# AUSTRALIAN MINES

# Strategy Update

#### APRIL 2022

Decarbonising and electrifying the world through the development of ethically sourced nickel and cobalt materials



australianmines.com.au ASX I AUZ

#### AUSTRALIAN MINES

### Disclaimer



Forward Looking Statement: This document may contain forward looking statements. Forward looking statements can generally be identified by the use of forward looking words such as, 'expect', 'anticipate', 'likely', 'intend', 'should', 'could', 'may', 'predict', 'plan', 'propose', 'will', 'believe', 'forecast', 'estimate', 'target', 'outlook', 'guidance', 'potential' and other similar expressions within the meaning of securities laws of applicable jurisdictions.

There are forward looking statements in this document relating to the outcomes of the Sconi Project Bankable Feasibility Study and ongoing refinement work. Actual results and developments of projects and the market development may differ materially from those expressed or implied by these forward looking statements. These, and all other forward looking statements contained in this document are subject to uncertainties, risks and contingencies and other factors, including risk factors associated with exploration, mining and production businesses. It is believed that the expectations represented in the forward looking statements are reasonable but they may be affected by a variety of variables and changes in underlying assumptions which could cause actual results or trends to differ materially, including but not limited to price fluctuations, actual demand, currency fluctuations, drilling and productions results, resource estimations, loss of market, industry competition, environmental risks, physical risks, legislative, fiscal and regulatory changes, economic and financial market conditions in various countries and regions, political risks, project delay or advancement, approvals and cost estimates.

Any forward looking statement is included as a general guide only and speak only as of the date of this document. No reliance can be placed for any purpose whatsoever on the information contained in this document or its completeness. No representation or warranty, express or implied, is made as to the accuracy, likelihood or achievement or reasonableness of any forecasts, prospects, returns or statements in relation to future matters contained in this document. Australian Mines does not undertake to update or revised forward looking statements, or to publish prospective financial information in the future, regardless of whether new information, future events or any other factors affect the information contained in this announcement, except where required by applicable law and stock exchange listing requirements. To the maximum extent permitted by law, Australian Mines Limited and its Associates disclaim all responsibility and liability for the forward looking statements, including, without limitation, any liability arising from negligence. Recipients of this presentation must make their own investigations and inquiries regarding all assumptions, risks, uncertainties and contingencies which may affect the future operations of Australian Mines Limited or Australian Mines Limited's securities.

Previously Reported Information: This document does not contain any new data, results or information, with all references clearly stated.

Any exploration and/or resource data, or statements referenced within this document have previously been lodged by Australian Mines Limited with the ASX via announcements dated 20 November 2018, 30 November 2018, 6 December 2018, 3 January 2019, 15 January 2019, 21 January 2019, 22 January 2019, 25 January 2019, 12 February 2019, 13 February 2019, 14 February 2019, 21 February 2019, 27 February 2019, 26 April 2019, 29 April 2019, 12 June 2019, 13 June 2019, 17 June 2019, 8 July 2019, 6 August 2019, 1 October 2019, 2 October 2019, 21 October 2019, 21 October 2019, 25 November 2019, 14 April 2020, 12 June 2020, 19 June 2020, 23 June 2020, 29 June 2020, 15 July, 2020, 13 August 2020, 18 August 2020, 26 August 2020, 10 September 2020, 6 October 2020, 12 October 2020, 26 October 2020, 10 November 2020, 19 January 2021, 29 January 2021, 6 April 2021, 29 April 2021, 5 May 2021, 2 June 2021, 3 June 2021, 7 June 2021, 24 June 2021, 25 June 2021, 27 July 2021, 28 July 2021, 30 July 2021, 16 August 2021, 15 September 2021, 17 November 2021, 17 November 2021, 17 November 2021, 31 January 2022, 9 February 2022, 9 March 2022 and 4 April 2022. Australian Mines Limited is not aware of any other new information or data that materially affects the information included in the original market announcements referred to above, and that all material assumptions and technical parameters have not materially changed.

Cautionary Note For U.S. Investors Regarding Reserve and Resource Estimates: Unless stated otherwise, all resource estimates by the Company in this Presentation were calculated in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the "JORC Code", 2012 Edition), a professional code of practice that sets minimum standards for the public reporting of mineral exploration results, Mineral Resources, and Ore Reserves.

These standards differ significantly from the requirements of the U.S. Securities and Exchange Commission for descriptions of mineral properties, which requirements are set forth in SEC Industry Guide 7, under Regulation S-K of the United States Securities Act of 1933, as amended. Information concerning mineralization, deposits, mineral reserve and resource information contained or referred to herein may not be comparable to similar information disclosed by U.S. companies. In particular, and without limiting the generality of the foregoing, this Presentation uses the terms "Resource", "Mineral Resource", "Measured Resource", "Indicated Resource", and "Inferred Resource". U.S. investors are advised that, while such terms are recognized and required under Australian securities laws, the United States Securities and Exchange Commission does not recognize them. Under U.S. standards, mineral resources may not be classified as "reserves" unless the determination has been made the mineralization could be economically and legally produced or extracted at the time the reserve determination is made. U.S. investors are cautioned not to assume that any part of a "measured resource" or "indicated resource" will ever be converted into a "reserve". U.S. investors should also understand the "inferred resources" have a great amount of uncertainty as to their existence and great uncertainty as to their economic and legal feasibility. It cannot be assumed that all or any part of "inferred resources" will ever be upgraded to a higher category. Accordingly, the information in this document containing descriptions of the Company's mineral properties may not be comparable to the information disclosed by companies that report in accordance with U.S. standards.



# Agenda

Overview Strategy P-CAM Summary



# Overview

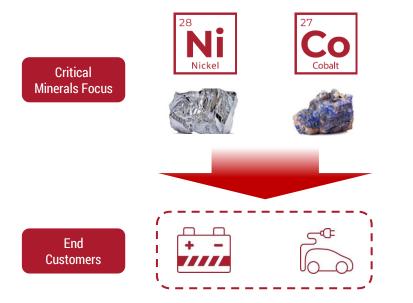
#### OVERVIEW

### Strategy



#### **Critical Minerals at a Critical Time**

 Our strategy aims to become a leading global supplier of cost-competitive, reliable and ethically derived nickel and cobalt materials to the rapidly expanding electric vehicle and clean energy storage industries



<sup>1</sup> All 'Strategic Pillars' are assumed to be on a post demerger basis (excluding non-core assets) unless otherwise stated. <sup>2</sup> 'P-CAM' means precursor cathode active material, a high value-add product.

#### Strategic Pillars<sup>1</sup>

2

4

**Sconi Project** – path to production in 2024

**Flemington Project** – develop into a second production hub by 2026

P-CAM<sup>2</sup> – develop and integrate production
 capability for both Sconi and Flemington
 Projects by 2026

Maximise Productivity – develop full productive capability of both Sconi and Flemington Projects

# **Driving growth and development**

**Experienced Board and Leadership Team** 

Strong, well-integrated and experienced team characterised by a diverse skills mix, stable tenure and disciplined management style

#### **Michael Ramsden**

Chairman BEc, LLB, FFIN Independent

OVERVIEW

30 years' experience as a corporate advisor

Managing Director BSc, MMET, MBA Executive

25 years' experience in the resources sector





#### **Michael Elias**

Non-Executive Director BSc(Hons), FAusIMM. CPGeo Independent

Internationally recognised expert in lateritic nickel-cobalt deposits with 35 years' experience in nickel resource development

**Dominic Marinelli** Non-Executive

Director BEng, PGD Sc, MBA Independent

Over 20 years' corporate fundraising experience

Over 40 years' experience in project delivery across the mining, infrastructure, and energy sectors

Les Guthrie

Non-Executive Director BSc, MAICD Independent



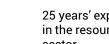
**Oliver Canton** 

Company Secretary **BJuris**, LLB

Qualified lawyer with over 30 years' experience in a variety of corporate roles













Strategic Pillar	1	2	3	4
Asset / Initiative	SCONI PROJECT	Flemington Project	PECURGE ACTIVE MATERIA	Maximise Productivity
Location				
Commodity / Product Exposure <sup>3</sup>	28 Nickel 27 Cooalt	27 Coo Cobalt 28 Nickel	Precursor	21 Scandium 25 Manganese
Contained Metal <sup>4</sup>	738kt Ni 72kt Co	7kt Ni; 3kt Co (Maiden Resource)	N/A	Sconi + Flemington (Sc); <sup>5</sup> Sconi (Mn)
Project Phase	Feasibility	Discovery / Feasibility	Pre-Feasibility	Feasibility
Next Steps	Feasibility / Financing	Drilling / Feasibility	Feasibility	Feasibility

<sup>3</sup> 'Commodity / Product Exposure' means the principal commodity / product exposure(s).

<sup>4</sup> See Tables 1 to 6 in the Appendix of this report.

<sup>5</sup> Sconi Project has contained scandium (Sc) of 1,441 tonnes (Australian Mines Limited, Sconi to generate \$5 billion in free cashflow over 30-year mine life, ASX: 13 June 2019). Flemington Project has contained scandium of 1,090 tonnes (Australian Mines Limited, Maiden Mineral Resource confirms Flemington Project's cobalt credentials, ASX: 31 October 2017).

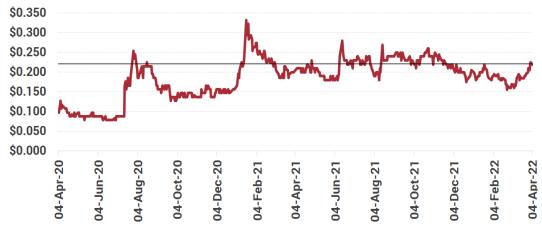
### **Corporate Review**

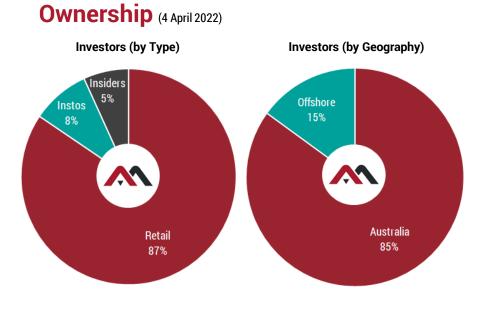


#### **Capital Structure**

Market Cap (4 April 2022)	~ A\$95M
Share Price (4 April 2022)	A\$0.220
Issued Share Capital (4 April 2022)	430.4M
Net Cash (31 December 2021)	~ A\$5.7M
Listing	ASX: AUZ

#### Share Price Performance (2 years)





Total Holders	11,010
Top-20 Holders (% of ISC; grouped)	22%
Liquidity (% of ISC; 12 months; ASX+CXA)	104%
Research Coverage	MST Financial

#### AUSTRALIAN MINES LIMITED

# FY2021 Highlights

#### **Sconi Project**

- Binding long form offtake agreement with LG Energy Solution for 100% of the projected future production<sup>6</sup>
- Deed of Access for Resource Extraction granted from the Australian Government
- Queensland Government support through *Prescribed Project* status and conditional financing package
- Future proofed EV market relevance of Sconi (+ Flemington) by demonstrating NCM<sup>7</sup> P-CAM production capability
- Defined pathway to production with clear FY2022 milestones:
  - Secure financing for construction before 30 June 2022
  - Making final investment decision (FID)





Delivery of Key Milestones

Project Enhancements



Pathway to Production





<sup>8</sup> Subsequent to reporting date (28 July 2021).

FY2021 Highlights

#### Corporate

- Achieved industry first Carbon Neutral certification
- Commenced 3<sup>rd</sup> party certification of comprehensive ESG standards
- ✓ Successful \$6.5 million equity raising in 2021<sup>8</sup>
- Progressed project financing discussions for Sconi with banks, credit export agencies, and other institutions
- Cost discipline refocussed project portfolio
- Improved project efficiencies by deploying novel AI and machine learning tools for exploration and development programs

Progress on

Progress on Funding, Costs & Project Financing

Improved Productivity





Industry

Leading ESG



### **Sconi Offtake Partner and Financing**



#### **Offtake Partner**

- Entered into a binding long form offtake agreement with LG Energy Solution, a subsidiary of LG Chem
- Supply agreement (commencing 2024) is for mixed nickel-cobalt hydroxide precipitate (MHP) product
- During the initial term (6 years), LG Energy Solution to purchase 71,000 dmt<sup>9</sup> of nickel and 7,000 dmt of cobalt (MHP form)
- Demonstrated technical and production capability (pilot plant operating since 2018)
- At full production, Sconi is projected to be one of the lowest cost, cobalt producing nickel operations in the world<sup>10</sup>
- Australian Mines playing a key role in providing a stable, high quality, and ethical battery materials supply chain

#### 9 'dmt' means dry metric tonnes.

#### **Project Financing**

- Financing negotiations targeted to be completed before 30 June 2022<sup>11</sup>
- Active negotiations with potential project financiers continuing<sup>12</sup>

<sup>&</sup>lt;sup>10</sup> Source: CRU International. Australian Mines Limited, Independent market study places Sconi in the 1<sup>st</sup> quartile of cost curve for global sulphate and nickel sulphate production (ASX: 12 February 2019).

<sup>&</sup>lt;sup>11</sup> Australian Mines Limited, *Binding offtake agreement with LG Energy Solution for supply of mixed nickel-cobalt hydroxide from the Sconi Project, Queensland* (ASX: 16 August 2021). The binding long form offtake agreement has only one condition precedent, which is that Australian Mines secures financing for construction on the Sconi Project on or before 30 June 2022 (or such later date as the parties may agree).

<sup>&</sup>lt;sup>12</sup> The nature of any non-disclosure agreement (NDA) with potential project financiers signed by Australian Mines, coupled with ASX Listing Rules, prevent the company from commenting on the NDAs, including providing any indication of the number of such agreements signed by Australian Mines, the name / nationality / type of business of the other signatory, or even confirmation by Australian Mines that such an agreement exists.

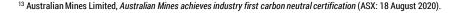
### **Responsible Corporate Citizen**

#### **Achieved Industry First Carbon Neutral Certification**

- First mineral resources company to be certified a Carbon Neutral organisation<sup>13</sup> by the Australian Government's Climate Active program
- Climate Active is the only Australian Government recognised certification, awarded to organisations who have reached a state of achieving net zero emissions (such as Australian Mines)
- Third-party verification and certification process underway against comprehensive environmental, social, and governance (ESG) standards
- Commitment to local communities recognised by the Queensland Government when granting *Prescribed Project* status for Sconi









### **The Electric Vehicle Revolution**



- Long term commitment to the EV and energy storage industries
- Source of ethically produced nickel and cobalt from a certified Carbon Neutral organisation
- Supplying essential intermediate/MHP and P-CAM materials for EV batteries
- Supporting clean energy technologies to decarbonise the global economy
- Aggressive targets for EV transition being introduced by governments globally











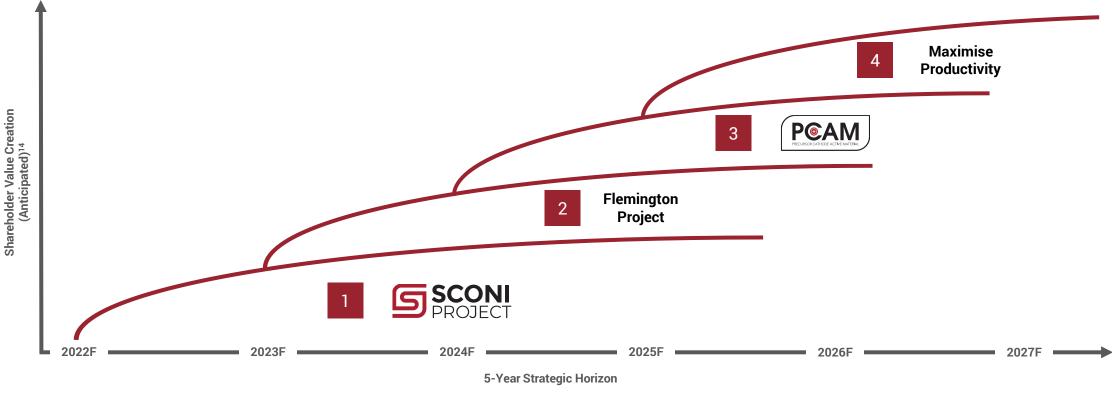
# Strategy

STRATEGY

**Overview** 



# 5-Year Strategy (2022F-2027F) (Four Strategic Pillars)



#### S T R A T E G Y

**#1 Sconi Project** 

#### **World Class Sconi Project**

- Tier-1 nickel-cobalt-scandium asset in Queensland, Australia
- Development ready, lowest cost quartile with a 30+ year mine life
- Binding long form offtake agreement with LG Energy Solution (6+5 years)<sup>15</sup>
- Project finance progressing

   targeted completion before 30 June 2022<sup>16</sup>
- Potential to significantly expand the current Mineral Resource with additional targets identified<sup>17</sup>
- Targeting mixed nickel-cobalt hydroxide precipitate (MHP) production from 2024

#### Sconi Nickel-Cobalt-Scandium Project



<sup>15,16</sup> Australian Mines Limited, Binding offtake agreement with LG Energy Solution for supply of mixed nickel-cobalt hydroxide from the Sconi Project, Queensland (ASX: 16 August 2021). The binding long form offtake agreement has only one condition precedent, which is that Australian Mines secures financing for construction on the Sconi Project on or before 30 June 2022 (or such later date as the parties may agree).

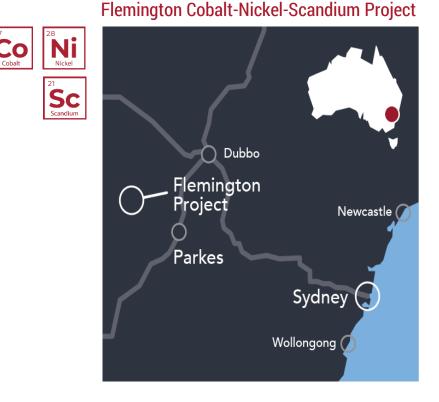
<sup>17</sup> Australian Mines Limited, Additional nickel and cobalt targets identified at Sconi Project, North Queensland (ASX: 15 May 2020).

#### S T R A T E G Y

### **#2 Flemington Project**

#### **Potential Second Production Hub**

- Emerging cobalt-nickel-scandium project in New South Wales, Australia
- Direct continuation of Sunrise Energy Metals (ASX: SRL) Sunrise ore body<sup>18</sup>
- Significant potential to materially expand the current Mineral Resource<sup>19</sup>
- Complements existing Sconi Nickel-Cobalt-Scandium Project in Queensland
- Aiming to develop Flemington into a second production hub by 2026



<sup>18</sup> Based on the accepted geological map of the area, Australian Mines' tenement portfolio (EL 7805 and EL 8478) and Sunrise Energy Metals Syerston tenement package (being the single granted tenement of EL 4573) each cover approximately 50% of the Tout Complex (the geological unit that hosts the Flemington-Sunrise deposit).

<sup>19</sup> Australian Mines Limited, Maiden Mineral Resource confirms Flemington Project's cobalt credentials (ASX: 31 October 2017).

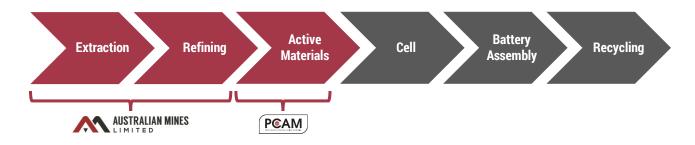


#### **Expand Downstream Processing Capability**

- ✓ To develop P-CAM production from Sconi<sup>20</sup> and Flemington Project ores
- P-CAM product expands downstream processing capability
- P-CAM Feasibility Studies completed over the next three years
- P-CAM initiative provides relevance and flexibility to future market conditions and demand scenarios<sup>21</sup>



#### **Positioning in the Battery Value Chain**



<sup>20</sup> The Bell Creek-Minnamoolka deposits are 100% owned by Australian Mines and are located within the Company's Sconi Project. These nickel-cobalt deposits, however, sit outside the Offtake Agreement with LG Energy Solution, which only concerns the Sconi Project's Greenvale, Lucknow, and Kokomo deposits.

<sup>21</sup> Australian Government Department of Industry, Science, Energy and Resources (DISER), 2022 Critical Minerals Strategy, 16 March 2022, p. 15 (www.industry.gov.au/sites/default/files/March%202022/document/2022-critical-minerals-strategy.pdf).

## **#4 Maximise Productivity**

#### **Productivity and Efficiency**

- Develop full productive capability of both Sconi and Flemington Projects
- Potential sales of nickel-cobalt MHP product in excess of LG Energy Solution Offtake Agreement<sup>22</sup>
- Add value to Sconi and Flemington Projects through the development of scandium and manganese product sales/offtake agreements
- Focus on maximum efficiency, reducing operating and fixed costs (2025 onwards)









<sup>22</sup> During the initial six-year term of the Offtake Agreement, LG Energy Solution will purchase 71,000 dry metric tonnes of nickel and 7,000 dry metric tonnes of cobalt in the form of a mixed nickel-cobalt hydroxide precipitate (MHP).











#### Background

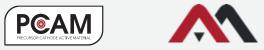
- Over the last three years, Australian Mines has undertaken a significant program of work on processing options at the Sconi Project
- Pilot P-CAM production plant in Perth last year demonstrated the fully integrated P-CAM production circuit from raw Sconi feedstock
- Preliminary test work to produce P-CAM for NCM batteries based on nickel, cobalt, and manganese from a single source (Sconi)<sup>23</sup>
- The P-CAM Feasibility Studies over the next three years will build on the recent P-CAM processing work undertaken, albeit on a larger commercial scale

#### **Expanding Strategic Options**

- Australian Mines is aiming to diversify by commodity, product, geography, and customer and move up the value chain
- P-CAM production will complement and supplement Australian Mines' existing product portfolio by expanding downstream processing
- P-CAM provides relevance and flexibility to future market conditions and demand scenarios helping to meet future global demand
- Over the longer term, P-CAM strategy will cement Australian Mines' position as a leading producer of critical minerals in Australia

<sup>&</sup>lt;sup>23</sup> Australian Mines Limited, Study indicates integrated Precursor Cathode Active Material (P-CAM) production circuit improves the already attractive economic profile of the Sconi Project (ASX: 2 June 2021).

# Nickel Value Chain

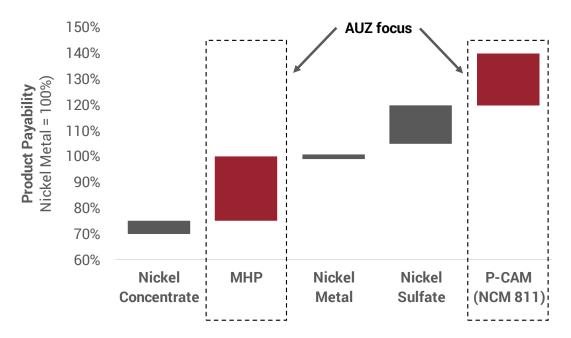


#### **P-CAM Economics**

- P-CAM is a high value-add product in the global Electric Vehicle (EV) battery supply chain
- P-CAM production is expected to grow significantly to meet global EV and energy storage demand<sup>24</sup>
- Australian Mines aiming to provide a safe, reliable, and sustainable alternative downstream processing supply chain for P-CAM materials in Australia
- Ausenco's Sconi P-CAM Scoping Study last year<sup>25</sup> highlighted the potential to deliver a significant revenue boost over the life of the Sconi Project through P-CAM production for an incremental capital and operating cost

#### Nickel Product Economics<sup>26</sup>

(Indicative Nickel product payability vs metal spot price)

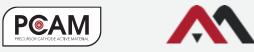


25 Australian Mines Limited, Study indicates integrated Precursor Cathode Active Material (P-CAM) production circuit improves the already attractive economic profile of the Sconi Project (ASX: 2 June 2021).

<sup>26</sup> Shanghai Metals Market/SMM (www.metal.com), Fastmarkets MB (www.metalbulletin.com) and Benchmark Mineral Intelligence (www.benchmarkminerals.com), various publications as at 4 April 2022.

<sup>&</sup>lt;sup>24</sup> Future Battery Industries CRC, *Li-ion battery cathode manufacture in Australia*, July 2020.

### **P-CAM Economic Evaluation**



#### **Strong Potential P-CAM Economics**

- Sconi P-CAM Scoping Study last year highlighted the strong potential economics in producing P-CAM
- P-CAM facility would increase the capital cost estimates for the Sconi Project by \$104.6 million<sup>27</sup>
- Overall incremental operating cost for the P-CAM facility at Sconi is an increase of \$46.8 million per year<sup>28</sup>
- Estimated annual cash flow over the initial 12 years of operating a P-CAM processing facility at Sconi indicates a discounted payback of 1.8 years<sup>29</sup>

#### Sconi P-CAM Production Economic Evaluation<sup>30</sup>

(Results of replacing the previous nickel/cobalt crystalliser areas of the Sconi facility with a P-CAM process facility)

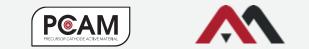
Key Metrics		
Incremental EBITDA	A\$ million	1,050
Initial Operating Period	Years	12
Total P-CAM Product Capex	A\$ million	105
Total Project Opex Project NPV <sub>8%</sub>	A\$ million A\$ million	632 352
Payback Period (simple) Payback Period (discounted)	Years Years	1.6 1.8
Sconi BFS - June 2019 <sup>31</sup>		
Total Capex	US\$ million	974
Project NPV <sub>8%</sub> (post-tax)	A\$ million	817
LOM average nickel price <sup>32</sup> LOM average cobalt price <sup>33</sup>	US\$/lb Ni US\$/lb Co	9.00 30.00

27.28.29.30 Australian Mines Limited, Study indicates integrated Precursor Cathode Active Material (P-CAM) production circuit improves the already attractive economic profile of the Sconi Project (ASX: 2 June 2021).

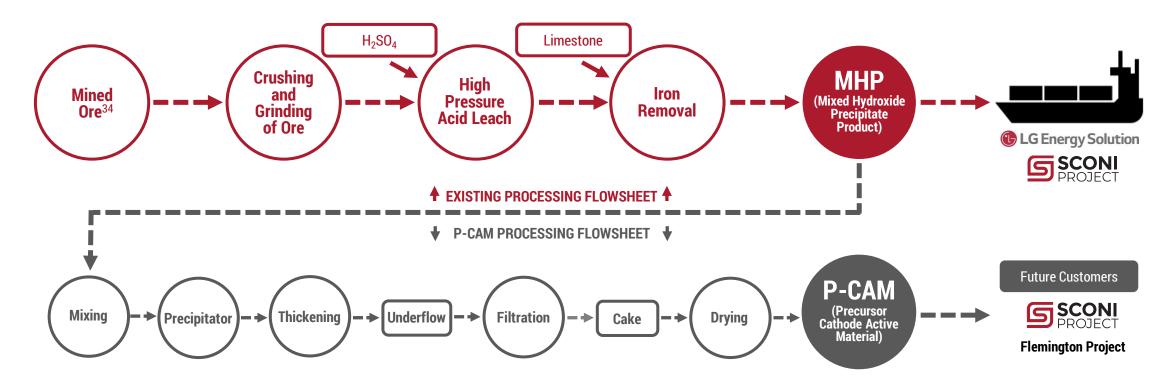
<sup>31</sup> Australian Mines Limited, Sconi to generate \$5 billion in free cashflow over 30-year mine life (ASX: 13 June 2019).

<sup>32,33</sup> Current LME spot price for nickel at US\$32,750/t (or US\$14.86/lb) and cobalt at US\$81,340/t (or US\$36.90/lb) as at 1 April 2022 (market close/bid price). This compares to the previous June 2019 BFS average price assumption of US\$19,842/t (or \$9.00/lb) for nickel and US\$66,139/t (or US\$30.00/lb) for cobalt, including sulphate premium and an AUD/USD exchange rate of 0.71 (ASX: 13 June 2019).

# Integrated Processing Route



#### **Processing Flowsheet (Existing MHP + P-CAM)**

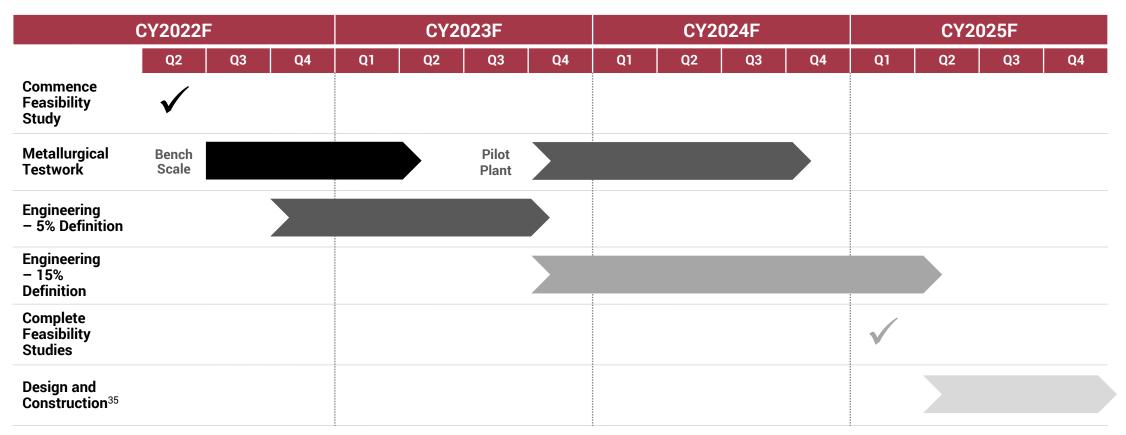


<sup>34</sup> The Bell Creek-Minnamoolka deposits are 100% owned by Australian Mines and are located within the Company's Sconi Project. These nickel-cobalt deposits, however, sit outside the Offtake Agreement with LG Energy Solution, which only concerns the Sconi Project's Greenvale, Lucknow, and Kokomo deposits.

#### P-CAM Pathway to Construction



#### **Indicative Timeline**



 $^{\rm 35}$  'Design and Construction' phase is forecast to be completed in CY2026.

# Track Record of Delivery





#### **Producing Nickel and Cobalt Products Since 2018**<sup>36</sup>

- Ore processed at Australian Mines' pilot plant in Perth
- Full production process demonstration circuit from Sconi Project ore
- Existing Sconi and Flemington processing flow built on proven industry standard technology





# Summary



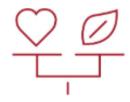
# Australian Mines

#### **Development-Ready, Diverse Project Portfolio**

- Long term offtake agreement (6+5 years) in place with LG Energy Solution for world class Sconi Project
- Sconi has a defined pathway to production in 2024
- Flemington Project represents a potential second production hub by 2026
- P-CAM product expands downstream processing capability providing relevance and flexibility to future market conditions and demand scenarios
- Focus on developing the full productive capability of both Sconi and Flemington Projects
- Ethical, fully auditable, and transparent supply chain
- Local community focus, industry leading ESG credentials

100% Auditable Supply Chain Ethically Derived in Low Risk Jurisdiction





Positioned to Meet Surge in EV Demand





### FOR FURTHER INFORMATION, PLEASE CONTACT

David Loch Investor Relations Australian Mines Limited m: +61 456 799 967 e: dloch@australianmines.com.au



australianmines.com.au ASX I AUZ sconi.com.au



# Appendix

Critical Minerals Focus/Role Demand Surge Nickel Supply Inelasticity Competent Persons' Statements Project Mineral Resources Sconi Project Ore Reserve



# **Critical Minerals Focus**



#### Australian Mines Critical Minerals Focus<sup>37</sup>

Critical Mineral	On Australia list	On US list <sup>38</sup>	On EU List	On Japan list	On India list	Australian Production (2020)	Global Production (2020) <sup>39</sup>
28 Nickel		$\checkmark$		$\checkmark$		169kt	2,510kt
27 Coo Cobalt	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	5.6kt	135kt
25 Manganese	$\checkmark$	$\checkmark$		$\checkmark$		4,800kt (ore)	17,200kt
21 Scc Scandium	$\checkmark$	$\checkmark$	$\checkmark$			040	15-25t <sup>41</sup>

<sup>37</sup> Australian Government Department of Industry, Science, Energy and Resources (DISER), 2022 Critical Minerals Strategy, 16 March 2022, pp. 26-27 (www.industry.gov.au/sites/default/files/March%202022/document/2022-critical-minerals-strategy.pdf).

38.39 US Geological Survey (USGS), Mineral Commodity Summaries 2022, January 2022 (https://pubs.usgs.gov/periodicals/mcs2022/mcs2022.pdf).

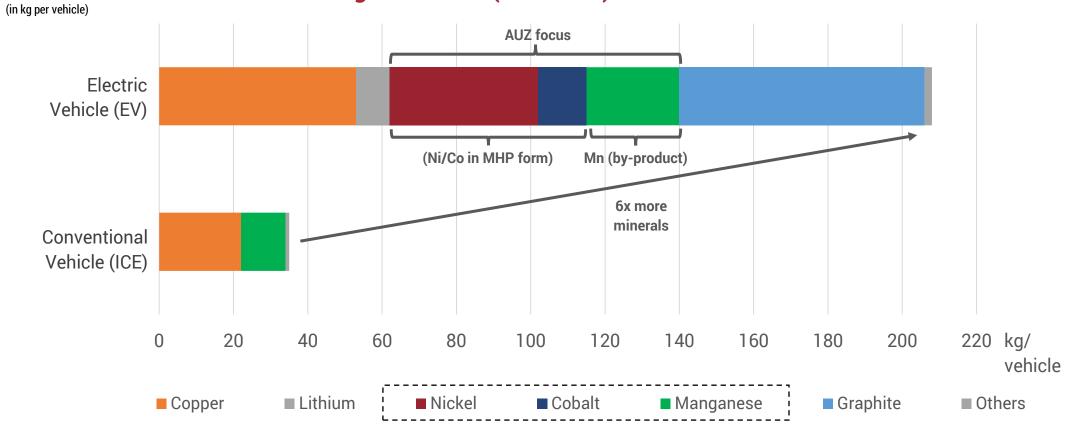
40 Geoscience Australia, Australian Resource Reviews: Scandium 2019, 2019 (https://d28rz98at9flks.cloudfront.net/130441/ARR\_Scandium\_2019.pdf).

<sup>41</sup> US Geological Survey (USGS), Mineral Commodity Summaries 2022, Scandium, January 2022 (https://pubs.usgs.gov/periodicals/mcs2022/mcs2022-scandium.pdf).

## **Critical Minerals Role in the EV Revolution**



### **Critical Minerals Used in Passenger Vehicles (EV vs ICE)**<sup>42</sup>



42 International Energy Agency (IEA), The Role of Critical Minerals in Clean Energy Transitions, 5 May 2021 (www.iea.org/news/clean-energy-demand-for-critical-minerals-set-to-soar-as-the-world-pursues-net-zero-goals).

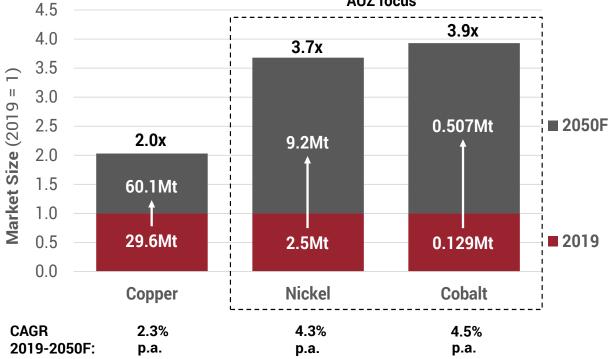
# Demand Surge



#### **ESG Mega Trends Driving Demand**

- Future facing metals (including nickel and cobalt) to drive decarbonisation and electrification, supporting future emissions targets
- Transition to electric vehicles (EV) continues to accelerate
- Nickel rich chemistries have grown to dominate the EV battery cell market, accounting for 53% of global battery demand in 2021<sup>43</sup>
- Nickel and cobalt supply growth this decade required to double (versus 2010s) in order to meet anticipated market demand<sup>44</sup>

#### **Projected Metal Demand Growth (2019-2050F)**<sup>45</sup>



<sup>43</sup> Benchmark Mineral Intelligence, Renault backs NCM cathodes as it establishes French battery cell pipeline, 9 July 2021 (www.benchmarkminerals.com)

44,45 Glencore, Preliminary Results 2020 Presentation, 16 February 2021 (www.glencore.com).

### **Nickel Supply Inelasticity**

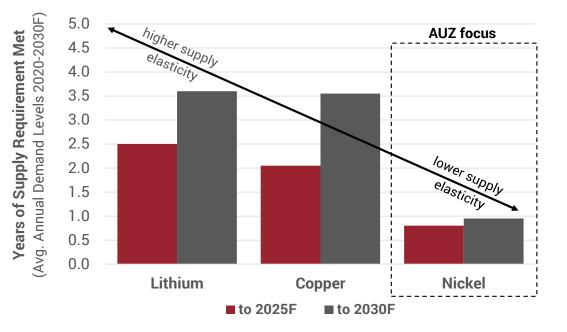


#### **Nickel Supply/Demand Imbalance**

- Growing demand for Electric Vehicles set to double demand for nickel by 2040<sup>46</sup>
- Long project lead times and a lack of advanced projects creates supply inelasticity<sup>47</sup>
- Pipeline of 'probable' nickel projects to add less than 1 years' worth of the required supply by 2030<sup>48</sup>
- Accelerating transition to decarbonise the global economy expected to further increase demand<sup>49</sup>
- Sconi targeting production from 2024

#### **Base Case 'Probable' Category Mine Project Potential Measured in Years of Supply Requirement Met**<sup>50</sup>

(at average annual demand levels 2020A-2030F)



46.47.48.49.50 Wood Mackenzie, Faster decarbonisation: back to basics for the mining industry?, 2 November 2021 (www.woodmac.com/news/opinion/faster-decarbonisation-back-to-basics-for-the-mining-industry).

### **Competent Persons' Statements**



#### Sconi Project, Queensland (Australia)

The Mineral Resource for the Sconi Project contained within this document is reported under JORC 2012 Guidelines. This Mineral Resource for the Greenvale, Lucknow and Kokomo deposits within the Sconi Project were first reported by Australian Mines Limited on 14 February 2019. The original source report can be accessed via the ASX or the Australian Mines' website. There has been no Material Change or Re-estimation of the Mineral Resource since this 14 February 2019 announcement by Australian Mines Limited.

The information in this report that relates to Sconi Project's Greenvale, Lucknow and Kokomo Mineral Resources is based on, and fairly reflects, information compiled by Mr David Williams, a Competent Person, who is an employee of CSA Global Pty Ltd and a Member of the Australian Institute of Geoscientists (#4176). Mr Williams has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources, and Ore Reserves (JORC Code). Mr Williams consents to the disclosure of information in this report in the form and context in which it appears.

The Ore Reserve for the Sconi Project contained within this document is reported under JORC 2012 Guidelines. This Ore Reserve was first reported by Australian Mines Limited on 13 June 2019. There has been no Material Change or Re-estimation of the Ore Reserve since this 13 June 2019 announcement by Australian Mines Limited.

The information in this report that relates to Ore Reserves is based on, and fairly reflects, information compiled by Mr Jake Fitzsimons, a Competent Person, who is an employee of Orelogy Consulting Pty Ltd and a Member of the Australian Institute of Mining and Metallurgy (MAusIMM #110318). Mr Fitzsimons has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources, and Ore Reserves (JORC Code). Mr Fitzsimons consents to the disclosure of information in this report in the form and context in which it appears.

The Mineral Resource for the Bell Creek deposit, located within the Sconi Project, contained within this document is reported under JORC 2012 Guidelines. This Mineral Resource was first reported by Australian Mines Limited on 29 April 2019. There has been no Material Change or Re-estimation of the Mineral Resource since this 29 April 2019 announcement by Australian Mines Limited.

The information in this report that relates to the Sconi Project's Bell Creek Mineral Resource is based on, and fairly reflects, information compiled by Mr David Williams, a Competent Person, who is an employee of CSA Global Pty Ltd and a Member of the Australian Institute of Geoscientists (#4176). Mr Williams has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources, and Ore Reserves (JORC Code). Mr Williams consents to the disclosure of information in this report in the form and context in which it appears.

The Mineral Resource for the Minnamoolka deposit, located within the Sconi Project, contained within this document is reported under JORC 2012 Guidelines. This Mineral Resource was first reported by Australian Mines Limited on 21 October 2019. There has been no Material Change or Re-estimation of the Mineral Resource since this 21 October 2019 announcement by Australian Mines Limited.

The information in this report that relates to the Sconi Project's Minnamoolka Mineral Resources is based on, and fairly reflects, information compiled by Mr David Williams, a Competent Person, who is an employee of CSA Global Pty Ltd and a Member of the Australian Institute of Geoscientists (#4176). Mr Williams has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources, and Ore Reserves (JORC Code). Mr Williams consents to the disclosure of information in this report in the form and context in which it appears.

### **Competent Persons' Statements**



#### Flemington Project, New South Wales (Australia)

The Mineral Resource for the Flemington Project contained within this document is reported under JORC 2012 Guidelines. This Mineral Resource was first reported by Australian Mines Limited on 31 October 2017. The original source report can be accessed via the ASX or the Australian Mines' website. There has been no Material Change or Re-estimation of the Mineral Resource since this 31 October 2017 announcement by Australian Mines Limited.

The information in this report that relates to Flemington Project's Exploration Results is based on, and fairly reflects, information compiled by Mr Mick Elias, a Competent Person, who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Elias is a director of Australian Mines Limited. Mr Elias has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources, and Ore Reserves (JORC Code). Mr Elias consents to the disclosure of information in this report in the form and context in which it appears.

### **Sconi Project Mineral Resources**



#### Table 1: Greenvale Mineral Resource Lower cut-off grade: 0.40% Nickel equivalent

Mineral Resources as per Australian Mines' announcement released via the ASX platform on 14 February 2019. Prepared by CSA Global in accordance with the current 2012 JORC Code. There has been no Material Change or Re-estimation of the Mineral Resource since this 14 February 2019 announcement by Australian Mines.

Classification	Tonnes (million tonnes)	Nickel equivalent (%)	Nickel (%)	Cobalt (%)
Measured	5.05	1.06	0.83	0.07
Indicated	17.24	0.90	0.73	0.05
Inferred	10.34	0.63	0.54	0.04
TOTAL	32.63	0.84	0.69	0.05

Table 2: Lucknow Mineral Resource Lower cut-off grade: 0.55% Nickel equivalent

Mineral Resources as per Australian Mines' announcement released via the ASX platform on 14 February 2019. Prepared by CSA Global in accordance with the current 2012 JORC Code. There has been no Material Change or Re-estimation of the Mineral Resource since this 14 February 2019 announcement by Australian Mines.

Classification	Tonnes Nickel equivalent (million tonnes) (%)		Nickel (%)	Cobalt (%)
Measured	1.60	0.91	0.53	0.11
Indicated	12.63	0.83	0.47	0.11
Inferred	0.38	0.66	0.55	0.03
TOTAL	14.62	0.83	0.48	0.11

Mineral Resources as per Australian Mines' announcement released via the ASX platform on 14 February 2019. Prepared by CSA Global in accordance with the current 2012 JORC Code. There has been no Material Change or Re-estimation of the Mineral Resource since this 14 February 2019 announcement by Australian Mines.

Classification	Tonnes (million tonnes)	Nickel equivalent (%)	Nickel (%)	Cobalt (%)
Measured	1.62	1.17	0.73	0.15
Indicated	19.37	0.83	0.57	0.09
Inferred	7.48	0.70	0.53	0.07
TOTAL	28.47	0.81	0.57	0.09

Nickel equivalent grades were calculated according to the following formula: NiEg = [(nickel grade x nickel price x nickel recovery) + (cobalt grade x cobalt price x cobalt recovery] / (nickel price x nickel recovery). The formula was derived using the following commodity prices and recoveries: Forex US\$:A\$ = 0.71, Nickel -A\$27,946/t and 94.8% recovery, Cobalt - A\$93,153/t and 95.7% recovery. Prices and recoveries effective as at 10th February 2019.

Metal recovery data was determined by variability test work of nickel and cobalt solvent extraction during the inhouse pilot plant test work program. Results typically achieved between 90% and 99% from samples with nickel and cobalt grades aligned with expected mine grades as reported from the Mineral Resource model. Lower recoveries of between 85% and 90% were achieved from some lower-grade samples to determine economic cut-off grades. It is the opinion of Australian Mines that all the elements included in the metal equivalents calculation have a reasonable potential to be recovered and sold. Detail supporting the formula are provided within the Company's 14 February 2019 announcement. The Competent Person and Australian Mines believe there are reasonable prospects for eventual economic extraction of the Mineral Resources. Consideration was given to the relatively shallow depth of the mineralisation, existing infrastructure near to the project including sealed road access, power, labour and water, and positive results from the 2018 Feasibility Study.

Table 3: Kokomo Mineral Resource

Lower cut-off grade: 0.45% Nickel equivalent

### **Sconi Project Mineral Resources**



 Table 4: Bell Creek Mineral Resource

 Lower cut-off grade: 0.45% Nickel equivalent

Mineral Resources as per Australian Mines' announcement released via the ASX platform on 29 April 2019. Prepared by Mr Mick Elias in accordance with the current 2012 JORC Code. There has been no Material Change or Re-estimation of the Mineral Resource since this 29 April 2019 announcement by Australian Mines.

Classification	Tonnes (million tonnes)	Nickel equivalent (%)	Nickel (%)	Cobalt (%)	
Measured	11.4	1.02	0.84	0.05	
Indicated	12.7	0.74	0.64	0.03	
Inferred	1.7	0.66	0.55	0.03	
TOTAL	25.8	0.86	0.72	0.04	

Table 5: Minnamoolka Mineral Resource

Lower cut-off grade: 0.45% Nickel

Mineral Resources as per Australian Mines' announcement released via the ASX platform on 21 October 2019. Prepared by CSA Global in accordance with the current 2012 JORC Code. There has been no Material Change or Re-estimation of the Mineral Resource since this 21 October 2019 announcement by Australian Mines.

Classification	Tonnes (million tonnes)	Nickel (%)	Cobalt (%)
Indicated	11.9	0.67	0.03
Inferred	2.4	0.60	0.02
TOTAL	14.2	0.66	0.03

Nickel equivalent grades were calculated according to the following formula: NiEq = [(nickel grade x nickel recovery) + (cobalt grade x cobalt grade x cobalt price x nickel recovery] / (nickel price x nickel recovery). The formula was derived using the following commodity prices and recoveries: Forex US\$:A\$ = 0.71, Nickel – A\$27,946/t and 94.8% recovery, Cobalt – A\$93,153/t and 95.7% recovery. Prices and recoveries effective as at 10 February 2019.

Metal recovery data was determined by variability test work of nickel and cobalt solvent extraction during the inhouse pilot plant test work program. Results typically achieved between 90% and 99% from samples with nickel and cobalt grades aligned with expected mine grades as reported from the Mineral Resource model. Lower recoveries of between 85% and 90% were achieved from some lower-grade samples to determine economic cut-off grades. It is the opinion of Australian Mines that all the elements included in the metal equivalents calculation have a reasonable potential to be recovered and sold. Detail supporting the formula are provided within the Company's 14 February 2019 and 29 April 2019 announcements. The Competent Person and Australian Mines there are reasonable prospects for eventual economic extraction of the Mineral Resources. Consideration was given to the relatively shallow depth of the mineralisation, existing infrastructure near to the project including sealed road access, power, labour and water, and positive results from the 2018 Feasibility Study.

### **Flemington Project Mineral Resources**



## Table 6: Flemington Mineral ResourceLower cut-off grade: 0.03% Cobalt equivalent

Mineral Resources as per Australian Mines' announcement released via the ASX platform on 31 October 2017. Prepared by CSA Global in accordance with the current 2012 JORC Code. There has been no Material Change or Re-estimation of the Mineral Resource since this 31 October 2017 announcement by Australian Mines.

Classification	Tonnes (million tonnes)	Cobalt (%)	Nickel (%)	Scandium (ppm)
Measured	2.5	0.103	0.25	403
Indicated	0.2	0.076	0.20	408
TOTAL	2.7	0.101	0.24	403

# **Sconi Project Ore Reserve**

Ore Reserve as per Australian Mines' announcement released via the ASX platform on 13 June 2019. Prepared by specialist mine planning consultants, Orelogy, in accordance with the current 2012 JORC Code. There has been no Material Change or Re-estimation of the Ore Reserve since this 13 June 2019 announcement by Australian Mines.

Classification	Pit	Ore (Million tonnes)	Nickel (%)	Cobalt (%)	Scandium (ppm)
	Greenvale	4.49	0.83	0.07	36
Drawad	Kokomo	1.52	0.72	0.15	58
Proved	Lucknow	2.07	0.47	0.09	51
	Sub-total	8.08	0.72	0.09	44
	Greenvale	13.08	0.73	0.05	29
Destable	Kokomo	17.43	0.57	0.09	31
Probable	Lucknow	18.71	0.42	0.08	38
	Sub-total	49.22	0.55	0.08	33
	Greenvale	17.57	0.76	0.06	31
Total	Kokomo	18.96	0.58	0.10	33
	Lucknow	20.77	0.42	0.08	39
	TOTAL	57.30	0.58	0.08	35

Sconi Project Ore Reserve summary based on variable nickel equivalent cut-off between 0.40% and 0.45%.

The Mineral Resource figures in the preceding slide are inclusive of the Ore Reserve figures above. Approximately 14% of the Ore Reserves (outlined in the table above) are classified as Proved and 86% are classified as Probable. It should be noted that the Proved and Probable Reserves are inclusive of allowance for mining dilution and ore loss.

The breakeven cut-off grade was determined to be between 0.40% - 0.45% nickel equivalent using the formula: Nickel equivalent (%) = [(Ni grade x Ni price x Ni recovery) + (Co grade x Co price x Co recovery] ÷ (Ni price x Ni recovery) where: nickel price = 27,946 AUD, cobalt price = 93,153 AUD, Nickel Recovery = 94.8%, Cobalt Recovery = 95.7%.

Open pit optimisation was undertaken using US\$7/lb for nickel and US\$30/lb for cobalt and an exchange rate of 0.71 AUD/USD. No value was applied to scandium

#### Optimisation inputs parameters were:

- 1. Ore processing rate of 2 million tonne per annum throughput.
- 2. Dilution was applied through re-blocking to the 2m mining height.
- 3. Overall slope angle of 45.
- 4. Mining costs based on contractor rates averaging of US\$2.26/t mined. 5. Ore costs for grade control, rehandle, reclaim and extra over for ore mining of US\$1.88/t ore.
- 6. Mining overheads of US\$2.15/t ore.
- 7. Road train haulage of US\$2.05/t ore and \$US\$10.04/t ore from Lucknow and Kokomo respectively.
- 8. Variable processing costs (averaging US\$30.70/t ore) based on sulphur, limestone consumption linked primarily to magnesium and aluminium and NaOH consumption linked to nickel and cobalt.
- 9. Fixed overheads of US\$33.21/t for G&A, plant labour, maintenance and sustaining capital.
- 10. Selling costs of \$32.77/t product plus royalties of 3.2% and 5.0% for Ni and Co respectively. Due to the variable processing costs the pit optimisation was based on block value calculations for free cashflow. The breakeven cut-off grade was determined to be between a 0.4% and 0.45% nickel equivalent grade.



# AUSTRALIAN MINES LIMITED

POWERING THE FUTURE OF CLEAN ENERGY

ASX I AUZ australianmines.com.au sconi.com.au