# lundin mining

**TD Securities Mining Conference** 

January 23, 2020

Candelaria, Atacama Region, Chile

# **Cautionary Statements**

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

Certain of the statements made and information contained herein is "forward-looking information" within the meaning of applicable Canadian securities laws. All statements other than statements of historical facts included in this document constitute forward-looking information, including but not limited to statements regarding the Company's plans, prospects and business strategies; the Company's guidance on the timing and amount of future production and its expectations regarding the results of operations; expected costs; permitting requirements and timelines; timing and possible outcome of pending litigation; the results of any Preliminary Economic Assessment, Feasibility Study, or Mineral Resource and Mineral Reserve estimations, life of mine estimates, and mine and mine closure plans; anticipated market prices of metals, currency exchange rates, and interest rates; the development and implementation of the Company's Responsible Mining Management System; the Company's ability to comply with contractual and permitting or other regulatory requirements; anticipated exploration and development activities at the Company's projects; and the Company's integration of acquisitions (such as the Chapada mine) and any anticipated benefits thereof. Words such as "believe", "expect", "anticipate", "contemplate", "target", "plan", "goal", "aim", "intend", "continue", "budget", "estimate", "may", "will", "can", "could", "schedule" and similar expressions identify forward-looking statements.

Forward-looking information is necessarily based upon various estimates and assumptions including, without limitation, the expectations and beliefs of management, including that the Company can access financing, appropriate equipment and sufficient labour; assumed and future price of copper, nickel, zinc, gold and other metals; anticipated costs; ability to achieve goals; the prompt and effective integration of acquisitions; that the political environment in which the Company operates will continue to support the development and operation of mining projects; and assumptions related to the factors set forth below. While these factors and assumptions are considered reasonable by Lundin Mining as at the date of this document in light of management's experience and perception of current conditions and expected developments, these statements are inherently subject to significant business, economic and competitive uncertainties and contingencies. Known and unknown factors could cause actual results to differ materially from those projected in the forward-looking statements and undue reliance should not be placed on such statements and information. Such factors include, but are not limited to: risks inherent in and/or 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 permitting and approvals, environmental and tailings management, labour, trade relations, and transportation; delays or the inability to obtain necessary governmental approvals and/or permits; regulatory investigations, enforcement, sanctions and/or related or other litigation; risks associated with business arrangements and partners over which the Company does not have full control; risks associated with acquisitions and related integration efforts (including with respect to the Chapada mine), including the ability to achieve anticipated benefits, unanticipated difficulties or expenditures relating to integration and diversion of management time on integration; competition; development or mining results not being consistent with the Company's expectations: estimates of future production and operations: operating, cash and all-in sustaining cost estimates; allocation of resources and capital; litigation; uninsurable risks; volatility and fluctuations in metal and commodity 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 including, without limitation, for mine closure and reclamation at current and historical operations; 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; actual ore mined and/or metal recoveries varying from Mineral Resource and Mineral Reserve estimates; mine plans, and life of mine estimates; the possibility that future exploration, development or mining results will not be consistent with expectations; 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 Annual Information Form for the year ended December 31, 2018 and the "Managing Risks" section of the Company's MD&A for the year ended December 31, 2018, which are available on SEDAR at www.sedar.com under the Company's profile. All of the forward-looking statements made in this document are gualified by these cautionary statements. Although the Company has attempted to identify important factors that could cause actual results to differ materially from those contained in forward-looking information, there may be other factors that cause results not to be as anticipated, estimated, forecast or intended and 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 forward-looking information is not a guarantee of future performance. 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 document. The Company disclaims any intention or obligation to update or revise forward-looking information or to explain any material difference between such and subsequent actual events, except as required by applicable law.

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.

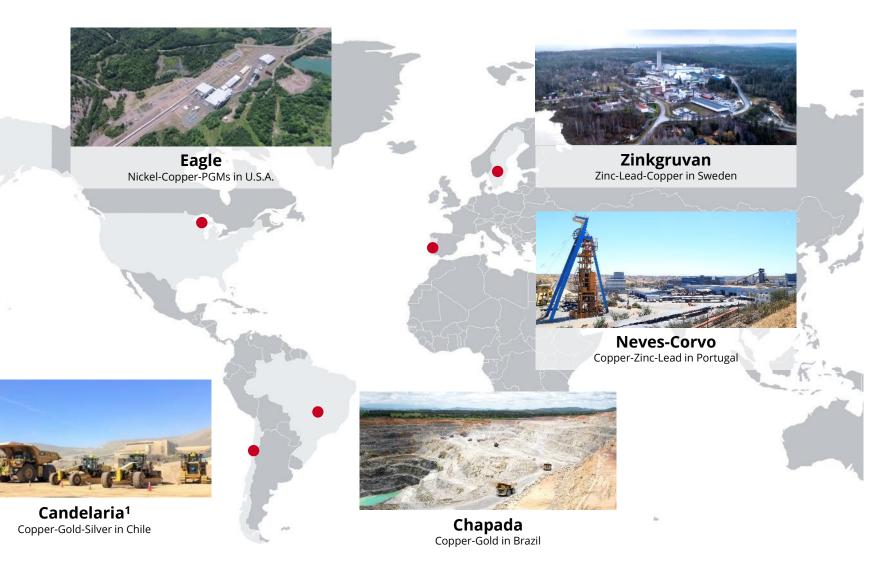
# Lundin Mining

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#### **Our Strategy**

Operate, upgrade and grow a base metals 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 while increasing direct shareholder returns



# **Responsible Mining**

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#### Safety

- 2020 safety objective remains Zero Harm
- top-third performance of Western world mines

#### Social

- leading ISS Environment & Social Quality Scores
- strong stakeholder engagement and increased social investment

#### Environmental

- robust risk and compliance management programs in place
- environmental footprint reduction goals set for water, dust and energy

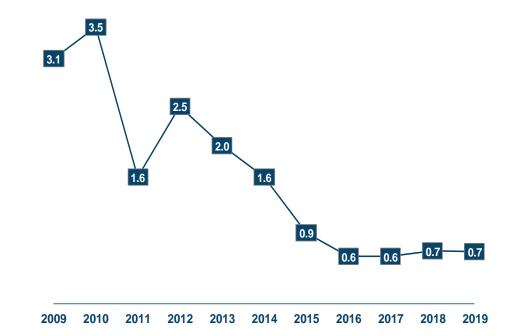


#### **United Nations Global Compact (UNGC)**

- Lundin Mining joined the UNGC in 2016
- our Mission, Values and Responsible Mining Policy align with the UNGC Ten Principles on human rights, labour, the environment and anti-corruption, as well as the 17 Sustainable Development Goals (SDGs)
- we continue to further integrate the SDGs into our business strategy, day-to-day operations and our organizational culture by creating shared value, fostering partnerships and demonstrating environmental and economic performance

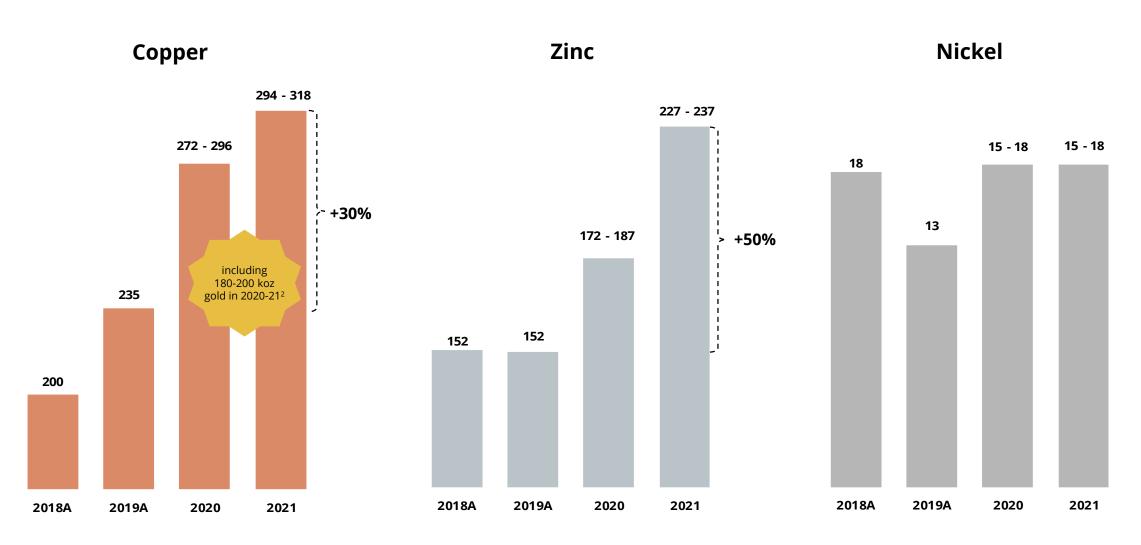
Total Recordable Injury Frequency

per 200,000 person hours worked



# **Increasing Production Profile<sup>1</sup>** (kt)

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1. Production profile based on certain estimates and assumptions, including but not limited to; Mineral Resource and Mineral Reserve estimates geological formations, grade and continuity of deposits and metallurgical characteristics. The 2020-2021 guidance was announced by news release on November 26, 2019. The 2019 production results were announced in the press release dated January 22, 2020. Copper production for 2019 reflects attributable production for the Chapada Mine under Lundin Mining ownership.

2. Gold production guidance for Candelaria is 100-105 koz in 2020 and 110-115 koz in 2021, on a 100% basis. Currently, 68% of Candelaria's total gold and silver production are subject to a streaming agreement. Gold production guidance for Chapada is 90-95 koz in 2020 and 70-75 koz in 2021. Chapada's gold production is unencumbered.

# **Notable Recent Events**

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#### Sale of Non-Core Interest in Kokkola Cobalt Refinery<sup>1</sup>

- Freeport Cobalt joint venture sold its non-core stake in Kokkola cobalt refinery and related cobalt cathode precursor business
- total cash consideration of approximately \$200M; 30% attributable to Lundin Mining
- received approximately \$100M in distributed funds, including the proceeds of the transaction

#### **Anticipated Dividend Increase<sup>2</sup>**

- 33% increase in the quarterly dividend to C\$0.04 per common share, C\$0.16 annualized, anticipated to be declared in February 2020
- 2.1% annualized yield<sup>3</sup>



Kokkola Cobalt Refinery

#### Normal Course Issuer Bid (NCIB) Renewed<sup>2</sup>

- discretionary NCIB to be utilized from time-to-time to actively manage outstanding shares and make opportunistic purchases to create shareholder value
- as of December 31, 2019, Lundin Mining had purchased 4.3M common shares through open market transactions

1. Refer to Press Release "Lundin Mining Announces Closing of Sale of Interest in Kokkola Cobalt Refinery" dated December 2, 2019.

2. Refer to Press Release "Lundin Mining Provides Operational Outlook & Shareholder Returns Update" dated December 5, 2019.

3. Based on anticipated annualized dividend of C\$0.16 per common share and Lundin Mining January 21, 2020 closing share price of C\$7.46 per share.

# Candelaria

#### **Increasing Production Profile**

- 2019 copper production increased 9% year-on-year to 146,330 t
- positioned to deliver a further 16% copper production increase in 2020, at reduced cash costs, as benefits of reinvestment initiatives are realized
- copper production is forecast to average approximately 180,000 tpa over the ten-year period 2020 through 2029, including +190,000 tpa 2022 through 2025

#### Capital Reinvestment Projects Nearing Completion

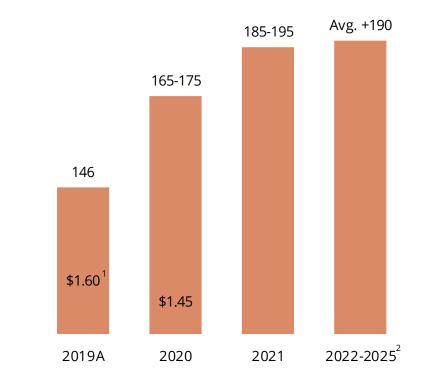
- South Sector underground mine successfully transferred to operations ahead of schedule in Q3/19
- mill optimization project forecast to be complete in Q1/20
- mine fleet reinvestment 99% complete with two remaining pieces to be delivered in 2021 and 2022



Candelaria Ball Mill 2 motor replacement during Q4/19

#### Copper Production & Cash Cost Outlook

(100% basis; kt & \$/lb Cu, net of by-product credits)



Currently, 68% of Candelaria's total gold and silver production are subject to a streaming agreement and as such C1 cash costs guidance is based on receipt of \$408/oz and \$4.08/oz, respectively, in 2019 and \$412/oz and \$4.12/oz, respectively, in 2020 on the streamed portion of gold and silver sales.

- 1. 2019 cash cost is guidance; production is reported actual.
- 2. Average 2022-2025 production is based on the NI 43-101 Technical Reports dated November 28, 2018 which is available on SEDAR under the Company's profile page. See also slide 32.

# Chapada

#### Strong First Quarters Under Lundin Mining Ownership

- copper production exceeded and gold production achieved 2019 guidance
- forecast annual copper production to be between 51,000 t and 56,000 t over the next three years based on the current 24 Mtpa throughput rate and mine plan
- annual gold production is forecast to be between 70,000 oz and 95,000 oz over the same period. The Chapada acquisition has materially increased the Company's unstreamed gold production

#### Significant Increase in Exploration Underway

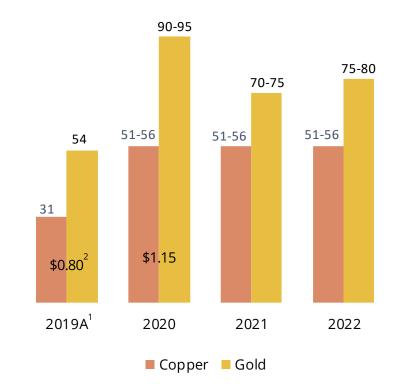
- increased exploration efforts are underway, largely focused on near-mine targets
- \$10M program in 2020 including an expanded 50,000 m drill program
- advancing options for mine and plant expansion in parallel with exploration



Chapada processing facilities

#### Copper, Gold Production & Cash Cost Outlook

(100% basis; kt Cu, koz Au & \$/lb Cu, net of by-product credits)



2019 production based on period of Lundin Mining's ownership post closing of acquisition on July 5, 2019 (approximately half year).
 2019 cash cost is guidance; production is reported actual.

1. Refer to Press Release "Lundin Mining Announces 2019 Mineral Resource and Reserve Estimates" dated September 5, 2019 and "Technical Report on the Chapada Mine, Goiás State, Brazil" dated October 10, 2019. See also slide 32.

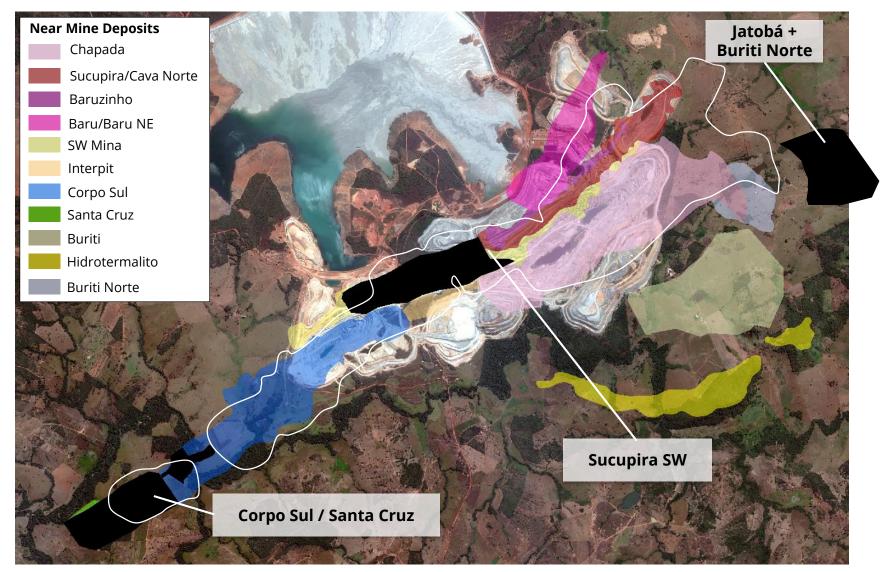
### Chapada Production Profile<sup>1,2</sup>

**Metal Production** 2019A Copper (kt) Gold (koz)

1. Production shown is based on the NI 43-101 Technical Report dated October 10, 2019, available on the Company's website and SEDAR under the Company's profile page. See also slide 32.

2. 2019 production based on period of Lundin Mining's ownership post closing of acquisition on July 5, 2019

### **Chapada Near-Mine Exploration**



### **Neves-Corvo**

#### **Increasing Zinc Production Profile**

- achieved 2019 copper and zinc production guidance
- 2020 zinc production is forecast to increase 37% over 2019 production as the ZEP is commissioned and ramped-up during the year
- zinc production forecast to increase a further 30% in 2021 over 2020 with the ZEP contributing a full year of production

#### Zinc Expansion Project (ZEP) Advancing

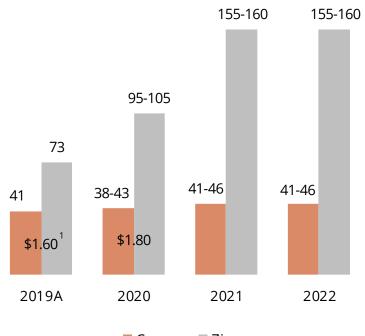
- on schedule and budget for phased start-up and production ramp-up in 2020
- phased ramp-up targets commissioning the new SAG mill in Q1/20 with first ore in Q2/20
- preparation for first commissioning of surface process equipment initiated in Q4/19



New ZEP mill and flotation buildings in foreground – January 2020

#### **Copper, Zinc Production & Cash Cost Outlook**

(kt & \$/lb Cu, net of by-product credits)



Copper Zinc

1. 2019 cash cost is guidance; production is reported actual.

### **Neves-Corvo – ZEP**

#### **Underground Construction Progress**

- development of lower stopes well underway with first two sublevel accesses continuing •
- installation of 3.5 km of underground conveyor systems well advanced •
- underground jaw crusher installation nearing completion •
- first phase of the hoisting shaft upgrade completed with installation of higher capacity skips and rope

#### Underground construction – December 2019



Installation of Transfer Station 3 ongoing

Crusher chamber – rock breaker and hopper

New skips and hoisting rope installed

#### Surface Construction Progress

work continued with focus on:

- mechanical, electrical and instrumentation installation of materials handling system
- SAG mill motor and hopper installation
- flotation and SAG mill building piping installation

- backfill cyclone station piping installation
- tailings and water supply piping systems
- new zinc filtration building steel and transfer tower steel works

Surface construction photos – December 2019



SAG mill motor and hopper installation



New flotation building piping installation



New filtration building and transfer tower steel works

### Eagle

#### **Consistent Operating Performance**

- achieved 2019 production guidance for both nickel and copper
- 2020 nickel production to increase more than 3,000 t (22%) over 2019, at reduced cash costs, as higher-grade Eagle East ore contributes to the mill feed
- copper production expected to increase more than 2,200 t (15%) in 2020

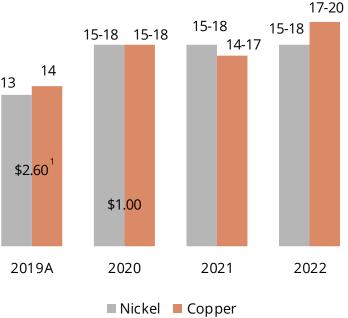
#### Successful Eagle East Development

- first Eagle East ore mined in Q3/19 and processed in Q4/19
- mine development continued in Q4/19 allowing for full access to the highergrade ores in 2020

#### Eagle East – January 2020

Nickel, Copper Production & Cash Cost Outlook

(kt & \$/lb Ni, net of by-product credits)



1. 2019 cash cost is guidance; production is reported actual.



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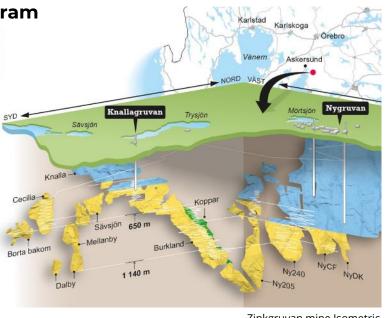
# Zinkgruvan

#### **Improved Mine & Mill Performance**

- 2019 production of 78,313 t zinc and 2,906 t of copper achieved guidance for both metals
- zinc, lead and copper production were greater year-on-year in 2019 as a result of sustained improvement in metal recovery and zinc ore head grades
- production of zinc in 2020 is expected to be similar to 2019, while copper production is forecast to increase to 3,000 - 4,000 t

#### **Focused Exploration Program**

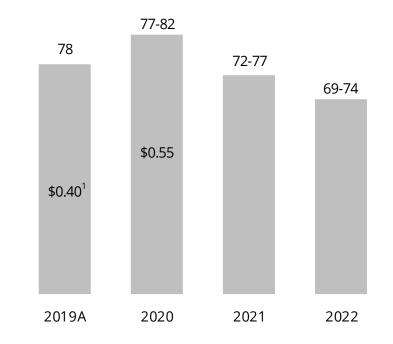
- exploration continued on Dalby and Flaxen
- \$15M exploration program planned in 2020 includes 50,000 m of drilling
- aimed at increasing and upgrading Mineral Resources at Dalby and existing orebody extensions



Zinkgruvan mine Isometric

#### Zinc Production & Cash Cost Outlook

(kt & \$/lb Zn, net of by-product credits)



1. 2019 cash cost is guidance; production is reported actual.

# 2020 Capital & Exploration Expenditure Guidance

#### Capital Expenditures<sup>1</sup>

- Candelaria capital expenditures to decrease compared to 2018 & 2019 reinvestment years as low-risk initiatives to increase value of operation are completed
- Neves-Corvo capital expenditures estimated to total \$230M in 2020, of which \$155M is remaining pre-production capital for ZEP

#### **Sustaining Capital**

Total Capital Expenditures <sup>2</sup>	\$620M
ZEP (Neves-Corvo)	155
Total Sustaining	465
Zinkgruvan	50
Neves-Corvo	75
Eagle	15
Chapada <sup>3</sup>	60
Candelaria (100% basis)	265

#### **Aggressive In and Near-Mine Exploration**

- \$65M to be invested in 2020 in exploration programs
- over 210,000 m of planned drilling
- \$20M at Candelaria focused on increasing Española open pit and extending underground mine lives
- \$15M at Zinkgruvan aimed at increasing Mineral Resources at Dalby
- \$10M at Chapada including an expanded 50,000 m drill program



Zinkgruvan – 2019 drilling program

<sup>1.</sup> During the production phase, waste stripping costs which provide probable future economic benefits and improved access to the orebody are capitalized to mineral properties. The Company capitalizes waste costs when experienced strip ratios are above the average planned strip ratio for each open pit phase under development.

<sup>2.</sup> Excludes capitalized interest. Amounts forecast above are on a cash basis and may vary from accrual based estimates.

<sup>3.</sup> Estimated capital expenditures also include amounts for discretionary exploration land acquisitions which will be dependent on the availability of desired areas and whether agreement can be made with owners.

# **Lundin Mining**

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#### High Quality Competitive Mines

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



#### Meaningful Scale Growth Oriented

- materially increasing copper and zinc production profile
- exploration upside and high-value expansion projects underway



#### **Financial Strength**

- proven track record for rigorous investment approach, focused on value creation
- strong balance sheet with low leverage

# Appendices

# **Responsible Mining**

We recognize the important role of the metals we produce and are committed to mining these metals responsibly We demonstrate this commitment through living our core values of Safety, Respect, Integrity and Excellence in all aspects of our decision-making Lundin Mining has been reporting on our sustainability performance in a comprehensive, standalone document since 2011 <u>https://www.lundinmining.com/responsible-mining/sustainability-reports/</u>

lundin mining	2018 PERF	ORMA	NCE H	IGHLIGHTS
2018 sustainability Report	<b>DIVERSITY IMPR</b> including Increase on our Board to	se of women	outper	onsecutive year forming our TRIF reduction (achieved 0.67 TRIF)
	REDUCTION OF LOST DAY SEVERITY RATE (SR) BY 14%, FROM 2017 TO 2018 (14 TO 12); AND BY 40% WHEN COMPARED TO 2016 LEVELS (20)	by 12% (1,094) from 2017 (1,223) Total community-		Total community- investment expenditures of approximately
Renegotiated our Candelaria electrical p purchase agreement, achieving:		ent, achieving:		OVERALL REDUCTIONS
	Increase of renewables to 80% of the energy mix, starting in 2023	Future opt self-genera to 20 MW energy rec	ation of up of electrical	in both energy intensity and GHG emissions intensity, per tonne rock mined from 2016 to 2018
	© 2.5x Re-use of Lundin Mining's total water withdrawn by approximately 2.5 times	\$1.58 BILLION OUR GOODS / WERE PROCU	.58B I (OR 95%) OF AND SERVICES IRED LOCALLY IONALLY (83%)	Co-hosting of "Lakeside Pride Askersund" by our Zinkgruvan mine, to celebrate diversity, inclusion and equality

### **Candelaria Complex** – Mineral Resources and Mineral Reserves<sup>1</sup>

Alcaparrosa Mine Santos Mine Tierra Amarilla C-397 North Waste PAC Dump Plant Candelaria Candelaria North Sector TSF Candelaria **Open Pit** Candelaria South Sector C-397 Los Diques TSF Nantoco Nantoco Waste Dump La Española

Ownership Location Mine life 2020 exploration budget

P&P Copper Mineral Reserves M&I Copper Mineral Resources Inferred Copper Mineral Resources

P&P Gold Mineral Reserves M&I Gold Mineral Resources Inferred Gold Mineral Resources

P&P Silver Mineral Reserves M&I Silver Mineral Resources Inferred Silver Mineral Resources 80% Region III, Chile 22 years \$20M

3,604 kt contained (663,696 kt at 0.5%) 6,495 kt contained (998,635 kt at 0.7%) 534 kt contained (67,354 kt at 0.8%)

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2.7 Moz contained (663,696 kt at 0.1 g/t)
4.9 Moz contained (998,635 kt at 0.2 g/t)
0.3 Moz contained (67,354 kt at 0.3 g/t)

37 Moz contained (663,696 kt at 2 g/t) 66 Moz contained (998,635 kt at 2 g/t) 3.9 Moz contained (67,354 kt at 2 g/t)

1. For more information please refer to the Company's Technical Report for the Candelaria Copper Mining Complex, November 28, 2018 and the Company's news release dated September 5, 2019 entitled "Lundin Mining Announces 2019 Mineral Resource and Reserve Estimates" on the Company's website (<u>www.lundinmining.com</u>). See also slide 32.

Candelaria Copper Mining Complex

### Candelaria Copper Production Profile<sup>1</sup> (kt)

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#### Contained copper in the Mineral Reserve estimate<sup>2</sup> has increased by 109%<sup>3</sup> and the production profile significantly improved since acquisition

<sup>1.</sup> Production shown on 100% basis and is based on the NI 43-101 Technical Reports dated November 28, 2018, November 30, 2017, and October 6, 2014 copies of which is are available on SEDAR under the Company's profile page. See also slide 29.

<sup>2.</sup> Refer to Press Release "Lundin Mining Announces 2019 Mineral Resource and Reserve Estimates" dated September 5, 2019. See also slide 32.

<sup>3.</sup> Mine depletion included.

# **Candelaria Mine Fleet Reinvestment**

# Significantly Increased Production Profile and Extended Mine Life on Exploration Success

- 20-year LOM when the open pit began production in 1994; most open pit equipment dated back to when operation opened
- Mineral Reserve estimate now supports mine life to beyond 2040

#### New Equipment to Increase Haulage Capacity and Efficiency

- 38 new latest generation CAT 793F trucks which are faster, have larger capacity and lower operating costs
- change to hydraulic shovels in backhoe configuration

#### **High-Return Investment**

- in excess of 20% IRR expected
- \$220M total investment essentially complete



First New Candelaria Haul Truck



New Candelaria Excavators

# **Candelaria Mill Optimization Project**

#### Low-Risk Investments to Increase Metal Production, Reduce Costs and Improve Safety

- primary crusher motor upgrade
- ball mill re-powering; pebble circuit upgrade; cyclone and feed pump upgrades
- flotation circuit upgrades
- front-end desalination plant and pipeline improvements

#### Throughput Capacity Forecast to Increase ~4ktpd and Copper Recovery by ~1.7%

#### **High-Return Initiatives**

- in excess of 20% IRR expected
- \$80M total investment; \$15M planned in 2020 to complete the project
- on track for completion in Q1/20





Candelaria Mill

# **Candelaria Underground Mine Expansions**

#### Significant Underground Exploration Success Under Lundin Mining Ownership

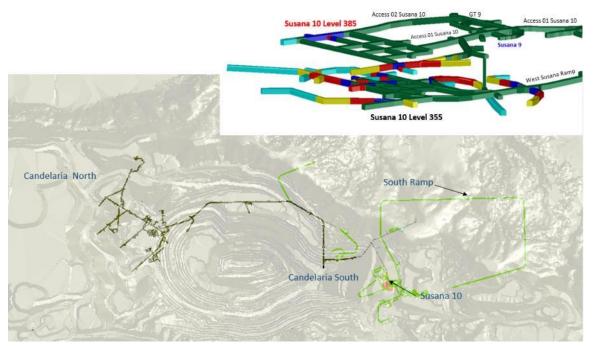
- total estimated Candelaria underground Mineral Reserves<sup>1</sup> now 148.2Mt at 0.85% copper
- Candelaria North and South Sectors continues to show significant exploration potential

#### Increasing Underground Production Rates

• permitted to expand Candelaria underground from 6ktpd to 14ktpd

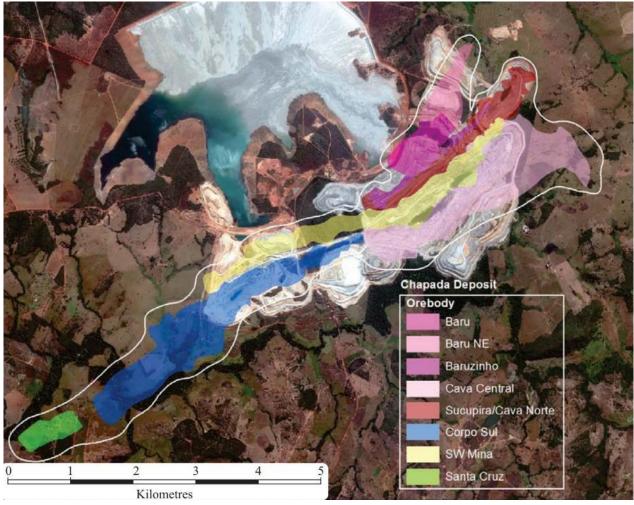
#### South Sector in Production Ahead of Schedule

- South Sector successfully transitioned to operations team in Q3/19
- aim to operate both mines to ensure meeting the maximum combined permitted limit of 14,000 tpd





### Chapada – Mineral Resources and Mineral Reserves<sup>1</sup>



Chapada deposits and near-mine exploration targets

Ownership	
_ocation	
Vine life	
2020 exploration budget	

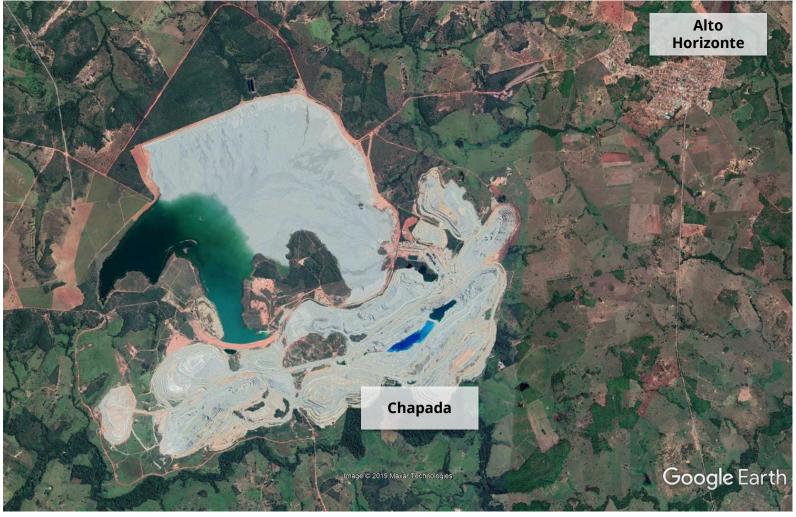
P&P Copper Mineral Reserves M&I Copper Mineral Resources Inferred Copper Mineral Resources 100% Goiás State, Brazil 31 years \$10M

1,757 kt contained (738,789 kt at 0.24%) 2,590 kt contained (1,090,829 kt at 0.23%) 360kt contained (162,769 kt at 0.22%)

P&P Gold Mineral Reserves M&I Gold Mineral Resources Inferred Gold Mineral Resources 4.6 Moz contained (803,984 kt at 0.18g/t) 5.9 Moz contained (1,238,346 kt at 0.19 g/t) 0.6 Moz contained (175,334 kt at 0.11 g/t)

1. For more information please refer to the Company's news release dated September 5, 2019 entitled "Lundin Mining Announces 2019 Mineral Resource and Reserve Estimates" on the Company's website (<u>www.lundinmining.com</u>). See also slide 32.

### **Chapada – General Overview**



<sup>•</sup> located in northern Goiás State

- 270 km northwest of national capital of Brasilia and 320 km north of state capital of Goiânia
- supported by road access with good connections to the local and national road network
- average elevation of approximately 300 masl
- low rolling hills with large contiguous flat areas
- tropical climate with two well defined seasons:
  - rainy season from November to March
  - dry season from April to October
- Alto Horizonte, the closest town, has a population of roughly 5,800 people
- local economic activity is mainly agropastoral.
   Some small scale gold and clay mining activities in area
- ± 750 employees and 1,300 contractors
- 10% of the workforce is female
- majority of the workforce is between 26 to 35 years old (42%) and 36 to 45 years old (32%)

Source: Google Earth

### **Chapada Processing Facilities Overview**

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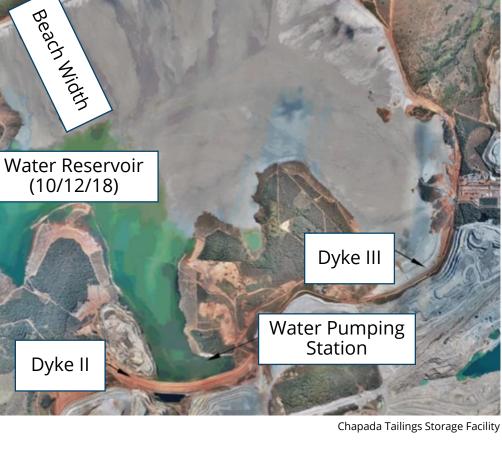
#### **Conventional Crush, Grind, Float**

- single-line plant to treat sulphide ores
- current capacity of 65,000 tpd or 24.0 Mtpa
- produces a high-quality gold-rich copper concentrate
- in 2018 the mill:
  - processed 22.9 Mt of ore
  - average copper recovery of 82.4%
  - average gold recovery of 63.3%
  - average concentrate grade of 24.1% copper and 15.5 g/t gold

Aerial photograph of Chapada mine processing facilities

# Chapada Tailings Storage Facility (TSF)

- 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
- Main Dam is currently at an elevation of 376 masl
- current permitted capacity for approximately 2.5 years at the current production rate of 24.0 Mtpa
- design underway to raise and permit to 382 masl
- conceptual designs to raise to 398 masl to provide additional storage capacity
- video monitoring and alarm system in place



Main Dam

Spillway

28

### Eagle Mine – Mineral Resources and Mineral Reserves<sup>1</sup>

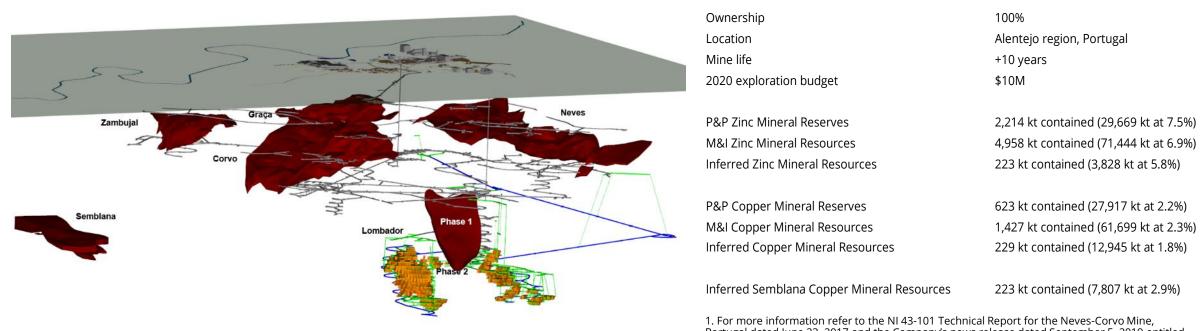


Eagle Mine

Ownership	100%
Location	Michigan, USA
Mine life	5 years
P&P Nickel Mineral Reserves	108 kt contained (4,119 kt at 2.6%)
M&I Nickel Mineral Resources	132 kt contained (4,022 kt at 3.3%)
P&P Copper Mineral Reserves	91 kt contained (4,119 kt at 2.2%)
M&I Copper Mineral Resources	109 kt contained (4,022 kt at 2.7%)
Inferred Nickel Mineral Resources	12 kt contained (549 kt at 2.2%)
Inferred Copper Mineral Resources	8 kt contained (549 kt at 1.6%)

1. For more information please refer to the Company's Technical Report on the Eagle Mine dated April 26, 2017 and the Company's news release dated September 5, 2019 entitled "Lundin Mining Announces 2019 Mineral Resource and Reserve Estimates" on the Company's website (www.lundinmining.com). See also slide 32.

### Neves-Corvo – Mineral Resources and Mineral Reserves<sup>1</sup>



Schematic of Neves-Corvo Mine highlighting ZEP development and mining areas

1. For more information refer to the NI 43-101 Technical Report for the Neves-Corvo Mine, Portugal dated June 23, 2017 and the Company's news release dated September 5, 2019 entitled "Lundin Mining Announces 2019 Mineral Resource and Mineral Reserve Estimates" on the Company's website (<u>www.lundinmining.com</u>). See also slide 32.

### Zinkgruvan – Mineral Resources and Mineral Reserves<sup>1</sup>



Zinkgruvan Mine

Ownership	100%
Location	Askersund, Sweden
Mine life	+10 years
2020 exploration budget	\$15M
P&P Zinc Mineral Reserves	803 kt contained (10,816 kt at 7.4%)
M&I Zinc Mineral Resources	1,633 kt contained (20,275 kt at 8.1%)
Inferred Zinc Mineral Resources	1,381 kt contained (19,785 kt at 7.0%)
P&P Copper Mineral Reserves	55 kt contained (2,736 kt at 2.0%)
M&I Copper Mineral Resources	105 kt contained (4,632 kt at 2.3%)
Inferred Copper Mineral Resources	6 kt contained (293 kt at 2.1%)

1. For more information please refer to the Company's Technical Report entitled NI 43-101 Technical Report for the Zinkgruvan Mine, Central Sweden dated November 30, 2017 and the Company's news release dated September 5, 2019 entitled "Lundin Mining Announces 2019 Mineral Resource and Reserve Estimates" on the Company's website (www.lundinmining.com). See also slide 32.

# 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 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 Resource and Mineral Reserve estimates of the Company are shown on a 100 percent basis for each mine. The Measured and Indicated Mineral Resource estimates 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, 2019. Estimates for all operations 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.

Mineral Resources at Candelaria are estimated using metal prices of US\$3.16/lb copper and US\$1,000/oz gold and an exchange rate of USD/CLP 600. Mineral Reserves at Candelaria were estimated using metal prices of US\$2.75/lb copper and US\$900/oz gold and an exchange rate of USD/CLP 600. Mineral Resources at Chapada and Suruca SW copper-gold are estimated using metal prices of US\$4.00/lb copper and US\$1,600/oz gold and an exchange rate of USD/BRL 3.95. For the Suruca gold only Mineral Resource estimates at Chapada a gold price of \$1,500/oz has been used and an exchange rate of USD/BRL 3.50. Mineral Reserves at Chapada were estimated using metal prices of US\$3.00/lb copper and US\$1,250/oz gold and an exchange rate of USD/BRL 3.95. Mineral Resource for Neves-Corvo and Semblana have been estimated using metal prices of US\$2.75/lb copper and US\$1.00/lb zinc and an exchange rate of EUR/USD 1.25. The Semblana Mineral Resource has been reported using the same metal prices and exchange rates as Neves-Corvo. Mineral Resources at Cinkgruvan have been estimated using metal prices of US\$2.75/lb copper, US\$1.00/lb zinc and US\$1.00/lb lead and an exchange rates of USD/SEK 7.00. Mineral Resources and Mineral Reserves at Eagle and Eagle East have been estimated using metal prices of US\$2.75/lb copper and US\$8.00/lb nickel. Refer to the Company's news release dated September 5, 2019 entitled "Lundin Mining Announces 2019 Mineral Resource and Reserve Estimates" on the Company's website (www.lundinmining.com).

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 www.sedar.com:

Candelaria: technical report entitled Technical Report for the Candelaria Copper Mining Complex, Atacama Region, Region III, Chile dated November 28, 2018. Chapada: technical report entitled Technical Report on the Chapada Mine, Goiás State, Brazil dated October 10, 2019 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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