

15 May 2017

Construction commences of demonstration-size processing plant

- **Construction commenced today on a demonstration-size HPAL + SX plant in Perth to produce off-take samples of cobalt sulphate, nickel sulphate and scandium oxide to progress negotiations with potential customers**
- **Capable of processing over 15 tonnes of ore per week and deliver 67 kilograms of cobalt sulphate, 500 kilograms of nickel sulphate and 8 kilograms of scandium oxide each week from the Sconi project**
- **First commercial grade, saleable cobalt, nickel and scandium products scheduled to be delivered in November 2017**
- **Invitation for interested parties including institutional investors, sovereign funds, brokers and analysts to tour plant during construction and operational phases**

Australian Mines Limited (“Australian Mines” or “the Company”) is pleased to announce it has engaged one of Australia’s leading hydrometallurgical and processing companies, The Simulus Group, to today begin construction of a \$2 million demonstration-size cobalt-nickel-scandium processing plant in Perth, Western Australia.

The plant, which uses a conventional high-pressure acid leach (HPAL) front end to dissolve the metals into solution (being much the same method used by Vale at its Goro mine in New Caledonia¹, for example) with a solid-liquid separation and standard solvent extraction (SX) and sulphate crystallisation back end to separate out the cobalt, nickel and scandium to produce final products.

Australian Mines announced on 10 October 2016 that the Company had entered into a joint venture agreement with Metallica Minerals Limited (ASX: MLM) to earn up to a 75% interest in the advanced Sconi Cobalt-Nickel-Scandium Project.

Australian Mines announced on 10 October 2016 that the Company had entered into an Option Agreement with Jervois Mining Limited (ASX: JRV) to acquire 100% of the Flemington Cobalt-Scandium-Nickel Project near Fifield in New South Wales

¹ <http://www.vale.com/australia/EN/Pages/default.aspx>



The fabrication and build time for this processing plant is estimated at six months, resulting in the plant being fully operational and processing bulk samples of ore from the Company's Sconi Cobalt-Nickel-Scandium Project and Flemington Cobalt-Scandium Nickel Project by November this year.

This impressively short build time is a direct result of Australian Mines using standard, readily-available processing equipment sourced from dedicated HPAL / SX suppliers, coupled with an established processing flow chart that is already being utilised at a number of large-scale commercial operations around the world.

With a throughput capacity of 2,200 kilograms per day, this plant, when run on a continuous basis, has the potential to deliver a weekly output of:

- ✓ 67 kilograms of cobalt sulphate ($\text{CoSO}_4 \cdot 6\text{H}_2\text{O}$),
- ✓ 500 kilograms of nickel sulphate ($\text{NiSO}_4 \cdot 6\text{H}_2\text{O}$) and
- ✓ 8 kilograms of scandium oxide (Sc_2O_3)².

This plant, once operational later this year, will result in Australian Mines being one of the only emerging cobalt companies in Australia producing cobalt sulphate and nickel sulphate products for potential off-take customers from the vehicle battery and cobalt trading sectors, as well as producing scandium oxide destined for an interested European auto-manufacturer and a number of other parties interested in producing high strength weldable aluminum.

Importantly, the demonstration-sized HPAL + SX plant was been designed in such a way to make it readily scaleable to a full-size plant. This allows Australian Mines to optimize the processing flow chart and metal recoveries at this smaller scale prior to the design and construction of the larger 750,000 tonne per annum plant, which is currently proposed to be built at Sconi³ once the Company's Bankable Feasibility Study (BFS) has been completed and funding secured.

Commenting on the construction of the processing plant, **Managing Director Ben Bell said**, *"With the company's on-going engagement with potential cobalt, nickel and scandium customers across Europe, Asia and the Middle East, it became apparent that the quickest path to progressing those negotiations was to go-ahead and produce samples to reinforce certainty around expected product quality."*

"The reason for constructing the demonstration-size plant in Perth was due to the relevant metallurgical expertise available in Western Australia, including The Simulus Group some of whose staff were involved in the early operating stage at Glencore's Murrin Murrin nickel and cobalt operation."

² See Australian Mines Limited, Technical Reports, released 31 March 2017, the Company's Quarterly Activities Report dated 28 April 2017 and Table 1 of this report.

³ The 750,000 tonne per annum plant is as contemplated by the Sconi project's Pre-Feasibility Study (PFS), which is described in detail in Australian Mines' announcement released 31 March 2017 and entitled *Technical Reports*.



"I am very pleased with the construction and processing proposal put forward by Simulus and I look forward to working with their team to prove-up the Australian Mines cobalt, nickel and scandium product suite."

"In addition to potential off-take customers, Australian Mines welcomes representatives of institutional investors, sovereign funds, brokers and analysts to tour this demonstration plant once construction is completed, to see first-hand the processing of the ore and to handle the actual cobalt sulphate, nickel sulphate and scandium oxide products produced from this operation".

*****ENDS*****

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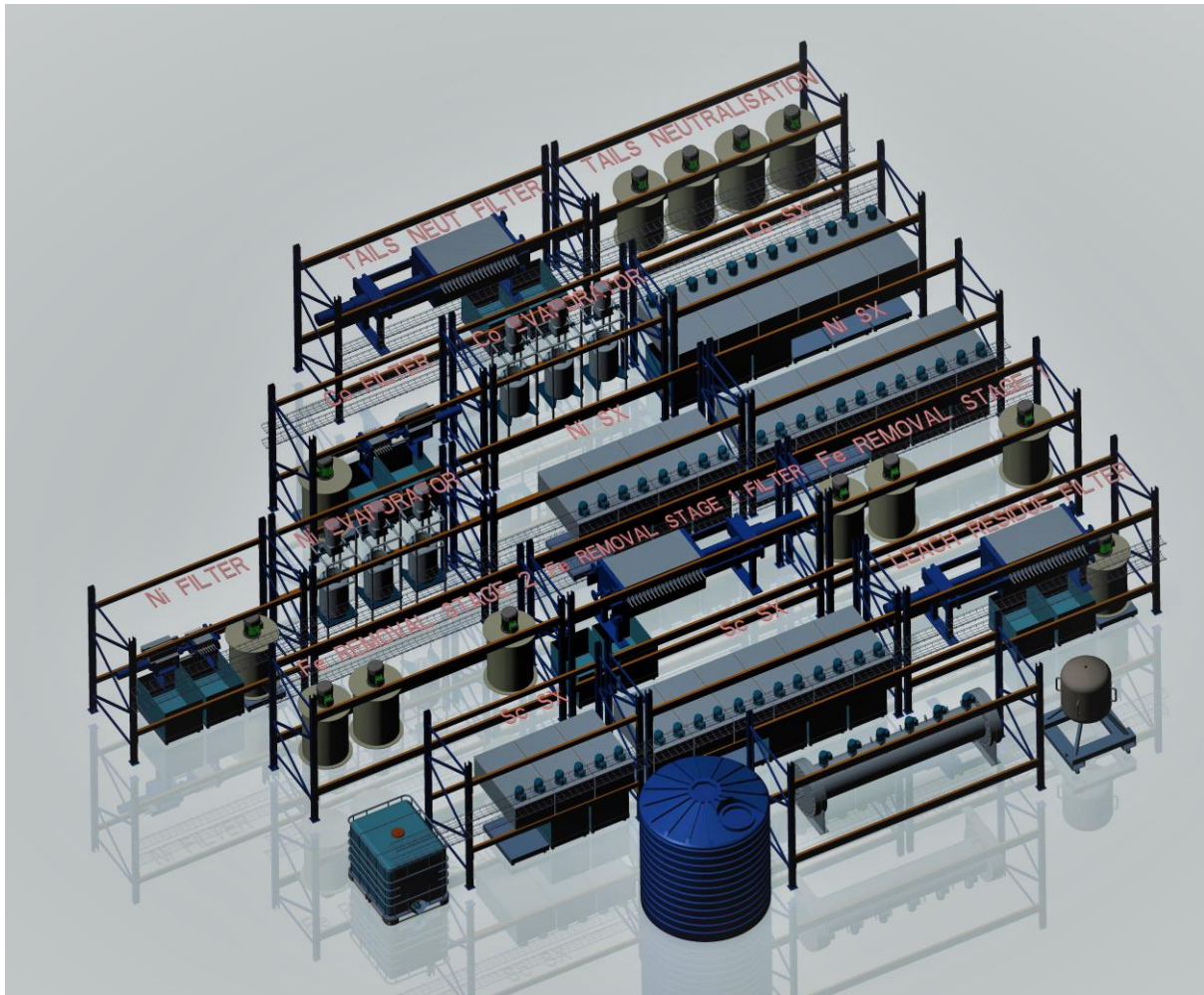


Figure 1: A schematic diagram of the demonstration-size high-pressure acid leach (HPAL) and standard solvent extraction (SX) and sulphate crystallisation plant being constructed in Perth. When run on a continuous basis, this plant can produce 67 kilograms of cobalt sulphate, 500 kilograms of nickel sulphate and 8 kilograms of scandium oxide per week.

Table 1: Estimated Production Achievable from Demonstration-Size Processing Plant⁴

		Scandium	Cobalt	Nickel
Feed rate	kg/day	2200	2200	2200
Feed grade	ppm	370		
Feed grade	%	0.04%	0.11%	0.81%
Leach extraction	%	94%	94%	94%
Wash recovery	%	99%	99%	99%
Iron removal loss	%	0%	2%	2%
SX recovery	%	99%	99%	99%
Precipitation recovery	%	99.50%	99.50%	99.50%
Overall recovery from leach feed to product	%	92%	90%	90%
Metal production rate	kg/day	0.75	2.17	16.01
Molecular weight (metal)	g/mol	45	59	59
Product form		Scandium oxide (Sc ₂ O ₃)	Cobalt Sulphate (CoSO ₄ .6H ₂ O)	Nickel Sulphate (NiSO ₄ .6H ₂ O)
Molecular weight (product)	g/mol	137.92	262.93	262.69
End product production rate	kg/day	1.14	9.70	71.65
End product production rate	kg/week	8.01	67.90	501.57

*

⁴ Based on the average annual feed grades from the Company's Sconi project as outlined in Australian Mines announcement of 31 March 2017 titled *Technical Reports*.



Figure 2: Location map of Australian Mines' Sconi Cobalt-Nickel-Scandium Project in northern Queensland and the Flemington Cobalt-Scandium-Nickel Project located in central New South Wales