POWERING THE NEXT GENERATION OF ELECTRIC VEHICLES



UK Master Investor Show March 2018



ASX: AUZ australianmines.com.au

Your next car will likely be an electric vehicle

- Electric vehicles to account for 30% of all new car sales in the UK by 2025
- Equates to 1 million new electric vehicles purchased each year in the UK
- Globally, electric vehicles to account for 15% of all new car sales by 2025
- That means more than 13 million new electric vehicles will be bought worldwide every year
- Even the CEO of Europe's biggest oil company (Shell CEO, Ben Van Beurden) has stated that that the next thing he'll buy is an electric vehicle (a Mercedes Benz s500e to be precise)



Mercedes-Benz recently released SLS AMG E-cell Coupe, which is fully-electric and punches out an impressive 600kW of power (~800 horsepower)



27/03/18

Nickel and Cobalt (not petrol or diesel) will power your future

- Electric vehicles are powered by lithium-ion batteries
- Composition of lithium-ion batteries are typically:
 - One part nickel
 - One part cobalt, and
 - One part manganese
- Equates to 140 kilograms of nickel, cobalt and manganese in a typical electric vehicle battery cell
- Batteries used for energy (electricity) storage system as part of a country's national power grid have a similar 1-1-1 (nickel-cobaltmanganese) composition



Despite what its name may suggest, a lithium-ion battery actually contains less than 1% lithium



The changing face of a global energy company

• 1750 - 1900

- Driven by the steam engine
- Energy companies = coal
- **1900 2020**
 - Fueled by internal combustion engine
 - Energy companies = oil & gas
- 2020 ????
 - Powered by renewable energy
 - Energy companies = battery metals



Image sourced from elp.com



Australian Mines - Preferred international battery metal supplier

Australian Mines:

- Australian resource and chemical company
- Listed on Australian Stock Exchange (ASX stock code symbol "AUZ")
- Included in the S & P / ASX All Ordinaries Index
- Preferred supplier of battery metal (nickel sulphate and cobalt sulphate) to leading electric vehicle battery manufacturer, SK innovations
- Investing an estimated \$650 million¹ to build state-of-the-art battery metals processing plant in Queensland, Australia
- Construction scheduled² from late 2018
- Expected output from Queensland plant to power up to
 1.1 million electric vehicles³ per year





Australian Mines - A fully-integrated supplier to battery industry

- 100% owner of cobalt-nickel-scandium deposit (the Sconi Project)⁴ in Queensland
- Secured an option to acquire 100% interest in a second cobalt-scandium-nickel deposit (the *Flemington Project*)⁵ in New South Wales
- Currently operating a smaller-scale (demonstration) processing plant in Perth, Australia
- Producing battery metal (cobalt sulphate and nickel sulphate) samples for our partner and leading electric vehicle battery manufacturer, SK innovations
- When completed, the output from the battery metals processing plant at the *Sconi Project* in Queensland is destined for SK Innovation's electric vehicle battery plants in Hungary and Korea, servicing premium German car makers



Historic photo of BHP's Greenvale nickel mine, which operated between 1973 and 1993. Australian Mines is now the 100% owner of the Greenvale nickel and cobalt mine that now forms part of the Sconi Project

Demonstration-scale processing plant



Photo of the fully-completed demonstrated-scale processing plant constructed on Simulus Engineering's premises in Perth, Australia that which is presently delivery battery metals (cobalt sulphate and nickel sulphate) to SK Innovations

Utilises a proven, low-risk processing plant design



Cobalt sulphate to be produced will contain approx. 20% cobalt metal equivalent

Nickel sulphate to be produced will contain approx. 21% nickel metal equivalent

- Australian Mines proposed commercial processing plant to use a conventional, industry standard processing flow chart and construction design
 - significantly de-risks the project from a financing and technical perspective
- Processing flow chart has already successfully produced cobalt and nickel samples



Supply agreement positions Australian Mines as a market leader

- Australian Mines has executed a binding off-take agreement with Korean-listed SK Innovation
- Off-take quantities are up to:
 - 12,000 tonnes of cobalt sulphate per year, and
 - 60,000 tonnes of nickel sulphate per year,
 - for initial period of 7 years + option to extend for a further 6 years⁶
- SK Innovation's major customer is Mercedes Benz, with SK manufacturing the batteries for Mercedes Benz' range of electric and hybrid-electric vehicles





Our global partner in the battery sector



- Korean-headquartered SK Innovation is the world's 57th largest company with annual revenue in excess of \$120 billion
- SK is ranked 1st in the Korean oil & gas and telecommunication sectors, and is the 3rd largest Korean company by sales (\$122 billion) and in assets (\$142 billion)



SK Innovations – a diversified energy conglomerate

- SK Innovation history dates back to 1953 and includes large scale infrastructure experience in the oil and gas, telecommunications and semi-conductor industries
- SK Innovation has grown into diversified energy conglomerate as an energy and petrochemical player, SK has now expanding into the future energy sector alongside its traditional fields of petroleum, refining, chemicals and lubricants





Australian Mines' R & D Division – Drive further on a single charge

- Australian Mines' Research and Development Division is working to develop the next generation of electric vehicle battery
- The task to produce a hydrogen-ion battery that can store up to 7 times the energy of a similar sized lithium-ion battery⁷
- The result, if replicated in commercial applications, could result in electric vehicles with much smaller and lighter batteries, or conversely, far greater range than current alternatives
- This, in turn could virtually eliminate buyer range anxiety by potentially achieving a driving range on a single charge to 3,000 kilometres





Australian Mines' R & D Division – Build lighter, stronger cars

- In addition to working on developing a higher energy density battery, Australian Mines' Research and Development Division is also researching the application of MIG-fighter jet superalloy for the electric vehicle sector
- The advantage of this superalloy over conventional metal:
 - Light as aluminium (reduces vehicle weight)
 - Strong as steel (increases vehicle safety)
 - Weldable
 - Significantly cheaper than Carbon Fibre
- Australian Mines has already produced a series of batches of this Aluminium-scandium superalloy and continues to work collaboratively with a third-party to refine this superalloy





Opportunity to invest early in a growing global energy provider

- Australian Mines is more than what our name may suggest.
- We are a resource and chemical company
- Capable of producing a high-quality battery metal products for the rapidly expanding electric vehicle market
- Uses raw materials sourced directly from our own nickel and cobalt deposits in Australia
- Our products likely destined for our partner's battery manufacturing plant in Hungary



Electric vehicle batteries being manufactured at the SK Innovations facility

So, if you are travelling in an electric or hybrid-electric car made from a premium German automotive company from 2020, then there is a good chance that Australian Mines is powering your drive



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Disclaimer

This document is a visual aid accompanying a presentation by the Managing Director during Australian Mines' international roadshow in March 2018. It is not intended to be read as a stand-alone document. It contains select information, in abbreviated or summary form, and does not purport to be complete.

This document should not be read without first reading Australian Mines Limited's 2017 Annual Report and December 2017 Quarterly Activities and Cash Flow Reports, the Company's announcement dated 31 March 2017 titled *Technical Report* and 6 March 2018 announcement, which have previously been lodged with the Australian Securities Exchange and are available at www.australianmines.com.au.

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The Sconi Project is at Feasibility Study phase and though reasonable care has been taken to ensure that the facts are accurate and/or that the opinions expressed are fair and reasonable, no reliance can be placed for any purpose whatsoever on the information contained in this document or on its completeness. Actual results and developments of projects and the market development may differ materially from those expressed or implied by these forward looking statements depending on a variety of factors. A key conclusion of the Feasibility Study, which is based on forward looking statements, is that the Sconi Project is considered to have positive economic potential.

This presentation does not contain any new data, results or information

Any exploration and/or resource data, or statements referenced within this presentation have previously been lodged by Australian Mines Limited with the Australian Securities Exchange (ASX) via the company's announcements dated 10 October 2016, 14 October 2016, 27 October 2016, 15 November 2016, 24 January 2017, 21 February 2017, 15 March 2017, 23 March 2017, 31 March 2017, 15 May 2017, 26 June 2017, 11 August 2017, 6 September 2017, 28 September 2017, 29 September 2017, 3 October 2017, 31 October 2017, 6 November 2017, 31 January 2018, 19 February 2018 and 6 March 2018



Corporate Overview

Board of Directors

Michael Ramsden (Chairman)

Michael Ramsden is a lawyer with more than 25 years' experience as a corporate advisor. He has been involved with all forms of finance, including money markets, futures trade and foreign exchange.

Mick Elias (Director)

Mick Elias is an international recognised expert in lateritic nickel-cobalt deposits, with more than 35 years' of experience in all aspects of nickel resource development.

Dominic Marinelli (Director)

Dominic Marinelli has over 20 years' of corporate fundraising experience covering a wide range of industries including resources and other emerging technologies.

Benjamin Bell (Managing Director)

Benjamin Bell is a geophysicist, with 20 years' experience in the minerals industry. He also holds separate Master's qualifications in both science and business.

Tim Maclean (Chief Operating Officer)

Tim Maclean has three decades experience building and operated multi-billion-dollar laterite processing plants including, most recently, Vales' Mineraçao Onca Puma nickel laterite processing plant in Brazil

Capital Structure

Market Capitalisation \$267 million

(as at 17 March 2018)



References

Slide 2

UBS Evidence Lab Electric Car Teardown – Disruption Ahead? https://neo.ubs.com/shared/d1wkuDIEbYPjF/ https://www.businessinsider.com.au/2016-was-a-record-breaking-year-for-global-car-sales-and-it-was-almost-entirely-driven-by-china-2017-1 https://www.bloomberg.com/news/articles/2017-07-27/shell-ceo-van-beurden-says-his-next-car-will-be-electric

Slide 3

UBS Evidence Lab Electric Car Teardown - Disruption Ahead? https://neo.ubs.com/shared/d1wkuDIEbYPjF/

Slide 4

www.elp.com/articles/2014/09/lg-chem-switches-on-32-mwh-energy-storage-system-in-california.html

Slide 5

¹ Indicative cost only. The final capital cost (Capex) figure is expected to be available from June 2018 once the final feasibility study has been completed.

² Indicative only. The final timetable is subject to Australian Mines securing financing for the project.

³ Indicative only. The final output from Australian Mines' Queensland processing plant is expected to be available from June 2018 once the final feasibility study has been completed.



References

Slide 6

⁴ See Australian Mines' announcement to the ASX dated 8 December 2017 for full details of the Sconi transaction

⁵ Australian Mines has option to acquire 100% of the project form Jervois Mining Limited. The last option payment paid to Jervois Mining paid in February 2018, with final \$4 million payment due in September 2018. Jervois Mining retains 1.5% net smelter royalty should Australian Mines exercise its option. See Australian Mines' announcement to the ASX dated 6 September 2017 for full details of the Flemington transaction.

Slide 7

Conceptual image of the processing plant at the Sconi Project. The final design is expected to be available from June 2018 once the final feasibility study has been completed.

Slide 8

⁶ See Australian Mines' announcement to the ASX dated 6 March 2018 for full details of the company's' binding off-take agreement with SK Innovations

Slide 12

⁷ As with any research project, there is no guarantee that Australian Mines' research and development may result in its development of a quickcharge hydrogen-ion battery that potentially has applications in the electric vehicle sector. Being a hydrogen-ion battery, however, eliminates the risk of over-charging that can plague lithium-ion batteries as exemplified by the Samsung Note 7 issue of 2016.

