# lundin mining

**TSX: LUN Nasdaq Stockholm: LUMI** 

# Chapada Mine Acquisition April 15, 2019

Chapada Mine, Goiás, Brazil

### **Cautionary Statements**

#### **Caution Regarding Forward-Looking Information and Non-GAAP Performance Measures**

Certain of the statements made and information contained herein, other than statements of historical fact and historical information, is "forward-looking information" within the meaning of applicable Canadian securities laws. Forward-looking information includes, but is not limited to, statements with respect to the intentions of Lundin Mining Corporation (the "Company" or "Lundin Mining") regarding the acquisition of the Chapada Mine (the "Acquisition") and other strategic growth opportunities, the anticipated timing and completion of the Acquisition, the ability of Lundin Mining to complete the transactions contemplated by the Acquisition, life of mine, delivery of shareholder returns and value added by projects. Words such as "advancing", "believe", "benefits", "contingent", "creating", "delivery", "expandable", "expandable", "expected", "further", "future", "grow", "guidance", "intende", "leading", "may", "opportunities", "potential" and "project" or variations of these terms or similar terminology or statements that certain actions, events or results will, could or may occur or way occur or variations of the Acquisition is based on a number of assumptions, and subject to a variety of risks and uncertainties which could cause actual events or results to differ from those reflected in the forward-looking information to be consummated for any other reason, competitive responses to the announcement of the Acquisition, actions that may be taken by Yamana or by its security holders in respect of the Acquisition, as well as additional risks disclosed in filings made by the Company with Canadian securities. Should one or more of these risks and uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those described in forward-looking information is based on a number of assumptions, and subject to a variety of risks and uncertainties which could cause actual events or results to differ from those reflected in the forward-looking statements. Risks include

Forward-looking information and statements are subject to a variety of known and unknown risks and uncertainties, and ultimately, actual events or results may differ materially from those reflected in the forward-looking information. Risks and uncertainties that may impact the Company's performance include, without limitation, risks associated with operating in foreign countries; uncertain political and economic environments; community activism, shareholder activism and risks related to negative publicity with respect to the Company or the mining industry in general; changes in laws, regulations or policies including but not limited to those related to operations, permitting and approvals, environmental management, labour, trade relations, and transportation; risks associated with business arrangements and partners over which the Company does not have full control; risks associated with acquisitions and related integration efforts; competition; development or mining results not being consistent with the Company's expectations; estimates of future production; operating and cash costs estimates; allocation of resources and capital; litigation; uninsurable risks; volatility in metal prices; the estimation of asset carrying values; funding requirements and availability of financing; indebtedness; foreign currency fluctuations; interest rate volatility; changes in the Company's share price, and equity markets, in general; changing taxation regimes; counterparty and credit risks; health and safety risks; risks related to the environmental impact of the Company's operations and products and management thereof; unavailable or inaccessible infrastructure and risks related to ageing infrastructure; risks inherent in mining including but not limited to risks to the environment, industrial accidents, catastrophic equipment failures, unusual or unexpected geological formations, or unstable ground conditions; actual ore mined varying from estimates of grade, tonnage, dilution and metallurgical and other characteristics; ore processing efficiency; risks relating to attracting and retaining of highly skilled employees; ability to retain key personnel; the potential for and effects of labour disputes or other unanticipated difficulties with or shortages of labour or interruptions in production; the price and availability of energy and key operating supplies or services; the inherent uncertainty of exploration and development, and the potential for unexpected costs and expenses; risks associated with the estimation of Mineral Resources and Mineral Reserves and the geology, grade and continuity of mineral deposits including but not limited to models relating thereto; natural phenomena such as earthquakes, flooding, and unusually severe weather; potential for the allegation of fraud and corruption involving the Company, its customers, suppliers or employees, or the allegation of improper or discriminatory employment practices, or human rights violations; security at the Company's operations; breach or compromise of key information technology systems; materially increased or unanticipated reclamation obligations; risks related to mine closure activities; risks related to closed and historical sites; title risk and the potential of undetected encumbrances; risks associated with the structural stability of waste rock dumps or tailings storage facilities: and other risks and uncertainties, including but not limited to those described in the "Risk and Uncertainties" section of the Company's AIF and the "Managing Risks" section of the Company's annual MD&A, which are available on SEDAR at www.sedar.com under the Company's profile. Readers are cautioned that the foregoing list is not exhaustive of all factors and assumptions which may have been used. Should one or more of these risks and uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those described in forward-looking information. Accordingly, there can be no assurance that forward-looking information will prove to be accurate, and so readers are advised not to place undue reliance on forward-looking information. The forward-looking information contained herein speaks only as of the date of this presentation. The Company does not undertake to update such forward-looking information unless required under applicable laws.

This presentation may contains certain financial measures such as net cash, net debt, operating cash flow per share, co-product cash costs and cash costs which have no standardized meaning within generally accepted accounting principles under IFRS and therefore amounts presented may not be comparable to similar data presented by other mining companies. This data is intended to provide additional information and should not be considered in isolation or as a substitute for measures or performance prepared in accordance with IFRS. Note: All dollar amounts are in US dollars unless otherwise denoted.

## **Participants**



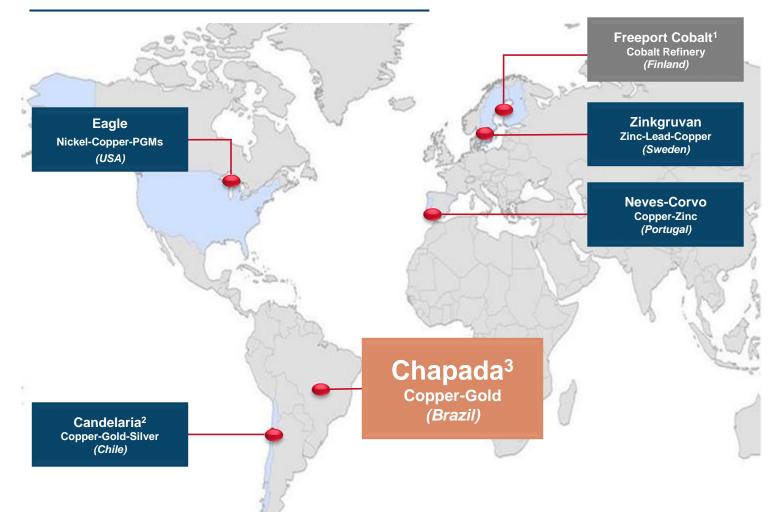
# **Lundin Mining**

### **Our Strategy**

### **Our Operations**

Operate, upgrade and grow a base metal portfolio that provides leading returns for our shareholders throughout the cycle

- copper dominant
- competitive cost position
- low-risk mining jurisdictions, leverage current geographies
- pipeline of development and exploration projects
- maintain low leverage and flexible balance sheet



1. Lundin Mining holds an indirect 24% equity stake in the Freeport Cobalt Oy business which includes a cobalt refinery located in Kokkola, Finland. 2. Lundin Mining holds an 80% interest in Candelaria.

3. Announced acquisition. Please refer to press release "Lundin Mining to Acquire Chapada Copper-Gold Mine in Brazil" dated April 15, 2019.



# **Acquisition Highlights**



### **Furthers Strategic Goals**

- high-quality, long-life, expandable
- complements existing assets

### **Immediately Accretive**

- on key financial and operating metrics
- financial strength utilized while maintaining low leverage and flexibility

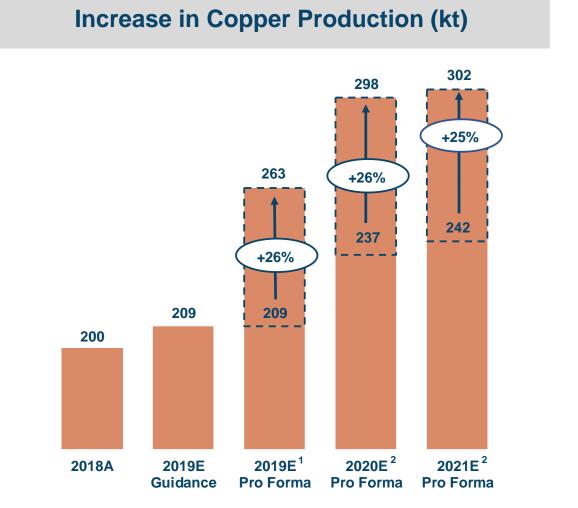
**Increased Copper & Gold Cash Flows** 

## **Significant Upside Opportunities**

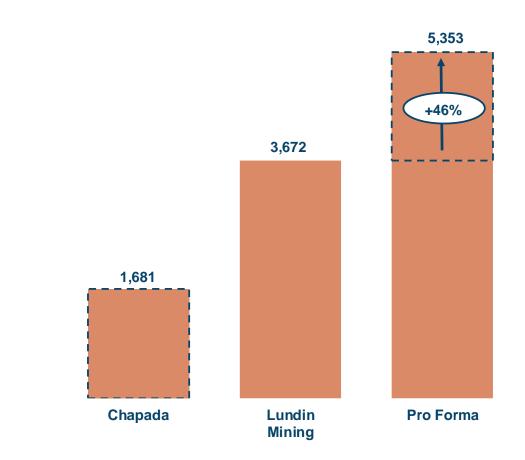
- copper-focused exploration
- expansion studies underway

### **Asset Diversification**

## **Enhances Quality Copper Exposure**



Increase in Mineral Reserve<sup>3</sup> Copper Contained Copper Metal (kt)

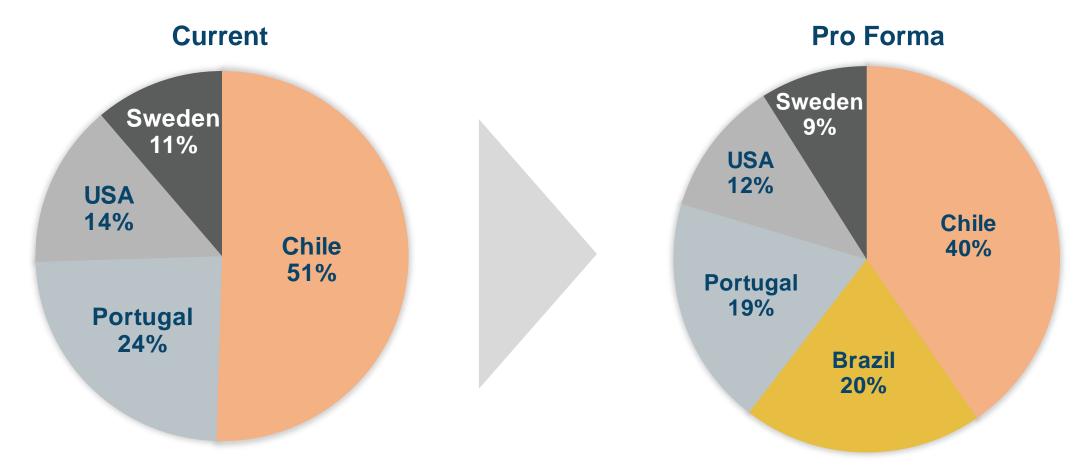


Notes: Lundin Mining copper production profile based on midpoint of 3-year guidance provided November 2018. Copper production on a 100% basis. Production guidance is based on certain estimates and assumptions, including but not limited to; Mineral Resource and Mineral Reserve estimates (see slide 19), geological formations, grade and continuity of deposits and metallurgical characteristics.

- 1. Reflects full-year production from the Chapada Mine as most recently guided by Yamana Gold Inc. ("Yamana").
- Unless otherwise noted, all information (including scientific and technical information) relating to the Chapada Mine contained in this presentation has been derived from or is based on the "Technical Report on the Chapada Mine, Goiás State, Brazil" dated March 21, 2018 (the "Chapada Technical Report"), prepared by or under the supervision of Hugo M. Miranda, ChMC (RM), Chester M. Moore, P.Eng., Avakash Patel, P.Eng., and Luiz E. C. Pignatari, ChMC (RM), of Roscoe Postle Associates Inc., who are qualified persons pursuant to National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101") or other Yamana public disclosure.
- 3. See also slide 14 and slide 19.

## **Diversified in Established Jurisdictions**





#### Notes:

(1) Based on midpoint of 2019E production guidance provided by Lundin Mining and 2019E Chapada production guidance provided by Yamana Gold Inc. Only includes commodities for which public guidance is provided.

(2) Equivalency calculated according to Lundin Mining price assumptions as follows: US\$2.80/lb copper, US\$6.00/lb nickel, US\$1.10/lb zinc and US\$1,250/oz gold.

## **Transaction Summary**

Transaction	Lundin Mining to acquire 100% interest in Chapada copper-gold mine
Purchase Price	<ul> <li>US\$800M in cash at closing, subject to customary adjustments</li> <li>Contingent gold price payments – annual payment if the gold price averages at least the threshold in any sequential annual period over the five years commencing on closing: <ul> <li>US\$10M if the price averages at least US\$1,350/oz</li> <li>US\$10M if the price averages at least US\$1,400/oz</li> <li>US\$5M if the price averages at least US\$1,450/oz</li> </ul> </li> <li>Contingent consideration of US\$100 million on potential construction of a pyrite roaster</li> <li>Yamana to retain a 2.0% net smelter return royalty on any future gold production from the Suruca gold deposit</li> </ul>
Funding	Expected from current cash balance and a portion from undrawn US\$550M revolving credit facility
Conditions	Typical closing conditions, including third-party and requisite regulatory approvals
Closing	Expected early Q3 2019

### **Chapada Overview**

### High-Quality Producer in Excellent Jurisdiction

Potential to sustain production in the range of 68.0 to 72.5 ktpa copper and 100 to 110 koz gold under expansion scenario through at least 2034

Competitive cash cost profile over life of mine

# Established Mine with Long Life Remaining

Current copper Mineral Reserves support 28 year operational life >0.25% copper grades with >0.16 g/t gold grades life of mine

### **Production Expansion and Mine Life Extension Potential**

Opportunities to expand throughput and increase production Highly prospective mineral property position

## Long-Life, Expandable Operation

Attractive co-product cash costs. Guided to \$1.60-\$1.80/lb copper and \$430/oz gold equivalent in 2019E

28 year life on copper Mineral Reserves at current throughput rate with significant potential to extend

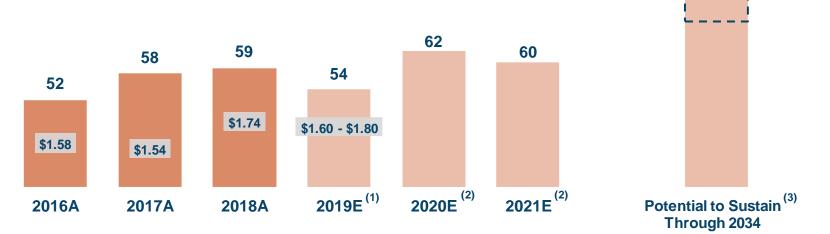
Potential to increase throughput and sustain production above current levels leveraging our:

- technical expertise
- financial strength
- copper-focused exploration

Note: figures sourced from Yamana public disclosures

- (1) Reflects production and cash costs from Chapada as guided by Yamana.
- (2) Reflects production as outlined in the Chapada Technical Report.

(3) Reflects disclosure by Yamana on expansionary study work underway.



#### Gold Production (koz) & Co-Product Cash Cost (\$/oz gold equivalent)

Copper Production (kt) & Co-Product Cash Cost (\$/lb)

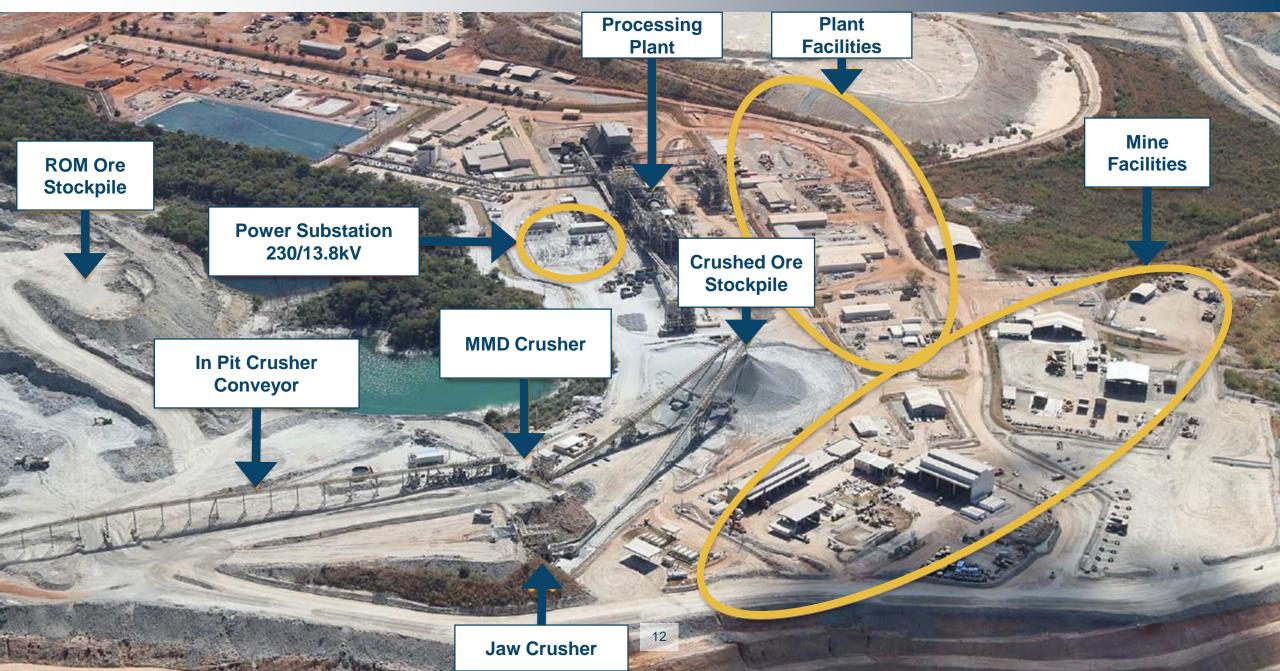


68 - 72.5

### **Mine Overview**



### **Processing Facilities**



## **Processing Facilities**

#### **Conventional Crush, Grind, Float**

Throughput	65 ktpd or 23.4 Mtpa
Copper recovery	82% in 2018
Gold recovery	63% in 2018
Copper concentrate	~25% copper
Gold in concentrate	~10-15 g/t

#### **Grid Power**

a 84 km
~46 MW
~100 MW
<\$0.06/kWh

#### Water Balance

Recycled water constitutes ~86% of process requirements

~1,500 mm of rainfall per year

Permitted to withdrawal from local river, though not typically required



Ball Mill – 24 ft x 40 ft

## **Current Mineral Reserves Support Long Life**

Over 1.68 Mt of contained copper and 4.5 Moz of contained gold in Mineral Reserves

Mineral Reserves estimated using US\$3.00/lb copper price and US\$1,250/oz gold for Chapada Zone, and US\$1,300/oz gold for Suruca Zone

Significant potential to increase Mineral Reserves with conversion of current Mineral Resources and exploration success

Mineral Reserve Statement, effective December 31, 2018 **Contained Metal** 000's Cu Au Cu Au % Category Tonnes g/t kt koz Copper Chapada Zone Proven 0.17 388,701 0.26 738 1,549 **Proven stockpiles** 100,138 0.23 0.17 232 554 Probable 275.928 0.26 0.16 711 1.381 3.484 Total 664.629 0.25 0.16 1.681 Gold (only) Suruca Zone 0.42 153 11,454 Proven 53,741 0.53 908 Probable Total 65.195 0.51 1.062

#### Notes:

1. All figures are rounded to reflect the relative accuracy of the estimates.

2. Chapada Zone open pit Mineral Reserves are reported at US\$4.06 per tonne cut-off. Metallurgical recoveries at Chapada are dependent on zone and average 83.1% for copper and 56.9% for gold. Suruca Zone open pit Mineral Reserves are reported at 0.19 g/t gold cut-off for oxides and 0.3 g/t gold for sulphides. Metallurgical recoveries for Suruca oxide average 85% for gold and for Suruca sulphide average 88% gold.

3. The qualified person responsible for the Mineral Reserve estimate is Luiz Pignatari, Registered Member of Chilean Mining Commission, EDEM Engenharia.

### **Mineral Resources Offer Upside Potential**

Approximately 920 kt of contained copper and 1.9 Moz of contained gold estimated in copper M&I Mineral Resources in addition to those Mineral Reserves

Excellent copper-focused exploration potential to further expand Mineral Resource base

Mineral Resources estimated using US\$4.00/lb copper price and US\$1,600/oz gold for Chapada and Suruca Zones

**Contained Metal** 000's Cu Au Cu Au Category Tonnes % g/t kt koz Chapada Zone Copper Measured 58.885 0.20 0.12 118 222 Indicated 363,929 0.22 0.14 1.676 801 Measured and Indicated 422,814 0.22 0.14 919 1,898 0.23 0.08 354 422 Inferred 156,081 Gold (only) Suruca Zone 1.284 0.39 16 Measured Indicated 81,039 0.54 1,416 Measured and Indicated 0.54 1,432 82,323 Inferred 12.565 194 0.48

Notes:

1. Mineral Resources are exclusive of Mineral Reserves.

2. All figures are rounded to reflect the relative accuracy of the estimates.

3. Chapada Zone Mineral Resources have been prepared using US\$1,600/oz gold and US\$4.00/lb copper price assumptions. Suruca Zone Mineral Resource have been prepared using US\$1,600/oz gold.

4. Chapada open pit cut-off at US\$4.06/t (Chapada pits and Suruca SW). Metallurgical recoveries at Chapada are dependent on zone and average 83.11% for copper and 56.94% for gold.

5. Cut-off grade 0.19g/t gold for Suruca oxide and 0.23 g/t for Suruca sulphide. Metallurgical recoveries for Suruca oxide average 85% for gold and for Suruca sulphide average 88% for gold.

6. The qualified person responsible for the Mineral Resource estimate is Felipe Machado de Araujo, Registered Member of Chilean Mining Commission, Mineral Resources Coordinator Brazil, Yamana Gold Inc.

# **Tailings Storage Facility**

# **Tailings Storage Facility**

Tailings storage facility (TSF) is located northwest of Chapada open pit

All dams raised by centerline methods

Main Dam and Dyke III comprise compacted earth fill starter dams raised with cyclone tailings

Dyke II is a compacted earth fill dam for water retention

Current permitted capacity for three years

Sufficient footprint and design capacity for life of mine production



# **Lundin Mining**







### High Quality Competitive Mines

### Meaningful Scale Growth Oriented

### **Financial Strength**

- strong margins at all operations
- demonstrated operational excellence and culture of continuous improvement
- low-risk mining jurisdictions

- exploration upside and high value expansion projects underway
- advancing external acquisition initiatives with disciplined criteria
- proven track record for rigorous investment approach, focused on value creation
- substantial balance sheet strength and flexibility to respond to opportunities

## NI 43-101 Compliance

Unless otherwise indicated, Lundin Mining Corporation (the "Company") has prepared the technical information in this presentation including Mineral Reserve and Mineral Resource estimates ("Technical Information") based on information contained in the technical reports and news releases (collectively the "Disclosure Documents") available under the Company's profile and the profile of Yamana Gold Inc. ("Yamana") on SEDAR at www.sedar.com. Each Disclosure Document was prepared by or under the supervision of a qualified person ("Qualified Person") as defined in National Instrument 43-101 – Standards of Disclosure for Mineral Projects of the Canadian Securities Administrators ("NI 43-101"). For readers to fully understand the information in this presentation, they should read the technical reports identified below in their entirety, including all qualifications, assumptions and exclusions that relate to the information set out in this presentation which qualifies the Technical Information. Readers are advised that Mineral Resource estimates that are not Mineral Reserves do not have demonstrated economic viability. The Disclosure Documents are each intended to be read as a whole, and sections should not be read or relied upon out of context. The Technical Information is subject to the assumptions and qualifications contained in the Disclosure Documents.

The Technical Information in this presentation has been prepared in accordance NI 43-101 and has been reviewed and approved by Stephen Gatley, BSc (Eng), C.Eng. Vice President - Technical Services of the Company, a "Qualified Person" under NI 43-101. Mr. Gatley has verified the data disclosed in this presentation and no limitations were imposed on his verification process.

Mineral Reserve and Mineral Resource estimates of the Company are shown on a 100 percent basis for each mine. The Measured and Indicated Mineral Resource estimates of the Company are inclusive of those Mineral Resource estimates modified to produce the Mineral Reserve estimates. All estimates of the Company are prepared as at June 30, 2018. Estimates for all majority owned operations of the Company are prepared by or under the supervision of a Qualified Person as defined in NI 43-101, or have been audited by independent Qualified Persons on behalf of the Company. Unless indicated otherwise in the "Notes on Mineral Resource and Reserve Table" in the Company's news release dated September 6, 2018, Mineral Reserve estimates have been calculated using metal prices of US\$2.75/lb copper, US\$1.00/lb zinc, US\$1.00/lb lead, US\$8.00/lb nickel, US1,000/oz gold and exchange rates of EUR/US\$ 1.25, US\$/SEK 7.00 and Chilean Peso/US\$ 550. Refer to the Company's news release dated September 6, 2018 entitled "Lundin Mining Announces 2018 Mineral Resource and Mineral Reserve Estimates" on the Company's website (www.lundinmining.com).

Mineral Reserve and Mineral Resource estimates of Yamana Gold Inc. are shown on a 100 percent basis. The Measured and Indicated Mineral Resource estimates of Yamana are reported exclusive those Mineral Resources estimates modified to produce the Mineral Reserve estimates. All estimates of Yamana are reported as at December 31, 2018. The Qualified Person responsible for the Mineral Reserve estimate of the Chapada Mine is Luiz Pignatari, Registered Member of Chilean Mining Commission, EDEM Engenharia. The Qualified Person responsible for the Mineral Reserves estimate of the Chapada Mine is Felipe Machado de Araujo, Registered Member of Chilean Mining Commission, Mineral Resources Coordinator Brazil, Yamana. Chapada Zone open pit Mineral Reserves estimated using US\$3.00/lb copper price and US\$1,250/oz gold for Chapada Zone, and US\$1,300/oz gold for Suruca Zone. Chapada Zone open pit Mineral Reserves are reported at US\$4.06 per tonne cut-off. Metallurgical recoveries at the Chapada Mine are dependent on zone and average 83.1% for copper and 56.9% for gold. Suruca Zone open pit Mineral Reserves are reported at 0.19 g/t gold cut-off for oxides and 0.3 g/t gold for sulphides. Metallurgical recoveries for Suruca oxide average 85% for gold and for Suruca sulphide average 88% gold. Chapada Zone Mineral Resources have been prepared using US\$1,600/oz gold and US\$4.00/lb copper price assumptions. Suruca Zone Mineral Resources have been prepared using US\$1,600/oz gold. Chapada open pit cut-off at US\$4.06/t (Chapada pits and Suruca SW). Cut-off grade 0.19g/t gold for Suruca oxide and 0.23 g/t for Suruca sulphide. Metallurgical recoveries for Suruca oxide average 88% for gold and for Suruca oxide average 88% for gold and for Suruca sulphide average 85% for gold and for Suruca sulphide average 88% for gold and for Suruca sulphide average 88% for gold and for Suruca sulphide average 88% for gold and for Suruca oxide and 0.23 g/t for Suruca sulphide. Metallurgical recoveries for Suruca oxide average 88% for gold and for Suruca su

For further Technical Information on Yamana's Chapada Mine, please refer to the Chapada Technical Report, which is available on Yamana's SEDAR profile at <u>www.sedar.com</u>.

For further Technical Information on the Company's material properties, refer to the following technical reports, each of which is available on the Company's SEDAR profile at <u>www.sedar.com</u>:

Candelaria: technical report entitled Technical Report for the Candelaria Copper Mining Complex, Atacama Region, Region III, Chile dated November 28, 2018. Neves-Corvo: technical report entitled NI 43-101 Technical Report for the Neves-Corvo Mine, Portugal dated June 23, 2017. Zinkgruvan: technical report entitled NI 43-101 Technical Report for the Zinkgruvan Mine, Central Sweden dated November 30, 2017. Eagle Mine: technical report entitled Technical Report on the Eagle Mine, Michigan, U.S.A. dated April 26, 2017.



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