)    | (1,144.4)      |
| Finance leases                           | (27.5)    | (7.9)        | (35.4)         |
| Preference shares                        | (3.0)     | –            | (3.0)          |
|  | (30.5)    | (2,724.6)    | (2,755.1)      |

The above floating rate corporate loans include the project financing at Centinela and long-term loans at the Railway and other transport services segment, where the Group has used interest rate swaps to swap the floating rate interest for fixed rate interest. At 31 December 2016 the current notional amount hedged of the senior debt at Centinela was \$70.0 million (2015 – \$105.0 million) and the current notional amount hedged of the long-term loans at the Railway and other transport services segment was \$90.0 million (2015 – \$120.0 million).

## D) MATURITY PROFILE

The maturity profile of the Group's borrowings is as follows:

| AT 31 DECEMBER 2016 | WITHIN<br>1 YEAR<br>\$M | BETWEEN<br>1-2 YEARS<br>\$M | BETWEEN<br>2-5 YEARS<br>\$M | AFTER<br>5 YEARS<br>\$M | 2016<br>TOTAL<br>\$M |
|---------------------|-------------------------|-----------------------------|-----------------------------|-------------------------|----------------------|
| Corporate loans     | (242.4)                 | (222.8)                     | (651.9)                     | (252.9)                 | (1,370.0)            |
| Other loans         | (571.7)                 | (29.7)                      | (59.7)                      | (981.5)                 | (1,642.6)            |
| Finance leases      | (22.7)                  | (18.7)                      | (32.7)                      | (31.0)                  | (105.1)              |
| Preference shares   | –                       | –                           | –                           | (2.5)                   | (2.5)                |
|                     | (836.8)                 | (271.2)                     | (744.3)                     | (1,267.9)               | (3,120.2)            |

| AT 31 DECEMBER 2015 | WITHIN<br>1 YEAR<br>\$M | BETWEEN<br>1-2 YEARS<br>\$M | BETWEEN<br>2-5 YEARS<br>\$M | AFTER<br>5 YEARS<br>\$M | 2015<br>TOTAL<br>\$M |
|---------------------|-------------------------|-----------------------------|-----------------------------|-------------------------|----------------------|
| Corporate loans     | (181.8)                 | (315.9)                     | (684.1)                     | (390.5)                 | (1,572.3)            |
| Other loans         | (571.6)                 | (59.7)                      | (29.9)                      | (483.2)                 | (1,144.4)            |
| Finance leases      | (5.5)                   | (7.9)                       | (22.0)                      | –                       | (35.4)               |
| Preference shares   | –                       | –                           | –                           | (3.0)                   | (3.0)                |
|                     | (758.9)                 | (383.5)                     | (736.0)                     | (876.7)                 | (2,755.1)            |

The amounts included above for finance leases are based on the present value of minimum lease payments.

The total minimum lease payments for these finance leases may be analysed as follows:

|   | 2016<br>\$M | 2015<br>\$M |
|---|-------------|-------------|
| Within 1 year                             | (28.9)      | (6.8)       |
| Between 1-2 years                         | (20.1)      | (9.0)       |
| Between 2-5 years                         | (39.8)      | (8.6)       |
| After 5 years                             | (33.6)      | (19.6)      |
| Total minimum lease payment               | (122.4)     | (44.0)      |
| Less amounts representing finance charges | 17.3        | 8.6         |
| Present value of minimum lease payment    | (105.1)     | (35.4)      |

All leases are on a fixed payment basis and no arrangements have been entered into for contingent rental payments.

## E) BORROWINGS FACILITIES

The undrawn committed borrowing facilities available at the end of each year, in respect of which all conditions precedent had been met at those dates, were as follows:

|   | 2016<br>\$M | 2015<br>\$M |
|---|-------------|-------------|
| Expiring in one year or less                          | 631.7       | 1,378.1     |
| Expiring in more than one but not more than two years | 414.0       | –           |
| Expiring in more than two years                       | 30.0        | –           |
|   | 1,075.7     | 1,378.1     |

The available facilities comprise general working capital facilities at the Group's operating subsidiaries all of which were undrawn at the end of each year. Of these facilities, \$892.3 million (2015 – \$1,351.7 million) are denominated in US dollars and \$183.4 million (2015 – \$26.4 million) in Unidades de Fomento (i.e. inflation-linked Chilean pesos) mainly related to closure provision guarantees.

## NOTES TO THE FINANCIAL STATEMENTS

### 24 TRADE AND OTHER PAYABLES

|                              | DUE IN ONE YEAR |             | DUE AFTER ONE YEAR |             | TOTAL       |             |
|------------------------------|-----------------|-------------|--------------------|-------------|-------------|-------------|
|                              | 2016<br>\$M     | 2015<br>\$M | 2016<br>\$M        | 2015<br>\$M | 2016<br>\$M | 2015<br>\$M |
| Trade creditors              | (422.7)         | (207.6)     | –                  | –           | (422.7)     | (207.6)     |
| Other creditors and accruals | (173.1)         | (271.3)     | (7.9)              | (24.4)      | (181.0)     | (295.7)     |
|                              | (595.8)         | (478.9)     | (7.9)              | (24.4)      | (603.7)     | (503.3)     |

Trade creditors and accruals principally comprise amounts outstanding for trade purchases and ongoing costs. Other creditors are mainly related to property plant and equipment payables, finance interest and employee retentions.

The average credit period taken for trade purchases is 72 days (2015 – 30 days).

### 25 FINANCIAL INSTRUMENTS AND FINANCIAL RISK MANAGEMENT

#### A) CATEGORIES OF FINANCIAL INSTRUMENTS

The Group's financial instruments, grouped according to the categories defined in IAS 39 "Financial instruments: Recognition and Measurement", are as follows:

|  | 2016<br>\$M | 2015<br>\$M |
|--|-------------|-------------|
| <b>Financial assets</b>  |             |             |
| Derivatives in designated hedge accounting relationships                           | 2.4         | 0.2         |
| Available-for-sale investments   | 4.6         | 2.7         |
| Loans and receivables at amortised cost (including cash and cash equivalents)      | 1,519.1     | 1,703.9     |
| Fair value through profit and loss (liquid investments and mark-to-market debtors) | 1,375.5     | 925.4       |
| <b>Financial liabilities</b>   |             |             |
| Derivatives in designated hedge accounting relationships                           | (2.5)       | (3.5)       |
| Financial liabilities measured at amortised cost                                   | (3,725.5)   | (3,235.5)   |
| Fair value through profit and loss (mark-to-market creditors)                      | (3.0)       | (22.9)      |
|  | (829.4)     | (629.7)     |

#### B) FAIR VALUE OF FINANCIAL INSTRUMENTS

The fair values of financial assets and financial liabilities are determined as follows:

- the fair values of financial assets and financial liabilities with standard terms and conditions and traded on active liquid markets are determined with reference to quoted market prices;
- the fair values of other financial assets and financial liabilities (excluding derivative instruments) are determined in accordance with generally accepted pricing models based on discounted cash flow analysis using prices from observable current market transactions; and
- the fair values of derivative instruments are calculated using quoted prices. Where such prices are not available, use is made of discounted cash flow analysis based on the applicable yield curve for the duration of the instruments for non-optimal derivatives, and option pricing models for optional derivatives.

The fair value of each category of financial asset and liability is not materially different from the carrying values presented for either 2016 or 2015.

Financial assets and liabilities measurement as fair value through profit and loss are designated as such upon initial recognition.

The following table provides an analysis of the financial instruments that are measured subsequent to initial recognition at fair value, grouped into levels 1 to 3 based on the degree to which the fair value is observable:

- level 1 fair value measurements are those derived from quoted prices (unadjusted) in active markets for identical assets or liabilities;
- level 2 fair value measurements are those derived from inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices); and
- level 3 fair value measurements are those derived from valuation techniques that include inputs for the asset or liability that are not based on observable market data (unobservable inputs).

|  | LEVEL 1<br>\$M | LEVEL 2<br>\$M | LEVEL 3<br>\$M | TOTAL<br>2016<br>\$M | TOTAL<br>2015<br>\$M |
|--|----------------|----------------|----------------|----------------------|----------------------|
| <b>Financial assets</b>                                  |                |                |                |                      |                      |
| Derivatives in designated hedge accounting relationships | –              | 2.4            | –              | 2.4                  | 0.2                  |
| Available for sale investments                           | 4.6            | –              | –              | 4.6                  | 2.7                  |
| Debtors mark-to-market                                   | –              | 43.3           | –              | 43.3                 | 1.3                  |
| Fair value through profit and loss                       | 1,332.2        | –              | –              | 1,332.2              | 924.1                |
| <b>Financial liabilities</b>                             |                |                |                |                      |                      |
| Derivatives in designated hedge accounting relationships | –              | (2.5)          | –              | (2.5)                | (3.5)                |
| Creditors mark-to-market                                 | –              | (3.0)          | –              | (3.0)                | (22.9)               |
|  | 1,336.8        | 40.2           | –              | 1,377.0              | 903.2                |

There were no transfers between level 1 and 2 during the year.

## C) FINANCIAL RISK MANAGEMENT

The Group's activities expose it to a variety of financial risks: market risk (including commodity price risk, currency risk, interest rate risk and other price risk), credit risk and liquidity risk. The Group uses derivative financial instruments, in general to reduce exposure to commodity price, foreign exchange and interest rate movements. The Group does not use such derivative instruments for speculative trading purposes.

The Board of Directors is responsible for overseeing the Group's risk management framework. The Audit and Risk Committee assists the Board with its review of the effectiveness of the risk management process, and monitoring of key risks and mitigations. Internal Audit undertakes both regular and ad hoc reviews of risk management controls and procedures, the results of which are reported to the Audit and Risk Committee.

### (I) COMMODITY PRICE RISK

The Group generally sells its copper and molybdenum concentrate and copper cathode output at prevailing market prices, subject to final pricing adjustments which may range from one to five months after delivery to the customer, and it is therefore exposed to changes in market prices for copper and molybdenum both in respect of future sales and previous sales which remain open as to final pricing. In 2016, sales of copper and molybdenum concentrate and copper cathodes represented 84.4% of Group revenue and therefore revenues and earnings depend significantly on LME and realised copper prices.

The Group uses futures, min-max instruments and options to manage its exposure to copper prices. These instruments may give rise to accounting volatility due to fluctuations in their fair value prior to the maturity of the instruments. Details of those copper and molybdenum concentrate sales and copper cathode sales which remain open as to final pricing are given in Note 6. Details of commodity rate derivatives entered into by the Group are given in Note 25(d).

#### Commodity price sensitivity

The sensitivity analysis below shows the impact of a movement in the copper price on the financial instruments held as at the reporting date. A movement in the copper forward price as at the reporting date will affect the final pricing adjustment to sales which remain open at that date, impacting the trade receivables balance and consequently the income statement. A movement in the copper forward price will also affect the valuation of commodity derivatives, impacting the hedging reserve in equity if the fair value movement relates to an effective designated cash flow hedge, and impacting the income statement if it does not. The calculation assumes that all other variables, such as currency rates, remain constant.

- If the copper forward price as at the reporting date had increased by 10 cents, profit attributable to the owners of the parent would have increased by \$21.0 million (2015 – increase by \$18.5 million) and hedging reserves in equity would have increased by \$0.1 million (2015 – decrease less than \$0.4 million).
- If the copper forward price as at the reporting date had decreased by 10 cents, profit attributable to the owners of the parent would have decreased by \$20.5 million (2015 – decrease by \$17.2 million) and hedging reserves in equity would have increased by \$0.4 million (2015 – increase less than \$0.4 million).

In addition, a movement in the average copper price during the year would impact revenue and earnings. A 10 cents change in the average copper price during the year would have affected profit attributable to the owners of the parent by \$69.4 million (2015 – \$62.5 million) and earnings per share by 7.0 cents (2015 – 6.3 cents), based on production volumes in 2016, without taking into account the effects of provisional pricing and hedging activity. A \$1 change in the average molybdenum price for the year would have affected profit attributable to the owners of the parent by \$6.7 million (2015 – \$9.4 million), and earnings per share by 0.7 cents (2015 – 1.0 cents), based on production volumes in 2016, and without taking into account the effects of provisional pricing. A \$100 change in the average gold price for the year would have affected profit attributable to the owners of the parent by \$12.2 million (2015 – \$10.4 million), and earnings per share by 1.2 cents (2015 – 1.1 cents), based on production volumes in 2016, and without taking into account the effects of provisional pricing.

### (II) CURRENCY RISK

The Group is exposed to a variety of currencies. The US dollar, however, is the currency in which the majority of the Group's sales are denominated. Operating costs are influenced by the countries in which the Group's operations are based (principally in Chile) as well as those currencies in which the costs of imported equipment and services are determined. After the US dollar, the Chilean peso is the most important currency influencing costs and to a lesser extent sales.

Given the significance of the US dollar to the Group's operations, this is the presentational currency of the Group for internal and external reporting. The US dollar is also the currency for borrowing and holding surplus cash, although a portion of this may be held in other currencies, notably Chilean pesos and sterling, to meet short-term operating and capital commitments and dividend payments.

## NOTES TO THE FINANCIAL STATEMENTS

### 25 FINANCIAL INSTRUMENTS AND FINANCIAL RISK MANAGEMENT CONTINUED

When considered appropriate, the Group uses forward exchange contracts and currency swaps to limit the effects of movements in exchange rates in foreign currency denominated assets and liabilities. The Group may also use these instruments to reduce currency exposure on future transactions and cash flows. Details of any exchange rate derivatives entered by the Group in the year are given in Note 25.d.

The currency exposure of the Group's cash, cash equivalents and liquid investments is given in Note 22, and the currency exposure of the Group's borrowings is given in Note 23.b. The effects of exchange gains and losses included in the income statement are given in Note 9. Exchange differences on translation of the net assets of entities with a functional currency other than the US dollar are taken to the currency translation reserve and are disclosed in the Consolidated Statement of Changes in Equity on page 128.

#### Currency sensitivity

The sensitivity analysis below shows the impact of a movement in the US dollar/Chilean peso exchange rate on the financial instruments held as at the reporting date.

The impact on profit or loss is as a result of the retranslation of monetary financial instruments (including cash, cash equivalents, liquid investments, trade receivables, trade payables and borrowings). The impact on equity is as a result of changes in the fair value of derivative instruments which are effective designated cash flow hedges, and changes in the fair value of available-for-sale equity investments. The calculation assumes that all other variables, such as interest rates, remain constant.

If the US dollar had strengthened by 10% against the Chilean peso as at the reporting date, profit attributable to the owners of the parent would have decreased by \$1.3 million (2015 – decrease of \$2.9 million); and hedging reserves in equity would have decreased by nil (2015 – nil). If the US dollar had weakened by 10 % against the Chilean peso as at the reporting date, profit attributable to the owners of the parent would have increased by \$3.2 million (2015 – increase of \$1.7 million); and hedging reserves in equity would have increased by nil (2015 – nil).

#### (III) INTEREST RATE RISK

The Group's policy is generally to borrow and invest cash at floating rates. Fluctuations in interest rates may impact the Group's net finance income or cost, and to a lesser extent the value of financial assets and liabilities. The Group occasionally uses interest rate swaps and collars to manage interest rate exposures on a portion of its existing borrowings. Details of any interest rate derivatives entered into by the Group are given in Note 25.d.(i)

Interest rate exposure of the Group's borrowings is given in Note 23.

#### Interest rate sensitivity

The sensitivity analysis below shows the impact of a movement in interest rates in relation to the financial instruments held as at the reporting date. The impact on profit or loss reflects the impact on annual interest expense in respect of the floating rate borrowings held as at the reporting date, and the impact on annual interest income in respect of cash and cash equivalents held as at the reporting date. The impact on equity is as a result of changes in the fair value of derivative instruments which are effective designated cash flow hedges. The calculation assumes that all other variables, such as currency rates, remain constant.

If the interest rate increased by 1%, based on the financial instruments held as at the reporting date, profit attributable to the owners of the parent would have decreased by \$3.8 million (2015 – increase of \$4.4 million) and hedging reserves in equity would have increased by \$0.3 million (2015 – increase of \$0.7 million). This does not include the effect on the income statement of changes in the fair value of the Group's liquid investments relating to the underlying investments in fixed income instruments.

#### (IV) OTHER PRICE RISK

The Group is exposed to equity price risk on its available-for-sale equity investments.

#### Equity price sensitivity

The sensitivity analysis below shows the impact of a movement in the equity values of the available-for-sale financial assets held as at the reporting date.

If the value of the available-for-sale investments had increased by 10% as at the reporting date, equity would have increased by \$0.5 million (2015 – increase of \$0.3 million). There would have been no impact on the income statement.

#### (V) CASH FLOW RISK

The Group's future cash flows depend on a number of factors, including commodity prices, production and sales levels, operating costs, capital expenditure levels and financial income and costs. Its cash flows are therefore subject to the exchange, interest rate and commodity price risks described above as well as operating factors and input costs. To reduce the risk of potential short-term disruptions to the supply of key inputs such as electricity and sulphuric acid, the Group enters into medium- and long-term supply contracts to help ensure continuity of supply. Long-term electricity supply contracts are in place at each of the Group's mines, in most cases linking the cost of electricity under the contract to the current cost of electricity on the Chilean grids. The Group seeks to lock in supply of sulphuric acid for future periods of a year or longer, with contract prices agreed in the latter part of the year, to be applied to purchases of acid in the following year. Further information on production and sales levels and operating costs are given in the Operating review on pages 32 to 51.

#### (VI) CREDIT RISK

Credit risk arises from trade and other receivables, cash, cash equivalents, liquid investments and derivative financial instruments. The Group's credit risk is primarily to trade receivables. The credit risk on cash, cash equivalents and liquid investments and on derivative financial instruments is limited as the counterparties are financial institutions with high credit ratings assigned by international credit agencies.

All customers are subject to credit review procedures, including the use of external credit ratings where available. Credit is provided only within set limits, which are regularly reviewed. The main customers are recurrent with a good credit history during the years while they have been customers.

Outstanding receivable balances are monitored on an ongoing basis.

The carrying value of financial assets recorded in the Financial Statements represents the maximum exposure to credit risk. The amounts presented in the balance sheet are net of allowances for any doubtful receivables.

As detailed in Note 4 the Group provided a total of \$241.0 million of loan financing to its associated company Alto Maipo SpA ("Alto Maipo"). This loan financing formed part of the Group's total funding of the Alto Maipo project, along with the capital contributions the Group has made to Alto Maipo, and the recovery of this balance would have derived from the cash flows generated by the project once construction is complete and the project is operating.

## (VII) LIQUIDITY RISK

The Group manages liquidity risk by maintaining adequate cash reserves and financing facilities, through the review of forecast and actual cash flows.

The Group typically holds surplus cash in demand or term deposits or highly liquid investments, which typically can be accessed or liquidated within 24 hours.

The majority of borrowings comprise a short-term loan at Los Pelambres, repayable over a period of up to one year, project financing (senior debt) at Centinela, repayable over approximately 3.5 years, project financing (senior debt) at Antucoya repayable over approximately 10.5 years, long-term subordinated debt at Antucoya repayable over approximately 10.5 years, and a corporate loan at Antofagasta plc repayable over approximately 5 years.

At the end of the 2016 the Group was in a net debt position (2015 – net debt position), as disclosed in Note 32.c. Details of cash, cash equivalents and liquid investments are given in Note 22, while details of borrowings including the maturity profile are given in Note 23.d. Details of undrawn committed borrowing facilities are also given in Note 23.e.

The following table analyses the maturity of the Group's contractual commitments in respect of its financial liabilities and derivative financial instruments. The table has been drawn up based on the undiscounted cash flows on the earliest date on which the Group can be required to pay. The table includes both interest and principal cash flows.

| AT 31 DECEMBER 2016                      | LESS THAN<br>6 MONTHS<br>\$M | BETWEEN<br>6 MONTHS<br>TO 1 YEAR<br>\$M | BETWEEN<br>1-2 YEARS<br>\$M | AFTER<br>2 YEARS<br>\$M | 2016<br>TOTAL<br>\$M |
|--|------------------------------|---|-----------------------------|-------------------------|----------------------|
| Corporate loans                          | (117.1)                      | (161.5)                                 | (257.0)                     | (983.5)                 | (1,519.1)            |
| Other loans (including short-term loans) | (190.5)                      | (381.9)                                 | (29.8)                      | (1,241.7)               | (1,843.9)            |
| Finance leases                           | (14.6)                       | (14.3)                                  | (19.8)                      | (73.5)                  | (122.2)              |
| Preference shares*                       | –                            | –                                       | (2.5)                       | –                       | (2.5)                |
| Trade and other payables                 | (590.8)                      | (4.1)                                   | (8.7)                       | (0.1)                   | (603.7)              |
| Derivative financial instruments         | (1.0)                        | (1.5)                                   | –                           | –                       | (2.5)                |
|  | (914.0)                      | (563.3)                                 | (317.8)                     | (2,298.8)               | (4,093.9)            |

| AT 31 DECEMBER 2015                      | LESS THAN<br>6 MONTHS<br>\$M | BETWEEN<br>6 MONTHS<br>TO 1 YEAR<br>\$M | BETWEEN<br>1-2 YEARS<br>\$M | AFTER<br>2 YEARS<br>\$M | 2015<br>TOTAL<br>\$M |
|--|------------------------------|---|-----------------------------|-------------------------|----------------------|
| Corporate loans                          | (309.0)                      | (286.5)                                 | (276.9)                     | (1,231.4)               | (2,103.8)            |
| Other loans (including short-term loans) | (200.2)                      | (29.6)                                  | (59.5)                      | (708.9)                 | (998.2)              |
| Finance leases                           | (2.8)                        | (2.7)                                   | (7.9)                       | (22.0)                  | (35.4)               |
| Preference shares                        | –                            | –                                       | (3.0)                       | –                       | (3.0)                |
| Trade and other payables                 | (477.0)                      | (1.9)                                   | (23.7)                      | (0.7)                   | (503.3)              |
| Derivative financial instruments         | (1.0)                        | (1.1)                                   | (1.5)                       | –                       | (3.6)                |
|  | (990.0)                      | (321.8)                                 | (372.5)                     | (1,963.0)               | (3,647.3)            |

\* The preference shares pay an annual dividend of £100,000 in perpetuity, and accordingly it is not possible to determine total amounts payable for periods without a fixed end date.

## (VIII) CAPITAL RISK MANAGEMENT

The Group's objectives are to return capital to shareholders while leaving the Group with sufficient funds to progress its short, medium and long-term growth plans as well as preserving the financial flexibility to take advantage of opportunities as they may arise. This policy remains unchanged. The Group monitors capital on the basis of net cash (defined as cash, cash equivalents and liquid investments less borrowings) which was a net debt of \$1,071.7 million at 31 December 2016 (2015 – net debt \$1,023.5 million), as well as gross cash (defined as cash, cash equivalents and liquid investments) which was \$2,048.5 million at 31 December 2016 (2015 – \$1,731.6 million). The Group's total cash is held in a combination of on demand and term deposits and managed funds investing in high quality, fixed income instruments. Some of the managed funds have been instructed to invest in instruments with average maturities greater than 90 days. These amounts are presented as liquid investments but are included in net cash for monitoring and decision-making purposes. The Group has a risk averse investment strategy. The Group's borrowings are detailed in Note 23. Additional project finance or shareholder loans are taken out by the operating subsidiaries to fund projects on a case-by-case basis.

## NOTES TO THE FINANCIAL STATEMENTS

### 25 FINANCIAL INSTRUMENTS AND FINANCIAL RISK MANAGEMENT CONTINUED

#### D) DERIVATIVE FINANCIAL INSTRUMENTS

The Group occasionally uses derivative financial instruments, in general to reduce its exposure to commodity price, foreign exchange and interest rate movements. The Group does not use such derivative instruments for speculative trading purposes.

The Group has applied the hedge accounting provisions of IAS 39 "Financial Instruments: Recognition and Measurement". Changes in the fair value of derivative financial instruments that are designated and effective as hedges of future cash flows have been recognised directly in equity, with such amounts subsequently recognised in the income statement in the period when the hedged item affects profit or loss. Any ineffective portion is recognised immediately in the income statement. Realised gains and losses on commodity derivatives recognised in the income statement have been recorded within revenue. The time value element of changes in the fair value of derivative options is excluded from the designated hedging relationship, and is therefore recognised directly in the income statement within other finance items. Realised gains and losses and changes in the fair value of exchange and interest derivatives are recognised within other finance items for those derivatives where hedge accounting has not been applied. When hedge accounting has been applied the realised gains and losses on exchange and interest derivatives are recognised within other finance items and interest expense respectively.

#### (I) MARK-TO-MARKET ADJUSTMENTS AND INCOME STATEMENT IMPACT

The gains or losses recorded in the income statement or in reserves during the year, and the fair value recorded on the balance sheet at the end of the year in respect of derivatives are as follows:

For the year ended 31 December 2016

|  | IMPACT ON INCOME STATEMENT             |   | IMPACT ON RESERVES                   |   | FAIR VALUE RECORDED<br>ON BALANCE SHEET |
|--|--|---|--------------------------------------|---|---|
|  | REALISED<br>(LOSSES)/GAINS 2016<br>\$M | GAINS<br>RESULTING FROM<br>MARK-TO-MARKET<br>ADJUSTMENTS<br>ON HEDGING<br>INSTRUMENTS 2016<br>\$M | TOTAL NET<br>(LOSS)/GAIN 2016<br>\$M | GAINS<br>RESULTING FROM<br>MARK-TO-MARKET<br>ADJUSTMENTS<br>ON HEDGING<br>INSTRUMENTS 2016<br>\$M |   |
| <b>Commodity Derivatives</b>           |  |   |                                      |   |   |
| - Centinela                            | (2.2)                                  | 1.0   | (1.2)                                | -   | 1.1                                     |
| <b>Interest Derivatives</b>            |  |   |                                      |   |   |
| - Centinela                            | (2.6)                                  | -   | (2.6)                                | 1.8   | (1.2)                                   |
| - Railway and other transport services | (1.0)                                  | -   | (1.0)                                | 0.5   | -                                       |
|  | (5.8)                                  | 1.0   | (4.8)                                | 2.3   | (0.1)                                   |

For the year ended 31 December 2015

|  | IMPACT ON INCOME STATEMENT             |   | IMPACT ON RESERVES                   |   | FAIR VALUE RECORDED<br>ON BALANCE SHEET |
|--|--|---|--------------------------------------|---|---|
|  | REALISED<br>(LOSSES)/GAINS 2015<br>\$M | GAINS<br>RESULTING FROM<br>MARK-TO-MARKET<br>ADJUSTMENTS<br>ON HEDGING<br>INSTRUMENTS 2015<br>\$M | TOTAL NET<br>(LOSS)/GAIN 2015<br>\$M | (LOSSES)/GAINS<br>RESULTING FROM<br>MARK-TO-MARKET<br>ADJUSTMENTS ON<br>HEDGING INSTRUMENTS<br>2015 \$M |   |
| <b>Commodity Derivatives</b>           |  |   |                                      |   |   |
| - Centinela                            | (0.1)                                  | -   | (0.1)                                | (0.1)   | 0.1                                     |
| <b>Exchange Derivatives</b>            |  |   |                                      |   |   |
| - Antucaya                             | 0.2                                    | -   | 0.2                                  | 4.0   | -                                       |
| <b>Interest Derivatives</b>            |  |   |                                      |   |   |
| - Centinela                            | (3.6)                                  | -   | (3.6)                                | 3.1   | (2.9)                                   |
| - Railway and other transport services | (2.3)                                  | -   | (2.3)                                | 0.5   | (0.5)                                   |
|  | (5.8)                                  | -   | (5.8)                                | 7.5   | (3.3)                                   |

The gains/ (losses) recognised in reserves are disclosed before non-controlling interests and tax.

At December 2016 the credit risk implicit in the liability is less than \$0.1 million (2015 – \$0.1 million). The differences between the carrying amount and the amount the entity would be contractually required to pay at the maturity date are not material.

The net financial liability resulting from the balance sheet mark-to-market adjustments are analysed as follows:

| <b>ANALYSED BETWEEN:</b> | <b>2016<br/>\$M</b> | <b>2015<br/>\$M</b> |
|--------------------------|---------------------|---------------------|
| Current assets           | 2.2                 | 0.2                 |
| Non-current assets       | 0.2                 | -                   |
| Current liabilities      | (2.0)               | (2.0)               |
| Non-current liabilities  | (0.5)               | (1.5)               |
|                          | (0.1)               | (3.3)               |

## **(II) OUTSTANDING DERIVATIVE FINANCIAL INSTRUMENTS**

## Commodity derivatives

The Group periodically uses commodity derivatives to reduce its exposure to fluctuation in the copper price.

*Min-Max Instruments*

The group has min-max options for copper production according to the Group's Pricing Policy.

|           | AT 31 DECEMBER<br>2016        |                |                | FOR INSTRUMENTS HELD AT 31 DECEMBER 2016                    |                          |  |
|-----------|-------------------------------|----------------|----------------|---|--------------------------|--|
|           | COPPER<br>PRODUCTION<br>HEDED | AVERAGE<br>MIN | AVERAGE<br>MAX | WEIGHTED AVERAGE<br>REMAINING PERIOD FROM<br>1 JANUARY 2016 | COVERING A PERIOD UP TO: |  |
|           | TONNES                        | \$/LB          | \$/LB          | MONTHS  |                          |  |
| Centinela | 72,000                        | 2.25           | 2.84           | 12  | 31-12-2017               |  |

## Interest derivatives

The Group periodically uses interest derivatives to reduce its exposure to interest rate movements.

## *Interest rate swaps*

The Group has used interest rate swaps to swap the floating rate interest relating to the Centinela project financing and long-term loans at the Railway for fixed rate interest. At 31 December 2015 the Group had entered into the contracts outlined below.

|                                      | START DATE | MATURITY DATE | MAXIMUM NOTIONAL AMOUNT \$M | WEIGHTED AVERAGE FIXED RATE % |
|--------------------------------------|------------|---------------|-----------------------------|-------------------------------|
| Centinela concentrates               | 15/02/11   | 15/08/18      | 70.0                        | 3.372                         |
| Railway and other transport services | 12/08/14   | 12/08/19      | 90.0                        | 1.634                         |

The actual notional amount hedged depends upon the amount of the related debt currently outstanding.

## **26 LONG-TERM INCENTIVE PLAN**

The long-term incentive plan (the “Plan”) was introduced at the end of 2011. Awards granted pursuant to the Plan form part of the remuneration of senior managers in the Group. Directors are not eligible to participate in the Plan.

## DETAILS OF THE AWARDS

Under the Plan, the Group may grant awards based on the price of ordinary shares in the Company and cannot grant awards over actual shares.

- Restricted Awards: These awards are conditional rights to receive cash payment by reference to a specified number of the Company's ordinary shares, subject to the relevant employee remaining employed by the Group when the Restricted Award vests; and
  - Performance Awards: These awards are conditional rights to receive cash payment by reference to a specified number of the Company's ordinary shares subject to both the satisfaction of a performance condition and the relevant employee remaining employed by the Group when the Performance Award vests.

When awards vest under the Plan, participants become entitled to receive a cash payment by reference to the number and portion of awards that have vested and the market value of the Company's ordinary shares on the date of vesting. There is no exercise price payable by participants in respect of the awards.

Restricted Awards can only vest in full if participants remain employed by the Group for three years from the date that Restricted Awards are granted. In ordinary circumstances, the first one-third of a Restricted Award will vest after one year, the second one-third will vest after two years and the remaining one-third will vest after three years. There are no performance criteria attached to Restricted Awards. The fair value of Restricted Awards granted under the Plan is recorded as a compensation expense over the vesting periods, with a corresponding liability recognised for the fair value of the liability at the end of each period until settled.

Performance Awards only vest if certain performance criteria are met. The performance criteria reflect a number of factors including total shareholder return, earnings levels, growth in the Group's reserves and resources and project delivery targets. The fair value of Performance Awards under the Plan is recorded as a compensation expense over the vesting period, with a corresponding liability at the end of each period until settled.

## NOTES TO THE FINANCIAL STATEMENTS

### 26 LONG-TERM INCENTIVE PLAN CONTINUED

#### VALUATION PROCESS AND ACCOUNTING FOR THE AWARDS

The fair value of the awards is determined using a Monte Carlo simulation model. The inputs into the Monte Carlo simulation model are as follows:

|   | 2016    | 2015    |
|---|---------|---------|
| Weighted average forecast share price at vesting date | \$9.20  | \$10.07 |
| Expected volatility                                   | 36.39%  | 27.31%  |
| Expected life of awards                               | 3 years | 3 years |
| Expected dividend yields                              | 0.34%   | 1.90%   |
| Risk free rate  | 0.44%   | 0.13%   |

Expected volatility was determined by calculating the historical volatility of the Group's share price over the previous five years. The expected life of awards used in the model has been adjusted based on management's best estimate for the effects of non-transferability and compliance of the objectives determined according to the characteristic of each plan.

The number of awards outstanding at the end of the year is as follows:

|                                   | RESTRICTED AWARDS | PERFORMANCE AWARDS |
|-----------------------------------|-------------------|--------------------|
| Outstanding at 1 January 2016     | 669,864           | 1,019,316          |
| Granted during the year           | 264,503           | 617,163            |
| Cancelled during the year         | (109,700)         | (33,634)           |
| Payments during the year          | (262,531)         | (429,753)          |
| Outstanding at 31 December 2016   | 562,136           | 1,173,092          |
| Number of awards that have vested | 403,209           |                    |

The Group has recorded a liability for \$6.8 million at 31 December 2016, of which \$3.6 million is due after more than one year (31 December 2015 – \$8.9 million, of which \$3.4 million was due after more than one year) and total expenses of \$3.4 million for the year (2015 – expense of \$4.0 million). The intrinsic value is \$6.8 million.

### 27 POST-EMPLOYMENT BENEFIT OBLIGATIONS

#### A) DEFINED CONTRIBUTION SCHEMES

The Group operates defined contribution schemes for a limited number of employees. The amount charged to the income statement in 2016 was \$0.1 million (2015 – \$0.1 million), representing the amount paid in the year. There were no outstanding amounts which remain payable at the end of either year.

#### B) SEVERANCE PROVISIONS

Employment terms at some of the Group's operations provide for payment of a severance indemnity when an employment contract comes to an end. This is typically at the rate of one month for each year of service (subject in most cases to a cap as to the number of qualifying years of service) and based on final salary level. The severance indemnity obligation is treated as an unfunded defined benefit plan, and the obligation recognised is based on valuations performed by an independent actuary using the projected unit credit method, which are regularly updated. The obligation recognised in the balance sheet represents the present value of the severance indemnity obligation. Actuarial gains and losses are immediately recognised in other comprehensive income.

The most recent valuation was carried out in 2016 by Ernst & Young, a qualified actuary in Santiago, Chile who is not connected with the Group.

The main assumptions used to determine the actuarial present value of benefit obligations were as follows:

|                                      | 2016  | 2015 |
|--------------------------------------|-------|------|
| Average nominal discount rate        | 4.5%  | 4.8% |
| Average rate of increase in salaries | 1.7%  | 1.6% |
| Average staff revenue                | 11.8% | 8.6% |

Amounts included in the income statement in respect of severance provisions are as follows:

|   | 2016<br>\$M   | 2015<br>\$M  |
|---|---------------|--------------|
| Current service cost (charge to operating profit) | (15.5)        | (16.6)       |
| Interest cost (charge to interest expenses)       | (4.4)         | (4.1)        |
| Foreign exchange credit to other finance items    | (6.2)         | 15.5         |
| <b>Total charge to income statement</b>           | <b>(26.1)</b> | <b>(5.2)</b> |

Movement in the present value of severance provisions were as follows:

|                                       | 2016<br>\$M   | 2015<br>\$M   |
|---------------------------------------|---------------|---------------|
| Balance at the beginning of the year  | (86.9)        | (103.0)       |
| Current service cost                  | (15.5)        | (16.6)        |
| Actuarial gains                       | 7.8           | 2.3           |
| Charge capitalised                    | (0.5)         | (3.6)         |
| Interest cost                         | (4.4)         | (4.1)         |
| Reclassification                      | 1.3           | (0.3)         |
| Paid in the year                      | 12.2          | 14.0          |
| Disposals of subsidiaries             | –             | 8.9           |
| Foreign currency exchange difference  | (6.2)         | 15.5          |
| <b>Balance at the end of the year</b> | <b>(92.2)</b> | <b>(86.9)</b> |

## ASSUMPTIONS DESCRIPTION

### Discount rate

|   | 31 DECEMBER 2016                   | 31 DECEMBER 2015                   |
|---|------------------------------------|------------------------------------|
| Nominal discount rate   | 4.53%                              | 4.84%                              |
| Reference rate name   | 20-year Chilean Central Bank Bonds | 20-year Chilean Central Bank Bonds |
| Governmental or corporate rate                                  | Governmental                       | Governmental                       |
| Reference rating  | AA-/AA+                            | AA-/AA+                            |
| Corresponds to an Issuance market (primary) or secondary market | Secondary                          | Secondary                          |
| Issuance currency associated to the reference rate              | Chilean Peso                       | Chilean Peso                       |
| Date of determination of the reference interest rate            | 14 September 2016                  | 3 December 2015                    |
| Source of the reference interest rate                           | Bloomberg                          | Bloomberg                          |

The discount rate is the interest rate used to discount the estimated future severance payments to their present value. The table below shows the principal instruments and assumptions utilised in determining the discount rate:

### Rate of increase in salaries

This represents the estimated average rates of future salary increases, reflecting likely future promotions and other changes. This has been based on historical information for the Group for the period from 2013 to 2016.

### Revenue rate

This represents the estimated average level of future employee revenue. This has been based on historical information for the Group for the period from 2013 to 2016.

### Sensitivity analysis

Significant actuarial assumptions for the determination of the defined obligation are discount rate, expected salary increase and staff revenue. The sensitivity analysis below have been determined based on reasonably possible changes of the respective assumptions occurring at the end of the reporting period, while holding all other assumptions constant.

- If the discount rate is 100 basis points higher the defined benefit obligation would decrease by \$8.3 million. If the discount rate is 100 basis points lower the defined benefit obligation would increase by \$9.7 million.
- If the expected salary growth increases by 1% the defined benefit obligation would increase by \$8.9 million. If the expected salary growth decreases by 1% the defined benefit obligation would decrease by \$7.8 million.
- If the staff revenue increases by 1% the defined benefit obligation would decrease by less than \$0.1 million. If the staff revenue decreases by 1% the defined benefit obligation would increase by less than \$0.1 million.

## NOTES TO THE FINANCIAL STATEMENTS

### 28 DEFERRED TAX AND LIABILITIES

|  | ACCELERATED CAPITAL ALLOWANCES \$M | TEMPORARY DIFFERENCES ON PROVISIONS \$M | WITHHOLDING TAX \$M | SHORT-TERM DIFFERENCES \$M | MINING TAX (ROYALTY) \$M | TAX LOSSES \$M | TOTAL \$M      |
|--|------------------------------------|---|---------------------|----------------------------|--------------------------|----------------|----------------|
| At 1 January 2015  | (977.3)                            | 158.5                                   | (9.5)               | (6.2)                      | (42.2)                   | 1.5            | (875.2)        |
| (Charge)/credit to income  | (99.3)                             | (24.1)                                  | (1.9)               | 56.0                       | (12.9)                   | (0.8)          | (83.0)         |
| Reclassification   | –                                  | –                                       | –                   | (0.8)                      | –                        | –              | (0.8)          |
| Disposal of subsidiary   | 8.8                                | –                                       | –                   | –                          | –                        | –              | 8.8            |
| Charge deferred in equity  | –                                  | (1.4)                                   | –                   | –                          | –                        | –              | (1.4)          |
| <b>At 1 January 2016</b>   | <b>(1,067.8)</b>                   | <b>133.0</b>                            | <b>(11.4)</b>       | <b>49.0</b>                | <b>(55.1)</b>            | <b>0.7</b>     | <b>(951.6)</b> |
| (Charge)/credit to income  | (21.4)                             | (6.8)                                   | –                   | 4.4                        | (24.8)                   | –              | (48.6)         |
| Deferred tax credit relating to exceptional impairments provisions | 99.4                               | 105.5                                   | –                   | –                          | –                        | –              | 204.9          |
| Disposal of subsidiary   | –                                  | (3.7)                                   | –                   | –                          | –                        | –              | (3.7)          |
| Charge deferred in equity  | –                                  | (2.3)                                   | –                   | 0.5                        | (0.3)                    | –              | (2.1)          |
| Reclassifications  | 5.2                                | (5.1)                                   | 0.1                 | 2.8                        | –                        | –              | 3.0            |
| <b>At 31 December 2016</b>   | <b>(984.6)</b>                     | <b>220.6</b>                            | <b>(11.3)</b>       | <b>56.7</b>                | <b>(80.2)</b>            | <b>0.7</b>     | <b>(798.1)</b> |

The credit to the income statement of \$48.6 million (2015 – \$83.0 million charge) includes a credit for foreign exchange differences of \$0.1 million (2015 – includes a credit of \$1.1 million).

Certain deferred tax assets and liabilities have been offset. Deferred tax assets and liabilities are offset where the Group has a legally enforceable right to do so. The following is the analysis of the deferred tax balance (after offset):

|                           | 2016 \$M | 2015 \$M  |
|---------------------------|----------|-----------|
| Deferred tax assets       | 82.8     | 124.6     |
| Deferred tax liabilities  | (880.9)  | (1,076.2) |
| Net deferred tax balances | (798.1)  | (951.6)   |

At 31 December 2016, the Group had unused tax losses of \$7.4 million (2015 – \$9.9 million) available for offset against future profits. A deferred tax asset of \$2.7 million has been recognised in respect of these losses in 2016 (2015 – \$2.7 million). These losses may be carried forward indefinitely.

At 31 December 2016, the aggregate amount of temporary differences associated with undistributed earnings of subsidiaries for which deferred tax liabilities have not been recognised was \$4,826.8 million (2015 – 4,963.9 million). No liability has been recognised in respect of these differences because the Group is in a position to control the timing of the reversal of the temporary differences and it is likely that such differences will not reverse in the foreseeable future.

Temporary differences arising in connection with interests in associates are insignificant.

The deferred tax balance of \$798.1 million (2015 – \$951.6 million) includes \$878.8 million (2015 – \$965.0 million) due in more than one year. All amounts are shown as non-current on the face of the balance sheet as required by IAS 12.

### 29 DECOMMISSIONING & RESTORATION AND PROVISIONS

|  | 2016 \$M       | 2015 \$M       |
|--|----------------|----------------|
| Balance at the beginning of the year           | (394.0)        | (434.3)        |
| Charge to operating profit in the year         | (9.3)          | (25.8)         |
| Unwind of discount to net interest in the year | (5.5)          | (5.0)          |
| Capitalised adjustment to provision            | (16.9)         | 35.7           |
| Reclassification                               | (1.1)          | –              |
| Utilised in year                               | 3.7            | 30.1           |
| Disposal                                       | 35.8           | 1.5            |
| Foreign currency exchange difference           | (4.8)          | 3.8            |
| <b>Balance at the end of the year</b>          | <b>(392.1)</b> | <b>(394.0)</b> |

Decommissioning and restoration costs relate to the Group's mining operations. Costs are estimated on the basis of a formal closure plan and are subject to regular independent formal review. It is estimated that the provision will be utilised from 2024 until 2059 based on current mine plans.

During the year ended 31 December 2016, the decommissioning and restoration provisions at the Group's mining operations decreased by a net total of \$1.9 million.

## 30 SHARE CAPITAL AND OTHER RESERVES

### (I) SHARE CAPITAL

The ordinary share capital of the Company is as follows:

|                              | 2016<br>NUMBER | 2015<br>NUMBER | 2016<br>\$M | 2015<br>\$M |
|------------------------------|----------------|----------------|-------------|-------------|
| <b>Authorised</b>            |                |                |             |             |
| Ordinary shares of 5p each   | 1,300,000,000  | 1,300,000,000  | 118.9       | 118.9       |
|                              |                |                |             |             |
| <b>Issued and fully paid</b> |                |                |             |             |
| Ordinary shares of 5p each   | 985,865,695    | 985,856,695    | 89.8        | 89.8        |

The Company has one class of ordinary shares which carry no right to fixed income. Each ordinary share carries one vote at any general meeting.

There were no changes in the authorised or issued share capital of the Company in either 2015 or 2016. Details of the Company's preference share capital, which is included within borrowings in accordance with IAS 32, are given in Note 23A (xv).

### (II) OTHER RESERVES AND RETAINED EARNINGS

Details of the share premium account, hedging, fair value and translation reserves and retained earnings for both 2016 and 2015 are included within the consolidated statement of changes in equity on page 128.

|  | 2016<br>\$M    | 2015<br>\$M    |
|--|----------------|----------------|
| <b>Hedging reserves<sup>1</sup></b>  |                |                |
| At 1 January   | (44.1)         | (36.2)         |
| Parent and subsidiaries net cash flow hedge fair value (losses)/gains  | (2.4)          | 0.1            |
| Parent and subsidiaries net cash flow hedge gains/(losses) transferred to the income statement               | 4.1            | 3.5            |
| Share of other comprehensive income/(losses) of equity accounted units, net of tax                           | 3.1            | (10.2)         |
| Share of other comprehensive gains of equity accounted units, net of tax transferred to the income statement | 31.6           | –              |
| Tax on the above   | (1.1)          | (1.3)          |
| At 31 December   | (8.8)          | (44.1)         |
| <b>Available for sale revaluation reserves<sup>2</sup></b>   |                |                |
| At 1 January   | (12.9)         | (10.7)         |
| Gains/(losses) on available for sale investment  | 1.7            | (3.2)          |
| (Losses)/gains on available for sale securities transferred to the income statement                          | –              | 1.0            |
| At 31 December   | (11.2)         | (12.9)         |
| <b>Foreign currency translation reserves<sup>3</sup></b>   |                |                |
| At 1 January   | (2.3)          | (0.5)          |
| Currency translation reclassified on disposal  | –              | (1.8)          |
| At 31 December   | (2.3)          | (2.3)          |
| <b>Total other reserves per balance sheet</b>  | (22.3)         | (59.3)         |
| <b>Retained earnings<sup>4</sup></b>   |                |                |
| At 1 January   | 6,416.4        | 5,932.1        |
| Parent and subsidiaries profit for the year  | 269.3          | 614.0          |
| Equity accounted units' losses after tax for the year  | (111.3)        | (5.8)          |
| Actuarial gains/(losses) <sup>5</sup>  | 5.1            | 4.5            |
| Tax relating to components of other comprehensive income   | (0.3)          | (1.2)          |
| <b>Total comprehensive income for the year</b>   | 6,579.2        | 6,543.6        |
| Dividends paid   | (30.6)         | (127.2)        |
| <b>At 31 December</b>  | <b>6,548.6</b> | <b>6,416.4</b> |

1. The hedging reserve records gains or losses on cash flow hedges that are recognised initially in equity (through other comprehensive income), as described in Note 25.

2. The available for sale revaluation reserves record fair value gains or losses relating to available for sale investment, as described in Note 18.

3. Exchange differences arising on the translation of the Group's net investment in foreign controlled companies are taken to the foreign currency translation reserve. The cumulative differences relating to an investment are transferred to the income statement when the investment is disposed of.

4. Retained earnings and movements in reserves of subsidiaries include those arising from the Group's share of associates and joint ventures.

5. Actuarial gains or losses relating to long – term employee benefits, as described in Note 27.

## NOTES TO THE FINANCIAL STATEMENTS

### 31 NON-CONTROLLING INTERESTS

The non-controlling interests of the Group during 2016 and 2015 are as follows:

|               | NON-CONTROLLING<br>INTEREST<br>% | COUNTRY | AT<br>1 JANUARY<br>2016<br>\$M | SHARE OF<br>PROFIT/<br>(LOSSES)<br>FOR THE<br>FINANCIAL<br>YEAR<br>\$M | SHARE OF<br>DIVIDENDS<br>\$M | CAPITAL<br>CONTRIBUTION<br>ON NON-<br>CONTROLLING<br>INTEREST<br>\$M | DISPOSAL<br>OF NON-<br>CONTROLLING<br>INTEREST<br>\$M | HEDGING AND<br>ACTUARIAL<br>GAINS<br>\$M | AT<br>31 DECEMBER<br>2016<br>\$M |
|---------------|----------------------------------|---------|--------------------------------|--|------------------------------|--|---|--|----------------------------------|
| Los Pelambres | 40.0                             | Chile   | 1,040.4                        | 97.9   | (260.0)                      | –  | –   | 22.8                                     | 901.1                            |
| Centinela     | 30.0                             | Chile   | 814.1                          | 32.8   | –                            | –  | –   | 1.6                                      | 848.5                            |
| Michilla      | 0.1                              | Chile   | 0.1                            | –  | –                            | –  | (0.1)   | –  | –                                |
| Antucoya      | 30.0                             | Chile   | 18.6                           | (74.3)   | –                            | –  | –   | 0.5                                      | (55.2)                           |
| Total         |                                  |         | 1,873.2                        | 56.4   | (260.0)                      | –  | (0.1)   | 24.9                                     | 1,694.4                          |

|   | NON-CONTROLLING<br>INTEREST<br>% | COUNTRY | AT<br>1 JANUARY<br>2015<br>\$M | SHARE OF<br>PROFIT/<br>(LOSSES)<br>FOR THE<br>FINANCIAL<br>YEAR<br>\$M | SHARE OF<br>DIVIDENDS<br>\$M | CAPITAL<br>CONTRIBUTION<br>ON NON-<br>CONTROLLING<br>INTEREST<br>\$M | DISPOSAL<br>OF NON-<br>CONTROLLING<br>INTEREST<br>\$M | HEDGING AND<br>ACTUARIAL<br>GAINS/LOSSES<br>\$M | AT<br>31 DECEMBER<br>2015<br>\$M |
|---|----------------------------------|---------|--------------------------------|--|------------------------------|--|---|---|----------------------------------|
| Los Pelambres                           | 40.0                             | Chile   | 971.3                          | 151.8  | (80.0)                       | –  | –   | (2.7)   | 1,040.4                          |
| Centinela                               | 30.0                             | Chile   | 861.1                          | (46.5)   | –                            | –  | –   | (0.5)   | 814.1                            |
| Michilla                                | 0.1                              | Chile   | 0.7                            | 0.2  | –                            | –  | –   | (0.8)   | 0.1                              |
| Antucoya                                | 30.0                             | Chile   | 14.5                           | (11.9)   | –                            | 14.6   | –   | 1.4   | 18.6                             |
| Railway and other<br>transport services | 50.0                             | Bolivia | 13.4                           | (0.1)  | –                            | –  | (13.3)  | –   | 0.0                              |
| Total                                   |                                  |         | 1,861.0                        | 93.5   | (80.0)                       | 14.6   | (13.3)  | (2.6)   | 1,873.2                          |

The proportion of the voting rights is proportional with the economic interest under the companies listed above.

Summarised financial position and cash flow for the years ended 2016 and 2015

|   | LOS PELAMBRES<br>2016<br>\$M | CENTINELA<br>2016<br>\$M | ANTUCOYA<br>2016<br>\$M |                         |
|---|------------------------------|--------------------------|-------------------------|-------------------------|
| Non-controlling interest (%)            | 40.0%                        | 30.0%                    | 30.0%                   |                         |
| Cash and cash equivalent                | 143.0                        | 384.0                    | 152.9                   |                         |
| Current assets                          | 645.5                        | 890.1                    | 334.8                   |                         |
| Non-current assets                      | 2,960.7                      | 4,117.9                  | 1,405.7                 |                         |
| Current liabilities                     | (638.9)                      | (631.7)                  | (166.2)                 |                         |
| Non-current liabilities                 | (729.3)                      | (1,347.6)                | (919.1)                 |                         |
| Accumulated non-controlling interest    | 901.3                        | 848.6                    | (55.6)                  |                         |
| Net cash flow from operating activities | 907.3                        | 523.6                    | 50.6                    |                         |
| Net cash flow from investing activities | (215.2)                      | (555.1)                  | (9.0)                   |                         |
| Net cash flow from financing activities | (711.1)                      | (150.0)                  | (36.1)                  |                         |
|   | LOS PELAMBRES<br>2015<br>\$M | CENTINELA<br>2015<br>\$M | MICHILLA<br>2015<br>\$M | ANTUCOYA<br>2015<br>\$M |
| Non-controlling interest (%)            | 40.0%                        | 30.0%                    | 0.1%                    | 30.0%                   |
| Cash and cash equivalent                | 248.8                        | 598.8                    | 96.4                    | 138.6                   |
| Current assets                          | 670.5                        | 474.7                    | 26.9                    | 166.3                   |
| Non-current assets                      | 2,853.6                      | 4,195.7                  | 0.0                     | 1,747.0                 |
| Current liabilities                     | (429.0)                      | (561.5)                  | (13.5)                  | (136.1)                 |
| Non-current liabilities                 | (770.1)                      | (1,517.6)                | (32.6)                  | (1,068.8)               |
| Accumulated non-controlling interest    | 1,040.4                      | 814.1                    | 0.1                     | 18.6                    |
| Net cash flow from operating activities | 490.1                        | 197.9                    | 26.3                    | (104.5)                 |
| Net cash flow from investing activities | (333.4)                      | (429.7)                  | (36.8)                  | (215.0)                 |
| Net cash flow from financing activities | (139.9)                      | 199.9                    | -                       | 287.0                   |

## NOTES TO THE SUMMARISED FINANCIAL POSITION AND CASH FLOW

- (i) The amounts disclosed for each subsidiary are based on the amounts included in the consolidated Financial Statements (ie. 100% of the results and balances of the subsidiary rather than the non-controlling interest proportionate share) before inter-company eliminations.
- (ii) Summarised income statement information is shown in the segment information in Note 5.

## 32 NOTES TO THE CONSOLIDATED CASH FLOW STATEMENT

### A) RECONCILIATION OF PROFIT BEFORE TAX TO NET CASH INFLOW FROM OPERATING ACTIVITIES

|   | 2016<br>\$M | 2015<br>\$M |
|---|-------------|-------------|
| Profit before tax from continuing operations                          | 284.6       | 242.8       |
| Profit before tax from discontinued operations                        | 35.1        | 875.6       |
| Depreciation and amortisation   | 578.4       | 576.1       |
| Net loss on disposals   | 19.7        | 10.2        |
| Impairment  | 456.6       | -           |
| Profit on disposal of discontinued operations                         | (35.1)      | (859.0)     |
| Net finance expense   | 71.1        | 39.2        |
| Share of results from associates and joint ventures                   | 111.3       | 5.8         |
| Decrease in inventories   | 3.9         | 60.5        |
| (Increase)/Decrease in debtors  | (124.9)     | 137.7       |
| Increase/(Decrease) in creditors and provisions                       | 56.6        | (230.6)     |
| Cash flow from operations from continuing and discontinued operations | 1,457.3     | 858.3       |

## NOTES TO THE FINANCIAL STATEMENTS

### 32 NOTES TO THE CONSOLIDATED CASH FLOW STATEMENT CONTINUED

#### B) ANALYSIS OF CHANGES IN NET DEBT

|  | AT<br>1 JANUARY<br>2016<br>\$M | CASH FLOWS<br>\$M | OTHER<br>\$M | EXCHANGE<br>\$M | AT<br>31 DECEMBER<br>2016<br>\$M |
|--|--------------------------------|-------------------|--------------|-----------------|----------------------------------|
| Cash and cash equivalents                              | 807.5                          | (103.1)           | –            | 11.9            | 716.3                            |
| Liquid investments                                     | 924.1                          | 408.1             | –            | –               | 1,332.2                          |
| Total cash and cash equivalents and liquid investments | 1,731.6                        | 305.0             | –            | 11.9            | 2,048.5                          |
| Bank borrowings due within one year                    | (753.4)                        | 215.0             | (275.8)      | –               | (814.2)                          |
| Bank borrowings due after one year                     | (1,963.3)                      | (460.7)           | 225.6        | –               | (2,198.4)                        |
| Finance leases due within one year                     | (5.5)                          | 1.5               | (18.5)       | –               | (22.5)                           |
| Finance leases due after one year                      | (29.9)                         | 29.7              | (80.3)       | (2.1)           | (82.6)                           |
| Preference shares                                      | (3.0)                          | 0.1               | (0.1)        | 0.5             | (2.5)                            |
| Total borrowings                                       | (2,755.1)                      | (214.4)           | (149.1)      | (1.6)           | (3,120.2)                        |
| Net (debt)/cash  | (1,023.5)                      | 90.6              | (149.1)      | 10.3            | (1,071.7)                        |

|  | AT<br>1 JANUARY<br>2015<br>\$M | CASH FLOWS<br>\$M | OTHER<br>\$M | EXCHANGE<br>\$M | AT<br>31 DECEMBER<br>2015<br>\$M |
|--|--------------------------------|-------------------|--------------|-----------------|----------------------------------|
| Cash and cash equivalents                              | 845.4                          | (1.5)             | –            | (36.4)          | 807.5                            |
| Liquid investments                                     | 1,529.1                        | (605.0)           | –            | –               | 924.1                            |
| Total cash and cash equivalents and liquid investments | 2,374.5                        | (606.5)           | –            | (36.4)          | 1,731.6                          |
| Bank borrowings due within one year                    | (276.0)                        | (306.9)           | (171.3)      | 0.8             | (753.4)                          |
| Bank borrowings due after one year                     | (2,050.5)                      | (139.2)           | 225.0        | 1.4             | (1,963.3)                        |
| Finance leases due within one year                     | (8.5)                          | 11.5              | (8.5)        | –               | (5.5)                            |
| Finance leases due after one year                      | (38.0)                         | 0.3               | 4.8          | 3.0             | (29.9)                           |
| Preference shares                                      | (3.1)                          | –                 | –            | 0.1             | (3.0)                            |
| Total borrowings                                       | (2,376.1)                      | (434.3)           | 50.0         | 5.3             | (2,755.1)                        |
| Net (debt)/cash  | (1.6)                          | (1,040.8)         | 50.0         | (31.1)          | (1,023.5)                        |

#### C) NET DEBT

|   | 2016<br>\$M | 2015<br>\$M |
|---|-------------|-------------|
| Cash, cash equivalents and liquid investments | 2,048.5     | 1,731.6     |
| Total borrowings                              | (3,120.2)   | (2,755.1)   |
|   | (1,071.7)   | (1,023.5)   |

### 33 OPERATING LEASE ARRANGEMENTS

|   | 2016<br>\$M | 2015<br>\$M |
|---|-------------|-------------|
| Minimum lease payments expense under operating leases recognised for the year | 70.3        | 27.8        |

At the balance sheet date, the Group had outstanding commitments for future minimum lease payments under non-cancellable operating leases, which fall due as follows:

|  | 2016<br>\$M | 2015<br>\$M |
|--|-------------|-------------|
| Within one year                          | 75.1        | 32.4        |
| In their second to fifth years inclusive | 37.0        | 33.8        |
| After five years                         | –           | –           |
|  | 112.1       | 66.2        |

Operating lease payments relate mainly to rental of plant and equipment by operating subsidiaries of the Group.

## 34 EXCHANGE RATES IN US DOLLARS

Assets and liabilities denominated in foreign currencies are translated into dollars and sterling at the period end rates of exchange.

Results denominated in foreign currencies have been translated into dollars at the average rate for each period.

|                | 2016                               | 2015                               |
|----------------|------------------------------------|------------------------------------|
| Year end rates | \$1.2185 = £1;<br>\$1 = Ch\$669.47 | \$1.4828 = £1;<br>\$1 = Ch\$710.16 |
| Average rates  | \$1.3593 = £1;<br>\$1 = Ch\$676.80 | \$1.5284 = £1;<br>\$1 = Ch\$654.47 |

## 35 RELATED PARTY TRANSACTIONS

Transactions between the Company and its subsidiaries, which are related parties, have been eliminated on consolidation and are not disclosed in this note.

Transactions between the Group and its associates are disclosed below.

The transactions which Group companies entered into with related parties who are not members of the Group are set out below. There are no guarantees given or received and no provisions for doubtful debts related to the amount of outstanding balances.

### A) QUIÑENCO SA

Quiñenco SA ("Quiñenco") is a Chilean financial and industrial conglomerate, the shares of which are traded on the Santiago Stock Exchange. The Group and Quiñenco are both under the control of the Luksic family, and three Directors of the Company, Jean-Paul Luksic, Andronico Luksic and Gonzalo Menéndez, are also directors of Quiñenco.

The following material transactions took place between the Group and the Quiñenco group of companies, all of which were on normal commercial terms:

- the Group earned interest income of \$0.1 million (2015 – \$0.6 million) during the year on deposits with Banco de Chile SA, a subsidiary of Quiñenco. Deposit balances at the end of the year were \$34.5 million (2015 – \$110.4 million);
- the Group earned interest income of \$0.3 million (2015 – \$0.7 million) during the year on investments with BanChile Corredores de Bolsa SA, a subsidiary of Quiñenco. Investment balances at the end of the year were nil (2015 – \$12.1 million);
- the Group made purchases of fuel from ENEX SA a subsidiary of Quiñenco of \$161.6 million (2015 – \$32.4 million). The balance due to ENEX SA at the end of the year was nil (2015 – nil).

### B) COMPAÑÍA DE INVERSIONES ADRIÁTICO SA

In 2016, the Group leased office space on normal commercial terms from Compañía de Inversiones Adriático SA, a company controlled by the Luksic family, at a cost of less than \$0.6 million (2015 – less than \$0.5 million).

### C) ANTOMIN LIMITED, ANTOMIN 2 LIMITED AND ANTOMIN INVESTORS LIMITED

The Group holds a 51% interest in Antomin 2 Limited ("Antomin 2") and Antomin Investors Limited ("Antomin Investors"), which own a number of copper exploration properties. The Group originally acquired its 51% interest in these properties for a nominal consideration from Mineralinvest Establishment, which continues to hold the remaining 49% of Antomin 2 and Antomin Investors. Mineralinvest is owned by a Liechtenstein foundation, in which members of the Luksic family are interested. During the year ended 31 December 2016 the Group incurred \$1.0 million (year ended 31 December 2015 – \$4.2 million) of exploration work at these properties.

### D) TETHYAN COPPER COMPANY LIMITED

As explained in Note 17 the Group has a 50% interest in Tethyan Copper Company Limited ("Tethyan"), which is a joint venture with Barrick Gold Corporation over Tethyan's mineral interests in Pakistan. During 2016 the Group contributed \$10.0 million (2015 – \$4.0 million) to Tethyan. The balance due from Tethyan to Group companies at the end of the year was nil (2015 – nil).

### E) ENERGÍA ANDINA SA

As explained in Note 17, the Group has a 50.1% interest in Energía Andina SA, which is a joint venture with Origin Energy Geothermal Chile Limitada for the evaluation and development of potential sources of geothermal and solar energy. The balance due from Energía Andina SA to the Group at 31 December 2016 was nil (2015 – nil). During the year ended 31 December 2016 the Group contributed \$1.0 million to Energía Andina (2015 – \$1.3 million).

### F) COMPAÑÍA MINERA ZALDÍVAR SPA

The Group's 50% interest in Minera Zaldívar which was acquired on 1 December 2015 (see Note 16), which is a joint venture with Barrick Gold Corporation. Antofagasta is the operator of Zaldívar from 1 December 2015 onwards. The balance due from Zaldívar to Group companies at the end of the year was less than \$4.2 million (2015 – less than \$0.1 million).

### G) INVERSIONES HORNITOS SA

As explained in Note 17, the Group has a 40% interest in Inversiones Hornitos SA, which is accounted for as an associate. The Group paid \$144.0 million (year ended 31 December 2015 – \$140.5 million) to Inversiones Hornitos in relation to the energy supply contract at Centinela. During 2016 the Group received dividends from Inversiones Hornitos SA of \$10.2 million (2015 – \$12.1 million).

### H) PARQUE EÓLICO EL ARRAYÁN SA

As explained in Note 17, the Group has a 30% interest in Parque Eólico El Arrayán SA ("El Arrayán"), which is accounted for as an associate. The Group paid \$23.2 million (year ended 31 December 2015 – \$42.0 million) to El Arrayán in relation to the energy supply contract at Los Pelambres. During 2016 there was a capital decrease of \$0.9 million.

## NOTES TO THE FINANCIAL STATEMENTS

### 35 RELATED PARTY TRANSACTIONS CONTINUED

#### I) ALTO MAIPO SPA

As explained in Note 17, the Group has a 40% interest in Alto Maipo SpA ("Alto Maipo"), which is accounted for as an associate. During 2016 the Group made provision for capital contributions of \$36.0 million to Alto Maipo (2015 – \$42.8 million). The balance due from Alto Maipo to the Group at 31 December 2016 was nil after provision (2015 – \$229.7 million).

#### J) DIRECTORS AND OTHER KEY MANAGEMENT PERSONNEL

Information relating to Directors' remuneration and interests is given in the Remuneration Report on page 96. Information relating to the remuneration of key management personnel including the Directors is given in Note 8.

### 36 LITIGATION AND CONTINGENT LIABILITIES

Antofagasta plc or its subsidiaries are subject to various claims which arise in the ordinary course of business. None of these claims are currently expected to result in any material loss to the Group. Details of the principal claims in existence either during, or at the end of, the period and the current status of these claims are set out below:

#### LOS PELAMBRES – CERRO AMARILLO WASTE DUMP

In 2004, Los Pelambres received all of the required authorisations from the Chilean government to deposit waste-rock from its mining activities in its current location (the "Cerro Amarillo Waste Dump"). According to the then official Chilean maps (1996), this area was located entirely within Chile. In 2007, Chile modified the official maps in this area without making the changes public.

In February 2012, a binational border commission, established to clarify the exact position of the Chile/Argentina border, determined accurately the location of the border in the area of the Cerro Amarillo Waste Dump, showing that part of the Cerro Amarillo Waste Dump was located in Argentina.

In May 2014, Xstrata Pachón SA ("Xstrata Pachón"), a subsidiary of Glencore plc and the holder of the mining properties on the Argentinian side of the border, filed a claim against Los Pelambres before the Federal Court of San Juan, Argentina, alleging that Los Pelambres had unlawfully deposited waste-rock on its property.

Xstrata Pachón has also filed a criminal complaint before a different Federal Court of San Juan alleging that when Los Pelambres was depositing rock on the Cerro Amarillo Waste Dump it violated several Argentinian laws relating to the misappropriation of land, unlawful appropriation of water bodies and that peoples' health was in jeopardy from the alleged contamination that the Cerro Amarillo Waste Dump might generate.

In both cases, Los Pelambres has submitted preliminary objections to the Argentinian courts.

In the civil case, a final decision on these preliminary objections is still pending and substantive arguments will not be made until and unless these preliminary objections are finally rejected.

In April 2016, in accordance with a preliminary measure required by the Federal Court of San Juan, Los Pelambres and the Province of San Juan executed an agreement by means of which Los Pelambres has committed itself to perform a preventative process to isolate any environmental impacts of the Cerro Amarillo Waste Dump, regularly monitor underground and surface waters, and undertake other additional actions requested by the Province.

In November 2016, the Province set aside the agreement. Notwithstanding so, between November 2016 and January 2017, Los Pelambres completed the retirement of the pneumatic tyres formerly placed at the Cerro Amarillo Waste Dump.

In February 2017, at the Province of San Juan's request, Los Pelambres filed a Provisional Action Plan for the Cerro Amarillo Waste Dump's closing before the civil courts, which is currently subject to review by the parties to the proceedings and the judge.

In the criminal proceedings, current and former directors and officers of Los Pelambres are in the process of providing testimony as named co-defendants in this case.

#### TWIN METALS MINNESOTA – FEDERAL MINERAL LEASES MNES-1352 AND MNES-1353

On 8 March, 2016, the Solicitor of the Department of the Interior issued a legal opinion concluding that the Bureau of Land Management (BLM) has discretion to deny Twin Metals' application for renewal of federal mineral leases MNES-1352 and MNES-1353. The United States Forest Service (USFS) declined to consent to renewal of the leases on 14 December, 2016, and BLM rejected Twin Metals' application to renew the leases the next day.

The BLM's denial relied on the Solicitor's Opinion's conclusion that it had discretion to deny the renewal, and BLM took the view that USFS consent was required to renew the leases. According to BLM, because the USFS refused consent, BLM was required to reject the lease renewal application.

The Forest Service's decision was based on the potential environmental impacts of sulfide-ore copper mining in the Boundary Waters watershed. The USFS decision did not discuss the terms and conditions of the leases or the project, nor did it address Twin Metals' legal rights to the leases.

On 12 September, 2016, Twin Metals filed a complaint in the U.S. District Court in Minnesota against the United States, the U.S. Department of the Interior, Secretary of the Interior Sally Jewell, Solicitor Hilary C. Tompkins, and BLM. Twin Metals brought claims under the Quiet Title Act (QTA) and the Administrative Procedure Act (APA) seeking to secure its rights to the two federal mineral leases. Following the USFS withholding of consent and BLM's denial of renewal, Twin Metals filed an amended complaint on 3 January, 2017, adding the U.S. Department of Agriculture, Secretary of Agriculture Thomas J. Vilsack, the USFS, and Chief of the USFS Thomas L. Tidwell as defendants. The amended complaint seeks similar relief under the QTA and APA, and also requests that the court overturn the government's denial of the leases.

The government has not yet responded to the amended complaint.

### 37 ULTIMATE PARENT COMPANY

The immediate parent of the Group is Metalinvest Establishment, which is controlled by E. Abaroa Foundation, in which members of the Luksic family are interested.

Both Metalinvest Establishment and the E. Abaroa Foundation are domiciled in Liechtenstein. Information relating to the interest of Metalinvest Establishment and the E. Abaroa Foundation are given in the Directors' report.

## PARENT COMPANY FINANCIAL STATEMENTS

### 38 ANTOFAGASTA PLC – BALANCE SHEET OF THE PARENT COMPANY AND RELATED NOTES

At 31 December 2016

|                                 | NOTES | 2016<br>\$M | 2015<br>\$M |
|---------------------------------|-------|-------------|-------------|
| <b>Non-current assets</b>       |       |             |             |
| Investment in subsidiaries      | 38D   | 538.6       | 535.6       |
| Other receivables               |       | 500.0       | 500.0       |
| Property, plant and equipment   |       | 0.4         | 0.7         |
|                                 |       | 1,039.0     | 1,036.3     |
| <b>Current assets</b>           |       |             |             |
| Other receivables               | 38D   | 52.3        | 50.8        |
| Liquid investment               |       | 488.4       | 184.1       |
| Cash and cash equivalents       |       | 166.2       | 3.4         |
|                                 |       | 706.9       | 238.3       |
| <b>Total assets</b>             |       | 1,745.9     | 1,274.6     |
| <b>Current liabilities</b>      |       |             |             |
| Short-term borrowings           |       | (298.9)     | (297.7)     |
| Other payables                  |       | (6.4)       | (6.8)       |
|                                 |       | (305.3)     | (304.5)     |
| <b>Non-current liabilities</b>  |       |             |             |
| Medium and long-term borrowings | 38E   | (499.7)     | (3.0)       |
|                                 |       | (499.7)     | (3.0)       |
| <b>Total liabilities</b>        |       | (805.0)     | (307.5)     |
| <b>Net assets</b>               |       | 940.9       | 967.1       |
| <b>Equity</b>                   |       |             |             |
| Share capital                   |       | 89.8        | 89.8        |
| Share premium                   |       | 199.2       | 199.2       |
| Retained earnings               |       | 651.9       | 678.1       |
| <b>Total equity</b>             |       | 940.9       | 967.1       |

The profit for the year for the parent company was \$4.4 million (2015 – \$680.0 million).

Approved by the Board and signed on its behalf on 13 March 2017.

**JEAN-PAUL LUKSIC**  
CHAIRMAN

**OLLIE OLIVEIRA**  
SENIOR INDEPENDENT DIRECTOR

## 38 ANTOFAGASTA PLC – BALANCE SHEET OF THE PARENT COMPANY AND RELATED NOTES CONTINUED

### STATEMENT OF CHANGES IN EQUITY OF THE PARENT COMPANY

|                                   | SHARE CAPITAL<br>\$M | SHARE PREMIUM<br>\$M | RETAINED<br>EARNINGS<br>\$M | TOTAL EQUITY<br>\$M |
|-----------------------------------|----------------------|----------------------|-----------------------------|---------------------|
| <b>At 1 January 2015</b>          | 89.8                 | 199.2                | 125.3                       | 414.3               |
| Comprehensive profit for the year | –                    | –                    | 680.0                       | 680.0               |
| Dividends                         | –                    | –                    | (127.2)                     | (127.2)             |
| <b>At 31 December 2015</b>        | 89.8                 | 199.2                | 678.1                       | 967.1               |
| Comprehensive profit for the year | –                    | –                    | 4.4                         | 4.4                 |
| Dividends                         | –                    | –                    | (30.6)                      | (30.6)              |
| <b>At 31 December 2016</b>        | <b>89.8</b>          | <b>199.2</b>         | <b>651.9</b>                | <b>940.9</b>        |

The ordinary shares rank after the preference shares in entitlement to dividend and on a winding-up. Each ordinary share carries one vote at any general meeting.

Antofagasta Plc is a company limited by shares, incorporated and domiciled in the United Kingdom at Cleveland House, 33 King Street, London.

### 38A BASIS OF PREPARATION OF THE BALANCE SHEET AND RELATED NOTES OF THE PARENT COMPANY

The Antofagasta plc Parent Company balance sheet and related notes have been prepared in accordance with FRS 101, which applies the recognition and measurement bases of IFRS with reduced disclosure requirements. The financial information has been prepared on a historical cost basis. The Financial Statements have been prepared on a going concern basis. The functional currency of the Company and the presentational currency adopted is US dollars.

The following exemptions from the requirements of IFRS have been applied in the preparation of these Financial Statements, in accordance with FRS 101:

- Paragraphs 45(b) and 46 to 52 of IFRS 2, ‘Share-based payment’ (details of the number and weighted-average exercise prices of share options, and how the fair value of goods or services received was determined)
- IFRS 7, ‘Financial Instruments: Disclosures’
- Paragraphs 91 to 99 of IFRS 13, ‘Fair value measurement’ (disclosure of valuation techniques and inputs used for fair value measurement of assets and liabilities)
- Paragraph 38 of IAS 1, ‘Presentation of Financial Statements’ comparative information requirements in respect of:
  - (i) paragraph 79(a)(iv) of IAS 1;
  - (ii) paragraph 73(e) of IAS 16 Property, plant and equipment;
  - (iii) paragraph 118(e) of IAS 38 Intangible assets (reconciliations between the carrying amount at the beginning and end of the period)
- The following paragraphs of IAS 1, ‘Presentation of Financial Statements’:
  - 10(d), (statement of cash flows)
  - 10(f) (a statement of financial position as at the beginning of the preceding period when an entity applies an accounting policy retrospectively or makes a retrospective restatement of items in its Financial Statements, or when it reclassifies items in its Financial Statements),
  - 16 (statement of compliance with all IFRS),
  - 38A (requirement for minimum of two primary statements, including cash flow statements),
  - 38B-D (additional comparative information),
  - 40A-D (requirements for a third statement of financial position
  - 111 (cash flow statement information), and
  - 134-136 (capital management disclosures)
- IAS 7, ‘Statement of cash flows’
- Paragraph 30 and 31 of IAS 8 ‘Accounting policies, changes in accounting estimates and errors’ (requirement for the disclosure of information when an entity has not applied a new IFRS that has been issued but is not yet effective)
- Paragraph 17 of IAS 24, ‘Related party disclosures’ (key management compensation)

The requirements in IAS 24, ‘Related party disclosures’ to disclose related party transactions entered into between two or more members of a group.

As permitted by section 408 of the Companies Act 2006, the profit and loss account of the Parent Company is not presented as part of these Financial Statements. The profit after tax for the year of the Parent Company amounted to \$680.0 million (2015 – \$948.2 million).

A summary of the principal accounting policies is set out below.

## **38B PRINCIPAL ACCOUNTING POLICIES OF THE PARENT COMPANY**

### **A) CURRENCY TRANSLATION**

The Company's functional currency is the US dollar. Transactions in currencies other than the functional currency are translated at the exchange rate ruling at the date of the transaction. Monetary assets and liabilities, including amounts due from or to subsidiaries, denominated in currencies other than the functional currency are retranslated at year end exchange rates. Gains and losses on retranslation are included in net profit or loss for the year.

### **B) REVENUErecognition**

Dividends proposed by subsidiaries are recognised as income by the Company when they represent a present obligation of the subsidiaries, i.e. in the period in which they are formally approved for payment.

Interest income is accrued on a time basis, by reference to the principal outstanding and the effective interest rate applicable, which is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to that asset's net carrying amount.

### **C) DIVIDENDS PAYABLE**

Dividends proposed are recognised when they represent a present obligation, i.e. in the period in which they are formally approved for payment. Accordingly, an interim dividend is recognised when paid and a final dividend is recognised when approved by shareholders.

### **D) INVESTMENTS IN SUBSIDIARIES**

Investments in subsidiaries represent equity holdings in subsidiaries and long-term amounts owed by subsidiaries. Such investments are valued at cost less any impairment provisions. Investments are reviewed for impairment if events or changes in circumstances indicate that the carrying amount may not be recoverable. The recoverable amount of the investment is the higher of fair value less cost to dispose. As explained in Note 39D, amounts owed by subsidiaries due in currencies other than the functional currency are translated at year end rates of exchange with any exchange differences taken to the profit and loss account.

### **E) CURRENT ASSET INVESTMENTS AND CASH AT BANK AND IN HAND**

Current asset investments comprise highly liquid investments that are readily convertible into known amounts of cash and which are subject to insignificant risk of changes in value, typically maturing within 12 months.

Cash at bank and in hand comprise cash in hand and deposits repayable on demand

### **F) BORROWINGS**

Interest-bearing loans and bank overdrafts are initially recorded at the proceeds received, net of direct issue costs. They are subsequently measured at amortised cost using the effective interest method, with interest expense recognised on an effective yield basis. The effective interest method is a method of calculating the amortised cost of a financial liability and of allocating interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments through the expected life of the financial liability, or, where appropriate, a shorter period. Finance charges, including premiums payable on settlement or redemption and direct issue costs, are accounted for on an accruals basis using the effective interest rate method.

### **G) BORROWINGS – PREFERENCE SHARES**

The sterling-denominated preference shares issued by the Company carry a fixed rate of return without the right to participate in any surplus. They are accordingly classified as borrowings and translated into US dollars at year-end rates of exchange. Preference share dividends are included within finance costs.

### **H) EQUITY INSTRUMENTS – ORDINARY SHARE CAPITAL AND SHARE PREMIUM**

Equity instruments issued are recorded at the proceeds received, net of direct issue costs. Equity instruments of the Company comprise its sterling-denominated issued ordinary share capital and related share premium.

As explained above, the presentational and the functional currency of the Company is US dollars, and ordinary share capital and share premium are translated into US dollars at historical rates of exchange based on dates of issue.

## **38C EMPLOYEE BENEFIT EXPENSE**

### **A) AVERAGE NUMBER OF EMPLOYEES**

The average number of employees was 4 (2015 – 5).

### **B) AGGREGATE REMUNERATION**

The aggregate remuneration of the employees mentioned above was as follows:

|                       | 2016<br>\$M | 2015<br>\$M |
|-----------------------|-------------|-------------|
| Wages and salaries    | 0.6         | 0.6         |
| Social security costs | 0.1         | 0.1         |
|                       | 0.7         | 0.7         |

The above employee figures exclude Directors who receive Directors' fees from Antofagasta plc. Details of fees payable to Directors are set out in the Remuneration Report.

## **38 ANTOFAGASTA PLC – BALANCE SHEET OF THE PARENT COMPANY AND RELATED NOTES CONTINUED**

### **38D SUBSIDIARIES**

#### **A) INVESTMENT IN SUBSIDIARIES**

|   | <b>2016<br/>\$M</b> | <b>2015<br/>\$M</b> |
|---|---------------------|---------------------|
| Shares in subsidiaries at cost                            | 60.6                | 57.6                |
| Amounts owed by subsidiaries due after more than one year | 478.0               | 478.0               |
|   | <b>538.6</b>        | 535.6               |

|                            | <b>SHARES<br/>\$M</b> | <b>LOANS<br/>\$M</b> | <b>TOTAL<br/>\$M</b> |
|----------------------------|-----------------------|----------------------|----------------------|
| 1 January 2016             | 57.6                  | 478.0                | 535.6                |
| New shares in subsidiaries | 3.0                   | –                    | 3.0                  |
| <b>31 December 2016</b>    | <b>60.6</b>           | <b>478.0</b>         | <b>538.6</b>         |

The above amount of \$478.0 million (2015 – \$478.0 million) in respect of amounts owed by subsidiaries due after more than one year relates to long-term funding balances which form an integral part of the Company's long-term investment in those subsidiary companies.

A one-off repayment of capital following the sale of ADASA was made during 2015 and therefore it is still appropriate to consider the rest of the loans as part of the investment in subsidiary.

#### **B) TRADE AND OTHER RECEIVABLES – AMOUNTS OWED BY SUBSIDIARIES DUE AFTER ONE YEAR**

At 31 December 2015 an amount of \$500.0 million was owed to the Company by an indirect subsidiary, pursuant to a 10 year loan agreement.

#### **C) TRADE AND OTHER RECEIVABLES – AMOUNTS OWED BY SUBSIDIARIES DUE WITHIN ONE YEAR**

At 31 December 2016, amounts owed by subsidiaries due within one year were \$50.9 million (2015 – \$49.8 million).

### **38E BORROWINGS – PREFERENCE SHARES**

The authorised, issued and fully paid preference share capital of the Company comprised 2,000,000 5% cumulative preference shares of £1 each at both 31 December 2016 and 31 December 2015. As explained in Note 23 B, the preference shares are measured in the balance sheet in US dollars at period-end rates of exchange.

The preference shares are non-redeemable and are entitled to a fixed 5% cumulative dividend, payable in equal instalments in June and December of each year. On a winding-up, the preference shares are entitled to repayment and any arrears of dividend in priority to ordinary shareholders, but are not entitled to participate further in any surplus. Each preference share carries 100 votes (see Note 23A (xv)) at any general meeting.

## 39 ALTERNATIVE PERFORMANCE MEASURES

This Annual Report includes a number of alternative performance measures, in addition to IFRS amounts. These measures are included because they are considered to provide relevant and useful additional information to users of the accounts. Set out below are definitions of these alternative performance measures, explanations as to why they are considered to be relevant and useful, and reconciliations to the IFRS figures.

### A) EBTIDA

EBTIDA refers to Earnings Before Interest, Tax, Depreciation and Amortisation. EBTIDA is calculated by adding back depreciation, amortisation, profit or loss on disposals and impairment charges to operating profit. This comprises 100% of the EBTIDA from the Group's subsidiaries, and the Group's proportional share of the EBTIDA of its associates and joint ventures.

EBTIDA is considered to provide a useful and comparable indication of the current operating earnings performance of the business, excluding the impact of the historic cost of property, plant & equipment or the particular financing structure adopted by the business.

For the year ended 31 December 2016

|  | LOS PELAMBRES<br>\$M | CENTINELA<br>\$M | ANTUCOYA<br>\$M | ZALDÍVAR<br>\$M | EXPLORATION<br>AND<br>EVALUATION <sup>a</sup><br>\$M | CORPORATE<br>AND OTHER<br>ITEMS<br>\$M | MINING<br>\$M | RAILWAY<br>AND OTHER<br>TRANSPORT<br>SERVICES<br>\$M | TOTAL<br>\$M |
|--|----------------------|------------------|-----------------|-----------------|--|--|---------------|--|--------------|
| Operating profit   | 484.9                | 246.0            | (213.4)         | –               | (44.3)   | (62.3)                                 | 410.9         | 56.1   | 467.0        |
| Depreciation and amortisation                              | 195.7                | 299.4            | 62.7            | –               | –  | 5.2                                    | 563.0         | 15.4   | 578.4        |
| (Loss)/gain on disposals                                   | 0.2                  | 17.1             | –               | –               | –  | 0.6                                    | 17.9          | 1.8  | 19.7         |
| Exceptional impairment provision                           | 241.0                | –                | 215.6           | –               | –  | –                                      | 456.6         | –  | 456.6        |
| EBITDA from subsidiaries                                   | 921.8                | 562.5            | 64.9            | –               | (44.3)   | (56.5)                                 | 1,448.4       | 73.3   | 1,521.7      |
| Proportional share of the EBITDA<br>from associates and JV | (0.8)                | –                | –               | 85.1            | –  | 5.7                                    | 90.0          | 14.4   | 104.4        |
| Total EBITDA   | 921.0                | 562.5            | 64.9            | 85.1            | (44.3)   | (50.8)                                 | 1,538.4       | 87.7   | 1,626.1      |

For the year ended 31 December 2015

|   | LOS PELAMBRES<br>\$M | CENTINELA<br>\$M | ANTUCOYA<br>\$M | ZALDÍVAR<br>\$M | EXPLORATION<br>AND<br>EVALUATION <sup>a</sup><br>\$M | CORPORATE<br>AND OTHER<br>ITEMS<br>\$M | MINING<br>\$M | RAILWAY<br>AND OTHER<br>TRANSPORT<br>SERVICES<br>\$M | TOTAL<br>\$M |
|---|----------------------|------------------|-----------------|-----------------|--|--|---------------|--|--------------|
| Operating profit                                      | 555.0                | (131.0)          | –               | –               | (101.9)  | (75.1)                                 | 247.0         | 42.0   | 289.0        |
| Depreciation and amortisation                         | 191.6                | 367.6            | –               | –               | –  | 3.1                                    | 562.3         | 13.8   | 576.1        |
| (Loss)/gain on disposals                              | 2.7                  | 1.8              | –               | –               | –  | 4.4                                    | 8.9           | 2.6  | 11.5         |
| EBITDA from subsidiaries                              | 749.3                | 238.4            | –               | –               | (101.9)  | (67.6)                                 | 818.2         | 58.4   | 876.6        |
| Proportional share of the EBITDA<br>associates and JV | (0.6)                | –                | –               | 6.8             | –  | 6.9                                    | 13.1          | 20.4   | 33.5         |
| Total EBITDA  | 748.7                | 238.4            | –               | 6.8             | (101.9)  | (60.7)                                 | 831.3         | 78.8   | 910.1        |

## 39 ALTERNATIVE PERFORMANCE MEASURES CONTINUED

### B) CASH COSTS

Cash costs are a measure of the cost of operating production expressed in terms of cents per pound of payable copper produced.

This is considered to be a useful and relevant measure as it is a standard industry measure applied by most major copper mining companies which reflects the direct costs involved in producing each lb of copper. It therefore allows a straightforward comparison of the unit production cost of different mines, and allows an assessment of the position of a mine on the industry cost curve. It also provides a simple indication of the profitability of a mine when compared against the price of copper (per lb).

|   | 2016<br>\$M    | 2015<br>\$M    |
|---|----------------|----------------|
| <b>Reconciliation of cash costs excluding tolling charges and by-product revenues:</b>        |                |                |
| Total Group operating cost (Note 4)   | 3,154.7        | 2,936.7        |
| Less:   |                |                |
| Depreciation and amortisation (Note 4)  | (578.4)        | (576.1)        |
| Loss on disposal (Note 4)   | (19.7)         | (11.5)         |
| Provision against the carrying value of assets (Note 4)                                       | (456.6)        | -              |
| Elimination of non-mining operations:   |                |                |
| Corporate and other items – Total operating cost (Note 4)                                     | (56.5)         | (67.6)         |
| Exploration and evaluation – Total operating cost (Note 4)                                    | (44.3)         | (101.9)        |
| Railway and other transport services – Total operating cost (Note 4)                          | (86.9)         | (94.0)         |
| Closure provision and other expenses not included within cash cost                            | (53.4)         | (75.4)         |
| <b>Total cost relevant to the mining operations' cash cost</b>                                | <b>1,858.9</b> | <b>2,165.0</b> |
| <b>Copper sales volumes – excluding Antucoya Q1 2016/full year 2015 and Zaldivar (tonnes)</b> | <b>634,000</b> | <b>621,200</b> |
| <b>Cash costs excluding tolling charges and by-product revenues (\$ per tonne)</b>            | <b>2,932</b>   | <b>3,485</b>   |
| <b>Cash costs excluding tolling charges and by-product revenues (\$ per lb)</b>               | <b>1.33</b>    | <b>1.58</b>    |
| <b>Reconciliation of cash costs before deducting by-products:</b>                             |                |                |
| Tolling charges – copper – Los Pelambres (Note 5)   | 192.2          | 198.8          |
| Tolling charges – copper – Centinela (Note 5)   | 108.9          | 95.2           |
| Tolling charges – copper – total  | 301.1          | 294.0          |
| <b>Copper sales volumes – excluding Antucoya Q1 2016/full year 2015 and Zaldivar (tonnes)</b> | <b>634,000</b> | <b>621,200</b> |
| Tolling charges (\$ per tonne)  | 475            | 473            |
| Tolling charges (\$ per lb)   | 0.22           | 0.22           |
| Cash costs excluding tolling charges and by-product revenues (\$ per lb)                      | 1.33           | 1.58           |
| Tolling charges (\$ per lb)   | 0.22           | 0.22           |
| <b>Cash costs before deducting by-products (\$ per lb)</b>                                    | <b>1.54</b>    | <b>1.81</b>    |

|  | 2016<br>\$M  | 2015<br>\$M  |
|--|--------------|--------------|
| <b>Reconciliation of cash costs (net of by-products):</b>                              |              |              |
| Gold revenue – Los Pelambres (Note 4)  | 78.5         | 60.7         |
| Gold revenue – Centinela (Note 4)  | 261.2        | 191.3        |
| Molybdenum revenue – Los Pelambres (Note 4)  | 94.0         | 105.3        |
| Silver revenue – Los Pelambres (Note 4)  | 46.1         | 34.5         |
| Silver revenue – Centinela (Note 4)  | 20.0         | 15.9         |
| Total by-product revenue   | <b>499.8</b> | <b>407.7</b> |
| Copper sales volumes – excluding Antucoya Q1 2016/full year 2015 and Zaldivar (tonnes) | 634,000      | 621,200      |
| Tolling charges (\$ per tonne)   | 788          | 656          |
| Tolling charges (\$ per lb)  | 0.35         | 0.30         |
| Cash costs before deducting by-products (\$ per lb)                                    | 1.54         | 1.81         |
| By-product revenue (\$ per lb)   | (0.35)       | (0.30)       |
| Cash costs (net of by-products) (\$ per lb)  | <b>1.20</b>  | <b>1.50</b>  |

The totals in the tables above may include some small apparent differences as the specific individual figures have not been rounded.

## C) ATTRIBUTABLE CASH, CASH EQUIVALENTS & LIQUID INVESTMENTS, BORROWINGS AND NET DEBT

Attributable cash, cash equivalents & liquid investments, borrowings and net debt reflects the proportion of those balances which are attributable to the equity holders of the Company, after deducting the proportion attributable to the non-controlling interests in the Group's subsidiaries.

This is considered to be a useful and relevant measure as the majority of the Group's cash tends to be held at the corporate level and therefore 100% attributable to the equity holders of the Company, whereas the majority of the Group's borrowings tends to be at the level of the individual operations, and hence only a proportion is attributable to the equity holders of the Company.

|  | 2016<br>TOTAL<br>AMOUNT | 2016<br>ATTRIBUTABLE<br>SHARE | 2016<br>ATTRIBUTABLE<br>AMOUNT | 2015<br>TOTAL<br>AMOUNT | 2015<br>ATTRIBUTABLE<br>SHARE | 2015<br>ATTRIBUTABLE<br>AMOUNT |
|--|-------------------------|-------------------------------|--------------------------------|-------------------------|-------------------------------|--------------------------------|
| Cash, cash equivalents and liquid investments: |                         |                               |                                |                         |                               |                                |
| Los Pelambres                                  | 143.0                   | 60%                           | 85.8                           | 248.8                   | 60%                           | 149.3                          |
| Centinela                                      | 384.0                   | 70%                           | 268.8                          | 598.8                   | 70%                           | 419.1                          |
| Antucoya                                       | 152.9                   | 70%                           | 107.0                          | 138.6                   | 70%                           | 97.0                           |
| Corporate                                      | 1,328.1                 | 100%                          | 1,328.1                        | 531.5                   | 100%                          | 531.5                          |
| Railway and other transport services           | 40.5                    | 100%                          | 40.5                           | 213.9                   | 100%                          | 213.9                          |
| Total (Note 25)                                | <b>2,048.5</b>          |                               | <b>1,830.2</b>                 | 1,731.6                 |                               | 1,410.8                        |
| Borrowings:                                    |                         |                               |                                |                         |                               |                                |
| Los Pelambres (Note 18)                        | (391.7)                 | 60%                           | (235.0)                        | (372.3)                 | 60%                           | (223.4)                        |
| Centinela (Note 18)                            | (1,127.4)               | 70%                           | (789.2)                        | (1,264.3)               | 70%                           | (885.0)                        |
| Antucoya (Note 18)                             | (985.3)                 | 70%                           | (689.7)                        | (968.9)                 | 70%                           | (678.2)                        |
| Corporate (Note 18)                            | (524.8)                 | 100%                          | (524.8)                        | (27.6)                  | 100%                          | (27.6)                         |
| Railway and other transport services (Note 18) | (91.0)                  | 100%                          | (91.0)                         | (122.0)                 | 100%                          | (122.0)                        |
| Total (Notes 18 and 25)                        | <b>(3,120.2)</b>        |                               | <b>(2,329.7)</b>               | (2,755.1)               |                               | (1,936.2)                      |
| Net debt                                       | <b>(1,071.7)</b>        |                               | <b>(499.5)</b>                 | (1,023.5)               |                               | (525.4)                        |

## FIVE YEAR SUMMARY

|   | 2016<br>\$M | 2015<br>\$M | 2014<br>\$M | 2013<br>\$M | 2012<br>\$M |
|---|-------------|-------------|-------------|-------------|-------------|
| <b>Consolidated Balance Sheet</b>   |             |             |             |             |             |
| Intangible asset  | 150.1       | 150.1       | 118.6       | 133.0       | 157.6       |
| Property plant & equipment  | 8,737.5     | 8,601.1     | 8,227.1     | 7,424.8     | 6,513.2     |
| Investment property   | 2.6         | 2.0         | 2.6         | 3.3         | 162.5       |
| Inventories   | 157.3       | 263.9       | 247.8       | 252.7       | 3.5         |
| Investment in associates and joint ventures <sup>1</sup>                      | 1,086.6     | 1,149.1     | 198.5       | 176.0       | 109.0       |
| Trade and other receivables   | 66.7        | 292.9       | 239.5       | 180.8       | 108.3       |
| Derivative financial instruments  | 0.2         | -           | -           | -           | 8.0         |
| Available for sale investments  | 4.6         | 2.7         | 15.6        | 16.6        | 44.5        |
| Deferred tax assets   | 82.8        | 124.6       | 104.6       | 76.9        | 103.8       |
| Non-current assets <sup>1</sup>   | 10,288.4    | 10,583.9    | 9,153.9     | 8,263.3     | 7,207.9     |
| Current assets <sup>1</sup>   | 3,435.4     | 2,953.2     | 3,661.2     | 4,126.3     | 5,655.9     |
| Current liabilities <sup>1</sup>  | (1,554.0)   | (1,438.6)   | (1,163.4)   | (1,130.6)   | (1,295.1)   |
| Non current liabilities <sup>1</sup>  | (3,660.1)   | (3,581.7)   | (3,617.4)   | (2,596.2)   | (2,766.4)   |
|   | 8,509.7     | 8,519.3     | 8,034.7     | 8,663.6     | 8,804.8     |
| Share capital   | 89.8        | 89.8        | 89.8        | 89.8        | 89.8        |
| Share premium   | 199.2       | 199.2       | 199.2       | 199.2       | 199.2       |
| Reserves (retained earnings and hedging, translation and fair value reserves) | 6,526.3     | 6,357.1     | 5,884.7     | 6,435.5     | 6,821.6     |
| Equity attributable to equity holders of the Company                          | 6,815.3     | 6,646.1     | 6,173.7     | 6,724.5     | 7,110.6     |
| Non-controlling interests   | 1,694.4     | 1,873.2     | 1,861.0     | 1,939.1     | 1,694.2     |
|   | 8,509.7     | 8,519.3     | 8,034.7     | 8,663.6     | 8,804.8     |
| <b>Consolidated Income Statement<sup>4</sup></b>                              |             |             |             |             |             |
| Group revenue   | 3,621.7     | 3,225.7     | 4,810.2     | 5,509.2     | 6,280.1     |
| Total profit from operations and associates                                   | 355.7       | 283.2       | 1,608.5     | 2,137.8     | 2,754.9     |
| Profit before tax <sup>1,2</sup>  | 284.6       | 242.8       | 1,558.5     | 2,076.5     | 2,679.1     |
| Income tax expense <sup>1</sup>   | (108.6)     | (154.4)     | (703.6)     | (843.2)     | (999.5)     |
| Profit for the financial year from continuing operations                      | 176.0       | 88.4        | 854.9       | 1,233.3     | 1,679.6     |
| Profit for the financial year from discontinued operations <sup>4</sup>       | 38.3        | 613.3       | (4.2)       | 6.5         | 60.0        |
| Profit for the year   | 214.3       | 701.7       | 850.7       | 1,239.8     | 1,739.6     |
| Non-controlling interests   | (56.3)      | (93.5)      | (390.9)     | (580.2)     | (702.4)     |
| Net earnings (profit attributable to equity holders of the Company)           | 158.0       | 608.2       | 459.8       | 659.6       | 1,037.2     |
| EBITDA <sup>3,4</sup>   | 1,626.1     | 910.1       | 2,102.9     | 2,625.8     | 3,748.4     |
| <b>Earnings per share</b>   |             |             |             |             |             |
| Basic and diluted earnings per share <sup>1,4</sup>                           | 16.0        | 61.7        | 46.6        | 66.9        | 105.2       |

|   | 2016<br>CENTS | 2015<br>CENTS | 2014<br>CENTS | 2013<br>CENTS | 2012<br>CENTS |
|---|---------------|---------------|---------------|---------------|---------------|
|   | 2016<br>\$M   | 2015<br>\$M   | 2014<br>\$M   | 2013<br>\$M   | 2012<br>\$M   |
| <b>Dividends per Share Proposed in relation to the Year</b>                           |               |               |               |               |               |
| Ordinary dividends (interim and final)  | 18.4          | 3.1           | 21.5          | 95.0          | 21.0          |
| Special dividends   | –             | –             | –             | –             | 77.5          |
|   | 18.4          | 3.1           | 21.5          | 95.0          | 98.5          |
| Dividends per share paid in the year and deducted from equity                         | 3.1           | 12.9          | 97.8          | 90.0          | 44.5          |
| <b>Consolidated Cash Flow Statement</b>   |               |               |               |               |               |
| Cash flow from operations <sup>1,4</sup>  | 1,457.3       | 858.3         | 2,507.8       | 2,659.2       | 3,826.0       |
| Interest paid   | (46.3)        | (38.6)        | (45.4)        | (57.2)        | (88.1)        |
| Income tax paid <sup>1</sup>  | (272.6)       | (427.1)       | (641.5)       | (896.5)       | (901.2)       |
| Net cash from operating activities <sup>1</sup>                                       | 1,138.4       | 392.6         | 1,820.9       | 1,705.5       | 2,836.7       |
| Investing activities  |               |               |               |               |               |
| Acquisition and disposal of subsidiaries, joint venture and associates                | 30.0          | (29.9)        | –             | –             | –             |
| Dividends from associates   | 10.2          | 12.1          | 20.0          | –             | 1.1           |
| Available for sale investments, investing activities and recovery of VAT <sup>1</sup> | (425.2)       | 414.8         | 372.7         | 278.9         | (496.0)       |
| Purchases and disposals of intangible assets, property, plant and equipment           | (794.6)       | (1,046.9)     | (1,613.7)     | (1,334.2)     | (868.1)       |
| Interest received   | 14.4          | 11.0          | 16.5          | 14.0          | 24.8          |
| Net cash used in investing activities <sup>1</sup>                                    | (1,165.2)     | (638.9)       | (1,204.5)     | (1,041.3)     | (1,338.2)     |
| Financing activities  |               |               |               |               |               |
| Dividends paid to equity holders of the Company                                       | (30.6)        | (127.2)       | (964.2)       | (975.0)       | (438.7)       |
| Dividends paid to preference holders and non-controlling interests                    | (260.0)       | (80.0)        | (412.4)       | (452.3)       | (702.7)       |
| New borrowings less repayment of borrowings and finance leases                        | 214.3         | 452.0         | 1,019.4       | (418.2)       | 105.6         |
| Net cash used in financing activities   | (76.3)        | 244.8         | (357.2)       | (1,845.5)     | (1,035.8)     |
| Net (decrease)/increase in cash and cash equivalents <sup>1</sup>                     | (103.1)       | (1.5)         | 259.2         | (1,181.3)     | 462.7         |
| <b>Consolidated Net Cash</b>  |               |               |               |               |               |
| Cash, cash equivalents and liquid investments <sup>1</sup>                            | 2,048.5       | 1,731.6       | 2,374.5       | 2,685.1       | 4,291.9       |
| Short-term borrowings <sup>3</sup>  | (836.8)       | (758.9)       | (284.5)       | (341.0)       | (447.0)       |
| Medium and long-term borrowings <sup>3</sup>  | (2,283.4)     | (1,996.2)     | (2,091.6)     | (1,032.9)     | (1,442.2)     |
| Net (debt)/cash at the year-end <sup>1</sup>  | (3,120.2)     | (2,755.1)     | (2,376.1)     | (1,373.9)     | (1,889.2)     |
|   | (1,071.7)     | (1,023.5)     | (1.6)         | 1,311.2       | 2,402.7       |

1. The 2012 figures have been restated as a result of the adoption of IFRS 11 Joint Arrangements and the application of the amendments to IAS 19 Employee Benefits in 2013. The investment in associate balance relating to Tethyan Copper Company Limited ("Tethyan") is a negative balance \$3.1 million. The negative balance has been recognised because the Group funds the on-going expenses and liabilities of Tethyan. Given the balance is negative it has been included within non-current liabilities. The 2015, 2014, 2013 and 2012 negatives balance have been reclassified to non-current liabilities.

2. In 2012 the income statement included \$500.0 million as a provision against the carrying value of property, plant and equipment relating to the Antucoya project. Excluding this exceptional item profit before tax was \$3,179.1 million.

3. EBITDA refers to Earnings Before Interest, Tax, Depreciation and Amortisation. EBITDA is calculated by adding back depreciation, amortisation, profit or loss on disposals and impairment charges to operating profit. This comprises 100% of the EBITDA from the Group's subsidiaries, and the Group's proportional share of the EBITDA of its associates and joint ventures.

4. The 2015, 2014, 2013 and 2012 figures have been restated as results of IFRS 5 Non-current Assets Held for sale and Discontinued Operations related to ADASA and FCA sale during 2015 and Michila during 2016.

## OTHER INFORMATION: ORE RESERVES AND MINERAL RESOURCES ESTIMATES

AT 31 DECEMBER 2016

### INTRODUCTION

The ore reserves and mineral resources estimates presented in this report comply with the requirements of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves 2012 edition (the JORC Code) which has been used by the Group as minimum standard for the preparation and disclosure of the information contained herein. The definitions and categories of Ore Reserves and Mineral Resources are set out below.

The information on ore reserves and mineral resources was prepared by or under the supervision of Competent Persons as defined in the JORC Code. The Competent Persons have sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking. The Competent Persons consent to the inclusion in this report of the matters based on their information in the form and context in which it appears. The Competent Person for Exploration Results and Mineral Resources is Aquiles Gonzalez (CP, Chile), Manager of Mineral Resource Evaluation for Antofagasta Minerals S.A. The Competent Person for Ore Reserves is Murray Canfield (P.Eng. Ontario), Technical Manager of Mining for Antofagasta Minerals S.A.

The Group's operations and projects are subject to a comprehensive programme of audits aimed at providing assurance in respect of ore reserves and mineral resources estimates. The audits are conducted by suitably qualified Competent Persons from within a particular division, another division of the Company or from independent consultants.

The ore reserves and mineral resources estimates represent full reserves and resources, with the Group's attributable share for each mine shown in the 'Attributable Tonnage' column. The Group's economic interest in each mine is disclosed in the notes following the estimates on pages 198 to 199. The totals in the table may include some small apparent differences as the specific individual figures have not been rounded.

### DEFINITIONS AND CATEGORIES OF ORE RESERVES AND MINERAL RESOURCES

A '**Mineral Resource**' is a concentration or occurrence of material of intrinsic economic interest in or on the Earth's crust in such form, quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories.

An '**Inferred Mineral Resource**' is that part of a Mineral Resource for which tonnage, grade and mineral content can be estimated with a low level of confidence. It is inferred from geological evidence and assumed but not verified geological and/or grade continuity. It is based on information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes which may be limited or of uncertain quality and reliability.

An '**Indicated Mineral Resource**' is that part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a reasonable level of confidence. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. The locations are too widely or inappropriately spaced to confirm geological and/or grade continuity but are spaced closely enough for continuity to be assumed.

A '**Measured Mineral Resource**' is that part of a Mineral Resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a high level of confidence. It is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes. The locations are spaced closely enough to confirm geological and grade continuity.

An '**Ore Reserve**' is the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined. Appropriate assessments and studies have been carried out, and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction could reasonably be justified. Ore Reserves are sub-divided in order of increasing confidence into Probable Ore Reserves and Proved Ore Reserves.

A '**Probable Ore Reserve**' is the economically mineable part of an Indicated, and in some circumstances, a Measured Mineral Resource. It includes diluting materials and allowances for losses which may occur when the material is mined. Appropriate assessments and studies have been carried out, and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction could reasonably be justified.

A '**Proved Ore Reserve**' is the economically mineable part of a Measured Mineral Resource. It includes diluting materials and allowances for losses which may occur when the material is mined. Appropriate assessments and studies have been carried out, and include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. These assessments demonstrate at the time of reporting that extraction could reasonably be justified.

## ORE RESERVES ESTIMATES

| GROUP SUBSIDIARIES                        | TONNAGE<br>(MILLIONS OF TONNES) |                | COPPER<br>(%) |             | MOLYBDENUM<br>(%) |              | GOLD<br>(G/TONNE) |             | ATTRIBUTABLE TONNAGE<br>(MILLIONS OF TONNES) |                |
|---|---------------------------------|----------------|---------------|-------------|-------------------|--------------|-------------------|-------------|--|----------------|
|   | 2016                            | 2015           | 2016          | 2015        | 2016              | 2015         | 2016              | 2015        | 2016   | 2015           |
| Ore reserves                              |                                 |                |               |             |                   |              |                   |             |  |                |
| Los Pelambres (see note (a))              |                                 |                |               |             |                   |              |                   |             |  |                |
| Proved                                    | 661.9                           | 704.4          | 0.63          | 0.61        | 0.023             | 0.022        | 0.05              | 0.05        | 397.1  | 422.6          |
| Probable                                  | 595.7                           | 604.3          | 0.59          | 0.60        | 0.016             | 0.015        | 0.04              | 0.04        | 357.4  | 362.6          |
| <b>Total</b>                              | <b>1,257.6</b>                  | <b>1,308.7</b> | <b>0.61</b>   | <b>0.61</b> | <b>0.020</b>      | <b>0.019</b> | <b>0.05</b>       | <b>0.05</b> | <b>754.6</b>                                 | <b>785.2</b>   |
| Centinela (see note (b))                  |                                 |                |               |             |                   |              |                   |             |  |                |
| <i>Centinela Cathodes (oxides)</i>        |                                 |                |               |             |                   |              |                   |             |  |                |
| Proved                                    | 38.8                            | 45.6           | 0.66          | 0.68        | –                 | –            | –                 | –           | 27.1   | 31.9           |
| Probable                                  | 151.1                           | 142.9          | 0.35          | 0.36        | –                 | –            | –                 | –           | 105.8  | 100.0          |
| <b>Sub-Total</b>                          | <b>189.9</b>                    | <b>188.5</b>   | <b>0.42</b>   | <b>0.44</b> | <b>–</b>          | <b>–</b>     | <b>–</b>          | <b>–</b>    | <b>132.9</b>                                 | <b>132.0</b>   |
| <i>Centinela Concentrates (sulphides)</i> |                                 |                |               |             |                   |              |                   |             |  |                |
| Proved                                    | 549.8                           | 577.0          | 0.50          | 0.50        | 0.011             | 0.012        | 0.20              | 0.20        | 384.8  | 403.9          |
| Probable                                  | 1,252.6                         | 1,263.4        | 0.41          | 0.41        | 0.012             | 0.012        | 0.13              | 0.13        | 876.8  | 884.4          |
| <b>Sub-Total</b>                          | <b>1,802.3</b>                  | <b>1,840.4</b> | <b>0.44</b>   | <b>0.44</b> | <b>0.012</b>      | <b>0.012</b> | <b>0.15</b>       | <b>0.15</b> | <b>1,261.6</b>                               | <b>1,288.3</b> |
| Proved                                    | 588.5                           | 622.6          | 0.51          | 0.51        | –                 | –            | –                 | –           | 412.0  | 435.8          |
| Probable                                  | 1,403.7                         | 1,406.3        | 0.41          | 0.41        | –                 | –            | –                 | –           | 982.6  | 984.4          |
| <b>Total</b>                              | <b>1,992.2</b>                  | <b>2,028.9</b> | <b>0.44</b>   | <b>0.44</b> | <b>–</b>          | <b>–</b>     | <b>–</b>          | <b>–</b>    | <b>1,394.5</b>                               | <b>1,420.2</b> |
| Encuentro Oxides (see note (c))           |                                 |                |               |             |                   |              |                   |             |  |                |
| Proved                                    | 110.0                           | 109.4          | 0.55          | 0.55        | –                 | –            | –                 | –           | 110.0  | 109.4          |
| Probable                                  | 5.3                             | 6.2            | 0.41          | 0.42        | –                 | –            | –                 | –           | 5.3  | 6.2            |
| <b>Total</b>                              | <b>115.3</b>                    | <b>115.6</b>   | <b>0.54</b>   | <b>0.54</b> | <b>–</b>          | <b>–</b>     | <b>–</b>          | <b>–</b>    | <b>115.3</b>                                 | <b>115.6</b>   |
| Antucoya (see note (i))                   |                                 |                |               |             |                   |              |                   |             |  |                |
| Proved                                    | 360.1                           | 374.0          | 0.36          | 0.36        | –                 | –            | –                 | –           | 252.1  | 261.8          |
| Probable                                  | 337.0                           | 312.6          | 0.30          | 0.31        | –                 | –            | –                 | –           | 235.9  | 218.8          |
| <b>Total</b>                              | <b>697.0</b>                    | <b>686.6</b>   | <b>0.33</b>   | <b>0.34</b> | <b>–</b>          | <b>–</b>     | <b>–</b>          | <b>–</b>    | <b>487.9</b>                                 | <b>480.6</b>   |
| <b>Total Group Subsidiaries</b>           | <b>4,062.2</b>                  | <b>4,139.8</b> | <b>0.48</b>   | <b>0.48</b> | <b>–</b>          | <b>–</b>     | <b>–</b>          | <b>–</b>    | <b>2,752.4</b>                               | <b>2,801.7</b> |

| GROUP JOINT VENTURES              | TONNAGE<br>(MILLIONS OF TONNES) |                | COPPER<br>(%) |             | MOLYBDENUM<br>(%) |          | GOLD<br>(G/TONNE) |          | ATTRIBUTABLE TONNAGE<br>(MILLIONS OF TONNES) |                |
|-----------------------------------|---------------------------------|----------------|---------------|-------------|-------------------|----------|-------------------|----------|--|----------------|
|                                   | 2016                            | 2015           | 2016          | 2015        | 2016              | 2015     | 2016              | 2015     | 2016   | 2015           |
| Zaldivar (see note (m))           |                                 |                |               |             |                   |          |                   |          |  |                |
| Proved                            | 285.3                           | 374.1          | 0.50          | 0.55        | –                 | –        | –                 | –        | 142.7  | 187.1          |
| Probable                          | 175.5                           | 81.2           | 0.54          | 0.53        | –                 | –        | –                 | –        | 87.7   | 40.6           |
| <b>Total Group Joint Ventures</b> | <b>460.8</b>                    | <b>455.3</b>   | <b>0.51</b>   | <b>0.55</b> | <b>–</b>          | <b>–</b> | <b>–</b>          | <b>–</b> | <b>230.4</b>                                 | <b>227.7</b>   |
| <b>Total Group</b>                | <b>4,523.0</b>                  | <b>4,595.1</b> | <b>0.48</b>   | <b>0.49</b> | <b>–</b>          | <b>–</b> | <b>–</b>          | <b>–</b> | <b>2,982.8</b>                               | <b>3,029.3</b> |

**OTHER INFORMATION: ORE RESERVES AND MINERAL RESOURCES ESTIMATES CONTINUED**  
AT 31 DECEMBER 2016

**MINERAL RESOURCES ESTIMATES (INCLUDING ORE RESERVES)**

| GROUP SUBSIDIARIES                        | TONNAGE<br>(MILLIONS OF TONNES) |                | COPPER<br>(%) |             | MOLYBDENUM<br>(%) |              | GOLD<br>(G/TONNE) |             | ATTRIBUTABLE TONNAGE<br>(MILLIONS OF TONNES) |                |
|---|---------------------------------|----------------|---------------|-------------|-------------------|--------------|-------------------|-------------|--|----------------|
|   | 2016                            | 2015           | 2016          | 2015        | 2016              | 2015         | 2016              | 2015        | 2016   | 2015           |
| <b>Los Pelambres (see note (a))</b>       |                                 |                |               |             |                   |              |                   |             |  |                |
| <i>Sulphides</i>                          |                                 |                |               |             |                   |              |                   |             |  |                |
| Measured                                  | 1,095.7                         | 1,151.2        | 0.59          | 0.59        | 0.022             | 0.022        | 0.05              | 0.05        | 657.4  | 690.7          |
| Indicated                                 | 2,260.4                         | 2,262.8        | 0.52          | 0.53        | 0.015             | 0.015        | 0.05              | 0.05        | 1,356.2                                      | 1,357.7        |
| Measured + Indicated                      | 3,356.1                         | 3,414.0        | 0.54          | 0.55        | 0.018             | 0.018        | 0.05              | 0.05        | 2,013.7                                      | 2,048.4        |
| Inferred                                  | 2,728.4                         | 2,690.1        | 0.46          | 0.46        | 0.015             | 0.015        | 0.06              | 0.06        | 1,637.0                                      | 1,614.1        |
| <b>Total</b>                              | <b>6,084.5</b>                  | <b>6,104.1</b> | <b>0.51</b>   | <b>0.51</b> | <b>0.016</b>      | <b>0.016</b> | <b>0.06</b>       | <b>0.06</b> | <b>3,650.7</b>                               | <b>3,662.5</b> |
| <b>Los Pelambres Total</b>                |                                 |                |               |             |                   |              |                   |             |  |                |
| Measured                                  | 1,095.7                         | 1,151.2        | 0.59          | 0.59        | 0.022             | 0.022        | 0.05              | 0.05        | 657.4  | 690.7          |
| Indicated                                 | 2,260.4                         | 2,262.8        | 0.52          | 0.53        | 0.015             | 0.015        | 0.05              | 0.05        | 1,356.2                                      | 1,357.7        |
| Measured + Indicated                      | 3,356.1                         | 3,414.0        | 0.54          | 0.55        | 0.018             | 0.018        | 0.05              | 0.05        | 2,013.7                                      | 2,048.4        |
| Inferred                                  | 2,728.4                         | 2,690.1        | 0.46          | 0.46        | 0.015             | 0.015        | 0.06              | 0.06        | 1,637.0                                      | 1,614.1        |
| <b>Total</b>                              | <b>6,084.5</b>                  | <b>6,104.1</b> | <b>0.51</b>   | <b>0.51</b> | <b>0.016</b>      | <b>0.016</b> | <b>0.06</b>       | <b>0.06</b> | <b>3,650.7</b>                               | <b>3,662.5</b> |
| <b>Centinela (see note (b))</b>           |                                 |                |               |             |                   |              |                   |             |  |                |
| <i>Centinela Cathodes (Oxides)</i>        |                                 |                |               |             |                   |              |                   |             |  |                |
| Measured                                  | 82.9                            | 87.9           | 0.55          | 0.59        | –                 | –            | –                 | –           | 58.1   | 61.5           |
| Indicated                                 | 235.6                           | 230.0          | 0.35          | 0.34        | –                 | –            | –                 | –           | 165.0  | 161.0          |
| Measured + Indicated                      | 318.6                           | 317.9          | 0.40          | 0.41        | –                 | –            | –                 | –           | 223.0  | 222.5          |
| Inferred                                  | 12.1                            | 19.8           | 0.37          | 0.35        | –                 | –            | –                 | –           | 8.5  | 13.9           |
| <b>Sub-Total</b>                          | <b>330.7</b>                    | <b>337.7</b>   | <b>0.40</b>   | <b>0.41</b> | <b>–</b>          | <b>–</b>     | <b>–</b>          | <b>–</b>    | <b>231.5</b>                                 | <b>236.4</b>   |
| <i>Centinela Concentrates (Sulphides)</i> |                                 |                |               |             |                   |              |                   |             |  |                |
| Measured                                  | 579.5                           | 599.8          | 0.48          | 0.49        | 0.011             | 0.012        | 0.19              | 0.19        | 405.6  | 419.8          |
| Indicated                                 | 1,662.3                         | 1,650.2        | 0.38          | 0.39        | 0.012             | 0.012        | 0.12              | 0.12        | 1,163.6                                      | 1,155.1        |
| Measured + Indicated                      | 2,241.8                         | 2,249.9        | 0.41          | 0.41        | 0.012             | 0.012        | 0.14              | 0.14        | 1,569.3                                      | 1,575.0        |
| Inferred                                  | 1,040.4                         | 965.7          | 0.31          | 0.32        | 0.011             | 0.011        | 0.09              | 0.09        | 728.3  | 676.0          |
| <b>Sub-Total</b>                          | <b>3,282.2</b>                  | <b>3,215.7</b> | <b>0.38</b>   | <b>0.38</b> | <b>0.011</b>      | <b>0.012</b> | <b>0.12</b>       | <b>0.13</b> | <b>2,297.5</b>                               | <b>2,251.0</b> |
| <b>Centinela Total</b>                    |                                 |                |               |             |                   |              |                   |             |  |                |
| Measured                                  | 662.4                           | 687.6          | 0.49          | 0.50        | –                 | –            | –                 | –           | 463.7  | 481.3          |
| Indicated                                 | 1,897.9                         | 1,880.2        | 0.38          | 0.38        | –                 | –            | –                 | –           | 1,328.6                                      | 1,316.1        |
| Measured + Indicated                      | 2,560.4                         | 2,567.8        | 0.41          | 0.41        | –                 | –            | –                 | –           | 1,792.3                                      | 1,797.5        |
| Inferred                                  | 1,052.5                         | 985.6          | 0.31          | 0.32        | –                 | –            | –                 | –           | 736.8  | 689.9          |
| <b>Total</b>                              | <b>3,612.9</b>                  | <b>3,553.4</b> | <b>0.38</b>   | <b>0.39</b> | <b>–</b>          | <b>–</b>     | <b>–</b>          | <b>–</b>    | <b>2,529.0</b>                               | <b>2,487.4</b> |
| <b>Encuentro (see note (c))</b>           |                                 |                |               |             |                   |              |                   |             |  |                |
| <i>Oxides</i>                             |                                 |                |               |             |                   |              |                   |             |  |                |
| Measured                                  | 134.4                           | 134.5          | 0.52          | 0.52        | –                 | –            | –                 | –           | 134.4  | 134.5          |
| Indicated                                 | 43.8                            | 43.8           | 0.31          | 0.31        | –                 | –            | –                 | –           | 43.8   | 43.8           |
| Measured + Indicated                      | 178.1                           | 178.2          | 0.47          | 0.47        | –                 | –            | –                 | –           | 178.1  | 178.2          |
| Inferred                                  | 1.2                             | 1.2            | 0.31          | 0.31        | –                 | –            | –                 | –           | 1.2  | 1.2            |
| <b>Sub-Total</b>                          | <b>179.3</b>                    | <b>179.4</b>   | <b>0.47</b>   | <b>0.46</b> | <b>–</b>          | <b>–</b>     | <b>–</b>          | <b>–</b>    | <b>179.3</b>                                 | <b>179.4</b>   |
| <i>Sulphides</i>                          |                                 |                |               |             |                   |              |                   |             |  |                |
| Measured                                  | 407.7                           | 407.9          | 0.53          | 0.53        | 0.015             | 0.015        | 0.21              | 0.21        | 407.7  | 407.9          |
| Indicated                                 | 478.9                           | 498.2          | 0.36          | 0.35        | 0.014             | 0.014        | 0.18              | 0.17        | 478.9  | 498.2          |
| Measured + Indicated                      | 886.6                           | 906.1          | 0.44          | 0.43        | 0.015             | 0.015        | 0.19              | 0.19        | 886.6  | 906.1          |
| Inferred                                  | 92.5                            | 126.9          | 0.32          | 0.31        | 0.012             | 0.012        | 0.15              | 0.13        | 92.5   | 126.9          |
| <b>Sub-Total</b>                          | <b>979.1</b>                    | <b>1,032.9</b> | <b>0.42</b>   | <b>0.42</b> | <b>0.015</b>      | <b>0.014</b> | <b>0.19</b>       | <b>0.18</b> | <b>979.1</b>                                 | <b>1,032.9</b> |
| <b>Encuentro Total</b>                    |                                 |                |               |             |                   |              |                   |             |  |                |
| Measured                                  | 542.0                           | 542.3          | 0.53          | 0.53        | –                 | –            | –                 | –           | 542.0  | 542.3          |
| Indicated                                 | 522.7                           | 542.0          | 0.35          | 0.35        | –                 | –            | –                 | –           | 522.7  | 542.0          |
| Measured + Indicated                      | 1,064.7                         | 1,084.3        | 0.44          | 0.44        | –                 | –            | –                 | –           | 1,064.7                                      | 1,084.3        |
| Inferred                                  | 93.7                            | 128.1          | 0.32          | 0.31        | –                 | –            | –                 | –           | 93.7   | 128.1          |
| <b>Total</b>                              | <b>1,158.4</b>                  | <b>1,212.4</b> | <b>0.43</b>   | <b>0.42</b> | <b>–</b>          | <b>–</b>     | <b>–</b>          | <b>–</b>    | <b>1,158.4</b>                               | <b>1,212.4</b> |

| GROUP SUBSIDIARIES        | TONNAGE<br>(MILLIONS OF TONNES) |      |      |      | COPPER<br>(%) |      | MOLYBDENUM<br>(%) |      | GOLD<br>(G/TONNE) |      | ATTRIBUTABLE TONNAGE<br>(MILLIONS OF TONNES) |      |
|---------------------------|---------------------------------|------|------|------|---------------|------|-------------------|------|-------------------|------|--|------|
|                           | 2016                            | 2015 | 2016 | 2015 | 2016          | 2015 | 2016              | 2015 | 2016              | 2015 | 2016   | 2015 |
| Mirador (see note (d))    |                                 |      |      |      |               |      |                   |      |                   |      |  |      |
| <i>Oxides</i>             |                                 |      |      |      |               |      |                   |      |                   |      |  |      |
| Measured                  | 0.7                             | 0.2  | 0.42 | 0.47 | –             | –    | –                 | –    | –                 | –    | 0.6  | 0.2  |
| Indicated                 | 17.6                            | 8.0  | 0.36 | 0.47 | –             | –    | –                 | –    | –                 | –    | 13.8   | 8.0  |
| Measured + Indicated      | 18.3                            | 8.2  | 0.36 | 0.47 | –             | –    | –                 | –    | –                 | –    | 14.3   | 8.2  |
| Inferred                  | 25.6                            | 13.4 | 0.29 | 0.28 | –             | –    | –                 | –    | –                 | –    | 20.0   | 13.4 |
| Sub-Total                 | 44.0                            | 21.6 | 0.32 | 0.35 | –             | –    | –                 | –    | –                 | –    | 34.3   | 21.6 |
| <i>Sulphides</i>          |                                 |      |      |      |               |      |                   |      |                   |      |  |      |
| Measured                  | 1.2                             | 1.1  | 0.40 | 0.41 | –             | –    | 0.15              | 0.15 | 1.2               | 1.1  |  |      |
| Indicated                 | 23.1                            | 17.7 | 0.35 | 0.36 | –             | –    | 0.13              | 0.14 | 23.1              | 17.7 |  |      |
| Measured + Indicated      | 24.2                            | 18.8 | 0.35 | 0.37 | –             | –    | 0.13              | 0.14 | 24.2              | 18.8 |  |      |
| Inferred                  | 14.1                            | 10.2 | 0.28 | 0.29 | –             | –    | 0.09              | 0.09 | 14.1              | 10.2 |  |      |
| Sub-Total                 | 38.3                            | 29.0 | 0.33 | 0.34 | –             | –    | 0.11              | 0.12 | 38.3              | 29.0 |  |      |
| Mirador Total             |                                 |      |      |      |               |      |                   |      |                   |      |  |      |
| Measured                  | 1.9                             | 1.3  | 0.41 | 0.42 | –             | –    | –                 | –    | 1.8               | 1.3  |  |      |
| Indicated                 | 40.7                            | 25.7 | 0.36 | 0.40 | –             | –    | –                 | –    | 36.8              | 25.7 |  |      |
| Measured + Indicated      | 42.6                            | 27.0 | 0.36 | 0.40 | –             | –    | –                 | –    | 38.6              | 27.0 |  |      |
| Inferred                  | 39.7                            | 23.5 | 0.28 | 0.29 | –             | –    | –                 | –    | 34.1              | 23.5 |  |      |
| Total                     | 82.3                            | 50.6 | 0.32 | 0.34 | –             | –    | –                 | –    | 72.7              | 50.6 |  |      |
| Llano (see note (e))      |                                 |      |      |      |               |      |                   |      |                   |      |  |      |
| <i>Oxides</i>             |                                 |      |      |      |               |      |                   |      |                   |      |  |      |
| Measured                  | 27.9                            | 26.9 | 0.52 | 0.53 | –             | –    | –                 | –    | 19.8              | 19.1 |  |      |
| Indicated                 | 4.0                             | 3.8  | 0.42 | 0.43 | –             | –    | –                 | –    | 2.8               | 2.7  |  |      |
| Measured + Indicated      | 31.9                            | 30.8 | 0.51 | 0.52 | –             | –    | –                 | –    | 22.7              | 21.9 |  |      |
| Inferred                  | 0.6                             | 0.6  | 0.42 | 0.44 | –             | –    | –                 | –    | 0.4               | 0.4  |  |      |
| Sub-Total                 | 32.5                            | 31.4 | 0.51 | 0.51 | –             | –    | –                 | –    | 23.1              | 22.3 |  |      |
| Llano Total               |                                 |      |      |      |               |      |                   |      |                   |      |  |      |
| Measured                  | 27.9                            | 26.9 | 0.52 | 0.53 | –             | –    | –                 | –    | 19.8              | 19.1 |  |      |
| Indicated                 | 4.0                             | 3.8  | 0.42 | 0.43 | –             | –    | –                 | –    | 2.8               | 2.7  |  |      |
| Measured + Indicated      | 31.9                            | 30.8 | 0.51 | 0.52 | –             | –    | –                 | –    | 22.7              | 21.9 |  |      |
| Inferred                  | 0.6                             | 0.6  | 0.42 | 0.44 | –             | –    | –                 | –    | 0.4               | 0.4  |  |      |
| Total                     | 32.5                            | 31.4 | 0.51 | 0.51 | –             | –    | –                 | –    | 23.1              | 22.3 |  |      |
| Paleocanal (see note (f)) |                                 |      |      |      |               |      |                   |      |                   |      |  |      |
| <i>Oxides</i>             |                                 |      |      |      |               |      |                   |      |                   |      |  |      |
| Measured                  | 11.3                            | 10.3 | 0.50 | 0.52 | –             | –    | –                 | –    | 10.2              | 9.1  |  |      |
| Indicated                 | 4.4                             | 3.4  | 0.42 | 0.41 | –             | –    | –                 | –    | 3.9               | 3.0  |  |      |
| Measured + Indicated      | 15.7                            | 13.7 | 0.48 | 0.49 | –             | –    | –                 | –    | 14.2              | 12.2 |  |      |
| Inferred                  | 1.3                             | 0.5  | 0.30 | 0.33 | –             | –    | –                 | –    | 1.2               | 0.5  |  |      |
| Sub-Total                 | 17.0                            | 14.2 | 0.46 | 0.49 | –             | –    | –                 | –    | 15.4              | 12.6 |  |      |
| Paleocanal Total          |                                 |      |      |      |               |      |                   |      |                   |      |  |      |
| Measured                  | 11.3                            | 10.3 | 0.50 | 0.52 | –             | –    | –                 | –    | 10.2              | 9.1  |  |      |
| Indicated                 | 4.4                             | 3.4  | 0.42 | 0.41 | –             | –    | –                 | –    | 3.9               | 3.0  |  |      |
| Measured + Indicated      | 15.7                            | 13.7 | 0.48 | 0.49 | –             | –    | –                 | –    | 14.2              | 12.2 |  |      |
| Inferred                  | 1.3                             | 0.5  | 0.30 | 0.33 | –             | –    | –                 | –    | 1.2               | 0.5  |  |      |
| Total                     | 17.0                            | 14.2 | 0.46 | 0.49 | –             | –    | –                 | –    | 15.4              | 12.6 |  |      |

**OTHER INFORMATION: ORE RESERVES AND MINERAL RESOURCES ESTIMATES CONTINUED**  
AT 31 DECEMBER 2016

**MINERAL RESOURCES ESTIMATES (INCLUDING ORE RESERVES) CONTINUED**

| GROUP SUBSIDIARIES            | TONNAGE<br>(MILLIONS OF TONNES) |                |             |             | COPPER<br>(%) |              | MOLYBDENUM<br>(%) |             | GOLD<br>(G/TONNE) |             | ATTRIBUTABLE TONNAGE<br>(MILLIONS OF TONNES) |                |
|-------------------------------|---------------------------------|----------------|-------------|-------------|---------------|--------------|-------------------|-------------|-------------------|-------------|--|----------------|
|                               | 2016                            | 2015           | 2016        | 2015        | 2016          | 2015         | 2016              | 2015        | 2016              | 2015        | 2016   | 2015           |
| Polo Sur (see note (g))       |                                 |                |             |             |               |              |                   |             |                   |             |  |                |
| <i>Oxides</i>                 |                                 |                |             |             |               |              |                   |             |                   |             |  |                |
| Measured                      | —                               | —              | —           | —           | —             | —            | —                 | —           | —                 | —           | —  | —              |
| Indicated                     | 86.8                            | 86.8           | 0.43        | 0.43        | —             | —            | —                 | —           | —                 | —           | 86.8   | 86.8           |
| Measured + Indicated          | 86.8                            | 86.8           | 0.43        | 0.43        | —             | —            | —                 | —           | —                 | —           | 86.8   | 86.8           |
| Inferred                      | 38.8                            | 38.7           | 0.35        | 0.35        | —             | —            | —                 | —           | —                 | —           | 38.8   | 38.7           |
| <b>Sub-Total</b>              | <b>125.6</b>                    | <b>125.5</b>   | <b>0.40</b> | <b>0.40</b> | <b>—</b>      | <b>—</b>     | <b>—</b>          | <b>—</b>    | <b>—</b>          | <b>—</b>    | <b>125.6</b>                                 | <b>125.5</b>   |
| <i>Sulphides</i>              |                                 |                |             |             |               |              |                   |             |                   |             |  |                |
| Measured                      | —                               | —              | —           | —           | —             | —            | —                 | —           | —                 | —           | —  | —              |
| Indicated                     | 704.1                           | 706.1          | 0.37        | 0.37        | 0.007         | 0.007        | 0.06              | 0.06        | 0.06              | 0.06        | 704.1  | 706.1          |
| Measured + Indicated          | 704.1                           | 706.1          | 0.37        | 0.37        | 0.007         | 0.007        | 0.06              | 0.06        | 0.06              | 0.06        | 704.1  | 706.1          |
| Inferred                      | 684.8                           | 712.2          | 0.30        | 0.30        | 0.007         | 0.007        | 0.05              | 0.05        | 0.05              | 0.05        | 684.8  | 712.2          |
| <b>Sub-Total</b>              | <b>1,388.9</b>                  | <b>1,418.2</b> | <b>0.34</b> | <b>0.34</b> | <b>0.007</b>  | <b>0.007</b> | <b>0.05</b>       | <b>0.05</b> | <b>0.05</b>       | <b>0.05</b> | <b>1,388.9</b>                               | <b>1,418.2</b> |
| <i>Polo Sur Total</i>         |                                 |                |             |             |               |              |                   |             |                   |             |  |                |
| Measured                      | —                               | —              | —           | —           | —             | —            | —                 | —           | —                 | —           | —  | —              |
| Indicated                     | 790.9                           | 792.9          | 0.38        | 0.38        | —             | —            | —                 | —           | —                 | —           | 790.9  | 792.9          |
| Measured + Indicated          | 790.9                           | 792.9          | 0.38        | 0.38        | —             | —            | —                 | —           | —                 | —           | 790.9  | 792.9          |
| Inferred                      | 723.6                           | 750.8          | 0.31        | 0.31        | —             | —            | —                 | —           | —                 | —           | 723.6  | 750.8          |
| <b>Total</b>                  | <b>1,514.5</b>                  | <b>1,543.7</b> | <b>0.34</b> | <b>0.34</b> | <b>—</b>      | <b>—</b>     | <b>—</b>          | <b>—</b>    | <b>—</b>          | <b>—</b>    | <b>1,514.5</b>                               | <b>1,543.7</b> |
| Penacho Blanco (see note (h)) |                                 |                |             |             |               |              |                   |             |                   |             |  |                |
| <i>Oxides</i>                 |                                 |                |             |             |               |              |                   |             |                   |             |  |                |
| Measured                      | —                               | —              | —           | —           | —             | —            | —                 | —           | —                 | —           | —  | —              |
| Indicated                     | —                               | —              | —           | —           | —             | —            | —                 | —           | —                 | —           | —  | —              |
| Measured + Indicated          | —                               | —              | —           | —           | —             | —            | —                 | —           | —                 | —           | —  | —              |
| Inferred                      | 18.3                            | 11.0           | 0.29        | 0.30        | —             | —            | —                 | —           | —                 | —           | 9.3  | 5.6            |
| <b>Sub-Total</b>              | <b>18.3</b>                     | <b>11.0</b>    | <b>0.29</b> | <b>0.30</b> | <b>—</b>      | <b>—</b>     | <b>—</b>          | <b>—</b>    | <b>—</b>          | <b>—</b>    | <b>9.3</b>                                   | <b>5.6</b>     |
| <i>Sulphides</i>              |                                 |                |             |             |               |              |                   |             |                   |             |  |                |
| Measured                      | —                               | —              | —           | —           | —             | —            | —                 | —           | —                 | —           | —  | —              |
| Indicated                     | —                               | —              | —           | —           | —             | —            | —                 | —           | —                 | —           | —  | —              |
| Measured + Indicated          | —                               | —              | —           | —           | —             | —            | —                 | —           | —                 | —           | —  | —              |
| Inferred                      | 321.9                           | 281.8          | 0.38        | 0.41        | —             | —            | 0.05              | 0.05        | 0.05              | 0.05        | 164.2  | 143.7          |
| <b>Sub-Total</b>              | <b>321.9</b>                    | <b>281.8</b>   | <b>0.38</b> | <b>0.41</b> | <b>—</b>      | <b>—</b>     | <b>0.05</b>       | <b>0.05</b> | <b>0.05</b>       | <b>0.05</b> | <b>164.2</b>                                 | <b>143.7</b>   |
| <i>Penacho Blanco Total</i>   |                                 |                |             |             |               |              |                   |             |                   |             |  |                |
| Measured                      | —                               | —              | —           | —           | —             | —            | —                 | —           | —                 | —           | —  | —              |
| Indicated                     | —                               | —              | —           | —           | —             | —            | —                 | —           | —                 | —           | —  | —              |
| Measured + Indicated          | —                               | —              | —           | —           | —             | —            | —                 | —           | —                 | —           | —  | —              |
| Inferred                      | 340.2                           | 292.8          | 0.37        | 0.41        | —             | —            | —                 | —           | —                 | —           | 173.5  | 149.3          |
| <b>Total</b>                  | <b>340.2</b>                    | <b>292.8</b>   | <b>0.37</b> | <b>0.41</b> | <b>—</b>      | <b>—</b>     | <b>0.05</b>       | <b>0.05</b> | <b>0.05</b>       | <b>0.05</b> | <b>173.5</b>                                 | <b>149.3</b>   |

| GROUP SUBSIDIARIES                 | TONNAGE<br>(MILLIONS OF TONNES) |                |             |             | COPPER<br>(%) |              | MOLYBDENUM<br>(%) |          | GOLD<br>(G/TONNE) |              | ATTRIBUTABLE TONNAGE<br>(MILLIONS OF TONNES) |      |
|------------------------------------|---------------------------------|----------------|-------------|-------------|---------------|--------------|-------------------|----------|-------------------|--------------|--|------|
|                                    | 2016                            | 2015           | 2016        | 2015        | 2016          | 2015         | 2016              | 2015     | 2016              | 2015         | 2016   | 2015 |
| <b>Antucoya (see note (i))</b>     |                                 |                |             |             |               |              |                   |          |                   |              |  |      |
| <i>Oxides</i>                      |                                 |                |             |             |               |              |                   |          |                   |              |  |      |
| Measured                           | 412.4                           | 437.3          | 0.34        | 0.34        | —             | —            | —                 | —        | 288.6             | 306.1        |  |      |
| Indicated                          | 472.8                           | 463.0          | 0.30        | 0.30        | —             | —            | —                 | —        | 331.0             | 324.1        |  |      |
| Measured + Indicated               | 885.1                           | 900.3          | 0.32        | 0.32        | —             | —            | —                 | —        | 619.6             | 630.2        |  |      |
| Inferred                           | 410.5                           | 354.7          | 0.27        | 0.27        | —             | —            | —                 | —        | 287.4             | 248.3        |  |      |
| <b>Total</b>                       | <b>1,295.7</b>                  | <b>1,255.1</b> | <b>0.30</b> | <b>0.31</b> | <b>—</b>      | <b>—</b>     | <b>—</b>          | <b>—</b> | <b>907.0</b>      | <b>878.6</b> |  |      |
| <b>Antucoya Total</b>              |                                 |                |             |             |               |              |                   |          |                   |              |  |      |
| Measured                           | 412.4                           | 437.3          | 0.34        | 0.34        | —             | —            | —                 | —        | 288.6             | 306.1        |  |      |
| Indicated                          | 472.8                           | 463.0          | 0.30        | 0.30        | —             | —            | —                 | —        | 331.0             | 324.1        |  |      |
| Measured + Indicated               | 885.1                           | 900.3          | 0.32        | 0.32        | —             | —            | —                 | —        | 619.6             | 630.2        |  |      |
| Inferred                           | 410.5                           | 354.7          | 0.27        | 0.27        | —             | —            | —                 | —        | 287.4             | 248.3        |  |      |
| <b>Total</b>                       | <b>1,295.7</b>                  | <b>1,255.1</b> | <b>0.30</b> | <b>0.31</b> | <b>—</b>      | <b>—</b>     | <b>—</b>          | <b>—</b> | <b>907.0</b>      | <b>878.6</b> |  |      |
| <b>Los Volcanes (see note (j))</b> |                                 |                |             |             |               |              |                   |          |                   |              |  |      |
| <i>Oxides</i>                      |                                 |                |             |             |               |              |                   |          |                   |              |  |      |
| Measured                           | —                               | —              | —           | —           | —             | —            | —                 | —        | —                 | —            | —  | —    |
| Indicated                          | —                               | —              | —           | —           | —             | —            | —                 | —        | —                 | —            | —  | —    |
| Measured + Indicated               | —                               | —              | —           | —           | —             | —            | —                 | —        | —                 | —            | —  | —    |
| Inferred                           | 30.4                            | 30.4           | 0.31        | 0.31        | —             | —            | —                 | —        | 15.5              | 15.5         |  |      |
| <b>Sub-Total</b>                   | <b>30.4</b>                     | <b>30.4</b>    | <b>0.31</b> | <b>0.31</b> | <b>—</b>      | <b>—</b>     | <b>—</b>          | <b>—</b> | <b>15.5</b>       | <b>15.5</b>  |  |      |
| <i>Sulphides</i>                   |                                 |                |             |             |               |              |                   |          |                   |              |  |      |
| Measured                           | —                               | —              | —           | —           | —             | —            | —                 | —        | —                 | —            | —  | —    |
| Indicated                          | —                               | —              | —           | —           | —             | —            | —                 | —        | —                 | —            | —  | —    |
| Measured + Indicated               | —                               | —              | —           | —           | —             | —            | —                 | —        | —                 | —            | —  | —    |
| Inferred                           | 1,873.4                         | 1,873.4        | 0.50        | 0.50        | 0.011         | 0.011        | —                 | —        | 955.4             | 955.4        |  |      |
| <b>Sub-Total</b>                   | <b>1,873.4</b>                  | <b>1,873.4</b> | <b>0.50</b> | <b>0.50</b> | <b>0.011</b>  | <b>0.011</b> | <b>—</b>          | <b>—</b> | <b>955.4</b>      | <b>955.4</b> |  |      |
| <b>Los Volcanes Total</b>          |                                 |                |             |             |               |              |                   |          |                   |              |  |      |
| Measured                           | —                               | —              | —           | —           | —             | —            | —                 | —        | —                 | —            | —  | —    |
| Indicated                          | —                               | —              | —           | —           | —             | —            | —                 | —        | —                 | —            | —  | —    |
| Measured + Indicated               | —                               | —              | —           | —           | —             | —            | —                 | —        | —                 | —            | —  | —    |
| Inferred                           | 1,903.8                         | 1,903.8        | 0.50        | 0.50        | —             | —            | —                 | —        | 970.9             | 970.9        |  |      |
| <b>Total</b>                       | <b>1,903.8</b>                  | <b>1,903.8</b> | <b>0.50</b> | <b>0.50</b> | <b>—</b>      | <b>—</b>     | <b>—</b>          | <b>—</b> | <b>970.9</b>      | <b>970.9</b> |  |      |
| <b>Michilla (see note (k))</b>     |                                 |                |             |             |               |              |                   |          |                   |              |  |      |
| <i>Oxides</i>                      |                                 |                |             |             |               |              |                   |          |                   |              |  |      |
| Measured                           | —                               | 22.0           | —           | 1.72        | —             | —            | —                 | —        | —                 | —            | 22.0   |      |
| Indicated                          | —                               | 23.2           | —           | 1.51        | —             | —            | —                 | —        | —                 | —            | 23.2   |      |
| Measured + Indicated               | —                               | 45.2           | —           | 1.61        | —             | —            | —                 | —        | —                 | —            | 45.2   |      |
| Inferred                           | —                               | 15.1           | —           | 1.72        | —             | —            | —                 | —        | —                 | —            | 15.1   |      |
| <b>Total</b>                       | <b>—</b>                        | <b>60.3</b>    | <b>—</b>    | <b>1.64</b> | <b>—</b>      | <b>—</b>     | <b>—</b>          | <b>—</b> | <b>—</b>          | <b>—</b>     | <b>60.3</b>                                  |      |
| <b>Michilla Total</b>              |                                 |                |             |             |               |              |                   |          |                   |              |  |      |
| Measured                           | —                               | 22.0           | —           | 1.72        | —             | —            | —                 | —        | —                 | —            | 22.0   |      |
| Indicated                          | —                               | 23.2           | —           | 1.51        | —             | —            | —                 | —        | —                 | —            | 23.2   |      |
| Measured + Indicated               | —                               | 45.2           | —           | 1.61        | —             | —            | —                 | —        | —                 | —            | 45.2   |      |
| Inferred                           | —                               | 15.1           | —           | 1.72        | —             | —            | —                 | —        | —                 | —            | 15.1   |      |
| <b>Total</b>                       | <b>—</b>                        | <b>60.3</b>    | <b>—</b>    | <b>1.64</b> | <b>—</b>      | <b>—</b>     | <b>—</b>          | <b>—</b> | <b>—</b>          | <b>—</b>     | <b>60.3</b>                                  |      |

**OTHER INFORMATION: ORE RESERVES AND MINERAL RESOURCES ESTIMATES CONTINUED**  
AT 31 DECEMBER 2016

**MINERAL RESOURCES ESTIMATES (INCLUDING ORE RESERVES) CONTINUED**

| GROUP SUBSIDIARIES              | TONNAGE<br>(MILLIONS OF TONNES) |                 |             |             | COPPER<br>(%) |             | NICKEL<br>(%) |             | TPM<br>(G/TONNE AU+PT+PD) | ATTRIBUTABLE TONNAGE<br>(MILLIONS OF TONNES) |      |
|---------------------------------|---------------------------------|-----------------|-------------|-------------|---------------|-------------|---------------|-------------|---------------------------|--|------|
|                                 | 2016                            | 2015            | 2016        | 2015        | 2016          | 2015        | 2016          | 2015        |                           | 2016   | 2015 |
| Twin Metals (see note (l))      |                                 |                 |             |             |               |             |               |             |                           |  |      |
| <i>Maturi</i>                   |                                 |                 |             |             |               |             |               |             |                           |  |      |
| Measured                        | 279.5                           | 279.5           | 0.63        | 0.63        | 0.20          | 0.20        | 0.57          | 0.57        | 215.3                     | 215.3  |      |
| Indicated                       | 745.5                           | 745.5           | 0.58        | 0.58        | 0.19          | 0.19        | 0.59          | 0.59        | 712.5                     | 712.5  |      |
| Measured + Indicated            | 1,025.0                         | 1,025.0         | 0.59        | 0.59        | 0.19          | 0.19        | 0.58          | 0.58        | 927.7                     | 927.7  |      |
| Inferred                        | 481.4                           | 481.4           | 0.49        | 0.49        | 0.16          | 0.16        | 0.52          | 0.52        | 433.6                     | 433.6  |      |
| <b>Sub-Total</b>                | <b>1,506.4</b>                  | <b>1,506.4</b>  | <b>0.56</b> | <b>0.56</b> | <b>0.18</b>   | <b>0.18</b> | <b>0.56</b>   | <b>0.56</b> | <b>1,361.3</b>            | <b>1,361.3</b>                               |      |
| <i>Maturi South West</i>        |                                 |                 |             |             |               |             |               |             |                           |  |      |
| Measured                        | —                               | —               | —           | —           | —             | —           | —             | —           | —                         | —  | —    |
| Indicated                       | 93.1                            | 93.1            | 0.48        | 0.48        | 0.17          | 0.17        | 0.31          | 0.31        | 65.2                      | 65.2   |      |
| Measured + Indicated            | 93.1                            | 93.1            | 0.48        | 0.48        | 0.17          | 0.17        | 0.31          | 0.31        | 65.2                      | 65.2   |      |
| Inferred                        | 29.3                            | 29.3            | 0.43        | 0.43        | 0.15          | 0.15        | 0.26          | 0.26        | 20.5                      | 20.5   |      |
| <b>Sub-Total</b>                | <b>122.4</b>                    | <b>122.4</b>    | <b>0.47</b> | <b>0.47</b> | <b>0.17</b>   | <b>0.17</b> | <b>0.30</b>   | <b>0.30</b> | <b>85.7</b>               | <b>85.7</b>                                  |      |
| <i>Birch Lake</i>               |                                 |                 |             |             |               |             |               |             |                           |  |      |
| Measured                        | —                               | —               | —           | —           | —             | —           | —             | —           | —                         | —  | —    |
| Indicated                       | 90.4                            | 90.4            | 0.52        | 0.52        | 0.16          | 0.16        | 0.87          | 0.87        | 63.3                      | 63.3   |      |
| Measured + Indicated            | 90.4                            | 90.4            | 0.52        | 0.52        | 0.16          | 0.16        | 0.87          | 0.87        | 63.3                      | 63.3   |      |
| Inferred                        | 217.0                           | 217.0           | 0.46        | 0.46        | 0.15          | 0.15        | 0.64          | 0.64        | 151.9                     | 151.9  |      |
| <b>Sub-Total</b>                | <b>307.4</b>                    | <b>307.4</b>    | <b>0.48</b> | <b>0.48</b> | <b>0.15</b>   | <b>0.15</b> | <b>0.70</b>   | <b>0.70</b> | <b>215.2</b>              | <b>215.2</b>                                 |      |
| <i>Spruce Road</i>              |                                 |                 |             |             |               |             |               |             |                           |  |      |
| Measured                        | —                               | —               | —           | —           | —             | —           | —             | —           | —                         | —  | —    |
| Indicated                       | —                               | —               | —           | —           | —             | —           | —             | —           | —                         | —  | —    |
| Measured + Indicated            | —                               | —               | —           | —           | —             | —           | —             | —           | —                         | —  | —    |
| Inferred                        | 435.5                           | 435.5           | 0.43        | 0.43        | 0.16          | 0.16        | —             | —           | 304.8                     | 304.8  |      |
| <b>Sub-Total</b>                | <b>435.5</b>                    | <b>435.5</b>    | <b>0.43</b> | <b>0.43</b> | <b>0.16</b>   | <b>0.16</b> | <b>—</b>      | <b>—</b>    | <b>304.8</b>              | <b>304.8</b>                                 |      |
| <i>Twin Metals Total</i>        |                                 |                 |             |             |               |             |               |             |                           |  |      |
| Measured                        | 279.5                           | 279.5           | 0.63        | 0.63        | 0.20          | 0.20        | 0.57          | 0.57        | 215.3                     | 215.3  |      |
| Indicated                       | 929.1                           | 929.1           | 0.56        | 0.56        | 0.19          | 0.19        | 0.59          | 0.59        | 840.9                     | 840.9  |      |
| Measured + Indicated            | 1,208.6                         | 1,208.6         | 0.58        | 0.58        | 0.19          | 0.19        | 0.58          | 0.58        | 1,056.2                   | 1,056.2                                      |      |
| Inferred                        | 1,163.1                         | 1,163.1         | 0.46        | 0.46        | 0.16          | 0.16        | 0.34          | 0.34        | 910.8                     | 910.8  |      |
| <b>Total</b>                    | <b>2,371.7</b>                  | <b>2,371.7</b>  | <b>0.52</b> | <b>0.52</b> | <b>0.17</b>   | <b>0.17</b> | <b>0.46</b>   | <b>0.46</b> | <b>1,967.0</b>            | <b>1,967.0</b>                               |      |
| Group subsidiaries              |                                 |                 |             |             |               |             |               |             |                           |  |      |
| Measured + Indicated            | 9,956.0                         | 10,084.6        | 0.47        | 0.48        | —             |             |               |             | 7,412.7                   | 7,515.8                                      |      |
| Inferred                        | 8,457.5                         | 8,308.9         | 0.42        | 0.43        | —             |             |               |             | 5,569.4                   | 5,501.8                                      |      |
| <b>Group Subsidiaries total</b> | <b>18,413.5</b>                 | <b>18,393.5</b> | <b>0.45</b> | <b>0.45</b> |               |             |               |             | <b>12,982.2</b>           | <b>13,017.8</b>                              |      |

| GROUP JOINT VENTURES       | TONNAGE<br>(MILLIONS OF TONNES) |          |      |      | COPPER<br>(%) |      | MOLYBDENUM<br>(%) |      | GOLD<br>(G/TONNE) |          | ATTRIBUTABLE TONNAGE<br>(MILLIONS OF TONNES) |      |
|----------------------------|---------------------------------|----------|------|------|---------------|------|-------------------|------|-------------------|----------|--|------|
|                            | 2016                            | 2015     | 2016 | 2015 | 2016          | 2015 | 2016              | 2015 | 2016              | 2015     | 2016   | 2015 |
| Zaldívar (see note (m))    |                                 |          |      |      |               |      |                   |      |                   |          |  |      |
| <i>Oxides</i>              |                                 |          |      |      |               |      |                   |      |                   |          |  |      |
| Measured                   | 444.2                           | 465.1    | 0.50 | 0.53 | –             | –    | –                 | –    | 222.1             | 232.6    |  |      |
| Indicated                  | 177.4                           | 111.1    | 0.45 | 0.50 | –             | –    | –                 | –    | 88.7              | 55.6     |  |      |
| Measured + Indicated       | 621.6                           | 576.3    | 0.49 | 0.52 | –             | –    | –                 | –    | 310.8             | 288.1    |  |      |
| Inferred                   | 8.1                             | 6.0      | 0.53 | 0.61 | –             | –    | –                 | –    | 4.1               | 3.0      |  |      |
| Total                      | 629.7                           | 582.3    | 0.49 | 0.53 | –             | –    | –                 | –    | 314.9             | 291.1    |  |      |
| <i>Zaldívar Total</i>      |                                 |          |      |      |               |      |                   |      |                   |          |  |      |
| Measured                   | 444.2                           | 465.1    | 0.50 | 0.53 | –             | –    | –                 | –    | 222.1             | 232.6    |  |      |
| Indicated                  | 177.4                           | 111.1    | 0.45 | 0.50 | –             | –    | –                 | –    | 88.7              | 55.6     |  |      |
| Measured + Indicated       | 621.6                           | 576.3    | 0.49 | 0.52 | –             | –    | –                 | –    | 310.8             | 288.1    |  |      |
| Inferred                   | 8.1                             | 6.0      | 0.53 | 0.61 | –             | –    | –                 | –    | 4.1               | 3.0      |  |      |
| Group Joint Ventures total | 629.7                           | 582.3    | 0.49 | 0.53 | –             | –    | –                 | –    | 314.9             | 291.1    |  |      |
| TOTAL GROUP                | 2016                            | 2015     | 2016 | 2015 | 2016          | 2015 | 2016              | 2015 | 2016              | 2015     | 2016   | 2015 |
| Measured + Indicated       | 10,577.6                        | 10,660.9 | 0.47 | 0.48 |               |      |                   |      | 7,723.5           | 7,803.9  |  |      |
| Inferred                   | 8,465.6                         | 8,314.9  | 0.42 | 0.43 |               |      |                   |      | 5,573.5           | 5,504.8  |  |      |
| Total                      | 19,043.2                        | 18,975.7 | 0.45 | 0.46 |               |      |                   |      | 13,297.0          | 13,308.7 |  |      |

## OTHER INFORMATION: ORE RESERVES AND MINERAL RESOURCES ESTIMATES CONTINUED AT 31 DECEMBER 2016

### NOTES TO ORE RESERVES AND MINERAL RESOURCES ESTIMATES

The ore reserves mentioned in this report were determined considering specific cut-off grades for each mine and using a long-term copper price of \$3.10/lb (unchanged from 2015), \$9.00/lb molybdenum (\$10.00/lb in 2015) and \$1,250/oz gold (\$1,300 in 2015), unless otherwise noted. These same values have been used for copper equivalent (CuEq) estimates, where appropriate.

In order to ensure that the stated resources represent mineralisation that has "reasonable prospects for eventual economic extraction" (JORC code) the resources are enclosed within pit shells that were optimised based on measured, indicated and inferred resources and considering a copper price of \$3.60/lb (unchanged from 2015). Mineralisation estimated outside these pit shells is not included in the resource figures.

#### A) LOS PELAMBRES

Los Pelambres is 60% owned by the Group. The cut-off grade applied to the determination of ore reserves is 0.42% copper and for mineral resources is 0.35% copper. For 2016 the mineral resource model has been updated with 28 drill holes for a total of 6,264 metres. The decrease of 52 million tonnes in ore reserves is due principally to depletion in the period and reflects the remaining capacity of the existing tailing dams, limiting the amount of mineral resource that can be converted into ore reserves. Mineral resources in the measured plus indicated categories decreased by 58 million tonnes, also due principally to depletion in the period. Resources in the inferred category increased by 38 million tonnes as a result of incorporation of new information from the drilling campaign to the resource model.

#### B) CENTINELA (CONCENTRATES & CATHODES)

Centinela is 70% owned by the Group and consists of Centinela Concentrates (Esperanza + Esperanza Sur, mostly sulphide porphyry deposits) and Centinela Cathodes (Tesoro Central, an oxide deposit + the oxide portion of the Mirador deposit) operations. The cut-off grade applied to the determination of ore reserves for Centinela Concentrates is 0.20% equivalent copper, with 0.15% copper used as a cut-off grade for mineral resources. The cut-off grade used for the Centinela Cathodes deposits is as follows: Tesoro Central deposit is 0.41% copper for ore reserves and 0.30% for mineral resources; the Mirador Oxides deposit is 0.30% copper for ore reserves and 0.15% for mineral resources. The cut-off grade applied to oxides contained in the Esperanza deposit (processed separately as Run-of-Mine leach, or ROM) is 0.20% copper for ore reserves and 0.15% copper for mineral resources. Centinela ore reserves decreased by a net 36 million tonnes after depletion of 31 million tonnes, while mineral resources increased by a net 60 million tonnes. The increase is mainly in Esperanza and Esperanza Sur deposits due to updates to the economic parameters in the period. The Centinela Cathodes ore reserves are made up of 80.7 million tonnes at 0.60% copper of heap leach ore and 109.2 million tonnes at 0.28% copper of ROM ore.

#### C) ENCUENTRO

Encuentro is 100% owned by the Group. The cut-off grade applied to the determination of mineral resources for both oxides and sulphides is 0.15% copper. The oxide portion of the porphyry copper deposit is part of the Encuentro Oxides project currently in construction and will feed into the Centinela Cathodes operation. Ore Reserves are related to the Encuentro Oxide project, use a cut-off grade of 0.20% copper and have remained virtually unchanged from 2015. The decrease of 54 million tonnes in mineral resources is mainly due to changes in economic assumptions impacting the sulphide portion of the deposit.

#### D) MIRADOR

Mirador is 100% owned by the Group. A portion of Mirador Oxides is subject to an agreement between the Group and Centinela, whereby Centinela purchased the rights to mine the oxide ore reserves within an identified area. The ore reserves and mineral resources for Mirador Oxides subject to the agreement with Centinela are included in the Centinela Cathodes section. The resources not subject to the agreement are reported in this section. The cut-off grade applied to the determination of mineral resources for oxides is 0.15% copper and for sulphides is 0.20% copper. For 2016 the resource model has been updated with 122 drill holes for a total of 20,002 metres. The increase of 32 million tonnes in resources is due principally to a decrease in projected processing costs.

#### E) LLANO

The Llano deposit is covered by AMSA and Centinela mining tenements shared in different proportions, with the Group owning 71.1% of the resource. The cut-off grade applied to the determination of mineral resources is 0.15% copper. For 2016 the resource model has not been updated.

#### F) PALEOCANAL

The Paleocanal deposit is covered by AMSA and Centinela mining tenements shared in different proportions, with the Group owning 90.2% of the resource. The cut-off grade applied to the determination of mineral resources is 0.15% copper. For 2016 the resource model has not been updated.

#### G) POLO SUR

Polo Sur is 100% owned by the Group. The cut-off grade applied to the determination of mineral resources for both oxides and sulphides is 0.20% copper. For 2016 the resource model has been refined without additional drill holes.

#### H) PENACHO BLANCO

Penacho Blanco is 51% owned by the Group. The cut-off grade applied to the determination of mineral resources for both oxides and sulphides is 0.20% copper. For 2016 the resource model has been refined without additional drill holes.

#### I) ANTUCOYA

Antucoya is 70% owned by the Group. The ore reserve cut-off grade is calculated using an economic formula with a minimum of 0.16% copper, while the cut-off grade for mineral resources is 0.15% copper. Despite depletion in the period of 24 million tonnes, ore reserves have increased by 10 million tonnes mainly due to changes in economic assumptions and an updated pit design. Mineral Resources have increased by 40 million tonnes due to changes in economic assumptions and changes to the geo-metallurgical model.

#### J) LOS VOLCANES

Los Volcanes is 51% owned by the Group. The cut-off grade applied to the determination of ore reserves and mineral resources is 0.20% copper. For 2016 the mineral resource model has not been updated.

#### K) MICHILLA

During 2016 Michilla was sold to Haldeman Mining Company S.A.

## L) TWIN METALS MINNESOTA LLC

Twin Metals Minnesota LLC ("Twin Metals") is owned 100% by the Group.

Twin Metals has a 70% interest in the Birch Lake Joint Venture ("BLJV") which holds the Birch Lake, Spruce Road and Maturi Southwest deposits, as well as a portion of the main Maturi deposit. With these interests taken into consideration, Twin Metals owns 82.9% of the resource. The resource estimate remains unchanged from 2015.

The cut-off grade applied to the determination of mineral resources is 0.3% copper, which when combined with credits from nickel, platinum, palladium and gold, is deemed appropriate for an underground operation. In the resource table 'TPM' (Total Precious Metals) refers to the sum of platinum, palladium and gold values in grammes per tonne. The TPM value of 0.57 g/tonne for the Maturi resource estimate is made up of 0.15 g/tonne platinum, 0.34 g/tonne palladium and 0.08 g/tonne gold. The TPM value of 0.30 g/tonne for the Maturi Southwest resource estimate is made up of 0.08 g/tonne platinum, 0.17 g/tonne palladium and 0.05 g/tonne gold. The TPM value of 0.70 g/tonne for the Birch Lake resource estimate is made up of 0.19 g/tonne platinum, 0.41 g/tonne palladium and 0.10 g/tonne gold. The Spruce Road resource estimate does not include TPM values as they were not assayed.

The Solicitor of the Department of the Interior (DOI) issued a legal opinion concluding that the Bureau of Land Management (BLM) has discretion to deny Twin Metals' application for renewal of federal mineral leases MNES-1352 and MNES-1353. The United States Forest Service (USFS) declined to consent to renewal of the leases on 14 December 2016, and BLM rejected Twin Metals' application to renew the leases the next day. These leases represent only a portion of Twin Metals' total mineral resources shown above.

On 12 September 2016, Twin Metals (TMM) filed a complaint in the U.S. District Court in Minnesota against the DOI. TMM brought claims seeking to secure its rights to the two federal mineral leases. Following the USFS withholding of consent and BLM's denial of renewal, TMM filed an amended complaint on 3 January 2017, adding the USDA and the USFS as defendants. The amended complaint seeks similar relief and also requests that the court overturn the government's denial of the leases. The government has not yet responded to the amended complaint. As stated in the lawsuit filed in September 2016, TMM believes denial of the leases is inconsistent with federal law, the terms of leases themselves and the federal government's established precedent in supporting and renewing the leases over five decades. While TMM is assessing the impact of the agencies' lease renewal decision, Twin Metals is committed to progressing the project and will continue to pursue legal avenues to protect its contractual mineral rights.

## M) ZALDÍVAR

Zaldívar is 50% owned by the Group. Ore Reserves have been estimated considering a copper price of \$3.10/lb (\$3.00/lb in 2015), while the Mineral Resources estimated considering a copper price of \$3.60/lb (\$3.50/lb in 2015). Cut-off grades are calculated using an economic formula which is equivalent to approximately 0.20% copper. For 2016 the mineral resource model has not been updated. Mineral Resources have increased by 47 million tonnes due to changes in economic assumptions and changes to the geo-metallurgical model. Ore Reserves increased by 5.5 million tonnes mostly due to a change in criteria related to ore-in-process. In-situ plus stockpiled ore is estimated to be 405.3 million tonnes at 0.54% copper (330.6 million tonnes of heap leach ore plus 74.7 million tonnes of dump leach ore), while ore-in-process is estimated to be 54.8 million tonnes at 0.28% copper (17.4 million tonnes of heap leach ore plus 37.4 million tonnes of dump leach ore). The heap leach process has a leach cycle of approximately one year and the dump leach process has a leach cycle of approximately two years. Ore Reserves in the Proved category decreased by 89 million tonnes, while Probable Ore Reserves increased by a corresponding 94 million tonnes. This is mostly due to a change in criteria for the conversion of Resources to Reserves in a portion of the deposit with a lower density of geo-metallurgical information, whereby Measured Resources are converted to Probable Reserves. Additionally, Dump Leach ore-in-process as categorised both as Indicated Resource and Probable Reserve.

## N) OTHER MINERAL INVENTORY

In addition to the Mineral Resources noted above, the Group has interests in other deposits located in the Antofagasta Region of Chile, some of them containing gold and/or molybdenum. At the moment they are in exploration or in the process of resource estimation. The potential quantity and grade of each of the deposits is conceptual in nature, there has been insufficient exploration to define these deposits as mineral resources, and it is uncertain if further exploration will result in the determination of a mineral resource. These include:

### (I) IN THE MICHILLA DISTRICT

The Rencoret deposit, owned 100% by the Group.

| MINERAL DEPOSIT | TONNES RANGE (MILLION TONNES) |           | GRADE RANGE (% CU) |             | NUMBER DRILL HOLES | TOTAL METRES | OWNERSHIP INTEREST (%) |
|-----------------|-------------------------------|-----------|--------------------|-------------|--------------------|--------------|------------------------|
| Rencoret        | 15                            | 25        | 1.22               | 1.00        | 31                 | 8,300        | 100.0                  |
| <b>Total</b>    | <b>15</b>                     | <b>25</b> | <b>1.22</b>        | <b>1.00</b> | <b>31</b>          | <b>8,300</b> |                        |

### (II) IN THE EL ABRA DISTRICT

Brujulina is a mineral deposit within a few kilometres of the El Abra ore body, located near Calama in the Antofagasta Region of Chile. The Mineral Inventory of Brujulina deposit, owned 51% by the Group, is estimated to be in the range of 50 to 80 million tonnes with grades in the range of 0.65% to 0.53% copper.

| MINERAL DEPOSIT | TONNES RANGE (MILLION TONNES) |           | GRADE RANGE (% CU) |             | NUMBER DRILL HOLES | TOTAL METRES  | OWNERSHIP INTEREST (%) |
|-----------------|-------------------------------|-----------|--------------------|-------------|--------------------|---------------|------------------------|
| Brujulina       | 50                            | 80        | 0.65               | 0.53        | 159                | 15,300        | 51.0                   |
| <b>Total</b>    | <b>50</b>                     | <b>80</b> | <b>0.65</b>        | <b>0.53</b> | <b>159</b>         | <b>15,300</b> |                        |

## O) ANTOMIN 2 AND ANTOMIN INVESTORS

The Group has an approximately 51% interest in two indirect subsidiaries, Antomin 2 Limited ("Antomin 2") and Antomin Investors Limited ("Antomin Investors"), which own a number of copper exploration properties in Chile's Antofagasta Region and Coquimbo Region. These include, among others, Penacho Blanco, Los Volcanes (ex-Conchi) and Brujulina (see Note N(ii) above). The remaining approximately 49% of Antomin 2 and Antomin Investors is owned by Mineralinvest Establishment ("Mineralinvest"), which is owned by a Liechtenstein foundation, in which members of the Luksic family are interested.

Further details are set out in Note 35(c) to the financial statements.

## GLOSSARY AND DEFINITIONS

### BUSINESS, FINANCIAL AND ACCOUNTING

|                                  |  |
|----------------------------------|--|
| <b>AIFR</b>                      | All Injury Frequency Rate.   |
| <b>Alto Maipo</b>                | Alto Maipo SpA, a 40%-owned associate of the Group incorporated in Chile, which owns the Alto Maipo hydroelectric project in the upper section of the Maipo River in Chile.  |
| <b>AMSA</b>                      | Antofagasta Minerals S.A., a wholly-owned subsidiary of the Group incorporated in Chile, which acts as the corporate centre for the mining division.   |
| <b>Annual Report</b>             | The Annual Report and Financial Statements of Antofagasta plc.   |
| <b>Antucoya</b>                  | Minera Antucoya S.A., a 70%-owned subsidiary of the Group incorporated in Chile.   |
| <b>ATI</b>                       | Antofagasta Terminal Internacional S.A., a 30%-owned associate of the Group incorporated in Chile that operates the port in the city of Antofagasta.   |
| <b>Australian dollars</b>        | Australian currency.   |
| <b>Banco de Chile</b>            | A commercial bank that is a subsidiary of Quiñenco.  |
| <b>Barrick Gold</b>              | Barrick Gold Corporation, incorporated in Canada. Joint venture partner of the Group in each of Zaldívar and Tethyan.  |
| <b>BEIS</b>                      | Department for Business, Energy and Industrial Strategy.   |
| <b>Capex</b>                     | Capital expenditure.   |
| <b>Cash costs</b>                | A measure of the cost of operating production expressed in terms of US dollars per pound of payable copper produced. Cash costs are stated net of by-product credits and include tolling charges for concentrates for Los Pelambres and Centinela. Cash costs exclude depreciation, financial income and expenses, hedging gains and losses, exchange gains and losses, and corporation tax. |
| <b>CCU</b>                       | Compañía de Cervecerías Unidas S.A., a brewing company and associate of Quiñenco.  |
| <b>CDP</b>                       | Carbon Disclosure Project.   |
| <b>Centinela</b>                 | Minera Centinela S.A., a 70%-owned subsidiary of the Group incorporated in Chile that holds the Centinela Concentrates (formerly Esperanza) and Centinela Cathodes (formerly El Tesoro) operations.  |
| <b>Centinela Mining District</b> | Copper district located in the Antofagasta Region of Chile, where Centinela is located.  |
| <b>CGU</b>                       | Cash-Generating Unit.  |
| <b>Chilean peso</b>              | Chilean currency.  |
| <b>Comex</b>                     | A commodity exchange that trades metals such as gold, silver, copper and aluminium.  |
| <b>Companies Act 2006</b>        | Principal legislation for United Kingdom company law.  |
| <b>Company</b>                   | Antofagasta plc.   |
| <b>Continental water</b>         | Water that comes from the interior of land masses including rain, snow, streams, rivers, lakes and groundwater.  |
| <b>Corporate Governance Code</b> | The UK Corporate Governance Code is a set of principles of good corporate governance, most of which have their own more detailed provisions published by the Financial Reporting Council, most recently updated in September 2014.   |
| <b>Directors</b>                 | The Directors of the Company.  |
| <b>Duluth</b>                    | Duluth Metals Limited, a wholly-owned subsidiary of Antofagasta plc acquired on 28 January 2015 through which the Group holds the Twin Metals Project.   |
| <b>EBITDA</b>                    | Earnings Before Interest, Tax, Depreciation and Amortisation.  |
| <b>EIA</b>                       | Environmental Impact Assessment.   |
| <b>El Arrayán</b>                | Parque Eólico el Arrayán SpA, a 30%-owned associate of the Group that operates a wind-power plant providing up to 40MW of electricity to Los Pelambres.  |
| <b>Encuentro</b>                 | Copper oxide and sulphide prospect in the Centinela Mining District.   |
| <b>Energía Andina</b>            | Energía Andina S.A., a 50%-owned joint venture entity of the Group incorporated in Chile.  |
| <b>EPS</b>                       | Earnings per share.  |
| <b>Esperanza Sur</b>             | Copper deposit in the Centinela Mining District.   |
| <b>EU</b>                        | European Union.  |
| <b>FCA</b>                       | Financial Conduct Authority. UK regulatory body.   |
| <b>FCAB</b>                      | Ferrocarril de Antofagasta a Bolivia, the corporate name of the Group's transport division.  |
| <b>FTSE All-Share Index</b>      | A market-capitalisation weighted index representing the performance of all eligible companies listed on the London Stock Exchange's main market.   |
| <b>GAAP</b>                      | Generally Accepted Accounting Practice or Generally Accepted Accounting Principles, a collection of commonly-followed accounting rules and standards for financial reporting.  |
| <b>GHG</b>                       | Greenhouse Gas.  |
| <b>Government</b>                | The Government of the Republic of Chile.   |
| <b>Group</b>                     | Antofagasta plc and its subsidiary companies and joint ventures.   |
| <b>Hedge accounting</b>          | Accounting treatment for derivative financial instruments permitted under IAS 39 "Financial Instruments: Recognition and Measurement", which recognises the offsetting effects on profit or loss of changes in the fair values of a hedging instrument and the hedged item.  |
| <b>IAS</b>                       | International Accounting Standards.  |
| <b>IASB</b>                      | International Accounting Standards Board.  |
| <b>ICMM</b>                      | International Council on Metals and Mining.  |
| <b>IFRIC</b>                     | International Financial Reporting Interpretations Committee.   |
| <b>IFRS</b>                      | International Financial Reporting Standards.   |

|                                 |   |                                   |   |
|---------------------------------|---|-----------------------------------|---|
| Inversiones Hornitos            | Inversiones Hornitos S.A., a 40%-owned associate of the Group incorporated in Chile, which owns the 150MW Hornitos thermoelectric power plant in Mejillones in Chile's Antofagasta Region.  | Quiñenco                          | Quiñenco S.A., a Chilean financial and industrial group and controlled by a foundation in which the Luksic family are interested and listed on the Santiago Stock Exchange. |
| IVA                             | Impuesto al Valor Agregado, or Chilean Value Added Tax (Chilean VAT).   | Ramsar Convention                 | International treaty for the conservation and sustainable utilisation of wetlands.  |
| <b>Key Management Personnel</b> | Persons with authority and responsibility for planning, directing and controlling the activities of the Group.  | RCA                               | Resolucion de Calificación Ambiental, Environmental Approval Resolution.  |
| KPI                             | Key performance indicator.  | Realised prices                   | Effective sale price achieved comparing revenues (grossed up for tolling charges for concentrate) with sales volumes.   |
| LBMA                            | London Bullion Market Association.  | Run-of-river                      | A type of hydroelectric plant using the flow of a river as it occurs and having little or no reservoir capacity.  |
| LIBOR                           | London Inter Bank Offered Rate.   | SAP                               | Systems, Applications and Products. An ERP ("Enterprise Resource Planning") system and data management programme.   |
| LME                             | London Metal Exchange.  | SERNAGEOMIN                       | Servicio Nacional de Geología y Minería, a government agency that provides geological and technical advice and regulates the mining industry in Chile.                      |
| Los Pelambres                   | Minera Los Pelambres S.A., a 60%-owned subsidiary of the Group incorporated in Chile.   | SHFE                              | Shanghai Futures Exchange.  |
| LSE                             | London Stock Exchange.  | SONAMI                            | Sociedad Nacional de Minería. Institution that represents the mining activity in Chile, for large, medium and small scale, metallic and non-metallic companies.             |
| LTIFR                           | Lost Time Injury Frequency Rate.  | Sterling                          | Pounds sterling, UK currency.   |
| LTIP                            | Long Term Incentive Plan in which the Group's CEO, Executive Committee members and the other senior managers participate.   | SVS                               | Superintendencia de Valores y Seguros de Chile, the Chilean securities regulator.   |
| Madeco                          | Madeco S.A., a subsidiary of Quiñenco.  | Tesoro Central and Tesoro Noreste | Copper oxide open pits forming part of the Centinela operation.   |
| MARC                            | Maintenance and Repair Contract. A maintenance contract under which the service provider commits a certain level of availability of the equipment within the scope.   | Tethyan                           | Tethyan Copper Company Limited, a 50-50 joint venture with Barrick Gold incorporated in Australia.  |
| Marubeni                        | Marubeni Corporation, the Group's 30% minority partner in Centinela and Antucoya.   | TSR                               | Total Shareholder Return, being the movement in the Company's share price plus reinvested dividends.  |
| Michilla                        | Minera Michilla S.A., a 99.9%-owned subsidiary of the Group incorporated in Chile which was closed at the end of 2015 and sold in November 2016.  | Twin Metals Minnesota Project     | A copper, nickel and platinum group metals underground-mining project located in Minnesota, US.   |
| PEP                             | Politically Exposed Person, an individual who holds or has held a prominent public position in a national or international organisation within the last year.   | UK                                | United Kingdom.   |
| Platts                          | A provider of energy and metals information and source of benchmark price assessments.  | UKLA                              | United Kingdom Listing Authority, part of the FCA.  |
| PPA                             | Power Purchase Agreement.   | US                                | United States.  |
| Provisional pricing             | A sales term in several copper and molybdenum concentrate sale agreements and cathodes sale agreements that provides for provisional pricing of sales at the time of shipment, with final pricing being based on the monthly average LME copper price or monthly average molybdenum price for specific future periods, normally ranging from 30 to 180 days after delivery to the customer. For the purposes of IAS 39, the provisional sale is considered to contain an embedded derivative (ie the forward contract for which the provisional sale is subsequently adjusted) that is separated from the host contract (ie the sale of metals contained in the concentrate or cathode at the provisional invoice price less tolling charges deducted). | US dollar                         | United States currency.   |
|                                 |   | Zaldívar                          | Compañía Minera Zaldívar SpA, a 50-50 joint venture with Barrick Gold, which operates the Zaldívar copper mine in Chile.  |

## MINING INDUSTRY

|   |   |
|---|---|
| <b>Brownfield project</b>                           | A development or exploration project in the vicinity of an existing operation.  |
| <b>By-products (credits in copper concentrates)</b> | Products obtained as a result of copper processing. Los Pelambres and Centinela Concentrates receive credit for the gold and silver content in the copper concentrate sold. Los Pelambres also produces molybdenum concentrate.   |
| <b>Concentrate</b>                                  | The product of a physical concentration process, such as flotation or gravity concentration, which involves separating ore minerals from unwanted waste rock. Concentrates require subsequent processing (such as smelting or leaching) to break down or dissolve the ore minerals and obtain the desired elements, usually metals.   |
| <b>Contained copper</b>                             | The proportion or quantity of copper contained in a given quantity of ore or concentrate.   |
| <b>Copper cathode</b>                               | Refined copper produced by electrolytic refining of impure copper by electrowinning.  |
| <b>Cut-off grade</b>                                | The lowest grade of mineralised material considered economic to process and used in the calculation of ore reserves and mineral resources.  |
| <b>Flotation</b>                                    | A process of separation by which chemicals in solution are added to materials, some of which are attracted to bubbles and float, while others sink. This results in the production of concentrate.  |
| <b>Grade A copper cathode</b>                       | Highest-quality copper cathode (LME registered and certified in the case of Centinela Cathodes).  |
| <b>Greenfield project</b>                           | The development or exploration of a new project at a previously undeveloped site.   |
| <b>Heap-leaching or leaching</b>                    | A process for the recovery of copper from ore, generally oxides. The crushed material is laid on a slightly sloping, impermeable pad and leached by uniformly trickling (gravity fed) chemical solution through the beds to ponds. The metal is then recovered from the solution through the SX-EW process.   |
| <b>JORC</b>   | The Australasian Joint Ore Reserves Committee.  |
| <b>ktpd</b>   | Thousand tonnes per day.  |
| <b>Life-of-Mine ("LOM")</b>                         | The remaining life of a mine expressed in years, calculated by reference to scheduled production rates (ie comparing the rate at which ore is expected to be extracted from the mine to current defined reserves).  |
| <b>Mineral resources</b>                            | Material of intrinsic economic interest occurring in such form and quantity that there are reasonable prospects for eventual economic extraction. Mineral resources are stated inclusive of ore reserves, as defined by JORC.   |
| <b>MW</b>   | Megawatts (one million watts).  |
| <b>Net cash cost</b>                                | Gross cash costs less by-product credits.   |
| <b>Open pit</b>                                     | Mine working or excavation that is open to the surface.   |
| <b>Ore</b>  | Rock from which metal(s) or mineral(s) can be economically and legally extracted.   |
| <b>Ore grade</b>                                    | The relative quantity, or percentage, of metal content in an ore body or quantity of processed ore.   |
| <b>Ore reserves</b>                                 | Part of Mineral Resources for which appropriate assessments have been carried out to demonstrate that at a given date extraction could be reasonably justified. These include consideration of and modification by realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors.   |
| <b>Oxide and sulphide ores</b>                      | Different kinds of ore containing copper. Oxide ore occurs on the weathered surface of ore-rich lodes and normally results in the production of cathode copper through a heap-leaching process. Sulphide ore comes from an unweathered parent ores process and normally results in the production of concentrate through a flotation process which then requires smelting and refining to produce cathode copper. |
| <b>Payable copper</b>                               | The proportion or quantity of contained copper for which payment is received after metallurgical deduction.   |
| <b>Porphyry</b>                                     | A large body of rock which contains disseminated chalcopyrite and other sulphide minerals. Such a deposit is mined in bulk on a large scale, generally in open pits, for copper and its by-product molybdenum.  |
| <b>Run-of-Mine ("ROM")</b>                          | A process for the recovery of copper from ore, typically used for low-grade ores. The mined, uncrushed ore is leached with a chemical solution. The metal is then recovered from the solution through the SX-EW process.  |
| <b>Stockpile</b>                                    | Material extracted and piled for future use.  |
| <b>SX-EW</b>  | Solvent extraction and electrowinning. A process for extracting metal from an ore and producing pure metal. First the metal is leached into solution, the resulting solution is then purified in the solvent-extraction process before being treated in an electrochemical process (electrowinning) to recover cathode copper.  |
| <b>Tailings dam</b>                                 | Construction used to deposit the rock waste which remains as a result of the concentrating process after the recoverable minerals have been extracted in concentrate form.  |
| <b>TC/RCs</b>                                       | Treatment and refining charges, being terms used to set the smelting and refining charge or margin for processing copper concentrate and normally set either on an annual or spot basis.  |
| <b>Tolling charges</b>                              | Charges or margins for converting concentrate into finished metal. These include TC/RCs, price participation and price sharing for copper concentrate and roasting charges for molybdenum concentrate.  |
| <b>Tonne</b>  | Metric tonne.   |
| <b>tpd</b>  | Tonnes per day, normally with reference to the quantity of ore processed over a given period of time expressed as a daily average.  |
| <b>Underground mine</b>                             | Natural or man-made excavation under the surface of the ground.   |

## CURRENCY ABBREVIATIONS

|          |                             |
|----------|-----------------------------|
| \$       | US dollars                  |
| \$'000   | Thousand US dollars         |
| \$m      | Million US dollars          |
| £        | Pounds sterling             |
| £'000    | Thousand pounds sterling    |
| £m       | Million pounds sterling     |
| p        | Pence sterling              |
| C\$      | Canadian dollars            |
| C\$m     | Million Canadian dollars    |
| Ch\$     | Chilean pesos               |
| Ch\$'000 | Thousand Chilean pesos      |
| Ch\$m    | Million Chilean pesos       |
| A\$      | Australian dollars          |
| A\$'000  | Thousand Australian dollars |
| A\$m     | Million Australian dollars  |

## DEFINITIONS AND CONVERSION OF WEIGHTS AND MEASURES

|                     |                                   |
|---------------------|-----------------------------------|
| lb                  | Pound                             |
| oz                  | A troy ounce                      |
| '000 m <sup>3</sup> | Thousand cubic metres             |
| '000 tonnes         | Thousand metric tonnes            |
| 1 kilogramme        | 2.2046 pounds                     |
| 1 tonne             | 2,204.6 pounds or 1,000 kilograms |
| 1 kilometre         | 0.6214 miles                      |
| 1 troy ounce        | 31.1 grammes                      |

## CHEMICAL SYMBOLS

|    |            |
|----|------------|
| Cu | Copper     |
| Mo | Molybdenum |
| Au | Gold       |
| Ag | Silver     |

## SHAREHOLDER INFORMATION

### DIVIDENDS

Details of dividends proposed in relation to the year are given in the Directors' Report on page 117, and in Note 13 to the Financial Statements.

If approved at the Annual General Meeting, the final dividend of 15.3 cents will be paid on 26 May 2017 to ordinary shareholders that are on the register at the close of business on 28 April 2017. Shareholders can elect (on or before 2 May 2017) to receive this final dividend in US dollars, Sterling or Euro, and the exchange rate, which will be applied to final dividends to be paid in Sterling or Euro, will be set as soon as reasonably practicable after that date which is currently anticipated to be on 5 May 2017.

Further details of the currency election timing and process (including the default currency of payment) are available on the Antofagasta plc website ([www.antofagasta.co.uk](http://www.antofagasta.co.uk)) or from the Company's registrar, Computershare Investor Services PLC on +44 37 0702 0159.

Dividends are paid gross without deduction of United Kingdom income tax. Antofagasta plc is a resident in the United Kingdom for tax purposes.

### ANNUAL GENERAL MEETING

The Annual General Meeting will be held at Church House Conference Centre, Dean's Yard, Westminster, London SW1P 3NZ at 10.00 am on Wednesday 24 May 2017. The formal notice of the Annual General Meeting and resolutions to be proposed are set out in the Notice of Annual General Meeting.

### LONDON STOCK EXCHANGE LISTING AND SHARE PRICE

The Company's shares are listed on the London Stock Exchange.

### SHARE CAPITAL

Details of the Company's ordinary share capital are given in Note 30 to the Financial Statements.

### SHAREHOLDER CALENDAR 2017

|                   |  |
|-------------------|--|
| 26 April 2017     | Q1 2017 Production Report  |
| 27 April 2017     | 2016 Final Dividend – Ex Dividend date                               |
| 28 April 2017     | 2016 Final Dividend – Record date                                    |
| 2 May 2017        | 2016 Final Dividend – Final date for receipt of Currency Elections   |
| 5 May 2017        | 2016 Final Dividend – Pound Sterling/Euro Rate set                   |
| 24 May 2017       | Annual General Meeting   |
| 26 May 2017       | 2016 Final Dividend – Payment date                                   |
| 26 July 2017      | Q2 2017 Production Report  |
| 22 August 2017    | HY 2017 Results Announcement   |
| 7 September 2017  | 2017 Interim Dividend – Ex Dividend date                             |
| 8 September 2017  | 2017 Interim Dividend – Record date                                  |
| 11 September 2017 | 2017 Interim Dividend – Final date for receipt of Currency Elections |
| 14 September 2017 | 2017 Interim Dividend – Pound Sterling/Euro Rate set                 |
| 6 October 2017    | 2017 Interim Dividend – Payment date                                 |
| 25 October 2017   | Q3 2017 Production Report  |
| 24 January 2018   | Q4 2017 Production Report  |

Dates are provisional and subject to change.

### REGISTRARS

Computershare Investor Services PLC  
The Pavilions  
Bridgwater Road  
Bristol BS99 6ZY  
United Kingdom  
Tel: +44 37 0702 0159  
[www.computershare.com](http://www.computershare.com)

### WEBSITE

Antofagasta plc's annual and half-yearly financial reports, press releases and other presentations are available on the Group's website at [www.antofagasta.co.uk](http://www.antofagasta.co.uk).

### REGISTERED OFFICE

Cleveland House  
33 King Street  
London SW1Y 6RJ  
United Kingdom  
Tel: +44 20 7808 0988

### SANTIAGO OFFICE

Antofagasta Minerals SA  
Av. Apoquindo 4001 – Piso 18  
Las Condes, Santiago, Chile  
Tel: +562 2798 7000

### REGISTERED NUMBER

1627889

Additional information can be found in the Shareholder Information section of the Notice of Annual General Meeting and on the Group's website.

## DIRECTORS AND ADVISERS

### DIRECTORS

|   |               |
|---|---------------|
| Jean-Paul Luksic  | Chairman      |
| Manuel Lino Silva De Sousa-Oliveira<br>(Ollie Oliveira) | Non-Executive |
| Gonzalo Menéndez  | Non-Executive |
| Ramón Jara  | Non-Executive |
| Juan Claro  | Non-Executive |
| William Hayes   | Non-Executive |
| Tim Baker   | Non-Executive |
| Andrónico Luksic C                                      | Non-Executive |
| Vivianne Blanlot  | Non-Executive |
| Jorge Bande   | Non-Executive |
| Francisca Castro  | Non-Executive |

### COMPANY SECRETARY

Julian Anderson

### AUDITOR

PricewaterhouseCoopers LLP

### SOLICITORS

Clifford Chance LLP

### FINANCIAL ADVISERS

N M Rothschild & Sons

### STOCKBROKERS

J.P. Morgan Cazenove  
Citigroup Global Markets Limited



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is an audited chain of custody from the tree in the well-managed  
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ISO 14001 – A pattern of control for an environmental  
management system against which an organisation can  
be credited by a third party.

For up-to-date investor  
information including our past  
financial results, visit:

+ Our Group website:  
[www.antofagasta.co.uk](http://www.antofagasta.co.uk)

+ Investors:  
[www.antofagasta.co.uk/investors](http://www.antofagasta.co.uk/investors)



