

20 November 2018

Bankable Feasibility Study supports strong commercial case for developing Sconi Cobalt-Nickel Scandium Project, located in North Queensland

HIGHLIGHTS:

- **Sconi Cobalt-Nickel-Scandium Project in North Queensland achieves significant milestone with release of positive Bankable Feasibility Study**
- **Economic modelling in BFS demonstrates construction of three open pits and a 2 million tonne per annum processing plant at Sconi would deliver long-term benefits to both Australian Mines shareholders and the regional Queensland economy**
- **Sconi BFS financial metrics¹:**
 - Average annual revenue from production (life of mine): **\$512 million**
 - Average annual EBITDA (life of mine): **\$295 million**
 - Project payback period (post tax): **5.2 years**
 - Pre-tax IRR: **21%** / Post-tax IRR: **15%**
 - Post tax project NPV_{8%}: **\$697 million**
 - Total capital cost estimate: **US\$974million**, of which:
 - Processing plant capital cost: **US\$730 million**
 - Non-Process capital costs: **US\$103 million**
 - Mine construction capital cost: **US\$31 million**
 - Contingencies: **US\$110 million**

¹ In line with the resource industry's convention, Australian Mines quotes commodity prices, C1 costs and capital cost (capex) in U.S. dollars. All other figures (unless otherwise indicated) are expressed in Australian dollars.

- **Sconi BFS project metrics:**
 - Life of Mine (LOM): **18 Years**
 - Processing plant throughput: **2.0 million tonnes per annum**
 - Average strip ratio over Life Of Mine (waste:ore): **1.06 : 1.00**
 - Average cobalt sulphate production (Years 2-6): **9,898 tpa**
 - Average nickel sulphate production (Years 2-6): **70,894 tpa**
 - Average cobalt sulphate production (Life-of-Mine): **8,496 tpa**
 - Average nickel sulphate production (Life-of-Mine): **53,301 tpa**

- **BFS proposes 90% of the ongoing annual operational expenditure at the Sconi Project, located 250 kilometres north-east of Townsville, to be with local businesses from the surrounding region of North Queensland**

- **The nearby communities of Greenvale and Charters Towers to benefit from planned 80% of operational workforce being managed on a drive-in, drive-out residential roster, with limited fly-in, fly-out support from the regional centre of Townsville**

- **\$922 million of the project's total capex anticipated to be spent with Australian businesses, with a preference for Queensland companies**

- **The proposed Sconi Project development plan would result in a significant flow-through investment in regional infrastructure in the area including accommodation, telecommunications and road upgrades as well as a 24/7 medical facility and community social infrastructure**

- **Construction of the Project would create up to 500 jobs from 2019 to 2021, followed by more than 300 full time positions once the mine, processing plant and associated infrastructure are in steady-state operation**

- **Project economics published in BFS use a long-term forecast commodity prices for nickel (US\$7 per pound²), cobalt (US\$30 per pound) and scandium (US\$1,000 kilogram), as well as an AUD to USD exchange rate of US\$0.71 : A\$1.00**

² Forecasts were undertaken using a commodity prices of US\$9/lb for nickel sulphate, which includes a US\$2/lb premium for sulphate production; US\$30/lb for cobalt, with no premium factored for sulphate production; and a long-term scandium oxide price of US\$1,000/kg



18 Year Project Life
(potential upside from resource extension drilling)



Pre-Tax IRR: 21%
Post-Tax IRR: 15%



Pre-Tax NPV: \$1.31 billion
Post-Tax NPV: \$697 million
(@ 8% discount rate)



5.2 Year Payback Period
(post tax)



Strong Forecasted Financials
Average Annual Revenue: \$512 million
Average Annual EBITDA: \$295 million



Life-of-Mine Average Production
Nickel sulphate: 53,301 tonnes per annum
Cobalt sulphate: 8,496 tonnes per annum



Operating Costs: US\$0.48 per pound Nickel
(post by-product credits)



Capital Cost Estimate: US\$974 million
Including US\$110 million contingencies

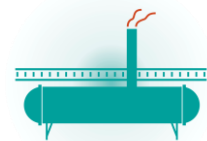


Figure 1: Key economic outcomes of Australian Mines' Bankable Feasibility Study on the Sconi Project.

Australian Mines Managing Director, Benjamin Bell, commented: “Almost two years ago to the month we reset the strategy at Australian Mines and set out to evaluate and acquire at least one advanced technology metals project in Australia, looking for the right project that was a genuine near-term development prospect.”

“That process resulted in us not only picking up the Sconi Cobalt-Nickel-Scandium Project in Queensland, which quickly became the core focus within the Company and is now the subject of the positive Bankable Feasibility Study (BFS) announced here, but we also simultaneously acquired the Flemington Cobalt-Nickel-Scandium Project in New South Wales and then a bit further down the track picked up the greenfield Thackaringa Cobalt Project near Broken Hill.

“The Sconi BFS demonstrates robust project and financial metrics, with capital costs in-line with Australian Mines’ prediction for the processing plant, while production volumes and specifications are within the range sought by our off-take agreement with SK Innovation. The Project also benefits from strong annual revenues across the Life of Mine and a relatively short payback period.

“Our acquisition timing proved spot-on and now, two years later, we believe the Project is well on track to move to the next stage in project funding negotiations. I am very pleased to be in a position to release the BFS on the Sconi Project and look forward to implementing the next steps on the path towards production of what are increasingly in-demand and essential commodities for the manufacture of lithium-ion batteries used extensively in electric vehicles and energy storage applications.



“Demand for procuring potential future production from the Sconi Project has been high from multiple battery manufacturers and intermediate companies, but as shareholders will be aware, we took the decision back in February 2018 to sign a binding off-take agreement with SK Innovation (which is part of one of South Korea’s largest companies), for 100% of the cobalt and nickel to be produced over an initial seven year agreement period (with six year extension option)³ to supply their global electric vehicle battery manufacturing plants.

“Although not essential to the feasibility of the Sconi Project under the parameters of the BFS, we continue to pursue research partnerships and marketing opportunities for the scandium oxide that will be produced as a by-product of the plant. We believe the scandium market will continue to grow due to its potential applications for alloys used in the automotive and aerospace industries, where it can deliver lighter components without compromising on strength.

“The Australian Mines team is committed to delivering the Sconi Project and looks forward to continuing a long tradition of large-scale mining in this region of Queensland, along with providing communities and the State with the flow-through benefits of employment and revenue creation. The benefit for the Company operating in this region of Queensland is that the mining culture is well-established across several generations, with an adequate supply of university-trained professionals in relevant disciplines along with highly skilled tradespeople with industry experience.

“In Australia there are very few more historic operations than the old Greenvale Nickel Mine, which operated from about 1960 to 1995 before closing due to low nickel prices. Ore was previously mined and then transported on a dedicated rail line to the Yabulu refinery. Together with the smaller Brolga mine, production from the area over the operational period amounted to 15,000 tonnes of cobalt and 327,000 tonnes of nickel.”

³ As per Australian Mines’ announced of March 2018, the binding terms agreed and confirmed by Australian Mines and SK innovation include the following key commercial terms: (i) A seven-year contract term from the first shipment after commencement of commercial mining operations at the Sconi Project, with an option for SK innovation to extend the agreement for a further six years at SK Innovation’s election, and (ii) following an initial ramp up, the indicative agreed annualised quantities are for the delivery of up to 12,000 tonnes of battery-grade cobalt sulphate and up to 60,000 tonnes of battery-grade nickel sulphate.

Under the Agreement, Australian Mines and SK innovation agree to ensure that the cumulative production does not falls below 75% of the indicative agreed cumulative production over years three to six. This equates to 9,000 tonnes per annum of cobalt sulphate and 45,000 tonnes of nickel sulphate.

The Sconi Bankable Feasibility Study indicates that the average cobalt sulphate production for years two to six is 9,898 tonnes per annum, with the average nickel sulphate production over the same period being 70,894 tonnes per annum. The Bankable Feasibility Study therefore confirms that annual cobalt sulphate and nickel sulphate production from the Sconi project satisfies the terms of Australian Mines – SK innovations binding off-take agreement.



Australian Mines Limited (“Australian Mines” or “the Company”) (Australia ASX: AUZ; USA OTCQB: AMSLF; Frankfurt Stock Exchange: MJH) is pleased to announce the results of a Bankable Feasibility Study (BFS) on the Company’s flagship, 100%-owned Sconi Cobalt-Nickel-Scandium Project in North Queensland.

The independent report, prepared by global engineering and construction firm Ausenco, verifies the cobalt, nickel and scandium Mineral Resources contained within the three main deposits constituting the Sconi Project – Greenvale, Lucknow and Kokomo – can be extracted and processed on commercially attractive terms through the development of open pit mining operations and a central processing plant to be built at the site.

According to the BFS, the Sconi Project will generate combined revenue from production of \$512 million per year over the projected 18 years of processing operations, resulting in a project payback period (post tax) of a little over 5 years.

The financial and investment metrics for Sconi under the current development scenario include an average annual EBITDA of \$295 million, post-tax IRR of 15% and post-tax project Net Present Value (NPV) of \$697 million (at an 8% discount rate).

Beneficially, the Project is located adjacent to the town of Greenvale, 250 kilometres by road from the regional population centre of Townsville, and also within easy driving distance of the nearby town of Charters Towers, which will support a predominantly residential resourcing model for both the proposed construction phase and ongoing mining and processing operations at Sconi.



Sconi Cobalt-Nickel-Scandium Project

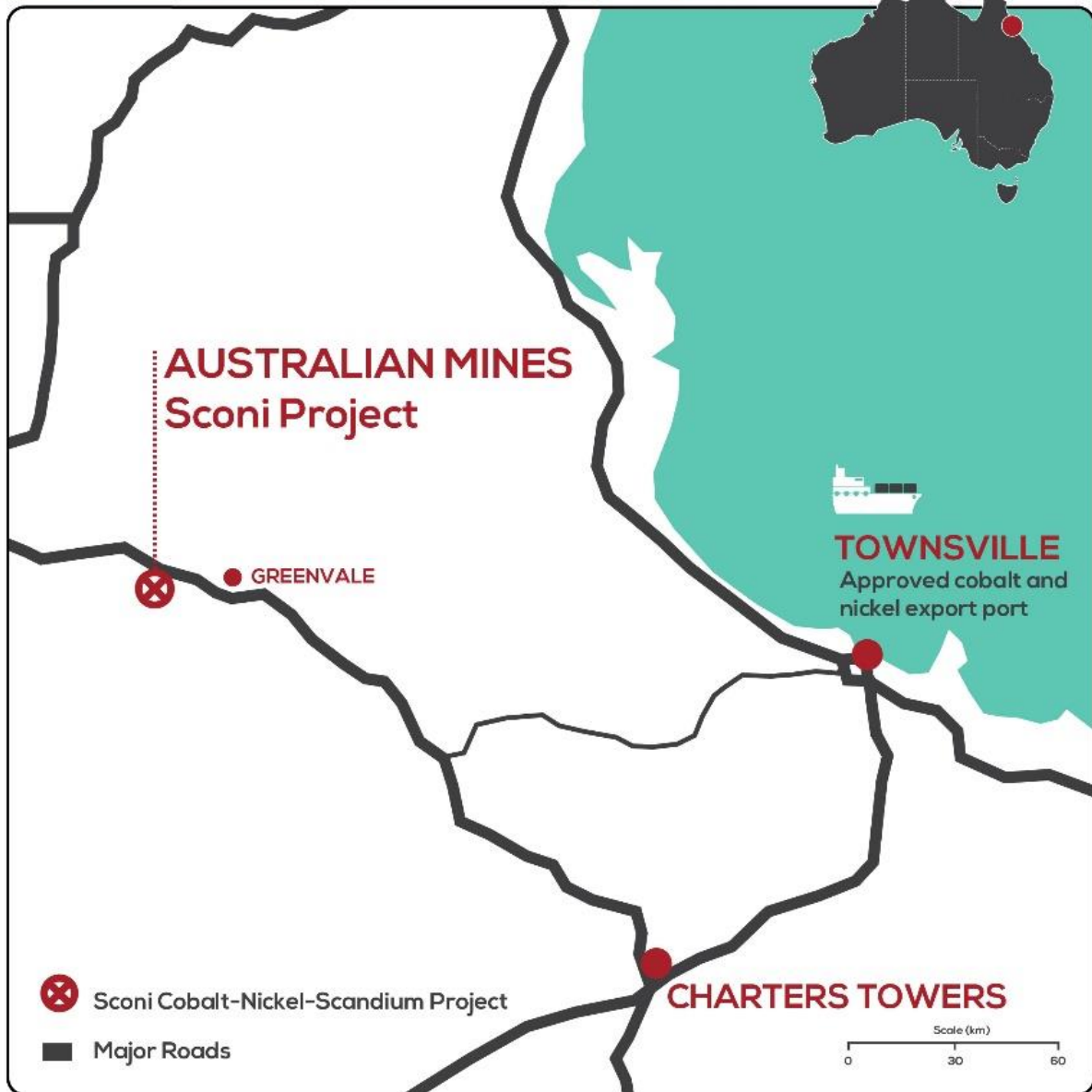


Figure 2: The Sconi Cobalt-Nickel-Scandium Project is located within easy driving distance to the nearby towns of Greenvale and Charters Towers, and only 250 kilometres from the Port of Townsville in North Queensland.

The BFS contemplates the construction of accommodation at Greenvale and the operation of a workforce on a drive-in, drive-out basis for approximately 80% of the operational workforce requirements, supplemented by a limited fly-in, fly-out resourcing model from Townsville to source the remaining personnel required for the Project.

Sconi's total combined Ore Reserve Estimate⁴ of 33.89 million tonnes at 0.67% nickel, 0.10% cobalt and 42ppm scandium will support the initial Life of Mine of 18 years for the Project, feeding into a 2 million tonne per annum latest generation high pressure acid leach (HPAL) and solvent extraction (SX) processing plant.

The expected average feed grade of ore to the plant is 0.10% cobalt and 0.67% nickel, with exceptional recovery rates of 95.7% and 94.8% respectively.

The processing plant is expected to require a 27-month ramp-up schedule, following the 24-month construction period, and is planned to produce annually 9,898 tonnes of cobalt sulphate and 70,894 tonnes of nickel sulphate post ramp-up (5-year average).

Life of Mine average annual production in the BFS is projected to be 8,496 tonnes of cobalt sulphate; 53,301 tonnes of nickel sulphate; and 89 tonnes of scandium oxide (although the BFS model anticipates only c.10% of scandium oxide produced is sold).

In February 2018, Australian Mines signed an off-take agreement term sheet with SK Innovation⁵ (a subsidiary of SK Holdings, one of South Korea's largest companies) for 100% of the expected cobalt sulphate and nickel sulphate production from the Sconi project for an initial period of 7 years, with an option exercisable by SK Innovation to extend this commodity supply agreement for a further 6 years.

Under the off-take contract, Australian Mines will deliver increasing quantities of cobalt sulphate and nickel sulphate, rising from 1,000 tonnes of cobalt sulphate and 5,000 tonnes of nickel sulphate in year 1; up to 8,000 tonnes of cobalt sulphate and 40,000 tonnes of nickel sulphate in year 2; and up to 12,000 tonnes per year of cobalt sulphate and 60,000 tonnes per year of nickel sulphate from year 3 onwards.

The sale prices of cobalt sulphate and nickel sulphate will be linked to the corresponding London Metal Exchange (LME) cobalt and nickel metals price.

Australian Mines is currently undertaking market research with regards to scandium and has entered into a partnership with United Kingdom-based technology company Metalysis, to support their research and development on a solid-state process to produce a low-cost, superior aluminium-scandium alloy for potential use by the automotive and aerospace industries. Scandium oxide produced from Sconi ore has been qualified by Metalysis as ideal for use in an aluminium-scandium feedstock to support master alloy development⁶.

⁴ The Sconi Ore Reserve reported in the Bankable Feasibility Study was prepared by specialist mine planning consultants, Orelogy, in accordance with the current 2012 JORC code

⁵ Australian Mines Limited, AUZ partners with SK Innovation to develop Sconi Project, released 19 February 2018

⁶ Australian Mines Limited, Australian Mines' scandium oxide verified by Metalysis for Phase II development of next-generation scandium alloy, released 7 November 2018



Australian Mines is also collaborating with leading academic researchers at the Amrita Centre for Research and Development in India on work being conducted around the use of scandium in the next generation metal hydride batteries and hydrogen storage applications, a cutting-edge R&D program assessing the potential for scandium-magnesium alloys as a new class of high-capacity ternary alloys to improve the energy storage capacity in the next generation of nickel metal hydride batteries⁷.

Australian Mines has applied what it, and its independent financial advisers believes to be a suitable long-term commodity and exchange rate forecasts to the calculations for the Sconi Project. Forecasts were undertaken using commodity prices of US\$7 per pound of nickel, plus a US\$2 per pound premium for sulphate production; US\$30 per pound for cobalt, with no premium factored for sulphate production; and a long-term scandium oxide price of US\$1,000 per kilogram. The Company has applied an Australian Dollar to United States Dollar exchange rate of US\$0.71 : A\$1.00 to these calculations.

Total C1 cash costs for the Sconi Production are a competitive US\$0.48 per pound nickel (post cobalt and scandium credits), with the resulting revenue projections (LOM) being: \$166 million per annum from cobalt sulphate sales; \$332 million per annum from nickel sulphate sales; and \$14 million per annum from forecast scandium oxide sales. (See Table 1 for key project financial outcomes).

Given the near-surface nature of the laterite mineralisation at Sconi, the mining schedule encompasses a short pre-strip period of just three months, followed by approximately 12.5 years of mining operations, with a peak mining rate of up to 6 million tonnes per annum, and then a further five years of stockpile processing operations.

The Project also benefits from a very low overall average waste to ore strip ratio of 1.06.

The mining operation will be centred at the Greenvale site, where the processing plant will be located. A separate open pit mine will be constructed at Lucknow, 10 kilometres to the south-east, with Greenvale and Lucknow being treated as a single-fleet mining area. The Kokomo open pit, 60 kilometres to the north-northeast of Greenvale, will be operated with a separate mining fleet with ore to be hauled to the processing plant.

Australian Mines proposes pursuing a contract mining operation at the Sconi Project for the 12.5 years of planned open pit extraction of resources.

To inform this process, the Company requested pricing estimates from seven contractors, with three submissions received prior the BFS deadline. The total contract mining operating costs for the Life of Mine are forecast to be in the order of \$760 million, which includes road train haulage to the ROM (Run-of-Mine) pad from Lucknow and Kokomo to the processing plant area at Greenvale.

⁷ Australian Mines Limited, AUZ takes R&D lead on next gen battery technology, released 2 November 2018



The Company has chosen a hydrometallurgical route for processing cobalt and nickel ore through to battery-grade cobalt sulphate and nickel sulphate, including a circuit that allows the recovery of scandium and production of high-purity scandium oxide through four sequential steps – all of which are well proven and confirmed via our demonstration-scale processing plant in Perth.

The throughput capacity of the autoclave required for the Sconi Project is 2 million tonnes per annum.

Parameter	Units	Value
Post Tax IRR	%	15
Post tax NPV	\$m	697
Capital Cost Estimate	US\$m	974
Payback period post tax	years	5.2
C1 cash costs after by-product credits	US\$/lb Ni	0.48
Average Revenues (years 2-6)		
Average Annual Revenues for Nickel sulphate	\$m	442
Average Annual Revenues for Cobalt sulphate	\$m	194
Average Annual Revenues for Scandium oxide	\$m	14
Average Annual Revenues Total	\$m	650
Average Annual EBITDA	\$m	400
Average Revenues (LOM)		
Average Annual Revenues for Nickel	\$m	332
Average Annual Revenues for Cobalt	\$m	166
Average Annual Revenues for Scandium	\$m	14
Average Annual Revenues Total	\$m	512
Average Annual EBITDA	\$m	295

Table 1: Key financial outcomes from the Sconi Project Bankable Feasibility Study⁸.

⁸ In line with the resource industry's convention, Australian Mines quotes commodity prices, C1 costs (in terms of commodity prices) and capital cost (capex) in U.S. dollars. All other figures (unless otherwise indicated) are expressed in Australian dollars. The Company has applied an Australian Dollar to United States Dollar exchange rate of US\$0.71 : A\$1.00 to these calculations.



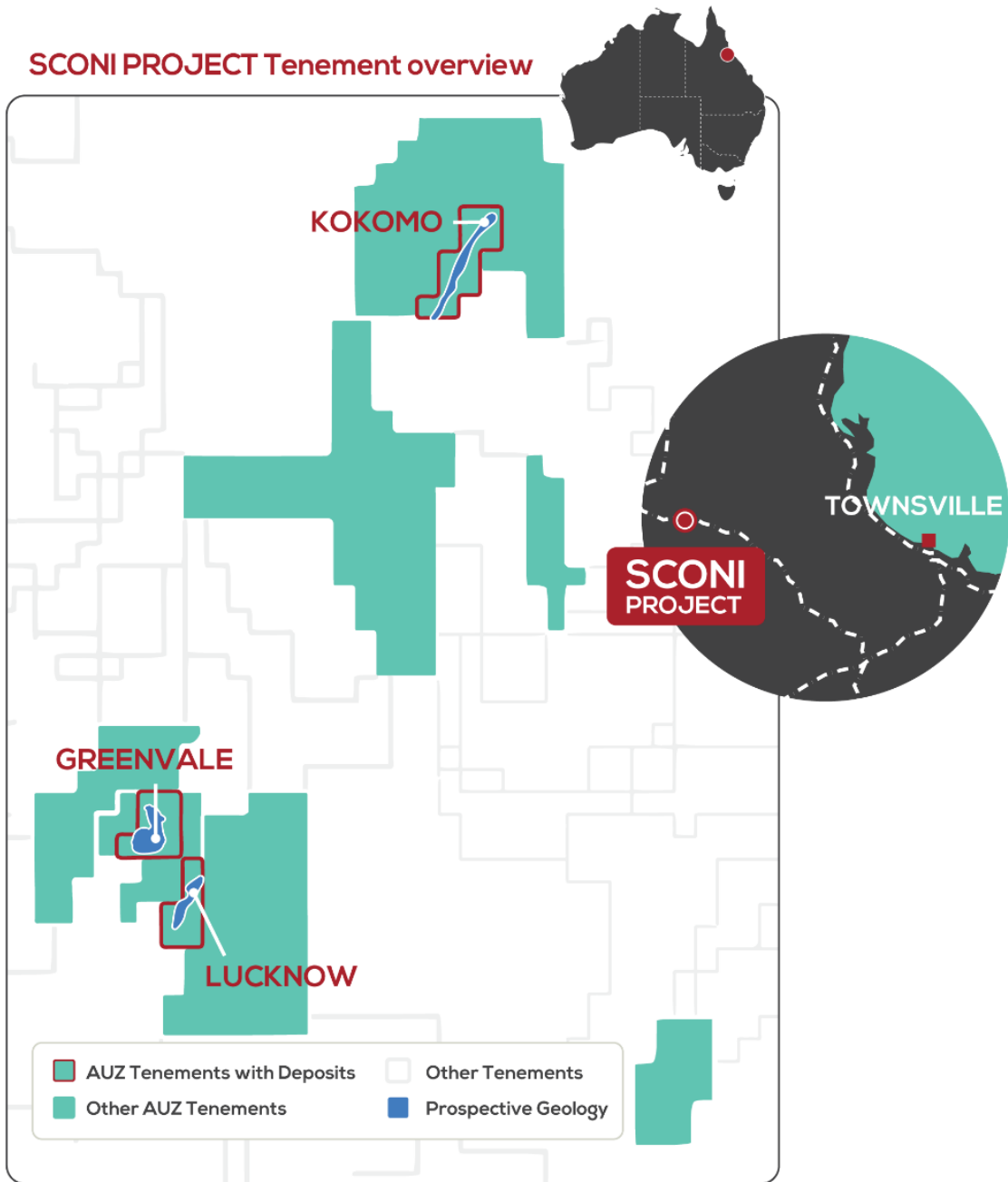


Figure 3: Australian Mines Sconi Project tenement plan, including existing Greenvale, Lucknow and Kokomo deposits containing Mineral Resources⁹.

⁹ See Appendix 1 of this report for full details of the Sconi Mineral Resource Estimate

The total capital cost estimate for the Sconi Project resulting from the BFS is US\$974 million, with the breakdown of main cost areas and amounts outlined in Table 2 (below).

Area	US\$m
Mining	32
Processing Plant	730
Non-Process Infrastructure	102
Contingencies	110
Total	974

Table 2: Sconi Project capital cost summary.

The processing plant capital cost estimate US\$730 (+/- 15%) was developed by Simulus Laboratories, which partnered with Australian Mines in the construction and operation of the Company's demonstration-size processing plant in Western Australia.

In addition to the processing plant capital cost, which is consistent with earlier estimates forecasted by Australian Mines, a 15% contingency amount of US\$110 million has been included in total capital cost estimates.

Uniquely, Australian Mines invested in the construction of a demonstration-size processing plant ahead of the BFS, with multiple batch and continuous testing campaigns carried out at the Simulus Laboratories-managed facility in Western Australia to confirm the metallurgical process design and recoveries factored in to the BFS report.

Approximately 4.3 tonnes of Greenvale ore and 7.5 tonnes of Lucknow ore were processed through the HPAL circuit at the demonstration plant, with the resulting leach liquor then taken through scandium solvent extraction, scandium precipitation and calcination, iron removal and mixed sulphide precipitation (MSP). The resulting MSP was then fed through the refinery circuit, which includes pressure oxidation followed by impurity removal, cobalt and nickel solvent extraction and crystallisation steps.



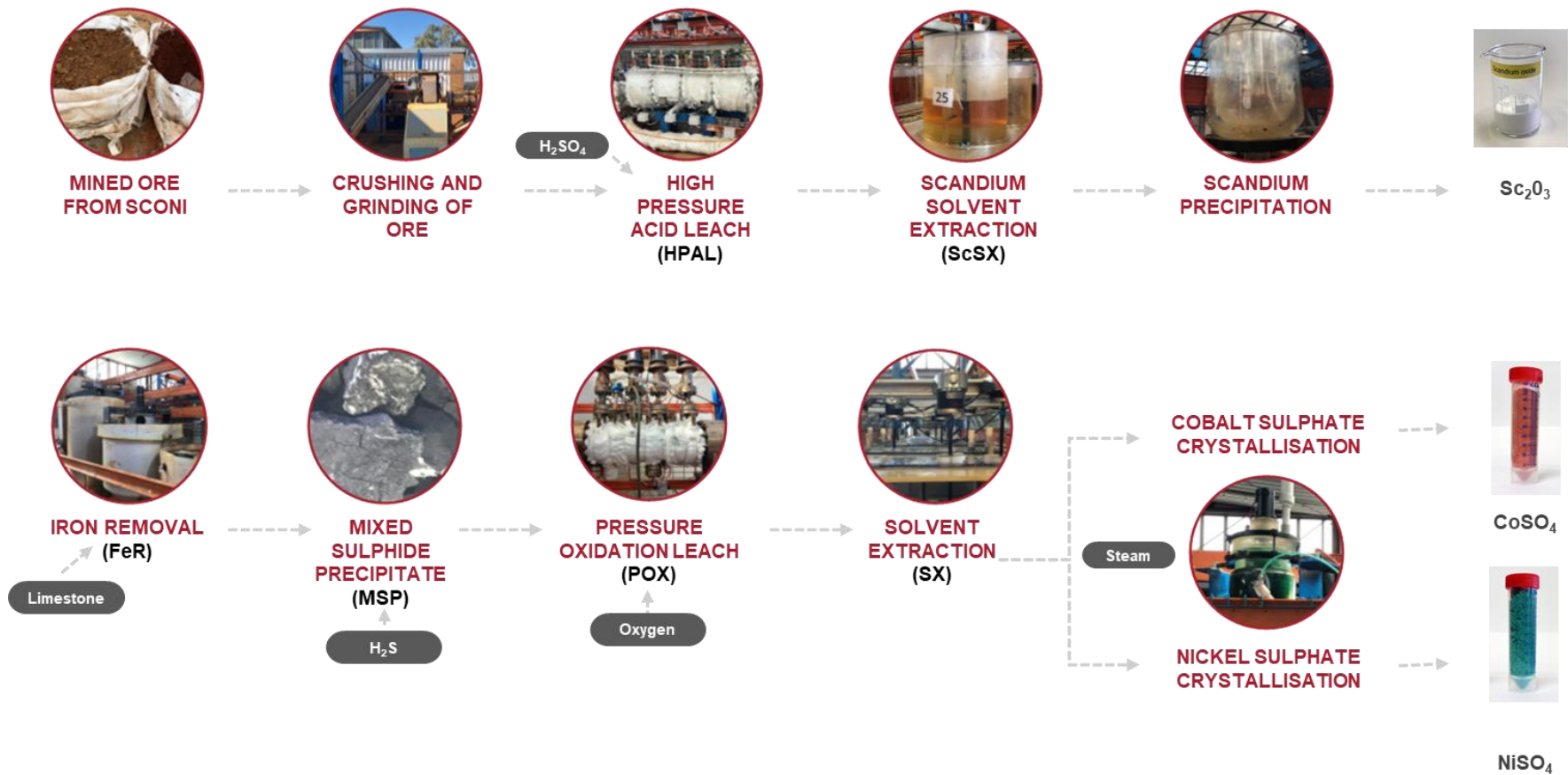


Figure 4: Australian Mines' proposed process flow diagram for the 2 million tonne per annum HPAL and SX plant for Sconi. This process will be a replica of that optimised through the development and operation of the demonstration-size plant in Western Australia. Photos taken at Australian mines' demonstration size processing plant in Perth, Australia.



Although requiring minor modernisation and supplementation for a modern, large-scale mining and processing operation contemplated here, the Sconi Project is generally well-supported by existing infrastructure, including an established bulk commodity export port at Townsville that has the capacity to handle shipments of both imported reagents required for the Project as well as the export of product produced for off-take partner SK Innovation. The existing public road network is capable of facilitating road haulage of materials between the port and mine site.

The non-process infrastructure costs at the Sconi Project, including site works and construction of an accommodation village at Greenvale, have been costed at US\$102 million, which will be capitalised.

Australian Mines proposes the processing plant, plant infrastructure and non-process infrastructure be constructed using a suitably qualified Engineering, Procurement and Construction (EPC) – and optionally Maintenance (EPC/M) – contractor to complete the work. The contractor would need significant experience in delivering large, complex metallurgical process plants in Australia.

The proposed Sconi Project development plan would result in a significant flow-through investment in regional infrastructure in the immediate project area in North Queensland including accommodation, telecommunications and road upgrades as well a 24/7 medical facility and community social infrastructure. Modelling to date indicates construction of the project would create up to 500 jobs from 2019 to 2021, followed by more than 300 full time positions once the mine, processing plant and associated infrastructure are in steady-state operation.

PROJECT FINANCING

The Australian Mines Board believes that there are reasonable grounds to assume that future funding will be available for the ongoing development of the Sconi Project, as envisaged in this announcement, on the following basis:

1. **Appointment of highly credentialed chief financial officer:** Australian Mines has recently appointed highly experienced public company financial professional, Marcus Hughes, to the position of Chief Financial Officer.

Mr Hughes' immediate past engagement was with major Australian iron ore producer Fortescue Metals Group, where he spent eight years as a Finance Group Manager of the ~\$12 billion Australian Securities Exchange-listed mining company¹⁰.

With more than 20 years of relevant experience in the listed company environment, Mr Hughes is well-credentialed in capital raisings and project finance structuring, including

¹⁰ Refer to ASX announcement entitled "Australian Mines appoints experienced public company financial professional in strategic role of Chief Financial Officer", released 16 November 2018

as Specialist Tax Adviser for global diversified miner Rio Tinto, where he was involved in the capitalisation of a \$1.5 billion alumina refinery constructed in Gladstone, Queensland.

2. **Appointment of external financial advisor, Medea Capital Partners:** The Company intends to finance the capital expenditure and working capital costs of the Project using a combination of debt and equity and has appointed UK-based Medea Capital Partners (“Medea”) as financial advisor¹¹ to advise on and assist the Company with securing project level funding.

Work undertaken by Medea has shown that the Sconi Project is likely to support senior secured project finance debt of up to US\$585 million indicating a gearing level of 60% of upfront capital expenditure.

Accordingly, Medea is currently in initial discussions with several Australian based commercial lenders in relation to providing additional senior secured debt funding as part of the overall US\$585 million debt facility for the Sconi Project. These lenders have experience with project level funding to junior mining companies and are highly active in the Australian mining project finance market providing circa A\$150 million facilities. The Australian Mines Board believes that a syndicate of between 6 to 8 lenders (including NAIF) will be sufficient to fully fund the debt facility.

3. **Potential financial support from NAIF:** The Company has commenced detailed discussions with government-funded institutions with respect to providing debt funding including the Australian Commonwealth Government entity, the Northern Australia Infrastructure Facility (“NAIF”) who has indicated it will move to investigating the potential for providing NAIF support for Australian Mines’ Sconi Project¹².

NAIF was established on 1 July 2016 by the *Northern Australia Infrastructure Facility Act 2016* (“NAIF Act”) and is a corporate Commonwealth entity. The objective of the NAIF Act is to provide financial assistance to the States of Queensland, Western Australia and the Northern Territory for the construction of infrastructure to benefit northern Australia. The NAIF may approve loans to 30 June 2021 which total \$5 billion in aggregate (with loan tenors of up to the longest term of Commonwealth borrowings) and have recently committed funding for a number of projects including the recently announced \$95 million of funding to Sheffield Resources Limited¹³.

Australian Mines is currently providing detailed due diligence materials to NAIF for review and will then submit its formal Investment Proposal. NAIF has not made any decision to offer finance or made any commitment to provide any financial accommodation and there is no certainty that an agreement will be reached between the parties.

¹¹ Refer to ASX announcement entitled “Specialist off-take adviser appointed as Australian Mines advances towards development of its Sconi Project”, released 31 January 2018

¹² Refer to ASX announcement entitled “Sconi Project in Due Diligence Phase for NAIF funding”, released 15 October 2018

¹³ <https://naif.gov.au/wp-content/uploads/2018/10/ASX-Sheffield-19-Sept-2018-1.pdf>

4. **Potential support from SK Innovation:** Australian Mines is also examining other forms of funding including the possibility of off-take pre-payments from the binding off-take agreement with SK Innovation. According to the Sconi BFS, the Company's revenue from sale of nickel sulphate and cobalt sulphate over the initial term of the binding off-take agreement¹⁴ is projected to exceed \$600 million per year¹⁵.
5. **Increased market demand:** Over the past year, the demand for cobalt from non-DRC sources has increased demand for critical raw materials for the electric vehicle battery market and there is an opportunity for Australian Mines to secure a streaming and/or royalties agreement for the Sconi Project. The royalty and streaming market has significantly expanded over the past few years with the established royalty companies and new entrants such as Cobalt 27, who recently acquired a royalty over the Flemington Cobalt-Scandium-Nickel project owned by Australian Mines¹⁶, competing to invest in cobalt and nickel projects such as the Sconi Project. Preliminary work based on the BFS data suggest that the Sconi Project, could support a stream or royalty in addition to the project debt.
6. **Strong shareholder base:** The Company has a strong shareholder base and is confident of attracting additional equity investments due to the robustness of the BFS and the strong demand for both nickel sulphate and cobalt sulphate, as evidenced by the commitment of SK Innovation in securing the offtake from the Sconi Project. Australian Mines recognises that additional equity investment will be dilutive to existing shareholders unless they can participate and will take this into account when raising capital.

As a result, it is anticipated that via a combination of senior debt funding, further equity investment from current and new shareholders (most likely based in Australia, the United Kingdom, the United States of America, continental Europe and Korea), pre-payment of the project's projected nickel sulphate and cobalt sulphate output, streaming and/or royalties, and mezzanine financing, that the Sconi Project can be fully-funded.

¹⁴ See Australian Mines' announcement to the ASX dated 6 March 2018 for full details of the terms of its binding off-take agreement with SK Innovation

¹⁵ See Figure 12 of this document.

¹⁶ <https://www.newswire.ca/news-releases/cobalt-27-acquires-royalty-on-flemington-nickel-cobalt-project-in-australia-681921101.html>



GEOLOGY AND MINERAL RESOURCES

Geology

The Sconi deposits are hosted in laterites which have formed on ultramafic rocks that include serpentinites, meta-gabbros and pyroxenites. These occur as lower crustal material rich in iron, magnesium and nickel. It is likely that these laterites formed following a period of prolonged weathering post the Cretaceous era.

Ultramafic rocks have a high background level of nickel and cobalt and the process of lateritisation has concentrated the nickel and cobalt to grades which have the potential to be exploited economically.

The laterite profiles are well preserved with the drill holes intersecting a complete laterite profile, from natural surface soil cover down to poorly mineralised bedrock. Each deposit varies with respect to geological profile and mineralisation, with Kokomo and Lucknow enriched in scandium, while Greenvale appears less enriched in scandium.

Mineral Resource

Mineral Resources were estimated by CSA Global for the Greenvale, Lucknow and Kokomo deposits for the Sconi Project using data derived from 2,158 reverse circulation (RC) drill holes and 16 diamond core (DD) drill holes. All samples were collected between 2007 to 2010.

Mineral Resource block models were prepared for each of the deposits and incorporate geological interpretations of the lateritic profile and interpreted mineralisation domains for nickel, cobalt, and scandium. Grades were interpolated using ordinary kriging with densities applied to the models using either direct assignment to geological domains, or by the Nearest Neighbour interpolation technique.

The Mineral Resources were classified in accordance with the guidelines of the current JORC Code 2012 Edition and are reported using a metal equivalent formula based upon metal prices and recoveries at the time of reporting (see Tables 3 to 7)

Classification	Tonnes (million tonnes)	Nickel equivalent (%)	Nickel (%)	Cobalt (%)
Measured	4.80	0.99	0.85	0.07
Indicated	9.71	0.87	0.77	0.05
Inferred	7.11	0.62	0.53	0.04
TOTAL	21.61	0.82	0.71	0.05

Table 3: Greenvale Mineral Resource (includes in-situ and dump material)

Lower cut-off grade: Nickel equivalent 0.45%

See Appendix 1 of this report for "Nickel equivalent" calculations

Classification	Tonnes (million tonnes)	Nickel equivalent (%)	Nickel (%)	Cobalt (%)
Measured	4.80	0.99	0.85	0.07
Indicated	9.14	0.87	0.77	0.05
Inferred	1.01	0.85	0.75	0.05
TOTAL	14.95	0.91	0.79	0.06

Table 4: Greenvale Mineral Resource (In Situ Material Only)

Lower cut-off grade: Nickel equivalent 0.45%

See Appendix 1 of this report for “Nickel equivalent” calculations

Classification	Tonnes (million tonnes)	Nickel equivalent (%)	Nickel (%)	Cobalt (%)
Measured	-	-	-	-
Indicated	0.57	0.86	0.75	0.05
Inferred	6.10	0.59	0.49	0.04
TOTAL	6.67	0.61	0.52	0.04

Table 5: Greenvale Mineral Resource (Dump Material Only).

Lower cut-off grade: Nickel equivalent 0.45%

See Appendix 1 of this report for “Nickel equivalent” calculations

Classification	Tonnes (million tonnes)	Nickel equivalent (%)	Nickel (%)	Cobalt (%)
Measured	1.61	0.90	0.54	0.12
Indicated	4.51	0.91	0.46	0.15
Inferred	1.39	0.73	0.47	0.09
TOTAL	7.51	0.87	0.48	0.13

Table 6: Lucknow Mineral Resource

Lower cut-off grade: Nickel equivalent 0.40%

See Appendix 1 of this report for “Nickel equivalent” calculations

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

Table 7: Kokomo Mineral Resource

Lower cut-off grade: Nickel equivalent 0.45%



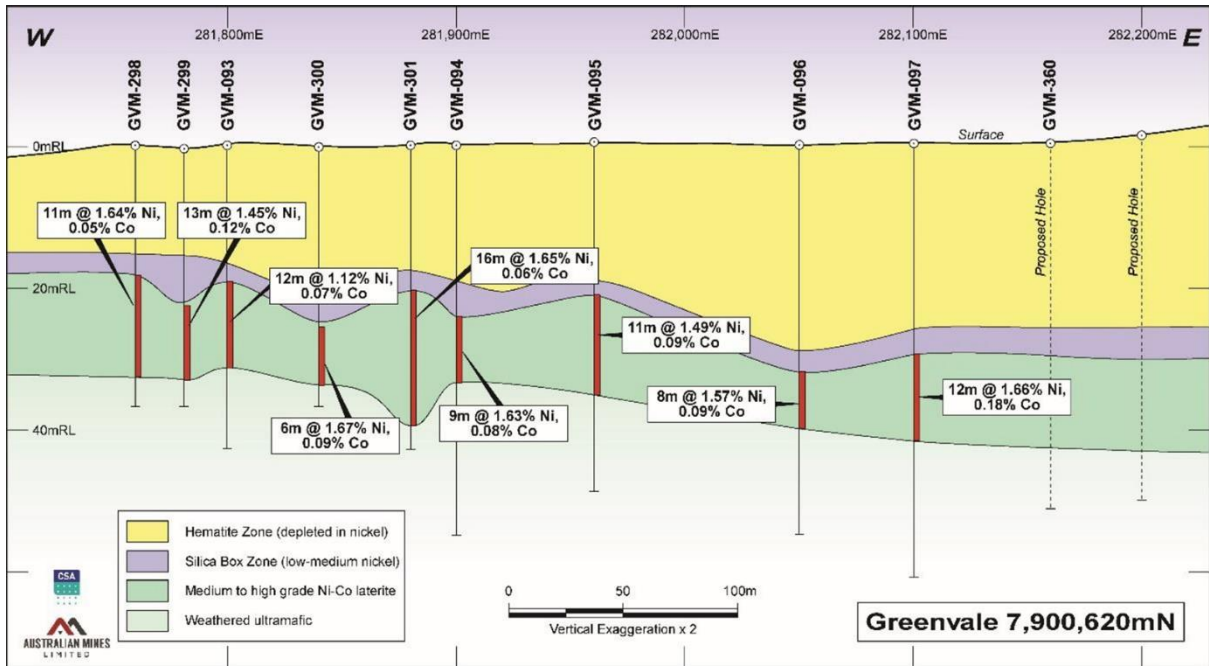


Figure 5: Schematic geological cross section of the Greenvale deposit (at 7,900,620mN)

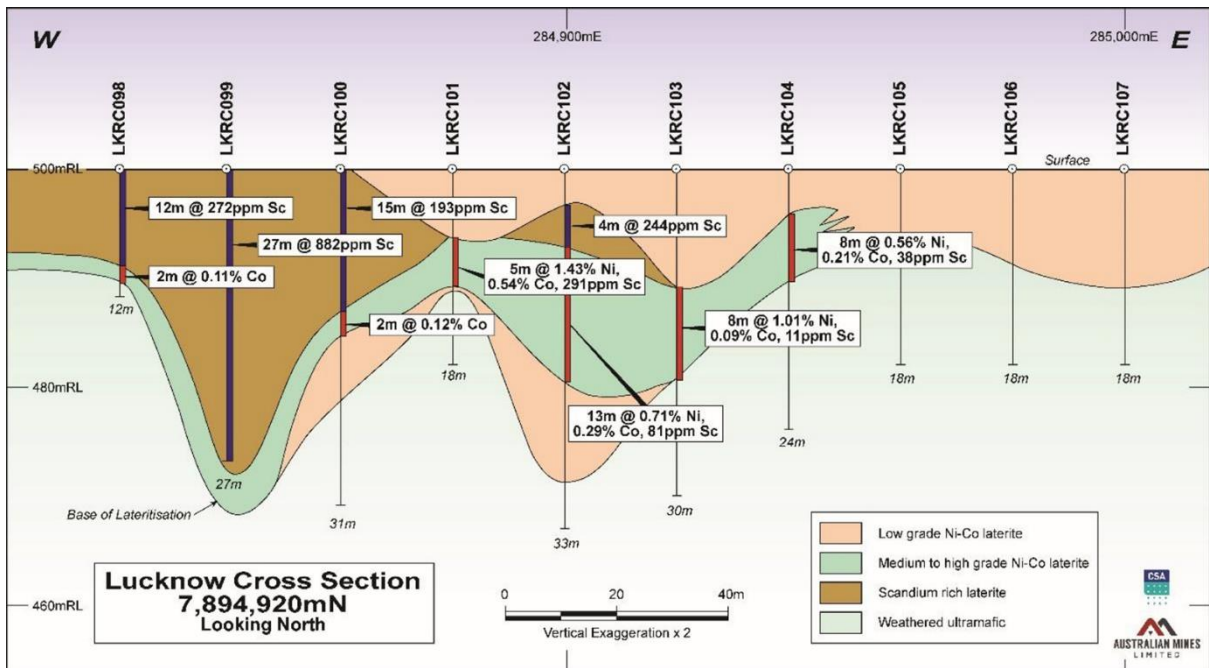


Figure 6: Schematic geological cross section of the Lucknow deposit (at 7,894,920mN)



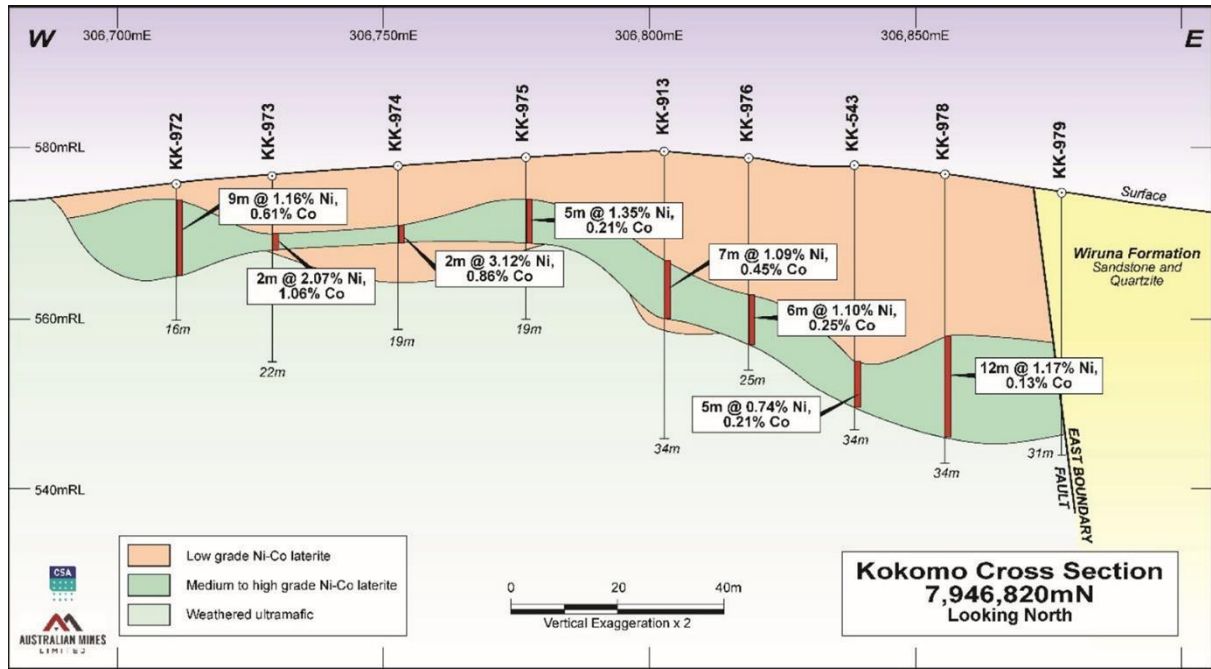


Figure 7: Schematic geological cross section of the Kokomo deposit (at 7,946,820mN)



Ore Reserve

The Sconi Ore Reserve reported in the Bankable Feasibility Study was prepared by specialist mine planning consultants, Orelogy, in accordance with the current 2012 JORC code.

Only Measured and Indicated Resource materials were considered as eligible for conversion to ore material. The scandium grades were not used in the cut-off grade analysis, open pit optimisation or ore definition for scheduling.

Proven and Probable Ore Reserves were determined from mineralisation classified as Measured or Indicated Resource respectively. Orelogy determined that this classification is reasonable because of the nature of the Sconi deposit in terms of consistency and past mining activity¹⁷. Orelogy also conclude that the beneficiation risk common to other laterite projects is not applicable to the Sconi Project as no beneficiation is being undertaken prior to HPAL process.

Approximately 20% of the Ore Reserves are classified as Proven and 80% are classified as Probable.

Classification	Ore (million tonnes)	Nickel (%)	Cobalt (%)	Scandium (ppm)
Proven	6.93	0.79	0.10	45
Probable	26.97	0.63	0.10	42
Total	33.89	0.67	0.10	42

Table 8: Sconi Project Ore Reserve summary¹⁸.

The breakeven cut-off grade was determined to be between 0.5% to 0.6% nickel equivalent using the formula¹⁹ → Nickel equivalent (%) = [(Ni grade x Ni price x Ni recovery) + (Co grade x Co price x Co recovery)] ÷ (Ni price x Ni recovery)²⁰

Given that a large portion of the favourable cobalt-nickel-scandium bearing geology at Sconi remains untested by drilling, there exists significant potential to increase the current Ore Reserve at Sconi. Australian Mines is currently completing a 50,000 metre Resource Expansion drilling program at Sconi, from which highly encouraging assays have already been received.²¹

¹⁷ See Appendix 2 of this document for further details

¹⁸ See Appendix 2 of this report for full details of the Sconi Ore Reserve.

The Mineral Resource Figures in Tables 3 to 7 are inclusive of the Ore Reserve figures in Table 8. It should be noted that the Proven and Probable Reserves detailed in Table 8 are inclusive of allowance for mining dilution and ore loss.

¹⁹ See Appendix 2 – *Sconi Project Ore Reserve Estimate* for further details regarding Orelogy's estimation of the Sconi Project's Ore Reserve.

²⁰ Where: nickel price = 23,516 AUD, cobalt price = 88,185 AUD, Nickel Recovery = 90%, Cobalt Recovery = 90%.

²¹ Australian Mines Limited, Drilling continues to unlock growth potential at Sconi, released 5 November 2018

Australian Mines Limited, Drilling extends nickel-cobalt resource potential at Sconi, released 14 September 2018

MINING METHOD AND SCHEDULE

Mining Method

The Sconi Project spans three Mining Licence areas (ML 10368, ML 10366, and ML 10342) which are Greenvale, Lucknow and Kokomo respectively. The mining operation will be centred at the Greenvale site. Lucknow is located approximately 10 kilometres to the south-east with access via the Gregory Highway, while Kokomo is located approximately 60 kilometres to the north-northeast of Greenvale.

An unsealed haulage road will be constructed to connect Kokomo to the processing facility at Greenvale. Conventional open pit mining is planned for the operation at the three sites utilising a mining contractor model. The ore production schedule assumes Greenvale and Lucknow are operated as one mining area and Kokomo as a separate area. The schedule indicates that mining will be split between both areas and operated simultaneously, thereby requiring two mining fleets.

At Greenvale, ore will be delivered from the pits to a Run-of-Mine (ROM) pad adjacent to the primary crushing circuit. Ore from both Lucknow and Kokomo will be delivered to local ROM pads from where it will be loaded into road trains and transported to the Greenvale site.

The road trains will discharge their load into a purpose-built hopper bin where the ore will be crushed and processed directly or diverted to a storage stockpile on the upper level of the Greenvale ROM pad for rehandling.

Economic recovery of valuable metals requires optimised acid dosing in the Sconi project and to enable consistent acid-dosing and recovery a consistent feed blend of ore is desirable, which will be managed through stockpiling and ore blending. Operationally, the Project will use a stockpile finger blend strategy, where the ore is fed to the crusher from multiple fingers on a ROM stockpile using a front-end loader for material from Greenvale and a road train schedule for ore from Lucknow and Kokomo.

Waste material from the mine will generally be dumped onto designed waste rock dumps or backfilled into pits with a proportion of the waste mined at Greenvale used to construct embankments for the dry stacked tailings storage facilities.

Rehabilitation works will be carried out on an ongoing basis as part of the mining operation.

Mining Schedule

Optimisation was based on cash flow analysis due to the variable processing costs. The breakeven cut-off grade was determined to be between a 0.5% and 0.6% nickel equivalent grade.

The optimisation sensitivity results indicated that recovery of ore was significantly more important than additional waste. Therefore, the objective of the designs was to produce



practical designs that maximise ore tonnes. Every effort was made to minimise waste but not to the detriment of ore recovery, with overall pit designs recovering 99.7% of ore at the cost of 20% additional waste.

The life of mine schedule was developed for the Sconi Project as a practical, realistically achievable schedule that maximises project value, with the following criteria:

- plant processing rate of 2 million tonnes per annum at full production, with a ramp-up period of 27 months;
- monthly periods for pre-commissioning and first two years of ramp-up, followed by quarterly periods for five years, and annual periods thereafter;
- optimised annual cut-off grade plan for both nickel and cobalt used to develop the schedule;
- minimising variability of ore feed to avoid fluctuations in acid consumption; and
- maximum mining rate of 6 million tonnes per annum with waste delayed until required for ore exposure.

The mine schedule encompasses a short pre-strip period of 3 months followed by 12.5 years of mining with a further 5 years of processing lower grade stockpiles.



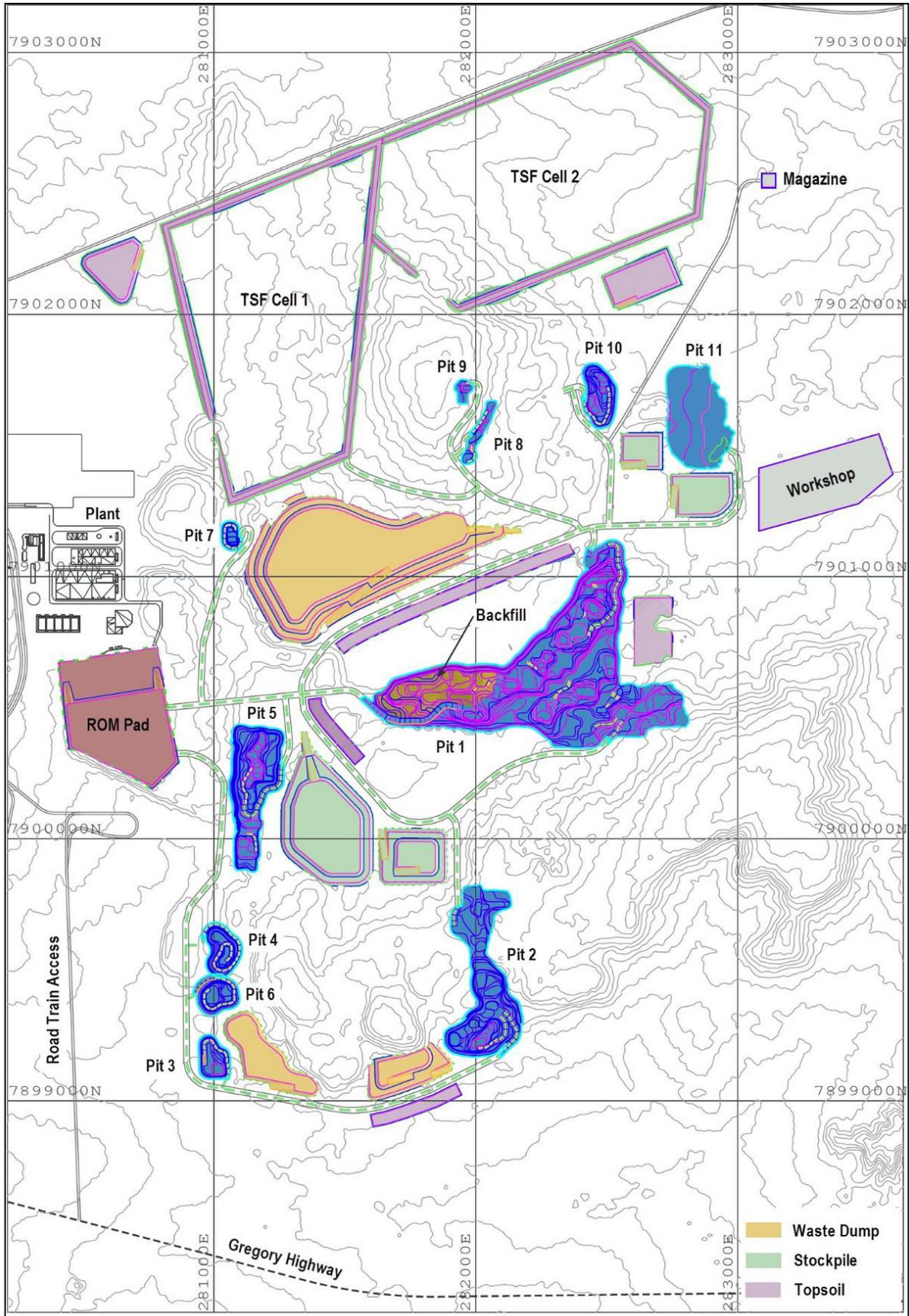


Figure 8: Proposed site layout of the Greenvale mining and processing operation.



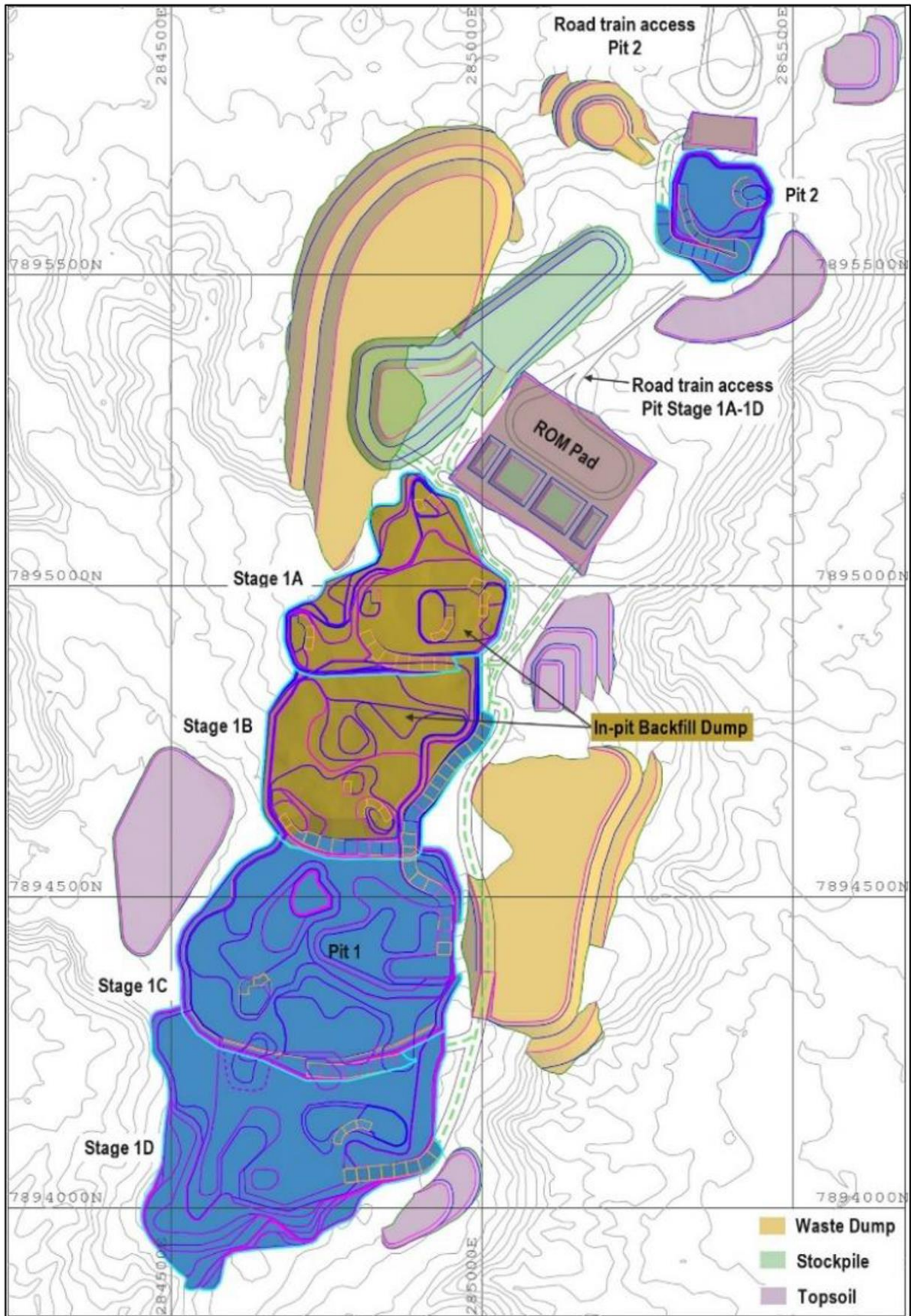


Figure 9: Proposed site layout of the Lucknow mining operation



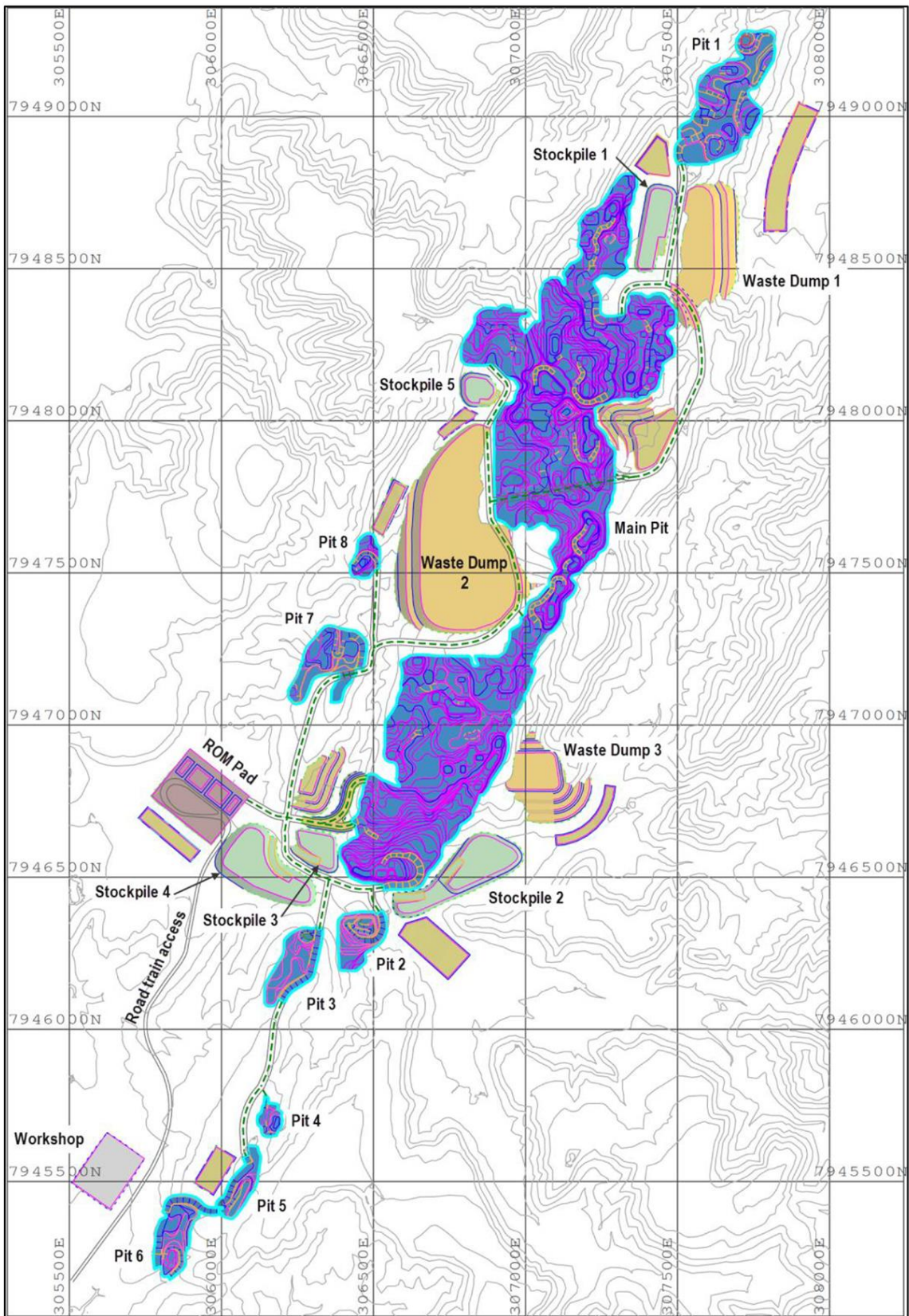


Figure 10: Proposed site layout of the Kokomo mining operation



PROCESSING PLANT AND INFRASTRUCTURE

Processing Plant

The Sconi Project uses a hydrometallurgical route for processing nickel and cobalt ore through to battery-grade nickel sulphate and cobalt sulphate with scandium recovery and production of high-purity scandium oxide. The process comprises four sequential steps, all of which are well proven and commonly used in the wider metallurgical industry and provide high recoveries of base metals:

- Stage 1: Aqueous pressure leach in an acidic sulphate medium to dissolve the base metals and scandium while minimising dissolution of the iron and silica gangue. The conditions used are typical for base metal dissolution from lateritic ore sources, with rapid leach kinetics resulting in autoclave residence times of ~60 minutes for near complete nickel and cobalt extraction.
- Stage 2: Neutralisation, primary impurity removal and nickel/cobalt sulphide recovery. The autoclave leach discharge slurry is neutralised for removal of the free acid and ferric iron, with pre-reduction to reduce chrome (VI) to chrome (III) in the leach residue and to convert any residual ferric to ferrous iron. The neutralised slurry is filtered and then repulped twice sequentially to recover the valuable metals in solution from the solid residue. Solution is then advanced to sulphide precipitation to recover a high-grade nickel/cobalt sulphide product with minimal impurities. Scandium is recovered from the nickel/cobalt barren liquor via solvent extraction. The scandium circuit raffinate is neutralised and partially recycled as process water.
- Stage 3: Nickel and cobalt oxidative re-leach and secondary impurity removal. The nickel and cobalt-rich sulphide intermediate is oxidised and re-leached under medium pressure and temperature to produce a high concentration, small volume stream. A stage of impurity removal occurs via pH adjustment of the leach discharge solution. Solvent extraction is used to separate the nickel and cobalt and provide final impurity removal requirements.
- Stage 4: Crystallisation of high-purity nickel sulphate and cobalt sulphate. The separate nickel and cobalt sulphate streams are concentrated to saturation point via thermal and mechanical energy input. This causes the metals to begin crystallising from solution as metal sulphate hydrates. The specific form of crystal is manipulated by controlling the temperature of crystallisation. The nickel circuit uses a mechanical vapour recompression (MVR) falling film evaporator followed by an MVR crystalliser. For cobalt crystallisation this is achieved in a single unit operation due to the relatively small scale of production.



Infrastructure

In addition to the key stages outlined the processing plant also includes the following infrastructure:

- sulphuric acid plant for generation of acid, steam and power;
- oxygen plant;
- reagent preparation circuits;
- water treatment plant; and
- plant air and cooling system.

Block-Flow Diagram

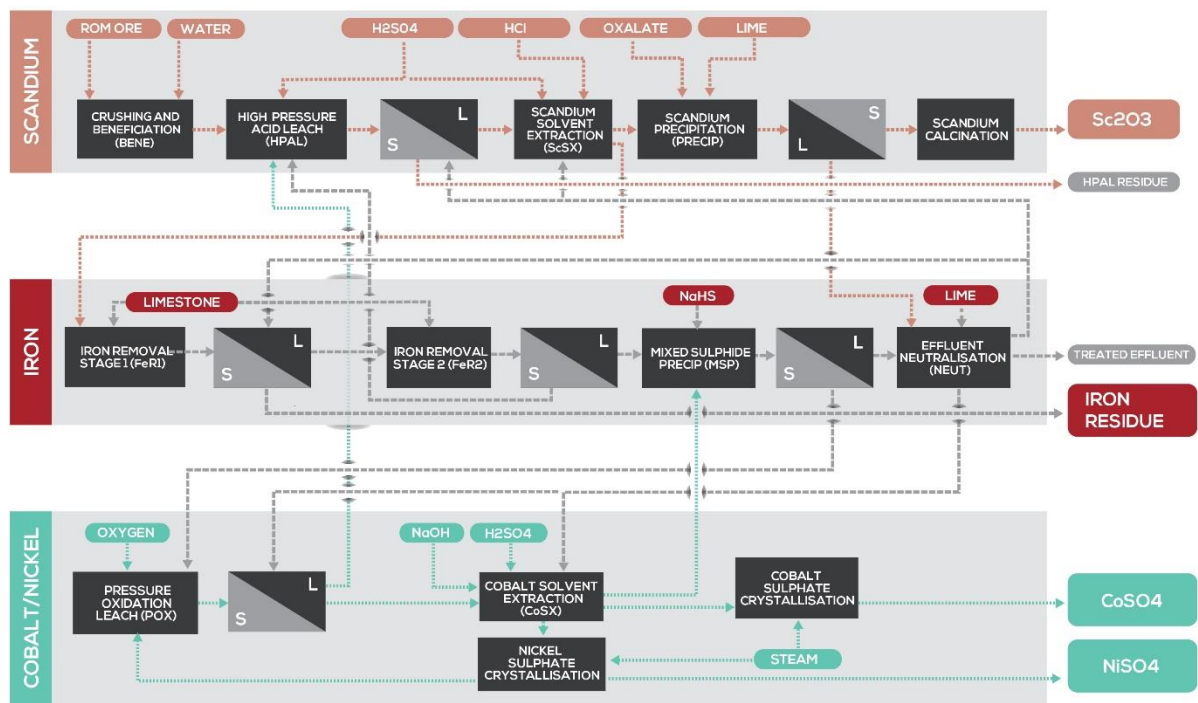


Figure 11: The Sconi Project uses a hydrometallurgical route for processing nickel and cobalt ore through to battery-grade nickel sulphate and cobalt sulphate with scandium oxide also produced.



FINANCIAL ANALYSIS AND SENSITIVITIES

The valuation for the Sconi Project used a cash flow model based on mine plan and mining cost as well as processing costs and plant capital cost estimates.

Mine plan and mining cost inputs were prepared by specialist mine planning consultants, Orelogy while processing costs and plant capital cost estimates were contributed by Simulus, incorporating results from ongoing demonstration plant operations. These estimates have been classified with a +/- 15% accuracy and a contingency of 15% applied.

The Sconi BFS has demonstrated outstanding project economics with a NPV of \$1.31 billion pre-tax and \$697 million post-tax, and a post-tax payback period of 5.2 years. These have been calculated using a conservative approach incorporating a thorough cost verification process by Australian Mines post receipt of the interim estimates.

A summary of key financial outcomes is laid out in Table 1 above.

Cash flows have been estimated on a real basis (2018) and based on an initial 18-year project life, however, the Sconi Project is expected to continue significantly beyond this given the opportunities for additional resources and exploration upside outlined by current Mineral Resource extension drilling²².

The Sconi BFS demonstrates robust financial outcomes with a pre-tax IRR of 21% and post-tax IRR of 15%. The Sconi discounted cash flow (DCF) valuation is summarised in Table 9 below.

Parameter	Units	Value
NPV8% (pre-tax)	\$m	1,310
NPV8% (post-tax)	\$m	697
IRR (pre-tax)	%	21
IRR (post-tax)	%	15
Simple pay back (pre-tax)	years	4.0
Simple pay back (post-tax)	years	5.2

Table 9: Sconi Discounted Cash Flow valuation.

²² Australian Mines Limited, Drilling continues to unlock growth potential at Sconi, released 5 November 2018
Australian Mines Limited, Drilling extends nickel-cobalt resource potential at Sconi, released 14 September 2018

Parameter	Units	Value
Autoclave Throughput	mtpa	2.0
Life of Mine	years	18
Average Strip Ratio	waste:ore	1.06
Average Production (years 2-6)		
- Nickel Sulphate (NiSO ₄ .6H ₂ O)	ktpa	70.9
- Cobalt Sulphate (CoSO ₄ .7H ₂ O)	ktpa	9.9
Average Production (LOM)		
- Nickel Sulphate (NiSO ₄ .6H ₂ O)	ktpa	53.3
- Cobalt Sulphate (CoSO ₄ .7H ₂ O)	ktpa	8.5
Nickel recovery	%	94.8
Cobalt recovery	%	95.7
Nickel price	US\$/lb	7.00
Nickel sulphate premium	US\$/lb	2.00
Cobalt price	US\$/lb	30.00
Cobalt sulphate premium	US\$/lb	0.00
Scandium oxide price	US\$/kg	1,000
Forex	AUD/USD	0.71
Discount Rate	%	8.0
Tax Rate	%	30.0
QLD State Royalties	%	2.5
Costs (years 3-18)		
Total C1 cash costs net of Cobalt & Scandium	US\$/lb Ni	0.48
Total Free On Board (FOB) cash costs (inc royalties)	US\$/lb Ni	0.84
Pre-production capex	US\$m	974
Sustaining Capex	% of capex	1.25

Table 10: Sconi Project model key inputs.

Revenue and Profitability

The Sconi BFS estimates total gross project revenue of \$9.2 billion, and exceptional average EBITDA margin in excess of 50% over an 18-year Life of Mine.

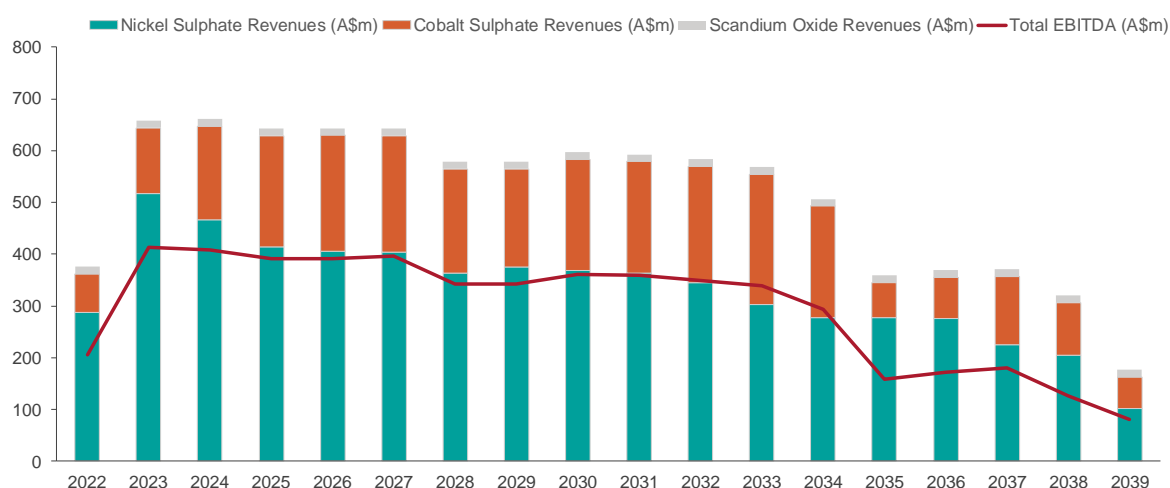


Figure 12: Total projected revenue and EBITDA of the Sconi Cobalt-Nickel-Scandium Project

Production

Production at Sconi is estimated for a plant processing rate of 2 million tonnes per annum at full production with a ramp-up period of 27 months, following a 24-month construction period. This Life of Mine schedule was developed as a practical, realistically achievable schedule that maximises project value.

Projected post-ramp-up production is estimated at 70,894 tonnes per annum of nickel sulphate and 9,898 tonnes per annum of cobalt sulphate (5-year average).

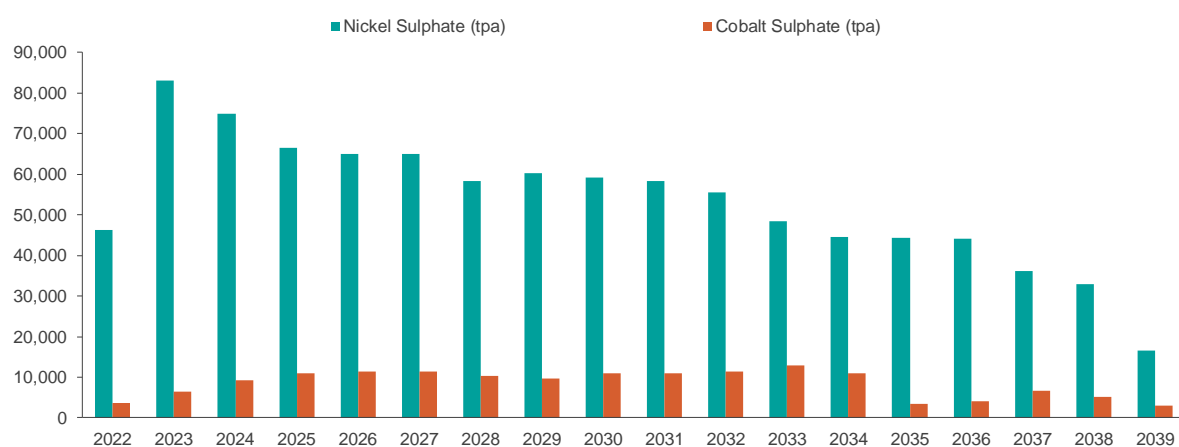


Figure 13: Total projected production for cobalt sulphate and nickel sulphate from the Sconi Project

Commodity pricing

Australian Mines has used a long-term flat nickel metal price of US\$7 per pound nickel (US\$15,432 per tonne nickel) with a US\$2 per pound premium giving a nickel sulphate price of US\$9 per pound of contained nickel (US\$19,842 per tonne).

Due to the recent changes in cobalt pricing, the premium for cobalt sulphate over cobalt metal has narrowed and Australian Mines has used a long-term flat cobalt metal price of US\$30 per pound (US\$66,140 per tonne) (no sulphate premium) to calculate the price of cobalt sulphate on a metal equivalent basis.

These forecasts are in line with consensus forecasts from investment banks and other research groups.

Australian Mines has assumed scandium oxide sales of 10 tonnes per year at a scandium price of US\$1,000 per kilogram as a conservative estimate of pricing. The Sconi project is expected to produce around 1,600 tonnes of scandium oxide over the life of mine, however given the current small scale of the market it is assumed that only approximately 10% of this is sold.

Capital Cost Estimates

The largest capital costs are attributable to the processing plant, estimated at US\$730 million, which includes both direct and indirect costs.

This capital cost estimate has been developed by Simulus Engineers and calculated with an accuracy of +/- 15%, and has a contingency applied of 15%.

Given that the flowsheet design proposed has been refined by the industry over the past 50 years and is now in its fifth generation, and that the technology is well known and has been also been tested at the Company's demonstration plant operations, Australian Mines believes that these represent a realistic estimate of costs.

The total capital cost estimate is laid out in Table 2 of this report and includes US\$110 million in contingencies. The estimates have been obtained using actual pricing obtained from contractors with cost escalation factors applied where appropriate.



Operating Costs

Sconi benefits from exceptionally low C1 cash operating costs of US\$0.48 per pound of nickel equivalent post by-product credits from cobalt and scandium, which Australian Mines believes is highly competitive.

Given the Company has used conservative long term flat pricing for both cobalt and scandium, the potential for economic upside is significant.

The breakdown of cash operating costs is in Table 11 below.

Cost	US\$ per pound of Nickel produced
Mining	0.61
Ore handling	0.54
Processing	4.19
G&A	0.32
Freight	0.08
Subtotal	5.73
Less Co credit	-4.86
Less Sc credit	-0.39
Total C1 cash costs	0.48

Table 11: Breakdown of C1 cash costs of the Sconi Project in North Queensland

Both capital cost and operating cost estimates have been refined through on-going operations at Australian Mines' demonstration sized processing plant in Perth.

Cash Flow Projections

Sconi is estimated to produce total free cash flow after tax of \$2.6 billion over the initial 18-year project life, for a simple payback of capital of 4.0 years on a pre-tax basis and 5.2 years on a post-tax basis.

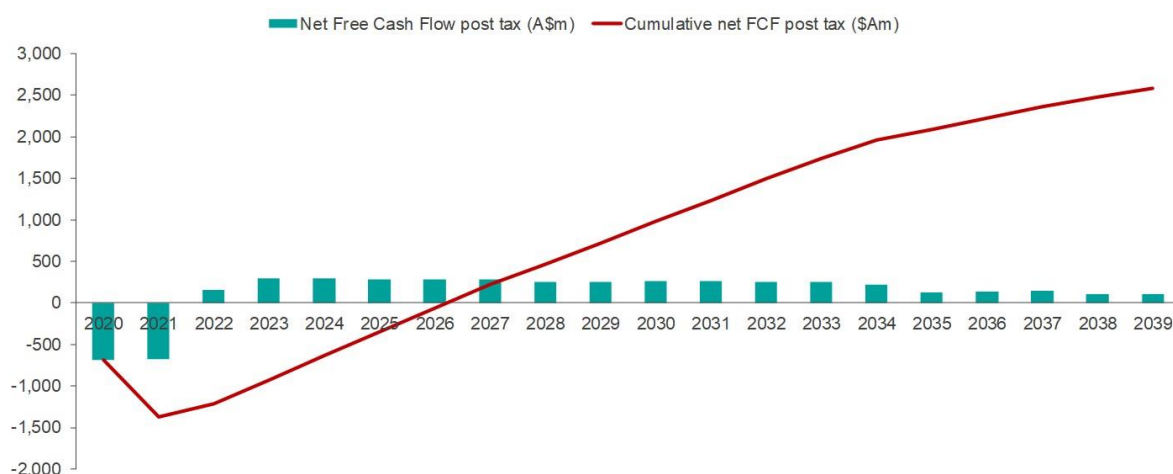


Figure 14: Post-tax Free Cash Flow (FCF) and cumulative post-tax Free Cash Flow expected to be produced from the Sconi Project

The cash flows from Sconi have the potential to be extended by delineation of additional Mineral Resources through the expansion drilling campaign the Company has been carrying out in parallel to the BFS.

Sensitivity Analysis

A sensitivity analysis has been undertaken to identify the variables that are most likely to impact the project economics for Sconi. These have been flexed up and down by 10-20%, with the resulting NPVs and IRRs tabulated below.

Sensitivities were undertaken on the following parameters:

- feed grade (Nickel, Cobalt and Scandium);
- pre-production capital costs;
- operating costs;
- AUD/USD exchange rate;
- nickel sulphate price; and
- cobalt sulphate price.

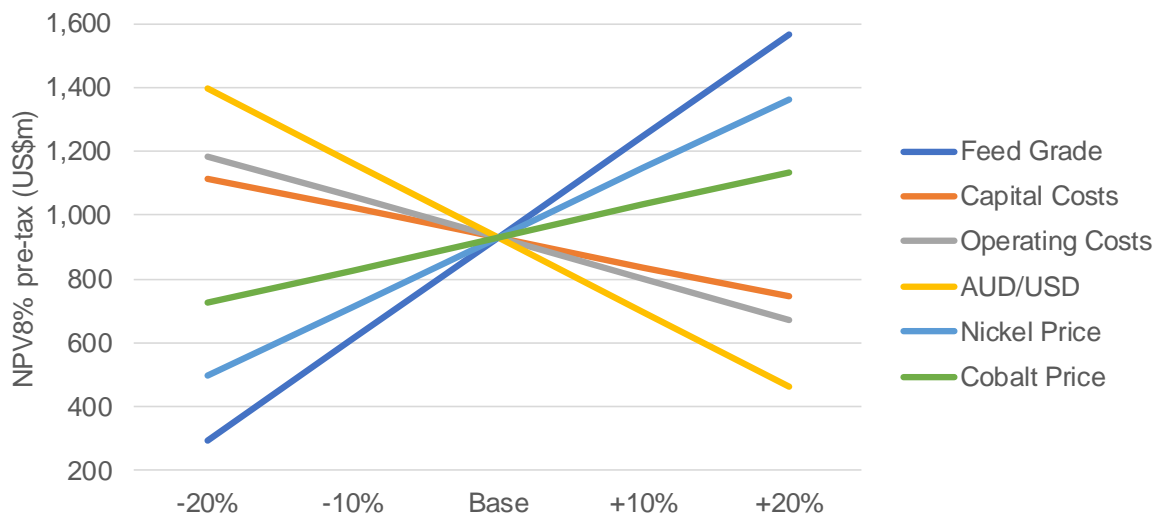


Figure 15: Pre-tax Net Present Value (NPV) sensitivities for the Sconi Project

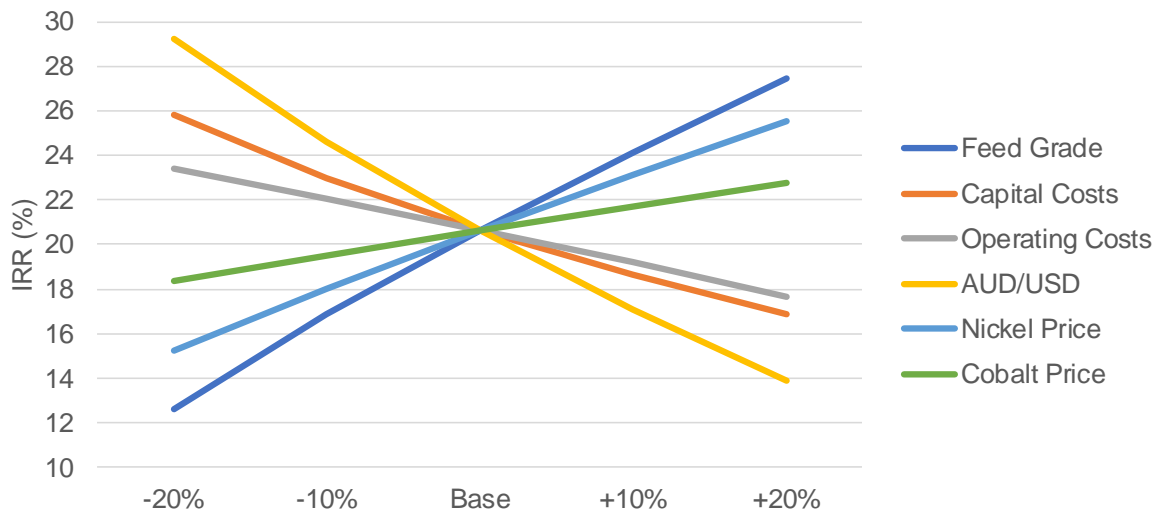


Figure 16: Pre-tax Internal rate of Return (IRR) sensitivities for the Sconi Project



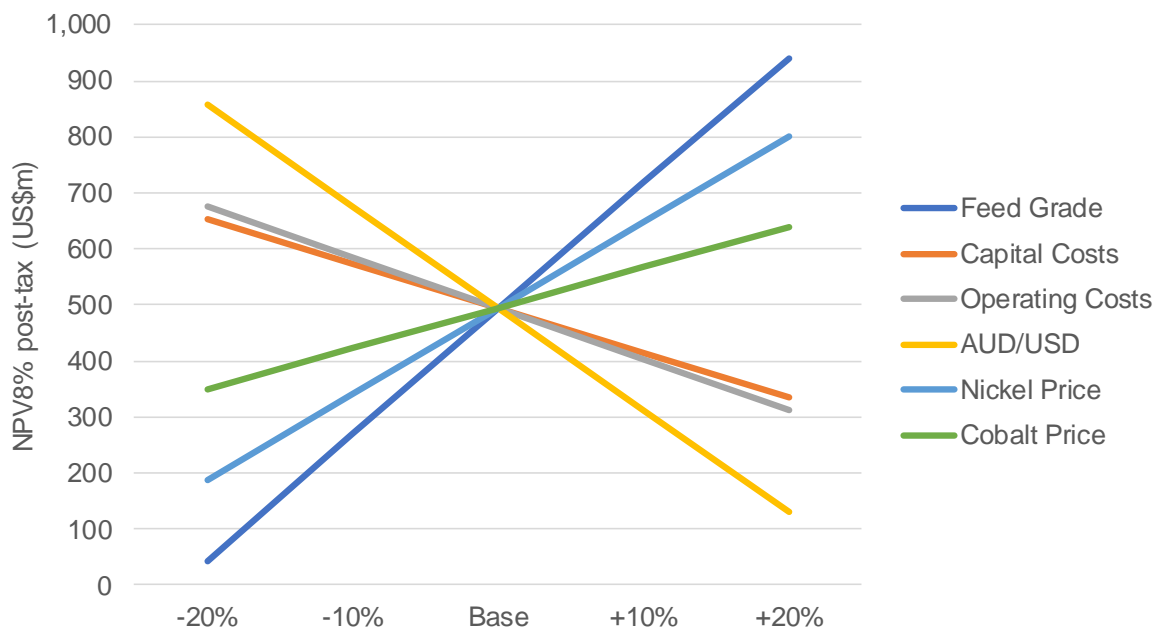


Figure 17: Post-tax Net Present Value (NPV) sensitivities for the Sconi Project

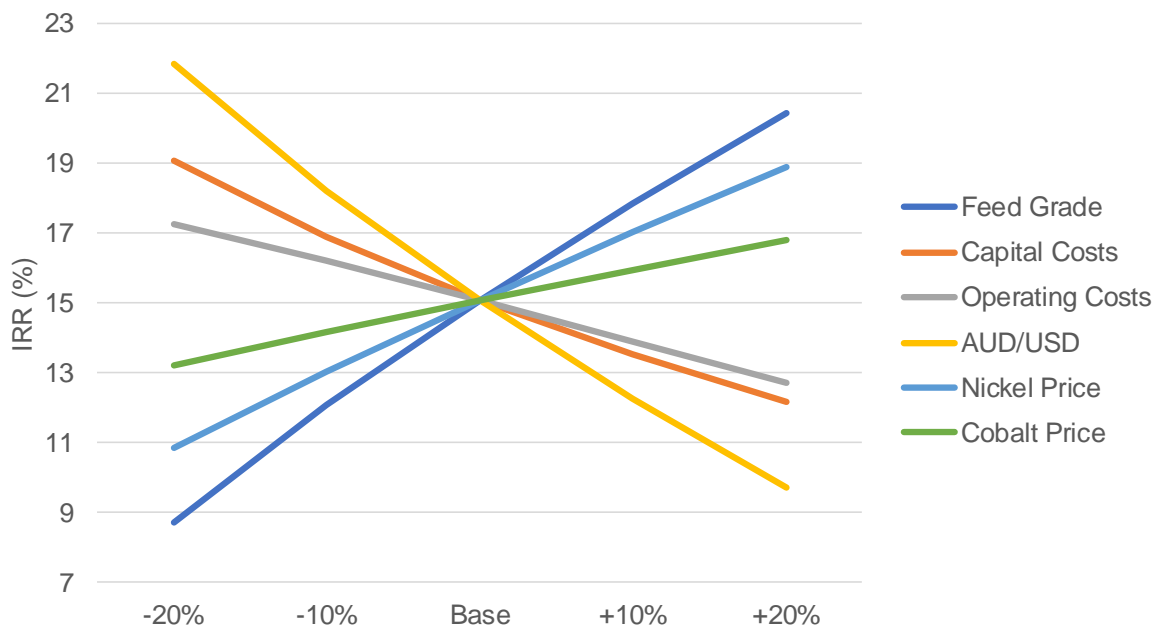


Figure 18: Post-tax Internal rate of Return (IRR) sensitivities for the Sconi Project



*****ENDS*****

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ASX disclaimer

ASX takes no responsibility for the contents of this report by Australian Mines



Appendix 1 - SCONI PROJECT MINERAL RESOURCE ESTIMATE

JORC Code, 2012 Edition

Greenvale

Section 1: Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</i> <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> <i>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual</i> 	<ul style="list-style-type: none"> Drillhole data supporting the Mineral Resource were drilled by Straits Resources (Straits) in 2007 (141 reverse circulation (RC) holes, 5,935 m) and Metallica Minerals Limited (Metallica) in 2010–2012 (641 RC holes, 16,841 m). Metallica drilled an additional 102 RC holes (1,892 m) on the waste dumps and oversize stockpiles in 2012. RC samples of 1 m drill length were passed through a rig-mounted cyclone and collected in large plastic bags positioned beneath the cyclone. Samples for dispatch to the analytical laboratory were collected by laying the sample bag on its side and using a long trowel ("spear"), with between 1.5 kg and 3 kg collected. Diamond core was not sampled for Mineral Resource estimation. Quality assurance (QA) of the spear sampling was carried out on Kokomo sample data using a riffle splitter, with a 3:1 mass reduction. The testwork used 19 holes from the 2008 drill program (221 samples) and assay results were compared with the spear sample assays (originals) which show good correlation. The Competent Person is satisfied that the Kokomo results can also be credited to the Greenvale sampling methodologies due to the same sampling

Criteria	JORC Code explanation	Commentary
	<i>commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</i>	procedures, and similarities in geological host of mineralisation.
Drilling techniques	<ul style="list-style-type: none"> • <i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i> 	<ul style="list-style-type: none"> • Drilling supporting the Mineral Resource was RC. Historical drilling (pre-Metallica, dating to early 1970s) was a mix of rotary air blast (RAB) and RC; however, these were not used in any manner to support the Mineral Resource estimate (MRE).
Drill sample recovery	<ul style="list-style-type: none"> • <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> • <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> • <i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i> 	<ul style="list-style-type: none"> • Metallica RC drilling generally used high air pressure to keep the lateritic samples dry and to maintain good sample recovery. Recovery in the mineralised intervals was deemed to be good to excellent. RC samples were not weighed and advice to the Competent Person was provided by former Metallica geological staff who were involved with the drilling. • Relationships between sample recovery and grade could not be determined without original sample weight data; however, the Competent Person does not believe a material relationship exists.
Logging	<ul style="list-style-type: none"> • <i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i> 	<ul style="list-style-type: none"> • A Metallica geologist was present at all times during drilling and sampling. Metallica's geological logging protocols at the time were followed to ensure consistency in drill logs between the geological staff. • RC chips were logged for weathering, lithologies (primary and proto), mineralogy,



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> • <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i> • <i>The total length and percentage of the relevant intersections logged.</i> 	<ul style="list-style-type: none"> • colour and grain size. RC chip trays (with chips) were photographed. • The interpreted weathering and fresh zone domains were also logged; ferruginous pisolite, limonite, saprolite, weathered ultramafic and fresh ultramafic. These logs were correlated with assays. • The full sample lengths were logged.
Subsampling techniques and sample preparation	<ul style="list-style-type: none"> • <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> • <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i> • <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> • <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> • <i>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</i> • <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i> 	<ul style="list-style-type: none"> • RC speared samples were dispatched to the analytical laboratory. • The Competent Person considers the spear sampling method to be an appropriate sampling method, based upon testwork from the Kokomo deposit, which compared the spear sampling against the riffle split samples. • Samples were dry. • Field duplicates from RC samples were taken at a rate of 1:60, approximately one sample per drillhole. No field duplicate sample was taken if field x-ray fluorescence (XRF) readings showed barren samples. Field duplicates were taken by spear method by the same sampler who took the original spear sample. No records were kept regarding the sample sizes for either the original or duplicate samples. A total of 351 field duplicate samples were taken at Greenvale. • QA of the spear sampling was carried out at Kokomo using a riffle splitter, with a 3:1 mass reduction. The testwork used 19 holes from the 2008 drill program (221 samples) and assay results were compared with the spear sample assays (originals) which show good correlation.



Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> • Sample sizes are considered to be appropriate to the grain size of the material being sampled.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> • <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> • <i>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i> • <i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i> 	<ul style="list-style-type: none"> • Drill samples were originally sent to ALS (2007 drilling) and then to SGS (2010 drilling). Both labs conform to Australian Standards ISO9001 and ISO 17025. • ALS samples were dried then pulverised in LM5 Mill to achieve a nominal 85% passing 75 um. A pulp sample was then taken and split down to achieve a 0.5 g sample which was digested in a mixture of three acids (nitric, perchloric and hydrofluoric). The residue is then leached in hydrochloric acid and the solution's elemental concentrations determined by Inductively Coupled Plasma Atomic Emission Spectrometry (ICP-AES). Internal standards were used to monitor quality control (QC). • SGS samples followed a similar subsampling process. The pulp sample is digested in four-acid to effect as near to total solubility of the metals as possible, with the solution presented to an ICP for element quantification. • The analytical procedures are considered total analysis techniques. • Metallica used five certified reference materials (CRMs) to monitor the accuracy of the metal analyses. The CRMs were certified for nickel, copper and zinc, but not for iron, magnesium, scandium or cobalt. nickel displayed reasonable precision and accuracy with the exception of one CRM, which showed a low bias. • Field duplicates (n=351) are discussed in the subsampling section.



Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> Selected pulps from the 2007 program (n=109), originally assayed by SGS, were sent to ALS lab for umpire analyses in 2010. Comparative results for nickel, cobalt and scandium are considered by the Competent Person to be good, albeit with a slight high-grade bias towards the original (SGS) assays. The QAQC procedures and results show acceptable levels of accuracy and precision were achieved.
Verification of sampling and assaying	<ul style="list-style-type: none"> <i>The verification of significant intersections by either independent or alternative company personnel.</i> <i>The use of twinned holes.</i> <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> Australian Mines Limited (Australian Mines) geological personnel independently reviewed selected RC drill intersections and verified their suitability to be included in the estimation of Mineral Resources. The mineralisation is not visual, and any significant intersections are apparent from the sample analyses. There are no twinned diamond/RC hole pairings at Greenvale. Selected RC drillhole collars were surveyed in the field by the Competent Person (Mineral Resources) during the 2017 site inspection with a handheld global positioning system (GPS) unit, and the surveyed coordinates (easting and northing) were within 10 m of the coordinates surveyed by differential GPS. The precise location of the drill collars is not known due to the holes having been rehabilitated since the drill programs were completed. The GPS locations are considered to be an approximate location of the actual collar coordinates. Assay data was recorded as negative values in the database were “less than detection” and have been adjusted to



Criteria	JORC Code explanation	Commentary
		<p>equate to half the analytical detection limit for the elements in question. The exception is scandium, where database values of <-6 ppm were assigned as “absent” assay.</p>
<p>Location of data points</p>	<ul style="list-style-type: none"> • <i>Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i> • <i>Specification of the grid system used.</i> • <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> • All drillholes drilled by Metallica were surveyed by independent surveying companies, using differential GPS to provide accurate surveyed coordinates. Downhole surveys were not required due to the shallow depths of most holes. • All grid coordinates are in Map Grid of Australia (MGA) coordinates, with the grid being MGA Zone 55 South. • The topographic digital terrain model (DTM) was prepared using data sourced from WorldView-2 satellite imagery dated December 2010. A 1 m contour file was created in ER Mapper and imported into Vulcan to model a DTM and was considered adequate to constrain the block model and MRE for Greenvale. • Holes drilled by Straits were initially translated from local grid to MGA and later registered to the topographic DTM by Metallica, which resulted in a change in collar elevation without a change in easting or northing coordinates.
<p>Data spacing and distribution</p>	<ul style="list-style-type: none"> • <i>Data spacing for reporting of Exploration Results.</i> • <i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i> 	<ul style="list-style-type: none"> • Several sets of drill spacing are noted at Greenvale, sometimes overlapping. The broadest scale of drilling is 480 m (EW) x 80 m (NS), with closer spaced drill grids of 40 m (EW) x 40 m (NS), and 20 m (EW) x 20 m (NS). • Drill dumps were drilled on a 100 m spaced grid, whilst the oversize stockpile was drilled on a 50 m grid spacing. • The local drill grids played a key role in the classification of the Mineral Resources, and



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> • <i>Whether sample compositing has been applied.</i> 	<p>therefore the Competent Person considers the data spacing to be sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource classification categories adopted for Greenvale.</p> <ul style="list-style-type: none"> • Samples were not composited at the sampling stage.
<p>Orientation of data in relation to geological structure</p>	<ul style="list-style-type: none"> • <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> • <i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i> 	<ul style="list-style-type: none"> • Drillholes were drilled vertically which is considered to minimise any potential sampling bias with the saprolitic host lithology. Some late stage faulting may be present, but any offset of saprolite and/or mineralisation cannot be predicted at the Mineral Resource drill-out level. • Any sampling bias resultant from the orientation of drilling and possible structural offsets of mineralisation is considered to be minimal and to fall within the tolerances built into the Mineral Resource categories.
<p>Sample security</p>	<ul style="list-style-type: none"> • <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> • Drill samples were under the care and supervision of Straits or Metallica staff at all times until transportation by local couriers to the analytical laboratories in Townsville.
<p>Audits or reviews</p>	<ul style="list-style-type: none"> • <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> • The drilling procedures, sampling methodologies, sample analyses and the drillhole database were audited by Golder Associates (Golder) in 2010 as part of the 2010 MRE. Some minor issues were noted and resolved by Metallica at the time, and prior to estimation of Mineral Resources by Golder. Golder considered all data processed to be acceptable. • CSA Global carried out a high-level review prior to reporting of Mineral Resources (this report) and did not note any material deficiencies in the quality of work



Criteria	JORC Code explanation	Commentary
		<p>undertaken during Metallica's work programs. CSA Global focused on the spear sampling methodology employed by Metallica and consider the spear sampling was carried out to a high level, ensuring a representative sample was obtained from each 1 m drill interval.</p>



Lucknow

Section 1: Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> • <i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</i> • <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> • <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> • <i>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</i> 	<ul style="list-style-type: none"> • Drillhole data supporting the Mineral Resource were drilled by Metallica in 2010–2011 (461 RC holes for 10,554 m, and three DD holes for 128 m). The DD holes were drilled for metallurgical testwork samples and were not assayed to support the Mineral Resource. • RC samples of 1 m drill length were passed through a rig-mounted cyclone and collected in large plastic bags positioned beneath the cyclone. The action of the cyclone adequately homogenises the sample collected in the bag. Representative 1.5 kg to 3 kg samples were collected in calico bags for dispatch to the analytical laboratory by laying the plastic bag on its side and using a long trowel ("spear"). • Diamond core was not sampled for Mineral Resource estimation. • QA of the spear sampling was carried out on Kokomo sample data using a riffle splitter, with a 3:1 mass reduction. The testwork used 19 holes from the 2008 drill program (221 samples) and assay results were compared with the spear sample assays (originals) which show good correlation. The Competent Person is satisfied that the Kokomo results can also be credited to the Lucknow sampling methodologies due to the same sampling procedures, and similarities in geological host of mineralisation.

Criteria	JORC Code explanation	Commentary
Drilling techniques	<ul style="list-style-type: none"> • <i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i> 	<ul style="list-style-type: none"> • Drilling supporting the Mineral Resource was principally RC. Historical drilling (pre-Metallica, dating to early 1970s) was a mix of aircore, rotary percussion and RC; however, these were not used in any manner to support the MRE.
Drill sample recovery	<ul style="list-style-type: none"> • <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> • <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> • <i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i> 	<ul style="list-style-type: none"> • Metallica RC drilling generally used high air pressure to keep the lateritic samples dry and to maintain good sample recovery. Recovery in the mineralised intervals was deemed to be good to excellent. RC samples were not weighed and advice to the Competent Person was provided by former Metallica geological staff who were involved with the drilling. • Relationships between sample recovery and grade could not be determined without original sample weight data; however, the Competent Person does not believe a material relationship exists.
Logging	<ul style="list-style-type: none"> • <i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i> • <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i> 	<ul style="list-style-type: none"> • A Metallica geologist was present at all times during drilling and sampling. Metallica's geological logging protocols at the time were followed to ensure consistency in drill logs between the geological staff. • RC chips were logged for weathering, lithologies (primary and proto), mineralogy, colour and grainsize. RC chip trays (with chips) were photographed. • The interpreted weathering and fresh zone domains were also logged; alluvial material,



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <i>The total length and percentage of the relevant intersections logged.</i> 	<p>high-iron laterite, saprolite, and weathered ultramafic. These logs were correlated with assays.</p> <ul style="list-style-type: none"> The full sample lengths were logged.
Subsampling techniques and sample preparation	<ul style="list-style-type: none"> <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i> <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> <i>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</i> <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i> 	<ul style="list-style-type: none"> RC speared samples were dispatched to SGS Laboratories in Townsville. The Competent Person considers the spear sampling method to be an appropriate sampling method, based upon testwork from the Kokomo deposit, which compared the spear sampling against the riffle split samples. Samples were dry. Sample sizes are considered to be appropriate to the grain size of the material being sampled. RC samples were dried and then milled in an LM5 Mill to a nominal 85% passing 75 um. A pulp of approximately 220 g was subsampled from the bulk sample, with the milled residue retained for future reference.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> <i>For geophysical tools,</i> 	<ul style="list-style-type: none"> The pulp sample was digested in four acids (nitric, perchloric, hydrofluoric and hydrochloric), to effect as near to total solubility of the metals in solution as possible. The residue is then presented to an ICP-AES for elemental quantification. Internal standards were used to monitor QC.



Criteria	JORC Code explanation	Commentary
	<p><i>spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></p> <ul style="list-style-type: none"> <i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i> 	<ul style="list-style-type: none"> The analytical procedures are considered total analysis techniques. Metallica used five CRMs to monitor the accuracy of the metal analyses, with 127 CRMs inserted into the sample stream. The CRMs were certified for nickel, copper and zinc, but not for iron, magnesium, scandium or cobalt. nickel displayed reasonable precision and accuracy with the exception of two CRMs, which showed a low bias. Field duplicates (n=210) from RC samples were taken at a rate of 1:45, approximately one sample per two drillholes. No field duplicate sample was taken if field XRF readings showed barren samples. Field duplicates were taken by spear method by the same sampler who took the original spear sample. No records were kept regarding the sample sizes for either the original or duplicate samples. Results for nickel, scandium and cobalt show low variability when comparing the original and duplicate assays. Selected pulps from the Greenvale and Lucknow 2010 program (n=196), originally assayed by SGS, were sent to ALS Laboratories (Townsville) for umpire analyses. 87 umpire samples were from Lucknow. Combined Greenvale-Lucknow results for nickel and cobalt show a very slight high-grade bias (original versus umpire assay), whilst scandium shows minimal bias. The QAQC procedures and results show acceptable levels of accuracy and precision were achieved. Whilst cobalt and scandium were not QC tested by CRMs, their QC is



Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	<ul style="list-style-type: none"> • <i>The verification of significant intersections by either independent or alternative company personnel.</i> • <i>The use of twinned holes.</i> • <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> • <i>Discuss any adjustment to assay data.</i> 	<p>supported by the field duplicates and umpire analyses.</p> <ul style="list-style-type: none"> • Metallica's senior geological personnel independently reviewed selected RC drill intersections through the collection of additional QC data from standards, field duplicate samples and assay check samples. These techniques assisted in the verification and suitability of these significant intersections to be included in the estimation of Mineral Resources. • There are no twinned diamond/RC hole pairings at Lucknow. The three DD holes drilled at Lucknow were not included in the drillhole database and therefore could not be assessed during preparation of the Mineral Resource. • Selected RC drillhole collars were surveyed in the field by the Competent Person (Mineral Resources) during the 2017 site inspection with a handheld GPS unit, and the surveyed coordinates (easting and northing) were within 10 m of the coordinates surveyed by differential GPS. The precise location of the drill collars is generally not known due to the holes having been rehabilitated since the drill programs were completed. The GPS locations are considered to be an approximate location of the actual collar coordinates in most cases. The Australian Mines representative hosting the Competent Person during the site visit was involved in recent bulk sampling programs and knew the location of some RC drill collars (since rehabilitated) and the GPS readings were within close proximity to the surveyed differential GPS coordinates.



Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> Assay data are recorded as negative values in the database where “less than detection” and have been adjusted to equate to half the analytical detection limit for the elements in question. The exception is scandium, where database values of <-6 ppm were assigned as “absent” assay.
Location of data points	<ul style="list-style-type: none"> <i>Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i> <i>Specification of the grid system used.</i> <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> All drillholes drilled by Metallica were surveyed by independent surveying companies, using differential GPS to provide accurate surveyed coordinates. Downhole surveys were not required due to the shallow depths of most holes. All grid coordinates are in MGA coordinates, with the grid being MGA Zone 55 South. The topographic DTM was prepared using data sourced from WorldView-2 satellite imagery dated December 2010. A 1 m contour file was created in ER Mapper and imported into Vulcan to model a DTM and was considered adequate to constrain the block model and MRE for Lucknow.
Data spacing and distribution	<ul style="list-style-type: none"> <i>Data spacing for reporting of Exploration Results.</i> <i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i> <i>Whether sample compositing has been applied.</i> 	<ul style="list-style-type: none"> Metallica completed an initial RC drill program in 2010 with spacing 80 m (N) with infill along the drill lines varying between 20 m and 40 m. The 2011 RC drill program targeted the higher grade and lateral extents of the mineralisation with drill spacing along strike (N) of 40 m. The local drill grids played a key role in the classification of the Mineral Resources, and therefore the Competent Person considers the data spacing to be sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource classification categories adopted for Lucknow.



Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> • Samples were not composited at the sampling stage.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> • <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> • <i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i> 	<ul style="list-style-type: none"> • Drillholes were drilled vertically which is considered to minimise any potential sampling bias with the saprolitic host lithology. Some late stage faulting may be present, but any offset of saprolite and/or mineralisation cannot be predicted at the Mineral Resource drill-out level. • Any sampling bias resultant from the orientation of drilling and possible structural offsets of mineralisation is considered to be minimal and fall within the tolerances built into the Mineral Resource categories.
Sample security	<ul style="list-style-type: none"> • <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> • Drill samples were under the care and supervision of Metallica staff at all times until transportation by local couriers to SGS analytical laboratories in Townsville.
Audits or reviews	<ul style="list-style-type: none"> • <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> • The drilling procedures, sampling methodologies, sample analyses and the drillhole database were audited by Golder in 2012 as part of the 2012 MRE. Some minor issues were noted and resolved by Metallica at the time, and prior to estimation of Mineral Resources by Golder. Golder considered all data processed to be acceptable. • CSA Global carried out a high-level review prior to reporting of Mineral Resources (this report) and did not note any material deficiencies in the quality of work undertaken during Metallica's work programs. CSA Global focused on the spear sampling methodology employed by Metallica and consider the spear sampling was carried out to a high level, ensuring a representative sample was obtained from each 1 m drill interval.



Kokomo

Section 1: Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> • <i>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.</i> • <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> • <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> • <i>In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.</i> 	<ul style="list-style-type: none"> • Drillhole data supporting the Mineral Resource were drilled by Metallica in 2000–2009 (1,056 RC holes for 28,787 m, and 10 DD holes for 521.5 m). The DD holes were drilled for metallurgical testwork samples which were assayed but not used for grade interpolation in the MRE. The assays were used to compare the sampling and chemical analyses from adjacent DD and RC drillholes. • RC samples of 1 m drill length were passed through a rig-mounted cyclone and collected in large plastic bags positioned beneath the cyclone. The action of the cyclone adequately homogenises the sample collected in the bag. Representative 1.5 kg to 3 kg samples were collected in calico bags for dispatch to the analytical laboratory by laying the plastic bag on its side and using a long trowel (“spear”). • Diamond core was not sampled by Metallica personnel, instead it was delivered whole for metallurgical testwork. • QA of the spear sampling was carried out at a later date using a riffle splitter, with a 3:1 mass reduction. The testwork used 19 holes from the 2008 drill program (221 samples) and assay results were compared with the spear sample assays (originals) which show good correlation.

Criteria	JORC Code explanation	Commentary
Drilling techniques	<ul style="list-style-type: none"> • <i>Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i> 	<ul style="list-style-type: none"> • Drilling supporting the Mineral Resource was predominantly by RC with minor diamond core drilling. Historical drilling (pre-Metallica, dating to early 1970s) was a mix of RAB and RC; however, these were not used in any manner to support the MRE. • Diamond core was NQ diameter and was not oriented.
Drill sample recovery	<ul style="list-style-type: none"> • <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> • <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i> • <i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i> 	<ul style="list-style-type: none"> • Metallica RC drilling generally used high air pressure to keep the lateritic samples dry and to maintain good sample recovery. Recovery in the mineralised intervals was deemed to be good to excellent. RC samples were not weighed and advice to the Competent Person was provided by former Metallica geological staff who were involved with the drilling. • Relationships between sample recovery and grade could not be determined without original sample weight data; however, the Competent Person does not believe a material relationship exists.
Logging	<ul style="list-style-type: none"> • <i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i> • <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i> 	<ul style="list-style-type: none"> • A Metallica geologist was present at all times during drilling and sampling. Metallica's geological logging protocols at the time were followed to ensure consistency in drill logs between the geological staff. • RC chips were logged for weathering, lithologies (primary and proto), mineralogy, colour and grain size. RC chip trays (with chips) were photographed.



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <i>The total length and percentage of the relevant intersections logged.</i> 	<ul style="list-style-type: none"> Diamond core were also logged for structure (alpha and betas, when observed). Diamond core was photographed. The interpreted weathering and fresh zone domains were also logged; hematitic iron-rich soil, ferruginous laterite +- silica boxwork, saprolite, weathered ultramafic and fresh ultramafic. These logs were correlated with assays. The full sample lengths were logged.
Subsampling techniques and sample preparation	<ul style="list-style-type: none"> <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i> <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i> <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i> <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i> <i>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</i> <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i> 	<ul style="list-style-type: none"> RC speared samples were dispatched to the analytical laboratory. The Competent Person considers the spear sampling method to be an appropriate sampling method, based upon later testwork to compare it with riffle split samples. Samples were dry. Field duplicates from RC samples were taken at a rate of 1:60, approximately one sample per drillhole. No field duplicate sample was taken if field XRF readings showed barren samples. Field duplicates were taken by spear method by the same sampler who took the original spear sample. No records were kept regarding the sample weights for either the original or duplicate samples. A total of 698 field duplicate samples were taken at Kokomo. QA of the spear sampling was carried out at a later date using a riffle splitter, with a 3:1 mass reduction. The testwork used 19 holes from the 2008 drill program (221 samples) and assay results were compared with the spear sample assays (originals) which show good correlation. Diamond drillholes are considered to be twinned drillholes to adjacent RC holes. Sample geological logs correlate well.



Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i> <i>For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i> <i>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</i> 	<ul style="list-style-type: none"> Sample sizes are considered to be appropriate to the grain size of the material being sampled. Drill samples were originally sent to ALS and then to SGS. Both labs conform to Australian Standards ISO9001 and ISO 17025. ALS samples were dried then pulverised in LM5 Mill to achieve a nominal 85% passing 75um. A pulp sample was then taken and split down to achieve a 0.5 g sample which was digested in a mixture of three acids (nitric, perchloric and hydrofluoric). The residue is then leached in hydrochloric acid and the solution's elemental concentrations determined by ICP-AES. Internal standards were used to monitor QC. SGS samples followed a similar subsampling process. The pulp sample is digested in four-acid to effect as near to total solubility of the metals as possible, with the solution presented to an ICP for element quantification. The analytical procedures are considered total analysis techniques. Metallica used five CRMs to monitor the accuracy of the metal analyses. The CRMs were certified for nickel, copper and zinc, but not for scandium or cobalt. Results are generally good, with failures due to mismatch of CRMs or analytical issues; no action was taken at the time because the CRM errors were deemed to be of insufficient magnitude to require re-analysis of pulps. Selected pulps from the 2008 program were sent to ALS Townsville for umpire analyses. Comparative results for nickel, cobalt and



Criteria	JORC Code explanation	Commentary
		<p>scandium are considered by the Competent Person to be good.</p> <ul style="list-style-type: none"> The QAQC procedures and results show acceptable levels of accuracy and precision were achieved.
<p>Verification of sampling and assaying</p>	<ul style="list-style-type: none"> <i>The verification of significant intersections by either independent or alternative company personnel.</i> <i>The use of twinned holes.</i> <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> <i>Discuss any adjustment to assay data.</i> 	<ul style="list-style-type: none"> Australian Mines geological personnel independently reviewed selected RC drill intersections and verified their suitability to be included in the estimation of Mineral Resources. The mineralisation is not visual, and any significant intersections are apparent from the sample analyses. Two diamond holes were drilled at Kokomo on northing section 7,947,535 mN and were twinned with RC hole KK-049. The diamond holes were drilled to obtain samples for metallurgical testwork. Assays for nickel for holes KK-049 and KKDH-003 are generally similar although some variance is noted, and whether this is due to the mineralogical nugget effect or sampling error is yet to be ascertained. These two holes also were drilled into a deeper zone of saprolitic mineralisation, whilst KKDH-004 (offset by 12 m) penetrated barren saprolite at a shallower depth. The original assay certificates, collar surveys and geological logs are archived with the Mineral Resource files. Selected RC drillhole collars were surveyed in the field by the Competent Person (Mineral Resources) during the 2017 site inspection with a handheld GPS unit, and the surveyed coordinates (easting and northing) were within 10 m of the coordinates surveyed by differential GPS. The precise location of the drill collars is not known due to the holes having been



Criteria	JORC Code explanation	Commentary
		<p>rehabilitated since the drill programs were completed. The GPS locations are considered to be an approximate location of the actual collar coordinates.</p> <ul style="list-style-type: none"> Assay data are recorded as negative values in the database where “less than detection” and have been adjusted to equate to half the analytical detection limit for the elements in question. The exception is scandium, where database values of <-6 ppm were assigned as “absent” assay.
<p>Location of data points</p>	<ul style="list-style-type: none"> <i>Accuracy and quality of surveys used to locate drillholes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i> <i>Specification of the grid system used.</i> <i>Quality and adequacy of topographic control.</i> 	<ul style="list-style-type: none"> All drillholes were surveyed by independent surveying companies, using differential GPS to provide accurate surveyed coordinates. Downhole surveys were not required due to the shallow depths of most holes. All grid coordinates are in MGA coordinates, with the grid being MGA Zone 55 South. The topographic DTM was prepared using data sourced from an airborne survey flown in September 2008. An AutoCAD contour file with surveyed spot heights, including the surveyed drillhole collar coordinates and elevations, were used to model a DTM, and was considered adequate to estimate Mineral Resources for Kokomo.
<p>Data spacing and distribution</p>	<ul style="list-style-type: none"> <i>Data spacing for reporting of Exploration Results.</i> <i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i> 	<ul style="list-style-type: none"> Several sets of drill spacing are noted at Kokomo, often overlapping. The broadest scale of drilling is 40 m (EW) x 100 m (NS), with closer spaced drill grids of 40 m (EW) x 50 m (NS), and 20 m (EW) x 25 m (NS). The local drill grids played a key role in the classification of the Mineral Resources, and therefore the Competent Person considers the data spacing to be sufficient to establish the degree of geological and grade continuity appropriate for the Mineral



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> • <i>Whether sample compositing has been applied.</i> 	<p>Resource classification categories adopted for Kokomo.</p> <ul style="list-style-type: none"> • Samples were not composited at the sampling stage.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> • <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> • <i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i> 	<ul style="list-style-type: none"> • Most drillholes were drilled vertically which is considered to minimise any potential sampling bias with the saprolitic host lithology. Some late stage faulting may be present, but any offset of saprolite and/or mineralisation cannot be predicted at the Mineral Resource drill-out level. • Any sampling bias resultant from the orientation of drilling and possible structural offsets of mineralisation is considered to be minimal and fall within the tolerances built into the Mineral Resource categorisations.
Sample security	<ul style="list-style-type: none"> • <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> • Drill samples were under the care and supervision of Metallica staff at all times until transportation by local couriers to the analytical laboratories in Townsville.
Audits or reviews	<ul style="list-style-type: none"> • <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> • The drilling procedures, sampling methodologies, sample analyses and the drillhole database were audited by Golder in 2009. Some minor issues were noted and resolved by Metallica at the time, and prior to estimation of Mineral Resources by Golder. Golder considered all data processed to be acceptable. • CSA Global carried out a high-level review prior to reporting of Mineral Resources (this report) and did not note any material deficiencies in the quality of work undertaken during Metallica's work programs. CSA Global focused on the spear sampling methodology employed by Metallica and consider the spear sampling was carried out to a high level, ensuring a



Criteria	JORC Code explanation	Commentary
		representative sample was obtained from each 1 m drill interval.



Greenvale

Section 2: Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	<ul style="list-style-type: none"> The Greenvale Mineral Resource is covered by Mining Lease Application MLA10368. Once the lease is granted it will be 100% owned by Australian Mines. The MLA was lodged on 20th April 2012. Exploration Permits EPM 25834 and 25865 cover and extend beyond the boundaries of the MLA. EPM 25834 was granted 6/1/2016 and expires 5/1/2021 and is held 100% by Australian Mines. EPM25865 was granted on 15/12/2015 and expires 24/12/2020, and is likewise held 100% by Australian Mines The Lucknow Mineral Resource is covered by Mining Lease ML 10366, which was granted on 8 May 2014 and is due for renewal on 31 May 2039. Australian Mines' 100% owned Exploration Permit EPM 26559, 25834 and 25865 cover and extend beyond the boundaries of the granted Mining Lease. Australian Mines negotiated an ILUA with the Native Title claimants of the area (Gugu Badhun) signed on 24th Feb 2005 and is valid for 20 years. Australian Mines finalised a Mining ILUA with the Gugu Badhun people for ML10368, lodged in July 2012. This ILUA includes a cultural heritage component that covers Australian Mines duty of care for this tenement.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> The Greenvale deposit is centered on the Greenvale Mine, which operated between 1974 and 1992.

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> The orebody mined during this period was a nickel laterite, with a head grade of 1.56% Ni and 0.12% Co. The Greenvale deposit has been subjected to several drilling programs since the deposit was mined. Anaconda drilled 23 RC holes (733 m) in 1998. Few holes intersected Nickel mineralisation. Straits Resources drilled 141 RC holes (5,935 m) in 2007/08 and these holes are not included in the drilling results.
Geology	<ul style="list-style-type: none"> <i>Deposit type, geological setting and style of mineralisation.</i> 	<ul style="list-style-type: none"> The Greenvale and Lucknow Mineral Resources are contained within a laterite, developed by weathering process over ultramafic basement rocks. Nickel and cobalt have been enriched from the ultramafic rocks by both residual and supergene processes. Scandium is less enriched at Greenvale than the other Sconi deposits of Lucknow and Kokomo, however higher Sc levels are recorded from drill samples obtained from the waste dumps, allowing these dumps to be assessed for inclusion in the Mineral Resource.
Drillhole information	<ul style="list-style-type: none"> <i>summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:</i> <ul style="list-style-type: none"> <i>easting and northing of the drillhole collar</i> <i>elevation or RL</i> 	<ul style="list-style-type: none"> Drillhole information from Metallica and Straits drill programs were used to support the MRE. The locations of drill samples, and the geological logs of these samples were used to build the geological model, and with the sample analyses, support the MRE.



Criteria	JORC Code explanation	Commentary
	<p><i>(Reduced Level – elevation above sea level in metres) of the drillhole collar</i></p> <ul style="list-style-type: none"> ○ <i>dip and azimuth of the hole</i> ○ <i>downhole length and interception depth</i> ○ <i>hole length.</i> <ul style="list-style-type: none"> • <i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i> 	
<p>Data aggregation methods</p>	<ul style="list-style-type: none"> • <i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i> • <i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i> • <i>The assumptions used for any reporting of metal equivalent values should be</i> 	<ul style="list-style-type: none"> • <i>Exploration results are not reported here, with all Straits and Metallica drillholes (since 2007) used to support the MRE.</i>



Criteria	JORC Code explanation	Commentary
	<i>clearly stated.</i>	
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> • <i>These relationships are particularly important in the reporting of Exploration Results.</i> • <i>If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.</i> • <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i> 	<ul style="list-style-type: none"> • The nickel mineralisation is hosted in limonitic and saprolitic profiles which are relatively thin and laterally extensive. They present a vertical grade profile as a result of the weathering processes that reduce with depth. Vertical RC drilling completed to date provides the best drilling orientation.
Diagrams	<ul style="list-style-type: none"> • <i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drillhole collar locations and appropriate sectional views.</i> 	<ul style="list-style-type: none"> • The appropriate maps and figures depicting are presented in the body of this report.
Balanced reporting	<ul style="list-style-type: none"> • <i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i> 	<ul style="list-style-type: none"> • Exploration results are not reported here, with all Metallica and some Straits drillholes used to support the MRE.
Other substantive exploration data	<ul style="list-style-type: none"> • <i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological</i> 	<ul style="list-style-type: none"> • Density was measured from core billets from three diamond drillholes drilled at Greenvale for metallurgical testwork. The calliper method was used to calculate the



Criteria	JORC Code explanation	Commentary
	<p><i>observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i></p>	<p>volumes of the billets, which were then weighed to provide a mass from which a wet bulk density was calculated. Moisture content was measured by the metallurgical laboratory and used to derive the dry bulk density (DBD) values for each sample.</p> <ul style="list-style-type: none"> • A total of 137 core billets were measured, from most of the major lithologies logged. Average DBD values were determined for iron laterite (1.44 t/m³), red laterite (1.90 t/m³), saprolite (1.46 t/m³), weathered ultramafic (1.63 t/m³), mottled zone (2.09 t/m³) and serpentinite (1.79 t/m³). These compare favourably, and within acceptable tolerances, to the DBD matrices for Kokomo and Lucknow. • Waste dumps were assigned a DBD of 1.2 t/m³. • A total of five wide diameter (870 mm) drillholes were drilled into the central and western parts of the deposits to sample representative material for successful pilot plant metallurgical testwork conducted in 2012. • Geotechnical investigations in the form of a diamond drillhole were conducted as part of the 2012 prefeasibility study. Mining slope stability analyses were completed to produce an indicative pit slope angle for Greenvale.
<p>Further work</p>	<ul style="list-style-type: none"> • <i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> • <i>Diagrams clearly highlighting the areas of possible extensions, including the</i> 	<ul style="list-style-type: none"> • Australian Mines has planned a large-scale resource expansion exploration drilling program to increase the Mineral Resource at the Sconi project. This planned work will include exploration drilling at the Greenvale, Lucknow and Kokomo deposits. Australian Mines plans to conduct further representative larger scale sample



Criteria	JORC Code explanation	Commentary
	<p><i>main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></p>	<p>extraction for metallurgical test work, which will also assist the current mining study. The current Mineral Resource is being used in the Feasibility Study for the Sconi Project.</p>



Lucknow

Section 2: Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	<ul style="list-style-type: none"> The Greenvale Mineral Resource is covered by Mining Lease Application MLA10368. Once the lease is granted it will be 100% owned by Australian Mines. The MLA was lodged on 20th April 2012. Exploration Permits EPM 25834 and 25865 cover and extend beyond the boundaries of the MLA. EPM 25834 was granted 6/1/2016 and expires 5/1/2021 and is held 100% by Australian Mines. EPM25865 was granted on 15/12/2015 and expires 24/12/2020, and is likewise held 100% by Australian Mines The Lucknow Mineral Resource is covered by Mining Lease ML 10366, which was granted on 8 May 2014 and is due for renewal on 31 May 2039. Australian Mines' 100% owned Exploration Permit EPM 26559, 25834 and 25865 cover and extend beyond the boundaries of the granted Mining Lease. Australian Mines negotiated an ILUA with the Native Title claimants of the area (Gugu Badhun) signed on 24th Feb 2005 and is valid for 20 years. Australian Mines finalised a Mining ILUA with the Gugu Badhun people for ML10368, lodged in July 2012. This ILUA includes a cultural heritage component that covers Australian Mines duty of care for this tenement.
Exploration done by other parties	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> The Greenvale deposit is centered on the Greenvale Mine, which operated between 1974 and 1992.

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> The orebody mined during this period was a nickel laterite, with a head grade of 1.56% Ni and 0.12% Co. The Greenvale deposit has been subjected to several drilling programs since the deposit was mined. Anaconda drilled 23 RC holes (733 m) in 1998. Few holes intersected Nickel mineralisation. Straits Resources drilled 141 RC holes (5,935 m) in 2007/08 and these holes are not included in the drilling results.
Geology	<ul style="list-style-type: none"> <i>Deposit type, geological setting and style of mineralisation.</i> 	<ul style="list-style-type: none"> The Greenvale and Lucknow Mineral Resources are contained within a laterite, developed by weathering process over ultramafic basement rocks. Nickel and cobalt have been enriched from the ultramafic rocks by both residual and supergene processes. Scandium is less enriched at Greenvale than the other Sconi deposits of Lucknow and Kokomo, however higher Sc levels are recorded from drill samples obtained from the waste dumps, allowing these dumps to be assessed for inclusion in the Mineral Resource.
Drillhole information	<ul style="list-style-type: none"> <i>summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:</i> <ul style="list-style-type: none"> <i>easting and northing of the drillhole collar</i> <i>elevation or RL</i> 	<ul style="list-style-type: none"> Drillhole information from Metallica and Straits drill programs were used to support the MRE. The locations of drill samples, and the geological logs of these samples were used to build the geological model, and with the sample analyses, support the MRE.



Criteria	JORC Code explanation	Commentary
	<p><i>(Reduced Level – elevation above sea level in metres) of the drillhole collar</i></p> <ul style="list-style-type: none"> ○ <i>dip and azimuth of the hole</i> ○ <i>downhole length and interception depth</i> ○ <i>hole length.</i> <ul style="list-style-type: none"> • <i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i> 	
<p>Data aggregation methods</p>	<ul style="list-style-type: none"> • <i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i> • <i>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i> • <i>The assumptions used for any reporting of metal equivalent values should be</i> 	<ul style="list-style-type: none"> • <i>Exploration results are not reported here, with all Straits and Metallica drillholes (since 2007) used to support the MRE.</i>



Criteria	JORC Code explanation	Commentary
	<i>clearly stated.</i>	
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> • <i>These relationships are particularly important in the reporting of Exploration Results.</i> • <i>If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.</i> • <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i> 	<ul style="list-style-type: none"> • The nickel mineralisation is hosted in limonitic and saprolitic profiles which are relatively thin and laterally extensive. They present a vertical grade profile as a result of the weathering processes that reduce with depth. Vertical RC drilling completed to date provides the best drilling orientation.
Diagrams	<ul style="list-style-type: none"> • <i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drillhole collar locations and appropriate sectional views.</i> 	<ul style="list-style-type: none"> • The appropriate maps and figures depicting are presented in the body of this report.
Balanced reporting	<ul style="list-style-type: none"> • <i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i> 	<ul style="list-style-type: none"> • Exploration results are not reported here, with all Metallica and some Straits drillholes used to support the MRE.
Other substantive exploration data	<ul style="list-style-type: none"> • <i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological</i> 	<ul style="list-style-type: none"> • Density was measured from core billets from three diamond drillholes drilled at Greenvale for metallurgical testwork. The calliper method was used to calculate the



Criteria	JORC Code explanation	Commentary
	<p><i>observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i></p>	<p>volumes of the billets, which were then weighed to provide a mass from which a wet bulk density was calculated. Moisture content was measured by the metallurgical laboratory and used to derive the dry bulk density (DBD) values for each sample.</p> <ul style="list-style-type: none"> • A total of 137 core billets were measured, from most of the major lithologies logged. Average DBD values were determined for iron laterite (1.44 t/m³), red laterite (1.90 t/m³), saprolite (1.46 t/m³), weathered ultramafic (1.63 t/m³), mottled zone (2.09 t/m³) and serpentinite (1.79 t/m³). These compare favourably, and within acceptable tolerances, to the DBD matrices for Kokomo and Lucknow. • Waste dumps were assigned a DBD of 1.2 t/m³. • A total of five wide diameter (870 mm) drillholes were drilled into the central and western parts of the deposits to sample representative material for successful pilot plant metallurgical testwork conducted in 2012. • Geotechnical investigations in the form of a diamond drillhole were conducted as part of the 2012 prefeasibility study. Mining slope stability analyses were completed to produce an indicative pit slope angle for Greenvale.
<p>Further work</p>	<ul style="list-style-type: none"> • <i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> • <i>Diagrams clearly highlighting the areas of possible extensions, including the</i> 	<ul style="list-style-type: none"> • Australian Mines has planned a large-scale resource expansion exploration drilling program to increase the Mineral Resource at the Sconi project. This planned work will include exploration drilling at the Greenvale, Lucknow and Kokomo deposits. Australian Mines plans to conduct further representative larger scale sample



Criteria	JORC Code explanation	Commentary
	<i>main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	extraction for metallurgical test work, which will also assist the current mining study. The current Mineral Resource is being used in the Feasibility Study for the Sconi Project.

Kokomo

Section 2: Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i> <i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i> 	<ul style="list-style-type: none"> The Greenvale Mineral Resource is covered by Mining Lease Application MLA10368. Once the lease is granted it will be 100% owned by Australian Mines. The MLA was lodged on 20th April 2012. Exploration Permits EPM 25834 and 25865 cover and extend beyond the boundaries of the MLA. EPM 25834 was granted 6/1/2016 and expires 5/1/2021 and is held 100% by Australian Mines. EPM25865 was granted on 15/12/2015 and expires 24/12/2020, and is likewise held 100% by Australian Mines The Lucknow Mineral Resource is covered by Mining Lease ML 10366, which was granted on 8 May 2014 and is due for renewal on 31 May 2039. Australian Mines' 100% owned Exploration Permit EPM 26559, 25834 and 25865 cover and extend beyond the boundaries of the granted Mining Lease. Australian Mines negotiated an ILUA with the Native Title claimants of the area (Gugu Badhun) signed on 24th Feb 2005 and is valid for 20 years. Australian Mines finalised



Criteria	JORC Code explanation	Commentary
Exploration done by other parties	<ul style="list-style-type: none"> <i>Acknowledgment and appraisal of exploration by other parties.</i> 	<p>a Mining ILUA with the Gugu Badhun people for ML10368, lodged in July 2012. This ILUA includes a cultural heritage component that covers Australian Mines duty of care for this tenement.</p> <ul style="list-style-type: none"> The Greenvale deposit is centered on the Greenvale Mine, which operated between 1974 and 1992. The orebody mined during this period was a nickel laterite, with a head grade of 1.56% Ni and 0.12% Co. The Greenvale deposit has been subjected to several drilling programs since the deposit was mined. Anaconda drilled 23 RC holes (733 m) in 1998. Few holes intersected Nickel mineralisation. Straits Resources drilled 141 RC holes (5,935 m) in 2007/08 and these holes are not included in the drilling results.
Geology	<ul style="list-style-type: none"> <i>Deposit type, geological setting and style of mineralisation.</i> 	<ul style="list-style-type: none"> The Greenvale and Lucknow Mineral Resources are contained within a laterite, developed by weathering process over ultramafic basement rocks. Nickel and cobalt have been enriched from the ultramafic rocks by both residual and supergene processes. Scandium is less enriched at Greenvale than the other Sconi deposits of Lucknow and Kokomo, however higher Sc levels are recorded from drill samples obtained from the waste dumps, allowing these dumps to be assessed for inclusion in the Mineral Resource.



Criteria	JORC Code explanation	Commentary
Drillhole information	<ul style="list-style-type: none"> • <i>summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:</i> <ul style="list-style-type: none"> ○ <i>easting and northing of the drillhole collar</i> ○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar</i> ○ <i>dip and azimuth of the hole</i> ○ <i>downhole length and interception depth</i> ○ <i>hole length.</i> • <i>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</i> 	<ul style="list-style-type: none"> • Drillhole information from Metallica and Straits drill programs were used to support the MRE. The locations of drill samples, and the geological logs of these samples were used to build the geological model, and with the sample analyses, support the MRE.
Data aggregation methods	<ul style="list-style-type: none"> • <i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</i> • <i>Where aggregate intercepts incorporate short lengths of high grade results and longer</i> 	<ul style="list-style-type: none"> • Exploration results are not reported here, with all Straits and Metallica drillholes (since 2007) used to support the MRE.



Criteria	JORC Code explanation	Commentary
	<p><i>lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</i></p> <ul style="list-style-type: none"> <i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i> 	
<p>Relationship between mineralisation widths and intercept lengths</p>	<ul style="list-style-type: none"> <i>These relationships are particularly important in the reporting of Exploration Results.</i> <i>If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.</i> <i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</i> 	<ul style="list-style-type: none"> The nickel mineralisation is hosted in limonitic and saprolitic profiles which are relatively thin and laterally extensive. They present a vertical grade profile as a result of the weathering processes that reduce with depth. Vertical RC drilling completed to date provides the best drilling orientation.
<p>Diagrams</p>	<ul style="list-style-type: none"> <i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drillhole collar locations and appropriate sectional views.</i> 	<ul style="list-style-type: none"> The appropriate maps and figures depicting are presented in the body of this report.
<p>Balanced reporting</p>	<ul style="list-style-type: none"> <i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of</i> 	<ul style="list-style-type: none"> Exploration results are not reported here, with all Metallica and some Straits drillholes used to support the MRE.



Criteria	JORC Code explanation	Commentary
	<p><i>both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i></p>	
<p>Other substantive exploration data</p>	<ul style="list-style-type: none"> • <i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i> 	<ul style="list-style-type: none"> • Density was measured from core billets from three diamond drillholes drilled at Greenvale for metallurgical testwork. The calliper method was used to calculate the volumes of the billets, which were then weighed to provide a mass from which a wet bulk density was calculated. Moisture content was measured by the metallurgical laboratory and used to derive the dry bulk density (DBD) values for each sample. • A total of 137 core billets were measured, from most of the major lithologies logged. Average DBD values were determined for iron laterite (1.44 t/m³), red laterite (1.90 t/m³), saprolite (1.46 t/m³), weathered ultramafic (1.63 t/m³), mottled zone (2.09 t/m³) and serpentinite (1.79 t/m³). These compare favourably, and within acceptable tolerances, to the DBD matrices for Kokomo and Lucknow. • Waste dumps were assigned a DBD of 1.2 t/m³. • A total of five wide diameter (870 mm) drillholes were drilled into the central and western parts of the deposits to sample representative material for successful pilot plant metallurgical testwork conducted in 2012. • Geotechnical investigations in the form of a diamond drillhole were conducted as part of the 2012 prefeasibility study. Mining slope stability analyses were completed to



Criteria	JORC Code explanation	Commentary
		produce an indicative pit slope angle for Greenvale.
Further work	<ul style="list-style-type: none"> <i>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i> 	<ul style="list-style-type: none"> Australian Mines has planned a large-scale resource expansion exploration drilling program to increase the Mineral Resource at the Sconi project. This planned work will include exploration drilling at the Greenvale, Lucknow and Kokomo deposits. Australian Mines plans to conduct further representative larger scale sample extraction for metallurgical test work, which will also assist the current mining study. The current Mineral Resource is being used in the Feasibility Study for the Sconi Project.

Greenvale

Section 3: Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i> <i>The security of the tenure held at the time of reporting along with any known</i> 	<ul style="list-style-type: none"> The Kokomo Mineral Resource is covered by mining lease ML10342. This lease is 100% owned by Sconi Mining Operations Pty Ltd and has an area of 4.19 km². The mining lease was granted on 14 April 2013 and expires on 30 April 2034. EPM25833 surrounds the mining lease and was granted on 20 August 2015 for a period of five years.



	<i>impediments to obtaining a licence to operate in the area.</i>	
Exploration done by other parties	<ul style="list-style-type: none"> <i>Acknowledgment and appraisal of exploration by other parties.</i> 	<ul style="list-style-type: none"> The Kokomo deposit has been subjected to several drilling programs since the deposit was first identified in the early 1970s, up until Metallica purchased the property from Dominion Metals Ltd in 1995. The drill information from pre-Metallica work programs was not available for the MRE. The deposit was first drilled by Laloma Corporation NL (Laloma) in the early 1970s, exploring for base metals, including nickel and cobalt. Laloma drilled 50 shallow and widely spaced RAB holes on the laterite capping the ultramafic rocks. This drill information was not available for the MRE. Queensland nickel Managements Pty Ltd (QNM) drilled the deposit in 1992, totalling 56 holes for 928 m, which intersected some thick intersections of high grade cobalt-nickel mineralisation. This drill information was not available for the MRE. Dominion Metals Ltd completed 29 RAB and 53 RC holes between 1993 and 1995. The Dominion holes were not included in the MRE due to QC issues with the collar surveys and the assays. Metallica's drill programs cover the ground drilled by Dominion therefore the suppression of the Dominion holes is not expected to affect the quality of the MRE.
Geology	<ul style="list-style-type: none"> <i>Deposit type, geological setting and style of mineralisation.</i> 	<ul style="list-style-type: none"> The Kokomo Mineral Resource is contained within a laterite, developed by weathering process over fragments of ultramafic basement rocks. nickel, cobalt and scandium have been enriched from the ultramafic rocks by both residual and supergene processes.



	<ul style="list-style-type: none"> The ultramafic complex and overlying nickel laterite form an elongated north-northeast trending body bounded by predominantly siltstones on the eastern and western margins. These margins display a marked increase in nickel, scandium and cobalt content.
<p>Drillhole information</p>	<ul style="list-style-type: none"> summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes: <ul style="list-style-type: none"> easting and northing of the drillhole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar dip and azimuth of the hole downhole length and interception depth hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.
<p>Data aggregation methods</p>	<ul style="list-style-type: none"> In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) Exploration results are not reported here, with all Metallica drillholes used to support the MRE.



	<p>and cut-off grades are usually Material and should be stated.</p> <ul style="list-style-type: none"> • Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. • The assumptions used for any reporting of metal equivalent values should be clearly stated. 	
<p>Relationship between mineralisation widths and intercept lengths</p>	<ul style="list-style-type: none"> • These relationships are particularly important in the reporting of Exploration Results. • If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported. • If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known'). 	<ul style="list-style-type: none"> • The nickel mineralisation is hosted in saprolitic profiles which are relatively thin and laterally extensive. They present a vertical grade profile as a result of the weathering processes that reduce with depth. Vertical RC drilling completed to date provides the best drilling orientation.
<p>Diagrams</p>	<ul style="list-style-type: none"> • Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drillhole collar 	<ul style="list-style-type: none"> • Maps and figures depicting drill collar locations and limits of lateritic mineralisation are presented in the body of this report.



	<i>locations and appropriate sectional views.</i>	
Balanced reporting	<ul style="list-style-type: none"> • <i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i> 	<ul style="list-style-type: none"> • Exploration results are not reported here, with all Metallica drillholes used to support the MRE.
Other substantive exploration data	<ul style="list-style-type: none"> • <i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i> 	<ul style="list-style-type: none"> • Three bulk density sampling methods were employed in 2008 to determine the most appropriate method, results from which would support the MRE. • 36 shallow test pits were excavated, with the pit volume accurately calculated and the mass of material excavated determined. Wet bulk densities were calculated from these. A moisture content was determined from adjacent drill samples (pre-existing drillholes) which was used to derive the DBD for the pits. • The calliper method was used to determine density, with diamond drill core used. Competent sticks of core were squared off at the ends and the volume calculated and the core then weighed. • Volume of friable core was calculated by using a sand box to measure the volume of core accommodated within a known volume of sand. The core samples were weighed to derive the wet density, with known moisture content of samples from adjacent holes used to determine the DBD. • The core calliper data were ultimately chosen to support the MRE and are supported by data from the Bell Creek



deposit (Metallica) which are similar in values for dry density, per lithological type.

- Other relevant exploration work includes ore and waste characterisation testwork for environmental studies, with a view to assessing the potential impact of long term on-site stockpiles. No bulk samples have been taken from Kokomo for metallurgical testwork. No geotechnical work has been carried out to date. Some groundwater monitoring bores are in place but are not currently being monitored. Fauna and flora studies as part of the EIS were completed in 2013.

Further work

- *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).*
- *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*
- Australian Mines has planned a large-scale resource expansion exploration drilling program to improve or increase the quality of the Mineral Resource at the Sconi project. This planned work will include exploration drilling at the Greenvale, Lucknow and Kokomo deposits. Australian Mines plans to conduct further representative larger scale sample extraction for metallurgical test work, which will also assist the current mining study. The current Mineral Resource is being used in the Feasibility Study for the Sconi Project.



Lucknow

Section 3: Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	<ul style="list-style-type: none"> Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used. 	<ul style="list-style-type: none"> Golder Associates audited the assay database and resolved any issues prior to preparation of the Mineral Resource in 2012. Validation of digital versus hard copy data were carried out by the previous Competent Person. No material issues were reported by Golder at the time. CSA Global checked the drillhole files for errors prior to Mineral Resource estimation, including absent collar data, multiple collar entries, overlapping intervals, negative sample lengths, and sample intervals which extended beyond the hole depth defined in the collar table. No errors of any material significance were detected.
Site visits	<ul style="list-style-type: none"> Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	<ul style="list-style-type: none"> The Competent Person carried out a site visit from 9 to 11 October 2017. The outcome of the site visit was that data has been collected in a manner that supports reporting an MRE in accordance with the guidelines of the JORC Code, and controls on the mineralisation are relatively well-understood. The project location, infrastructure and local environment were appraised as part of JORC's "reasonable prospects" test.
Geological interpretation	<ul style="list-style-type: none"> Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of 	<ul style="list-style-type: none"> Nickel laterite geology is well understood and the data at the deposit conforms to the expected laterite sequence. The laterite profile is developed from weathering processes with significant lateral continuity in the profile. This can have local variation in thickness and grade as a result of

Criteria	JORC Code explanation	Commentary
	<p><i>alternative interpretations on Mineral Resource estimation.</i></p> <ul style="list-style-type: none"> <i>The use of geology in guiding and controlling Mineral Resource estimation.</i> <i>The factors affecting continuity both of grade and geology.</i> 	<p>weathering processes. This is expected for laterite deposits where mining is expected to adapt to the local changes. The Mineral Resource classification is based on drill spacing and it is anticipated that future infill drill programs will reduce volume uncertainty.</p> <ul style="list-style-type: none"> The Competent Person's confidence in the geological interpretations is reflected by the classification of the Mineral Resource. Geological logs of drill samples and sample analytical results were used to interpret the geological models. Alternative models for the saprolitic and lateritic profiles might be proposed with future work programs; however, it is not anticipated that these will impart any material differences to the tonnage or interpolated grade distribution of resultant models. The geological interpretation of the weathering profiles controls the interpretation of the mineralisation envelopes for nickel and scandium, although the interpreted mineralisation domain envelopes do cross weathering boundaries. The geological models were interpreted and prepared by Metallica and reviewed by the previous and current Competent Persons. Four geological domains were interpreted based upon the geological logs of drill samples. Weathered ultramafic basement (ZONE_LAT=1) is defined as the lower zone of consistent logging of basement lithologies (predominantly weathered dunite and pyroxenite). Saprolite (ZONE_LAT=2) is interpreted as the material between the



Criteria	JORC Code explanation	Commentary
		<p>basement and high iron zones. High-iron laterite (ZONE_LAT=3) consists lithologies logged as LFe or Lsi. Therefore, this domain has elevated silica grades (based upon logging of siliceous boxwork); silica was not assayed therefore this interpretation is subjective. Alluvium (ZONE_LAT=4) irregularly covers the laterite and is defined by lithological logs of alluvium and supported by geological mapping and geomorphology.</p> <ul style="list-style-type: none"> • An additional domain capturing high grade iron (>30% iron) was modeled. ZONE_FE = 1 has iron <30%, and ZONE_FE = 2 is iron >30%. • An interpretation of the nickel distribution resulted in the delineation of a domain generally capturing sample grades of nickel >0.3%. This domain also captures cobalt (%) mineralisation and where cobalt is >0.03% and outside the nickel domain, the nickel interpretation was extended to capture the cobalt mineralisation. This results in some dilution of the nickel domain. Variable ZONE_NI flags sample and block data, using the ZONE_LAT field as a basis, with ZONE_NI = 5 where samples and blocks are located within the cobalt-nickel domain. • Scandium was domained based upon a lower cut-off grade of 60 ppm. ZONE_SC = 2 is the scandium domain, ZONE_SC = 1 sits outside.
<p>Dimensions</p>	<ul style="list-style-type: none"> • <i>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below</i> 	<ul style="list-style-type: none"> • The Lucknow Mineral Resource is approximately 2,000 m in strike length, between 120 m and 400 m in plan width, and extends to a depth of approximately 50 m below surface.



Criteria	JORC Code explanation	Commentary
	<p>surface to the upper and lower limits of the Mineral Resource.</p>	
<p>Estimation and modelling techniques</p>	<ul style="list-style-type: none"> • The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used. • The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data. • The assumptions made regarding recovery of by-products. • Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation). • In the case of block model interpolation, the block size in relation to the average sample spacing and the 	<ul style="list-style-type: none"> • Vulcan Envisage was used for block model construction, and grade interpolation and validation. Datamine Studio RM was also used to validate the resource model for the current reporting of the Mineral Resource. • A block model with block sizes 10 m (X) x 10 m (Y) x 1 m (Z) was constructed. Sub-celling was not used. The block sizes are approximately half the tightest drill spacing, which generally supports a Measured classification. Blocks were flagged according to the geological and mineralisation envelopes. • Drill sample data were flagged by the mineralisation and weathering domain envelopes, with variables ZONE_LAT, ZONE_NI, ZONE_SC and ZONE_FE used. Drillholes were sampled at 1 m intervals and the drill samples were accordingly composited to 1 m lengths. Composited sample data were statistically reviewed to determine appropriate top-cuts, with the following top-cuts applied: nickel (2% and 0.8%, mineralisation and non-mineralisation domains), cobalt (1.2% and 0.1%), and scandium (1,000 ppm and 100 ppm). Log probability plots were used to determine the top-cuts, and the very high-grade samples were reviewed in Datamine by the current Competent Person to determine if they were clustered with other high-grade samples. • The block model and drill sample locations were translated into an unfolded space due to the geological undulations of the geological surfaces interpreted at Lucknow.



Criteria	JORC Code explanation	Commentary
	<p><i>search employed.</i></p> <ul style="list-style-type: none"> • <i>Any assumptions behind modelling of selective mining units.</i> • <i>Any assumptions about correlation between variables.</i> • <i>Description of how the geological interpretation was used to control the resource estimates.</i> • <i>Discussion of basis for using or not using grade cutting or capping.</i> • <i>The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.</i> 	<p>The unfolded sample locations were input into variogram modelling. Correlograms were selected for analyses because they presented the best structured variograms for the Lucknow assays. Downhole and directional experimental correlograms were modelled for nickel, cobalt, scandium, iron, magnesium, manganese, aluminium, chromium, calcium and copper. Low relative nugget effects were modelled for these (nickel 20%, cobalt 20%, scandium <5%), with short ranges generally 10-25 m associated with sills between 55% and 75% of the population variance. Longest ranges were modelled in the saprolite unit, in excess of 100 m. Correlograms for nickel, cobalt and scandium were constrained within the nickel or scandium envelopes. Major correlogram directions were 0° which approximates the strike of the host geological units.</p> <ul style="list-style-type: none"> • The block model was unfolded into translated space prior to grade interpolation. Grades were interpolated for all the grade variables by ordinary kriging. A three-pass estimation strategy was used; pass 1 used a search ellipse of 40 m (major) x 40 m (semi-major) x 2.5 m (minor) dimensions. A minimum of 10 and maximum of 15 samples from a minimum of four drillholes were used to interpolate a cell. If a cell could not be interpolated in pass 1, then pass 2 parameters of a search ellipse of 80 m (major) x 80 m (semi-major) x 4 m (minor) dimensions. A minimum of eight and maximum of 15 samples from a minimum of three drill holes were used to interpolate a cell. If a cell could not be interpolated in pass



Criteria	JORC Code explanation	Commentary
		<p>2, then pass 3 parameters of a search ellipse of 120 m (major) x 120 m (semi-major) x 20 m (minor) dimensions. A minimum of one and maximum of 15 samples, with no minimum of drillholes used to interpolate a cell. For all block estimates, a maximum of three composited samples per hole was used. Cell discretization of 3 x 3 x 1 (X, Y, Z) was employed. The nickel and scandium mineralisation domains were used as a hard boundary during grade interpolation. The other grade variables used the ZONE_LAT surfaces as a hard boundary to constrain grade. Blocks that could not be interpolated due to insufficient data were assigned very low grades (e.g. 0.01% nickel, 0.01% cobalt and 0.01 ppm scandium); these blocks were located at the peripheries of the domains and predominantly in the basement domain.</p> <ul style="list-style-type: none"> • The Mineral Resource model was an update of the December 2010 model, with similar geological interpretations and grade interpolation techniques used. The current model (prepared in 2012) was based upon an additional 163 RC drillholes which increased the model volumes, and a more detailed topographic DTM. • No by-products are anticipated to be recovered. • The interpolated grades were validated by way of review of cross sections (block model and drill samples presented with same colour legend); swath plots, and comparison of mean grades from de-clustered drillhole data. • Some correlation is observed between nickel and cobalt. Scandium does not



Criteria	JORC Code explanation	Commentary
		appear to be statistically correlated to the other elements.
Moisture	<ul style="list-style-type: none"> Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content. 	<ul style="list-style-type: none"> Tonnages are estimated on a dry basis. Moisture content measurements were derived from the difference between the dry and wet weights of the RC drill samples, as determined by SGS Laboratory in Townsville, Queensland.
Cut-off parameters	<ul style="list-style-type: none"> The basis of the adopted cut-off grade(s) or quality parameters applied. 	<ul style="list-style-type: none"> A marginal cut-off grade was determined using costs and recovery data as provided to CSA Global as part of the Feasibility Study. The Mineral Resource is reported above cut-off grades of 0.4% NiEq. Metal Equivalent formulae and supporting data are discussed in the report and are determined from the knowledge that the Mineral Resources are multielement and combine nickel and cobalt grades using a nickel equivalent cut-off grade where: <ul style="list-style-type: none"> $\text{NiEq} = \left[\frac{(\text{nickel grade} \times \text{nickel price} \times \text{nickel recov} / 100) + (\text{cobalt grade} \times \text{cobalt price} \times \text{cobalt recov} / 100)}{\text{nickel price} / 100} \right]$ The following formulae was derived using the following commodity prices and recoveries: Forex US\$:A\$ = 0.75 <ul style="list-style-type: none"> nickel - A\$23,516/t and 90% recovery cobalt - A\$88,185/t and 90% recovery . Prices and recoveries effective as at 2 July 2018. Metal recovery data as determined by variability testwork of nickel and cobalt leach extraction. Results typically achieved between 90% and 99% from samples with



Criteria	JORC Code explanation	Commentary
		<p>nickel and cobalt grades aligned with expected mine grades. Lower recoveries of between 85% and 90% were achieved from some lower-grade samples.</p>
<p>Mining factors or assumptions</p>	<ul style="list-style-type: none"> Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made. 	<ul style="list-style-type: none"> No mining factors have been applied to the resource block model prior to handover for mining studies. Any mining will be by open pit mining methodologies.
<p>Metallurgical factors or assumptions</p>	<ul style="list-style-type: none"> The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always 	<ul style="list-style-type: none"> Metal recovery data as determined by variability testwork of nickel and cobalt leach extraction. Results typically achieved between 90% and 99% from samples with nickel and cobalt grades aligned with expected mine grades. Lower recoveries of between 85% and 90% were achieved from some lower-grade samples.



Criteria	JORC Code explanation	Commentary
	<p><i>be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</i></p>	
<p>Environmental factors or assumptions</p>	<ul style="list-style-type: none"> Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made. 	<ul style="list-style-type: none"> Mining of the lateritic and saprolitic ore will be from relatively shallow open pits. The lithologies are highly weathered with most sulphides species already oxidised. The landscape is readily amenable to landscape rehabilitation, and the Greenvale mine site was rehabilitated to a high level such that it won the "Queensland Premier's Award for Environmental Excellence (Metalliferous Category)" in 1995. Disposal of mine tailings and mining waste can possibly be into pre-existing mine voids. It is anticipated that any future environmental impacts and waste disposal from mining and processing will again be correctly managed as required under the regulatory permitting conditions.
<p>Bulk density</p>	<ul style="list-style-type: none"> Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness 	<ul style="list-style-type: none"> DBD values were assigned to the lithological codes in the drillhole file and interpolated into the block model using a NN method. Discussion on data measurements are provided in Section 2 of this Table. The DBD was assigned to each drill sample per lithological logged code and interpolated



Criteria	JORC Code explanation	Commentary
	<p><i>of the samples.</i></p> <ul style="list-style-type: none"> <i>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.</i> <i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i> 	<p>into the block model using the NN technique.</p> <ul style="list-style-type: none"> The following NN interpolations were carried out (DBD in t/m³): LITH = 1 (LFe, DBD = 1.45), LITH = 2 (Lhm, 1.9), LITH = 3 (Lmot, 2.0), LITH = 4, 5 (Lsi, Lp, 1.9), LITH = 6, 7 (Lsap, clay, 1.4), LITH = 8, 9, 10 (Mg, Ser, Wum, 1.9), LITH = 11, 12, 13 (Soil, Sndst, lrb, 1.9), LITH >19 (Other, 1.9). The average dry density per ZONE_LAT interpolated for Lucknow are 1.90 t/m³ (ZONE_LAT = 1), 1.79 t/m³ (ZONE_LAT = 2), 1.60 t/m³ (ZONE_LAT = 3), 1.90 t/m³ (ZONE_LAT = 4). Blocks not coded with ZONE_LAT (default= 0) were assigned a DBD of 1.7 t/m³.
Classification	<ul style="list-style-type: none"> <i>The basis for the classification of the Mineral Resources into varying confidence categories.</i> <i>Whether appropriate account has been taken of all relevant factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i> <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i> 	<ul style="list-style-type: none"> The Mineral Resource has been classified following due consideration of all criteria contained in Section 1, Section 2 and Section 3 of JORC 2012 Table 1. Data quality and confidence in the geological interpretation support the classification. Wireframe solids for measured and indicated volumes were used to assign classification values (RESCAT; 1 = Measured, 2 = Indicated, 3 = Inferred, 4 = unclassified). The Measured Mineral Resource is supported by regular drill pattern spacing of 20 m (EW) x 20 m (NS). The Indicated Mineral Resource is supported by regular drill pattern spacing of 40 m (EW) x 40 m (NS). The Inferred Mineral Resource is supported by regular drill pattern spacing of 80 m (EW) x 80 m (NS). Blocks not interpolated are not classified.



Criteria	JORC Code explanation	Commentary
Audits or reviews	<ul style="list-style-type: none"> <i>The results of any audits or reviews of Mineral Resource estimates.</i> 	<ul style="list-style-type: none"> The final classification strategy and results appropriately reflect the Competent Person's view of the deposit. The Mineral Resource block model was prepared in 2012 by Golder and reported according to the JORC Code (2004). The model was internally peer reviewed by Golder prior to release to Metallica. The same model was reviewed by CSA Global (this report) in preparation for use in the current Feasibility Study and is reported according to the JORC Code (2012). CSA Global reviewed the data collection, QAQC, geological modelling, statistical analyses, grade interpolation, bulk density measurements and resource classification strategies. No material flaws were noted by CSA Global and the 2012 model is considered fit for purpose to be used in mine planning studies.
Discussion of relevant accuracy/confidence	<ul style="list-style-type: none"> <i>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of</i> 	<ul style="list-style-type: none"> No detailed studies have been completed using simulation or probabilistic methods that could quantify relative accuracy of the resource estimates. Laterites can have significant short-range variation in material types and grade due to local variations in weathering process. However, on a broader scale they demonstrate consistency in lateral extent. As a result, drilling demonstrates a regional grade and volume rather than local certainty. Hence drill spacing, as used for the Mineral Resource classification, is the prime indicator of estimation risk, therefore used to delineate Mineral Resource classification volumes.



Criteria	JORC Code explanation	Commentary
	<p><i>the estimate.</i></p> <ul style="list-style-type: none"> • <i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i> • <i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i> 	



Kokomo

Section 3: Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	<ul style="list-style-type: none"> Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used. 	<ul style="list-style-type: none"> Golder audited the assay database and resolved any issues prior to preparation of the Mineral Resource in 2009. Validation of digital versus hard copy data were carried out by the previous Competent Person. No material issues were reported by Golder at the time. CSA Global checked the drillhole files for errors prior to Mineral Resource estimation, including absent collar data, multiple collar entries, absent survey data, overlapping intervals, negative sample lengths, and sample intervals which extended beyond the hole depth defined in the collar table. No errors of any material significance were detected.
Site visits	<ul style="list-style-type: none"> Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	<ul style="list-style-type: none"> The Competent Person carried out a site visit from 9 to 11 October 2017. The outcome of the site visit was that data has been collected in a manner that supports reporting an MRE in accordance with the guidelines of the JORC Code, and controls to the mineralisation are relatively well-understood. The project location, infrastructure and local environment were appraised as part of JORC's "reasonable prospects" test.
Geological interpretation	<ul style="list-style-type: none"> Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. 	<ul style="list-style-type: none"> Nickel laterite geology is well understood and the data at the deposit conforms to the expected laterite sequence. The laterite profile is developed from weathering processes with significant lateral continuity in the profile. This can have local variation in

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> • <i>The effect, if any, of alternative interpretations on Mineral Resource estimation.</i> • <i>The use of geology in guiding and controlling Mineral Resource estimation.</i> • <i>The factors affecting continuity both of grade and geology.</i> 	<p>thickness and grade as a result of weathering processes. This is expected for laterite deposits where mining is expected to adapt to the local changes. The Mineral Resource classification is based on drill spacing and it is anticipated that future infill drill programs will reduce volume uncertainty.</p> <ul style="list-style-type: none"> • The Competent Person's confidence in the geological interpretations is reflected by the classification of the Mineral Resource. • Geological logs of drill samples and sample analytical results were used to interpret the geological models. • Alternative models for the saprolitic and lateritic profiles might be proposed with future work programs; however, it is not anticipated that these will impart any material differences to the tonnage or interpolated grade distribution of resultant models. • The geological interpretation of the weathering profiles controls the interpretation of the mineralisation envelopes for nickel and scandium. • The geological models were interpreted and prepared by Metallica and reviewed by the previous Competent Person. Four geological domains were interpreted based upon the geological logs of drill samples. Weathered ultramafic basement (ZONE_LAT=1) is defined as the lower zone of consistent logging of basement lithologies (predominantly weathered peridotite and pyroxenite). Saprolite (ZONE_LAT = 2) is interpreted as the material between the basement and high iron zones. This domain is dominated by material logged as siliceous



Criteria	JORC Code explanation	Commentary
		<p>saprolite. High-iron laterite (ZONE_LAT = 3) consists of the majority of higher grade iron samples and is defined at a geochemical cut-off of 30% iron. Alluvium (ZONE_LAT = 4) irregularly covers the laterite and is defined by lithological logs of alluvium and supported by geological mapping and geomorphology.</p> <ul style="list-style-type: none"> An interpretation of the nickel distribution resulted in the delineation of an envelope constraining >0.3% nickel. This envelope also captures most of the cobalt mineralisation, however where cobalt mineralisation is located outside of the nickel envelope, the nickel interpretation was expanded to capture the cobalt mineralisation. This has resulted in local dilution of the nickel mineralisation within the nickel envelope. Scandium mineralisation is more variable than nickel and cobalt and studies to date show no direct relationship between scandium, and nickel and cobalt. Scandium can occur spatially above, within or below nickel mineralisation and at times extends into the basement, alluvium or laterally into surrounding sedimentary units. An envelope constraining >60 ppm scandium was interpreted by Golder and Metallica in 2008 and was reviewed by the current Competent Person and deemed appropriate for use in the current MRE.
Dimensions	<ul style="list-style-type: none"> <i>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and</i> 	<ul style="list-style-type: none"> The Kokomo Mineral Resource is approximately 4,800 m in strike length, between 330 m and 770 m in plan width, and extends to a depth of approximately 40 m below surface.



Criteria	JORC Code explanation	Commentary
	<p><i>lower limits of the Mineral Resource.</i></p>	
<p>Estimation and modelling techniques</p>	<ul style="list-style-type: none"> • <i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</i> • <i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i> • <i>The assumptions made regarding recovery of by-products.</i> • <i>Estimation of deleterious elements or other non-grade variables of economic significance (e.g. sulphur for acid mine drainage characterisation).</i> • <i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i> 	<ul style="list-style-type: none"> • Vulcan Envisage was used for block model construction, and grade interpolation and validation. Datamine Studio RM was also used to validate the resource model for the current reporting of the Mineral Resource. • A block model with block sizes 10 m (X) x 10 m (Y) x 1 m (Z) was constructed. Sub-celling was not used. The block sizes are approximately half the tightest drill spacing, which generally support Measured classification. Blocks were flagged according to the geological and mineralisation envelopes. • Drill sample data were flagged by the mineralisation and weathering domain envelopes, with variables ZONE_LAT, ZONE_NI and ZONE_SC used. Most drillholes were sampled at 1 m intervals and the drill samples were composited to 1 m lengths. Composited sample data were statistically reviewed to determine appropriate top-cuts, with the following top-cuts applied: nickel (3% and 1%, mineralisation and non-mineralisation domains), cobalt (2% and 0.4%), and scandium (650 ppm and 100 ppm). Log probability plots were used to determine the top-cuts, and the very high-grade samples were reviewed in Datamine to determine if they were clustered with other high-grade samples. • The block model and drill sample locations were translated into an unfolded space due to the undulations of the geological surfaces interpreted at Kokomo. The unfolded sample locations were input into variogram



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> • <i>Any assumptions behind modelling of selective mining units.</i> • <i>Any assumptions about correlation between variables.</i> • <i>Description of how the geological interpretation was used to control the resource estimates.</i> • <i>Discussion of basis for using or not using grade cutting or capping.</i> • <i>The process of validation, the checking process used, the comparison of model data to drillhole data, and use of reconciliation data if available.</i> 	<p>modelling. Correlograms were selected for analyses because they presented the best structured variograms for the Kokomo assays. Down hole and directional experimental correlograms were modelled for nickel, cobalt, scandium, iron, magnesium, manganese, aluminium, chromium, calcium and copper. Low relative nugget effects were modelled for each of these (10% to 20%), with short ranges generally 10-25 m associated with sills between 55% and 75% of the population variance. Longest ranges were modelled in the saprolite unit, up to 400 m. Correlograms used all data in the weathering domains and were not constrained within the nickel or scandium envelopes. Major correlogram directions were 025° which approximates the strike of the host geological units.</p> <ul style="list-style-type: none"> • The block model was unfolded into translated space prior to grade interpolation. Grades were interpolated for all the grade variables by ordinary kriging. A three-pass estimation strategy was used; pass 1 used a search ellipse of 60 m (major) x 30 m (semi-major) x 2.5 m (minor) dimensions. A minimum of eight and maximum of 12 samples from a minimum of four drill holes were used to interpolate a cell. If a cell could not be interpolated in pass 1, then pass 2 parameters of a search ellipse of 120 m (major) x 60 m (semi-major) x 4 m (minor) dimensions. A minimum of six and maximum of 12 samples from a minimum of three drill holes were used to interpolate a cell. If a cell could not be interpolated in pass 2, then pass 3 parameters of a search



Criteria	JORC Code explanation	Commentary
		<p>ellipse of 180 m (major) x 90 m (semi-major) x 20 m (minor) dimensions. A minimum of one and maximum of 12 samples from no minimum of drillholes were used to interpolate a cell. For all block estimates, a maximum of three composited samples per hole was used. Cell discretization of 3 x 3 x 1 (X, Y, Z) was employed. The nickel and scandium mineralisation envelopes were used as a hard boundary during grade interpolation. Blocks that could not be interpolated due to insufficient data were assigned very low grades (e.g. 0.01% nickel); these blocks were located at the peripheries of the domains and predominantly in the basement domain.</p> <ul style="list-style-type: none"> • The Mineral Resource model was an update of the 2008 model, with similar geological interpretations and grade interpolation techniques used. The current model (prepared in 2009) was based upon an additional 349 drillholes which increased the model volumes. • No by-products are anticipated to be recovered. • The interpolated grades were validated by way of review of cross sections (block model and drill samples presented with same colour legend); swath plots, and comparison of mean grades from de-clustered drillhole data. • Some correlation is observed between nickel and cobalt. Scandium does not appear to be statistically correlated to the other elements.
Moisture	<ul style="list-style-type: none"> • <i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the</i> 	<ul style="list-style-type: none"> • Tonnages are estimated on a dry basis. Moisture content measurements were



Criteria	JORC Code explanation	Commentary
	<p><i>method of determination of the moisture content.</i></p>	<p>derived from the difference between the dry and wet weights of the RC drill samples, as determined by SGS Laboratory in Townsville, Queensland.</p>
<p>Cut-off parameters</p>	<ul style="list-style-type: none"> • <i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i> 	<ul style="list-style-type: none"> • A marginal cut-off grade was determined using costs and recovery data as provided to CSA Global as part of the Feasibility Study. The Kokomo marginal cut-off grade is higher than for Greenvale and Lucknow due to the increased costs for hauling ore from Kokomo to the processing centre at Greenvale. • The Mineral Resource is reported above cut-off grades of 0.45% NiEq. Metal Equivalent formulae and supporting data are discussed in the report and are determined from the knowledge that the Mineral Resources are multi-element and combine nickel and cobalt grades using a NiEq cut-off grade where: <ul style="list-style-type: none"> ○ $\text{NiEq} = \left[\frac{(\text{nickel grade} \times \text{nickel price} + \text{nickel grade} \times \text{nickel recov} / 100) + (\text{cobalt grade} \times \text{cobalt price} + \text{cobalt grade} \times \text{cobalt recov} / 100)}{\text{nickel price} / 100} \right]$ • The following formulae was derived using the following commodity prices and recoveries: • Forex US\$:A\$ = 0.75 <ul style="list-style-type: none"> ○ nickel - A\$23,516/t and 90% recovery ○ cobalt - A\$88,185/t and 90% recovery. • Prices and recoveries effective as at 2July 2018. • Metal recovery data as determined by variability testwork of nickel and cobalt leach extraction.



Criteria	JORC Code explanation	Commentary
		<p>Results typically achieved between 90% and 99% from samples with nickel and cobalt grades aligned with expected mine grades. Lower recoveries of between 85% and 90% were achieved from some lower-grade samples.</p>
<p>Mining factors or assumptions</p>	<ul style="list-style-type: none"> Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made. 	<ul style="list-style-type: none"> No mining factors have been applied to the resource block model prior to handover for mining studies. Any mining will be by open pit mining methodologies.
<p>Metallurgical factors or assumptions</p>	<ul style="list-style-type: none"> The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters 	<ul style="list-style-type: none"> Metal recovery data as determined by variability testwork of nickel and cobalt leach extraction. Results typically achieved between 90% and 99% from samples with nickel and cobalt grades aligned with expected mine grades. Lower recoveries of between 85% and 90% were achieved from some lower-grade samples.



Criteria	JORC Code explanation	Commentary
	<p><i>made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</i></p>	
<p>Environmental factors or assumptions</p>	<ul style="list-style-type: none"> • <i>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</i> 	<ul style="list-style-type: none"> • Mining of the lateritic and saprolitic ore will be from relatively shallow open pits. The lithologies are highly weathered with most sulphides species already oxidised. The landscape is readily amenable to landscape rehabilitation and the adjacent Greenvale mine site was rehabilitated to a high level such that it won the "Queensland Premier's Award for Environmental Excellence (Metalliferous Category)" in 1995. • Disposal of mine tailings and mining waste can possibly be into pre-existing mine voids. • Dry and wet season environmental surveys were previously carried out for fauna and flora surveys, archeological surveys, surface water sampling and dust monitoring, as part of the project's EIS and pre-feasibility studies. • It is anticipated that any future environmental impacts and waste disposal from mining and processing will again be correctly managed as required under the regulatory permitting conditions.
<p>Bulk density</p>	<ul style="list-style-type: none"> • <i>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the</i> 	<ul style="list-style-type: none"> • DBD was measured using several methods, using several types of test material, to provide a basis for deriving the density data used in the Mineral Resource. The methods included calliper (direct measurement of volume of whole PQ diameter diamond



Criteria	JORC Code explanation	Commentary
	<p><i>measurements, the nature, size and representativeness of the samples.</i></p> <ul style="list-style-type: none"> <i>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc.), moisture and differences between rock and alteration zones within the deposit.</i> <i>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</i> 	<p>core); sand box core (indirect measurement of volume by placing incompetent core samples in a sand box of known volume, then removing the core and replacing with the required volume of sand); and surface pits (shallow pits with volumes calculated by volume of sand required to fill the pit; the excavated material is weighed).</p> <ul style="list-style-type: none"> The average density for the significant geological codes (sample lithological logs) were derived from calliper, sand pits and surface pits, as discussed in Section 2 of this Table. The DBD was assigned to each drill sample per lithological logged code and interpolated into the block model using the NN technique. The following NN interpolations were carried out (DBD in t/m³): LITH = 1 (LFe, DBD = 1.5), LITH = 2 (LSi, 1.9), LITH = 4, 5 (LSap, Mg, 2.1), LITH = 7 (WUm, 1.7), LITH = 8 (Ser, 2.0), LITH = 9 (Cly, 1.5), LITH = 10, 11 (Grn, Apl, 2.1), LITH >=12, 13, 14, 15 (SndSt, Msh, All, Soil, 2.0) The average dry density per ZONE_LAT interpolated for Kokomo are 1.79 t/m³ (ZONE_LAT = 1), 1.89 t/m³ (ZONE_LAT = 2), 1.68 t/m³ (ZONE_LAT = 3). ZONE_LAT = 4 was assigned a DBD of 2.0 t/m³, and this zone is not classified as a Mineral Resource. Blocks not coded with ZONE_LAT (default= 0) were assigned a DBD of 1.7 t/m³.
Classification	<ul style="list-style-type: none"> <i>The basis for the classification of the Mineral Resources into varying confidence categories.</i> <i>Whether appropriate account has been taken of all relevant</i> 	<ul style="list-style-type: none"> The Mineral Resource has been classified following due consideration of all criteria contained in Section 1, Section 2 and Section 3 of JORC 2012 Table 1.



Criteria	JORC Code explanation	Commentary
	<p><i>factors (i.e. relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i></p> <ul style="list-style-type: none"> <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i> 	<ul style="list-style-type: none"> Data quality and confidence in the geological interpretation support the classification. Wireframe solids for measured and indicated volumes were used to assign classification values (RESCAT; 1 = Measured, 2 = Indicated, 3 = Inferred, 4 = unclassified). The Measured Mineral Resource is supported by regular drill pattern spacing of 20 m (EW) x 25 m (NS). The Indicated Mineral Resource is supported by regular drill pattern spacing of 40 m (EW) x 50 m (NS). The Inferred Mineral Resource is supported by regular drill pattern spacing of 40 m (EW) x 100 m (NS). Block classifications are downgraded if number of holes used per block estimate do not meet a set threshold. Blocks not interpolated are not classified. The resultant classified block model, when viewed in section, generally shows consistent classification schema, however there irregularly appears a mild case of "spotted dog", resultant from the use of grade interpolation outputs to over-ride classification assignments in some instances. The Competent Person is of the opinion the volumes with an irregular distribution of classification will not affect mine planning studies untowardly. The final classification strategy and results appropriately reflect the Competent Person's view of the deposit.
<p>Audits or reviews</p>	<ul style="list-style-type: none"> <i>The results of any audits or reviews of Mineral Resource estimates.</i> 	<ul style="list-style-type: none"> The Mineral Resource block model was prepared in 2009 by Golder and reported according to the JORC Code (2004). The



Criteria	JORC Code explanation	Commentary
		<p>model was internally peer reviewed by Golder prior to release to Metallica. The same model was reviewed by CSA Global (this report) in preparation for use in the current FS and is to be reported according to the JORC Code (2012). CSA Global reviewed the data collection, QC, geological modelling, statistical analyses, grade interpolation, bulk density measurements and resource classification strategies. No material flaws were noted by CSA Global and the 2009 model is considered fit for purpose to be used in mine planning studies.</p>
<p>Discussion of relevant accuracy/confidence</p>	<ul style="list-style-type: none"> • <i>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</i> • <i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to</i> 	<ul style="list-style-type: none"> • No detailed studies have been completed using simulation or probabilistic methods that could quantify relative accuracy of the resource estimates. • Laterites can have significant short-range variation in material types and grade due to local variations in weathering process. However, on a broader scale they demonstrate consistency in lateral extent. As a result, drilling demonstrates a regional grade and volume rather than local certainty. Hence drill spacing, as used for the Mineral Resource classification, is the prime indicator of estimation risk, therefore used to delineate Mineral Resource classification volumes.



Criteria	JORC Code explanation	Commentary
	<p><i>technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i></p>	
	<ul style="list-style-type: none"> • <i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i> 	



Appendix 2 - SCONI PROJECT ORE RESERVE ESTIMATE

JORC Code, 2012 Edition

Section 4: Estimation and reporting of Ore Reserves

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserve	<ul style="list-style-type: none"> <i>Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.</i> <i>Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.</i> 	<p>The Mineral Resource Estimate used as a basis for the conversion to the Ore Reserve was provided on 25th July 2018 with Mr David Williams, employee of CSA Global, as the Competent Person.</p> <p>The total Mineral Resource of 57.6Mt at 0.61% Ni and 0.08% Co includes 8.0Mt of Measured materials at 0.76% Ni and 0.10% Co, 33.6Mt of Indicated material at 0.61% Ni and 0.09% Co and 16.0Mt of Inferred material at 0.52% Ni and 0.06% Co.</p> <p>The Mineral Resources are reported inclusive of the Ore Reserves.</p>
Site Visits	<ul style="list-style-type: none"> <i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits</i> 	<p>The Competent Person (Mr Jake Fitzsimons) has visited the proposed project site in June 2018. The following observations were incorporated:</p> <ul style="list-style-type: none"> The Greenvale mining area is located near the township of Greenvale in northeast Queensland approximately 220km west of Townsville with access via dual-lane sealed road for all except a 10km section approximately 20km from Greenvale. The project is made up of three sites centred at Greenvale with Lucknow approximately 9km to the southeast accessible via an existing sealed road. Kokomo is located approximately 60km to the northeast accessible via unsealed road and a ford crossing of the Burdekin River. The Kokomo site was not visited due to access issues and time considerations. The Greenvale site has been mined historically although little infrastructure remains except for the access road, 60kV power line terminal and a serviceable shed. The rail line servicing the site during previous operations has been abandoned and only the embankment remains. The other sites have not been mined previously and do not have existing infrastructure. The topography in and around the sites can be considered generally rugged. Greenvale is the least rugged, with a relatively flat terrain across the central area around the old workings. Both Lucknow and Kokomo lie across the top of flattish ridges with steep sides.



Criteria	JORC Code explanation	Commentary
Study status	<ul style="list-style-type: none"> <i>The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.</i> <i>The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.</i> 	<p>Owing to expansion of the mineral leases and potential reserves for the Sconi Nickel Cobalt Project, this report is published as an interim feasibility study which summarises information relating to the original investment case. Based on that information, the conclusions of the various specialist consultants are that the project is technically achievable and economically viable.</p> <p>Ausenco compiled the report on behalf of Australian Mines Ltd (AUZ), with input from various specialist consultants:</p> <ul style="list-style-type: none"> • CSA Global (CSA) (geology) • Oreology Consulting Pty Ltd (mine planning) • The Stimulus Group (metallurgical test work and process design) • AARC Environmental Solutions Pty Ltd (health, safety, environment and social responsibility) • Ausenco (non-process infrastructure) and Medea Capital Partners (market and financial evaluation). <p>The FS was underpinned by a mine plan producing nickel and cobalt ore for processing on site. The planned high-pressure acid leach processing technology produces nickel and cobalt sulphates for shipping to off-take partners via the Townsville port.</p> <p>The high-pressure acid leach process requires large amounts of sulphuric acid to digest the ore in the autoclave and commensurate quantities of limestone to neutralise slurry in the counter-current decant circuit. The mining was therefore optimised to provide a blended feed to the process facility to meet production targets while also managing acid consumption.</p> <p>The mine planning activities included open pit optimisation, final and interim stage pit designs, mine scheduling including backfilling, and mining cost estimations. Modifying factors considered during the mine planning process included mining dilution and ore loss, slope design criteria and practical mining considerations.</p> <p>The activities and findings of all other disciplines were summarised in the FS document, including detail of the derivation of other modifying factors such as processing recoveries, costs, revenue factors, environmental and social considerations etc. Overall the results of the FS demonstrate that the Sconi project is technically achievable and economically viable.</p>



Criteria	JORC Code explanation	Commentary
Cut-off parameters	<ul style="list-style-type: none"> The basis of the adopted cut-off grade(s) or quality parameters applied. 	<p>Only Measured and Indicated resource materials were considered as eligible for conversion to ore material. On direction from AUZ, the scandium grades were not used in the cut-off grade analysis, open pit optimisation or ore definition for scheduling. The scandium grades were retained for reporting purposes.</p> <p>The processing cost was dependent on acid consumption linked to the content of %Al, %Fe and %Mg in the ore feed. Therefore, a variable cut-off grade was applied at the block level for both the open pit optimisation work and subsequent ore definition for scheduling. The breakeven cut-off grade was determined to be between 0.5% to 0.6% nickel equivalent using the formula:</p> $\text{NiEq (\%)} = \frac{[(\text{Ni grade} \times \text{Ni price} \times \text{Ni recovery}) + (\text{Co grade} \times \text{Co price} \times \text{Co recovery})]}{(\text{Ni price} \times \text{Ni recovery})}$ <p>Where:</p> <ul style="list-style-type: none"> Ni price = 23,516 AUD Co price = 88,185 AUD Ni Recovery = 90% Co Recovery = 90% <p>No other quality parameters were applied during the Ore Reserve estimation.</p>
Mining factors or assumptions	<ul style="list-style-type: none"> The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design). The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc. 	<p>As part of the FS, a detailed mine design and annual schedule was produced. This study indicated that:</p> <ul style="list-style-type: none"> The Ore Reserve derived from the Mineral Resource can easily meet the processing feed requirements for the production targets of the project. The ore presents near surface and is easily accessible by conventional open pit mining methods. The pit optimisation, design and schedule process indicate a project life of approximately 17-years at an ore mining rate of approximately 2,000,000t per annum. The cost of the Sconi mining operation accounts for only 10-12% of the total sulphate production cost. <p>A conventional open pit mine method was chosen as the basis of the FS due to the near surface presentation of the mineralisation and the shallow depth of the pits. Mining and backfilling of pit voids is scheduled once pits voids are completed.</p> <p>The ore production schedule assumes Greenvale/Lucknow is operated as one mining area and Kokomo as a separate area. The schedule</p>



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <i>The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc.), grade control and pre-production drilling.</i> 	<p>indicates that mining will be split between both areas and operated simultaneously thereby requiring two mining fleets. At Greenvale ore will be delivered from the pits to a ROM pad adjacent to the primary crushing. Ore from both Lucknow and Kokomo will be delivered to a local ROM pad from where it will be loaded into road trains and transported to the Greenvale site.</p> <p>Due to the relatively low mining rate, blending requirements and potential for flooding of the Burdekin River, ore from Kokomo will be stockpiled at Greenvale on the ROM which has sufficient capacity for 2 to 3 months of feed.</p> <p>Mine design criteria include allowances for minimum mining width, ramp width and gradient, pit exit location and slope design parameters.</p> <p>No additional geotechnical site investigation was completed for the study. A site visit was undertaken in June 2018 to identify any significant risks. During the site visit it was observed that long term exposed walls at the existing Greenvale pit were still remarkably stable with very little evidence of failure. Existing wall angles were observed in the range from 75° to 85°. Due to the large lateral extent of the pits and the shallow depth of the deposit, large scale wall failure due to structural controls is unlikely and small-scale failure is expected to occur on 5 to 10% of the walls. Further drilling programs will be considered in the next study phase of the project.</p> <p>Grade control drilling is planned to extend from surface to the final pit depth and be completed in advance of mining using RC drilling methods. The grade control program will aim to:</p> <ul style="list-style-type: none"> Define the economic boundary of the deposit and; Provide further data to develop a blend plan to manage acid consumption. Delineation of the ore boundary during mining operations will utilise survey control. <p>Blend ratios for three or more ROM fingers / pit sources will be determined in advance from grade control modelling. The ROM fingers at all sites will be built using a chevron stacking approach via end tipping and then reclaimed from the side in an echelon fashion. This will assist in the management of short interval grade variations and ensure grade distribution within each finger is smoothed as much as practicable for acid consumption management.</p>



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <i>The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).</i> 	<p>The July 2018 Datamine Mineral Resource Models (<i>gv2017_md, lkn2012_dm & kok09v_md</i>) were used as a basis for the conversion to the Ore Reserve.</p> <p>The 1:5 ratio between the vertical block height at 2m and the horizontal block dimensions of 10m is not conducive to producing practical pit wall geometry during the open pit optimisation process. However, due to the flat lying and shallow nature of the deposits, the 2m block height was retained to ensure that the bottom most flitches could be captured in the optimisation shell. The overall wall slope angle of 50° was adopted from the PFS.</p> <p>Only Measured and Indicated material were categorised as ore for the optimisation process. Inferred mineralisation was treated as waste.</p>
	<ul style="list-style-type: none"> <i>The mining dilution factors used.</i> 	<p>The dilution method most suitable for disseminated laterite deposits is to re-block the model to a block size that matches the typical mining block unit. This method averages the quality parameters of the blocks that make up the new regularised block in the new block model and can better represent the way the material might be mined. It also takes into account all the quality parameters and no assumptions have to be made about the grade of the diluent. Due to the horizontal aspect of the laterite orebodies dilution is most likely to occur in the vertical direction. The sub-celled resource models were re-blocked to the selected 2m flitch height resulting in average global ore loss and dilution factors of:</p> <ul style="list-style-type: none"> 2.0% and 0.4% for Greenvale 3.3% and 1.2% for Kokomo 5.5% and 1.7% for Lucknow
	<ul style="list-style-type: none"> <i>The mining recovery factors used.</i> 	<p>No further mining recovery factors were applied.</p>
	<ul style="list-style-type: none"> <i>Any minimum mining widths used.</i> 	<p>Pit designs and interim cutbacks have been designed to suit a 100t excavator and 90t payload dump trucks. The parameters used were:</p> <ul style="list-style-type: none"> A minimum mining width of 20m. Dual-lane ramp width of 22m and single-lane ramp width of 13m. Ramp gradient 10%.



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion. 	<p>No inferred Mineral Resources have been included in the Ore Reserves or the associated production schedule.</p> <p>Open pit optimisation sensitivities showed that inclusion of Inferred material increases the overall mine life by less than 1% at a cost of a 50% increase in strip ratio.</p>
	<ul style="list-style-type: none"> The infrastructure requirements of the selected mining methods. 	<p>The FS considers the proposed open cut mine plan and schedule, and includes allowances for waste and overburden removal and placement, ROM pads based at the three mining areas, haul roads to the process plant, haulage loading facilities, water management, workshops, administration buildings, traffic management and other associated mine and facility infrastructure.</p> <p>It is planned to conduct mining on a contract basis for the life of mine.</p>
Metallurgical factors or assumptions	<ul style="list-style-type: none"> The metallurgical process proposed and the appropriateness of that process to the style of mineralisation. Whether the metallurgical process is well-tested technology or novel in nature. The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied. Any assumptions or allowances made for deleterious elements. The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole. For minerals that are defined by a 	<p>Simulus Engineers have developed a process for producing battery grade nickel sulphate and cobalt sulphate from a range of possible sources including lateritic nickel and cobalt ores. The proposed process flow comprises the following key unit processes:</p> <ul style="list-style-type: none"> Stage 1 – Aqueous pressure leach in an acidic sulphate medium to dissolve the base metals while minimizing dissolution of the iron and silica gangue. The conditions used are typical for base metal dissolution from lateritic ores sources, with rapid leach kinetics resulting in autoclave residence times of ~60 minutes for near complete nickel and cobalt extraction. Stage 2 – Primary impurity removal and nickel/cobalt sulphide recovery. The filtered PLS solution proceeds to neutralization for removal of the free acid, iron and aluminium. The iron free solution is then subjected to sulphide precipitation to recover a high-grade nickel/cobalt sulphide product with minimal impurities. Stage 3 – Nickel and cobalt oxidative re-leach and secondary impurity removal. The nickel and cobalt rich sulphide intermediate is oxidised and re-leached under medium pressure and temperature to provide a high concentration, small volume stream. Stage 4 – Crystallisation of high-purity nickel sulphate and cobalt sulphate. Solvent extraction is used to separate the nickel and cobalt. The separate nickel and cobalt sulphate streams are concentrated to saturation point via thermal and mechanical energy input. This causes the



Criteria	JORC Code explanation	Commentary
	<p>specification, has the ore reserve estimation been based on the appropriate mineralogy to meet specifications?</p>	<p>metals to begin crystallising from solution as metal sulphate hydrates. The specific form of crystal is manipulated by controlling the temperature of crystallisation. The nickel circuit uses a falling film evaporator followed by a mechanical vapour recompression (MVR) crystalliser. For cobalt crystallisation this is achieved in a single unit operation due to the relatively small scale of production.</p> <p>In addition to the key stages outlined, the proposed process plant also includes:</p> <ul style="list-style-type: none"> • a sulphuric acid plant for generation of acid, steam and power • an oxygen plant • reagent preparation facility • water treatment plant • plant air and cooling system. <p>The process comprises four basic sequential steps, all of which are well proven and commonly used in the wider metallurgical industry and provide high recoveries of base metals.</p> <p>The direct and variable test work was based on blended and master composites that were constructed to be representative of the kaolin deposit.</p> <p>The initial pilot program was completed on a laterite ore containing nickel, cobalt and scandium from the Lucknow deposit in. The pilot campaign included approximately 48 hr of operation for each of the beneficiation, high pressure acid leach (PAL), scandium solvent extraction (ScSX), scandium oxalate precipitation and calcination unit operations. The pilot campaign was completed over the period of September to November 2017 at Simulus Laboratories in Welshpool, Western Australia.</p> <p>A demonstration plant program was subsequently completed on ore from Sconi project's Lucknow and Greenvale deposits. The primary goal of the campaign was to generate samples of scandium oxide, nickel sulphate, and cobalt sulphate for marketing purposes and to assist process design for the feasibility study. During the campaign approximately 7.5 t of Lucknow ore and 4.3 t of Greenvale ore were processed through beneficiation and PAL, with the resulting leach liquor then processed through ScSX, scandium precipitation and calcination, iron removal, and mixed sulphide precipitation (MSP). The resulting MSP was then used as feed to the refinery circuit, which includes pressure oxidation (POX), followed</p>



Criteria	JORC Code explanation	Commentary
		<p>by impurity removal, cobalt & zinc solvent extraction, and crystallisation.</p> <p>The demonstration plant campaign was completed over the period from March to June 2018 at Simulus Laboratories in Welshpool, Western Australia.</p>
<p>Environmental factors or assumptions</p>	<ul style="list-style-type: none"> • <i>The status of studies of potential environmental impacts of the mining and processing operation.</i> • <i>Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.</i> 	<p>The project will entail a number of environmental approvals in order to proceed. The approvals will be mainly required from the Queensland Department of Environment and Science (DES).</p> <p>It is proposed to draw water from the Burdekin River during flood periods and store this water at the site for use during the operational phase. Additional approvals will be required by the project including:</p> <ul style="list-style-type: none"> • Access to sufficient water to undertake the mining and processing • Corridors for pipelines between the Burdekin River and water storage/mining lease • Power lines for pumps and other related infrastructure. <p>AUZ intends to prepare and submit an application to be declared as a Prescribed Project under the State Development and Public Works Organisation Act 1971. This will enable the remaining approvals (State and Local Government) to be coordinated through the Department of State Development, Manufacturing, Infrastructure and Planning. This will accelerate the acquisition of the various approvals necessary to undertake the works, including access to water resources.</p> <p>AARC Williams Consulting Pty Ltd has undertaken the environmental approvals process. Please see body of FS for further details.</p>
<p>Infrastructure</p>	<ul style="list-style-type: none"> • <i>The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.</i> 	<p>Sconi is located 220km north west of Townville with the project area having access to major arterial roads, telephone line and a 60KVA power line – all within 1km of the project.</p> <p>Labour, utilities, services, accommodation and transport is very accessible as the town of Greenvale is located within 8km of the proposed plant site.</p>
<p>Costs</p>	<ul style="list-style-type: none"> • <i>The derivation of, or assumptions made, regarding projected capital costs in the study.</i> • <i>The methodology used to estimate operating costs.</i> 	<p>Project costs (capital, operating, consumables, labour, freight etc) have been identified, assessed and calculated by the various consultants and compiled by Ausenco for this interim feasibility study report. The study contributors include: Orelogy Consulting Pty Ltd (mine development and mining operations), The Simulus Group (process plant and</p>



Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> • Allowances made for the content of deleterious elements. • The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co-products. • Derivation of transportation charges. • The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. • The allowances made for royalties payable, both Government and private. 	<p>processing operations), Ausenco (non-process infrastructure) and AARC Environmental Solutions Pty Ltd (closure).</p> <p>These groups have utilised detailed studies, indexed prices, public reference prices etc. to calculate the various costs used as inputs into the FS. Please see the FS report for further information.</p> <p>Detailed studies by respective study managers have identified and accounted for acid consuming minerals (Al, Mg) within the deposit as well as in the process and refining of nickel and cobalt sulphate and scandium oxide. The acid consuming mineral content has also been accounted for in the financial modelling.</p> <p>All mining recovery, metallurgical recovery and other technical concerns regarding the commodity price for the Ni, Co and Sc concentrates have been considered by appropriately qualified individuals and groups in respect to the FS requirements.</p> <p>Under the operations and financial modelling, full allowances are made for state royalties, duties, taxes, compensation etc. The project financial model details the particular financial cost, the percentage and the amount. A 2.5% state royalty has been allowed for.</p>
Revenue factors	<ul style="list-style-type: none"> • The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc. • The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products. 	<p>The mine plan was based on economic shells through open pit optimisation using base prices for nickel and cobalt only with no value applied to scandium. The base prices used were supplied by AUZ as follows:</p> <ul style="list-style-type: none"> • Nickel - US\$8.00/lb • Cobalt – US\$30.00/lb • US\$100/t allowance for transport on CIF basis • Exchange rate of 0.75 USD/AUD <p>The sulphate products usually trade at a premium to the LME metal process. No premium was applied.</p> <p>The assumptions have been modelled on variations and sensitivities to a range of +/- 20% on major input factors such as grade, process operating cost, mining costs, recoveries, and commodity prices.</p> <p>A validation optimisation using the final inputs was conducted at the end of the FS which showed project upside and an overall improvement in economics with a potential increase in mine life.</p>
Market assessment	<ul style="list-style-type: none"> • The demand, supply and stock situation for the particular commodity, consumption trends 	<p>The Sconi Project will produce cobalt and nickel hydrated sulphate products (CoSO₄.7H₂O and NiSO₄.6H₂O) as well as scandium oxide (Sc₂O₃).</p>



Criteria	JORC Code explanation	Commentary
	<p><i>and factors likely to affect supply and demand into the future.</i></p> <ul style="list-style-type: none"> <i>A customer and competitor analysis along with the identification of likely market windows for the product.</i> <i>Price and volume forecasts and the basis for these forecasts.</i> 	<p>Both cobalt sulphate and nickel sulphate are essential precursor raw materials for lithium-ion batteries which is the technology used in electric vehicles batteries and other associated energy storage technologies.</p> <p>Australian Mines signed an off-take agreement term sheet with SK Innovation (a subsidiary of SK Holdings, one of South Korea's largest companies) for 100% of the expected cobalt sulphate and nickel sulphate production from the Sconi project for an initial period of 7 years, with an option exercisable by SK Innovation to extend this commodity supply agreement for a further 6 years.</p> <p>The market assessment for price has been supported by:</p> <ul style="list-style-type: none"> AUZ's own market research and direct meetings with market participants (producers, manufacturers and traders) in China, Japan and South Korea Web-based commodity trading platform references. <p>Scandium oxide is a relatively scarce, high melting point rare earth oxide increasingly used in the manufacture of aluminium alloys to increase tensile strength for a range of applications, with scandium-reinforced alloys suitable for the manufacture of weldable aluminium products such as car chassis, car panels and aircraft fuselages and other light transport applications.</p> <p>Australian Mines is currently undertaking market research with regards to scandium and has entered into a partnership with United Kingdom-based technology company Metalysis, to support their research and development on a solid-state process to produce a low-cost, superior aluminium-scandium alloy for potential use by the automotive and aerospace industries.</p>
Economic	<ul style="list-style-type: none"> <i>The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.</i> <i>NPV ranges and sensitivity to variations in the significant assumptions and inputs.</i> 	<p>AUZ engaged Medea Capital Advisors to conduct the financial modelling. The Sconi FS financial model provides for an array of project assumptions, including costs, cost escalations, grade variations, production variation, exchange rates, etc.</p> <p>The Mineral Resource estimation, completed by CSA Global, and mining schedule, completed by Orelogy Consulting Pty Ltd, are of sufficient technical standard and level of accuracy taking into account all mining and associated activities and contingencies.</p> <p>The financial summary and base case NPV demonstrates a positive result. Sensitivities and</p>



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		<p>discounting ranges have been applied to understand the economic tolerance to various key inputs to the base case. The sensitivities are generally $\pm 20\%$ and despite this, the financial result still demonstrates a positive economic case and profit margin to support the development of Sconi. Please see the FS report for further information.</p>
Social	<ul style="list-style-type: none"> The status of agreements with key stakeholders and matters leading to social licence to operate. 	<p>AUZ holds an ILUA and Cultural Heritage Management Plan (CHMP) with the Gugu Badhan Traditional Land Owners (who have subsequently been determined as the Native Title holders) for mining Greenvale and Kokomo (north of the Gregory Development Road).</p> <p>There is no Native Title Claim over the Lucknow resource area, and a Right to Negotiate submission in the second half of 2012 confirmed that there was no interest to that effect as no claimants came forward.</p> <p>The socio-economic benefits of the Project at local, regional and state level are significant with substantial economic opportunities from both direct and indirect flow-on effects. The potential benefits will include:</p> <ul style="list-style-type: none"> Construction of processing plant and facilities Creation of approximately 500+ jobs at height of construction Construction duration is estimated to be 18 months An operating workforce of over 200 full time people Increased trade to local service, hospitality and other industries Additional indirect jobs-upstream and downstream (3x multiplier) approximately 660
Other	<ul style="list-style-type: none"> <i>Any identified material naturally occurring risks.</i> <i>The status of material legal agreements and marketing arrangements.</i> <i>The status of government agreements and approvals critical to the viability of the project, such as mineral tenement status and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within</i> 	<p>There are no obvious or likely naturally occurring risks that have been identified or which may negatively impact the Project or Project area.</p> <p>No major or material legal Agreements exist in respect to the Company at this stage.</p> <p>All statutory government agreements, permits and approvals commensurate to the current status of the project are all current and in good order.</p> <p>Timeframes for Agreements appropriate to the FS have been handled appropriately and have not put the project at risk. Agreement timeframes in respect to the FS will be handled with similar accord so as not to put the future studies and project development at risk also.</p>



Criteria	JORC Code explanation	Commentary
	<i>the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third part on which extraction of the reserve is contingent.</i>	
Classification	<ul style="list-style-type: none"> <i>The basis for the classification of the Ore Reserves into varying confidence categories. Whether the result appropriately reflects the Competent Person's view of the deposit. The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).</i> 	<p>Proven and Probable Ore Reserves were determined from mineralisation classified as Measured or Indicated Resource respectively. This classification is reasonable because of the nature of the deposit in terms of consistency and past mining activity. The beneficiation risk common to other laterite projects is not applicable to the Sconi project as no beneficiation is being undertaken prior to HPAL process.</p> <p>The risks associated with the orebody variability appear much lower than other project risks (such as price, exchange rate and recovery) that effect revenue directly.</p> <p>Approximately 20% of the Ore Reserves are classified as Proven and 80% are classified as Probable.</p>
Audits or reviews	<ul style="list-style-type: none"> <i>The results of any audits or reviews of Ore Reserve estimates.</i> 	<p>The Ore Reserve estimate has been reviewed internally by Orelogy Consulting Pty Ltd. No external reviews or audits have been undertaken on the Ore Reserve estimate.</p>
Discussion of relative accuracy/ confidence	<ul style="list-style-type: none"> <i>Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person.</i> <i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i> <i>Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that</i> 	<p>The Mineral Resource, and hence the associated Ore Reserve, relate to global estimates.</p> <p>The Ore Reserve estimate is an outcome of the October 2018 Feasibility Study with geological, mining, metallurgical, processing, engineering, marketing and financial considerations to allow for the cost of finance and tax. Engineering and cost estimations have been done to a $\pm 15\%$ level of accuracy, consistent with a FS of this nature.</p> <p>Medea's financial model estimated a post-tax NPV of approx. \$700M US at a discount rate of 8% which demonstrates that the project is economic.</p> <p>Sensitivity analysis undertaken during the PFS shows that the project is most sensitive to a movement in the commodity prices, exchange rate and recovery. The NPV is not as sensitive to changes in capital or operating costs.</p> <p>The robustness of the project and the low sensitivity to cost variations provide confidence in the Ore Reserve estimate. However, there is no guarantee</p>



Criteria	JORC Code explanation	Commentary
	<p><i>may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.</i></p> <ul style="list-style-type: none"> <i>It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i> 	<p>that the price assumption, while reasonable, will be achieved.</p>



Appendix 3 – IMPORTANT NOTICES

Forward-looking Statements

This announcement contains “forward-looking information” within the meaning of securities legislation, including information relating to Australian Mines Limited's future financial or operating performance. All statements in this announcement, other than statements of historical fact, that address events or developments that Australian Mines expects to occur, are “forward-looking statements”. Forward-looking statements are statements that are not historical facts and are generally, but not always, identified by the words “expects”, “does not expect”, “plans”, “anticipates”, “does not anticipate”, “believes”, “intends”, “estimates”, “projects”, “potential”, “scheduled”, “forecast”, “budget” and similar expressions, or that events or conditions “will”, “would”, “may”, “could”, “should” or “might” occur. All such forward-looking statements are based on the opinions and estimates of the relevant management as of the date such statements are made and are subject to important risk factors and uncertainties, many of which are beyond Australian Mines’ ability to control or predict. Forward-looking statements are necessarily based on estimates and assumptions that are inherently subject to known and unknown risks, uncertainties and other factors that may cause actual results, level of activity, performance or achievements to be materially different from those expressed or implied by such forward-looking statements. In the case of Australian Mines, these factors include their anticipated operations in future periods, planned exploration and development of its properties, and plans related to its business and other matters that may occur in the future. This information relates to analyses and other information that is based on expectations of future performance and planned work programs. Statements concerning mineral resource estimates are also considered forward-looking information as the estimation involves subjective judgments about many relevant factors. Mineral resource estimates may have to be re-estimated based on, among other things: fluctuations in commodity prices; results of future exploration activities; results of metallurgical testing and other studies; changes to proposed mining operations, including dilution; and the possible failure to receive required permits, approvals and licenses.

Forward-looking information is subject to a variety of known and unknown risks, uncertainties and other factors which could cause actual events or results to differ from those expressed or implied by the forward-looking information, including, without limitation: exploration hazards and risks; risks related to exploration and development of natural resource properties; uncertainty in Australian Mines’ ability to obtain funding; commodity price fluctuations; recent market events and conditions; risks related to the uncertainty of mineral resource calculations and the inclusion of inferred mineral resources in economic estimation; risks related to governmental regulations; risks related to obtaining necessary licenses and permits; risks related to their business being subject to environmental laws and regulations; risks related to their mineral properties being subject to prior unregistered agreements, transfers, or claims and other defects in title; risks relating to competition from larger companies with greater financial and technical resources; risks relating to the inability to meet financial obligations under agreements to which they are a party; ability to recruit and retain qualified personnel; and risks related to their directors and officers becoming associated with other natural resource companies which may give rise to conflicts of interests.



This list is not exhaustive of the factors that may affect Australian Mines' forward-looking information. 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 the forward-looking information.

Australian Mines' forward-looking information is based on the reasonable beliefs, expectations and opinions of their respective management on the date the statements are made and Australian Mines does not assume any obligation to update forward looking information if circumstances or management's beliefs, expectations or opinions change, except as required by law. For the reasons set forth above, investors should not place undue reliance on forward-looking information.

Cautionary note for U.S. investors regarding Reserve and Resource Estimates

All resource estimates by the Company in this announcement were calculated in accordance with the JORC Code, 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 announcement 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.



Competent Person's Statements

Sconi Project Bankable Feasibility Study Report

The information in this report that relates to 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. 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 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 Fellow of the Australian Institute of Mining and Metallurgy (F.AusIMM #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.

