

Reno, Nevada (FSCwire) - [Scandium International Mining Corp.](#) (TSX:SCY) (“Scandium International” or the “Company”) is pleased to announce the results of a definitive feasibility study on the Company’s 80% owned Nyngan Scandium Project. The feasibility study supports the technical and economic viability of the Nyngan Scandium Project.

Lycopodium Limited, (ASX:LYL) led the feasibility study from their Brisbane, Australia office with supporting input from Mining One of Melbourne, Australia, Knight Piésold of Brisbane, Australia, Altrius Engineering Services of Brisbane, Australia, and Rangott Mineral Exploration Pty Ltd of Orange, Australia.

FEASIBILITY STUDY HIGHLIGHTS:

- Capital cost estimate for the Project is US\$87.1 million,
- Operating cost estimate for the Project is US\$557/kg scandium oxide,
- Oxide product volume averages 37,690 kg per year, over 20 years,
- Project Constant Dollar NPV_{10%} is US\$177 million, (NPV_{8%} is US\$225 million),
- Project Constant Dollar IRR is 33.1%,
- Oxide product grades of 98-99.9%, as based on customer requirements,
- Project resource increases by 40% to 16.9 million tonnes, grading 235ppm Sc, at a 100ppm cut-off in the measured and indicated categories, and
- Project Reserve totalling 1.43 million tonnes, grading 409ppm Sc was established on part of the resource.

George Putnam, CEO of [Scandium International Mining Corp.](#) commented:

“The Company is pleased with this very solid feasibility study result, and with the quality of the development work it represents. We now have a project plan we can execute on, and a considerably more mature development schedule on which to seek additional scandium customers. We also now have what we believe to be a financeable platform with which to engage in construction funding discussions. This accomplishment brings us a significant step closer to building the Nyngan Project and producing scandium for what we know to be numerous waiting markets.”

William Harris, Chairman of EMC Metals, commented:

“Delivery of this feasibility study represents an important strategic milestone for the Company in that SCY has the first primary scandium project to complete metallurgical, engineering, and economic investigations and bring a viable feasibility study to the marketplace, and do so in full view of both scandium investors and future customers.”

PROJECT OVERVIEW

The feasibility study confirms the commercial viability of both the resource and the process for recovering scandium, as configured, for the Nyngan Project. The Nyngan resource has now been expanded by 40% compared to the prior estimate, a 20 year project mineable grade has been defined through a detailed mine plan, and the processing facility has been configured and is supported by detailed flowsheet test work. Based on the results of the feasibility study, the technical team led by Lycopodium has recommended that the Project owners seek project financing and proceed to construction.

The feasibility study concludes that the Project has the potential to produce an average of 37,690 kilograms of scandium oxide (scandia) per year, at grades of 98.0%-99.9%, generating an after tax cumulative cash flow over a 20 year Project life of US\$629 million, with an NPV_{10%} of US\$177 million. The average process plant feed grade over the 20 year Project life is 409ppm of scandium.

The financial results of the feasibility study are based on a conventional flow sheet, employing continuous high pressure acid leach (HPAL) and solvent extraction (SX) techniques. The flow sheet was modeled and validated from METSIM modeling and considerable bench scale/pilot scale metallurgical test work utilising Nyngan resource material. A number of the key elements of this flowsheet work have been protected by the Company under US Patent Applications.

The feasibility study has been developed and compiled to an accuracy level of +15%/-5%, by a globally recognized engineering firm that has considerable expertise in laterite deposits and process facilities, as well as in smaller mining and processing projects, and has excellent familiarity with the Project location and environment.

Project Financial Highlights and Key Assumptions

The feasibility study finds that the Project has the potential for attractive economics, based on a capital estimate supported by conventional process designs and direct vendor pricing. The feasibility study is expressed in US dollar (US\$) currency, unless otherwise noted. A foreign exchange rate of US\$0.70 (1A\$=US\$0.70) was applied in all conversions. No escalation for inflation

was assumed in cash flows. All cash flows and discounted cash flows (NPVs and IRRs) in this news release are shown on an after-tax basis, based on a 30% Australian corporate tax rate.

Highlights and key assumptions are as follows:

Table 1. Nyngan Scandium Project - Feasibility Study Financial Highlights

Summary	NI 43-101
Nyngan Scandium Project	DFS
Key Project Parameters	Result
Capital Cost Estimate (US\$ M)	\$87.1
Average Plant Feed Grade (ppm Sc)	409
Resource Processed (tpy)	71,820
Mill Recovery (%)	83.7%
Oxide Production (kg per year)	37,690
Scandium Oxide (Scandia) Product Grade	98-99.9%
Annual Cash Operating Cost (US\$ M)	\$21.0
Unit Cash Cost (US\$/kg Oxide)	\$557
Oxide Price Assumption (US\$/kg)	\$2,000
Annual Revenue (US\$ millions)	\$75.4
Annual EBITDA (US\$ millions)	\$49.5
NPV (10%i) (After Tax)	\$177.5
NPV (8%i) (After Tax)	\$225.4
IRR (%) (After Tax)	33.1%
Payback (years)	3.3

Mineral Resource Estimate

The feasibility study includes a revised and updated resource estimate for the Nyngan Scandium Project, originally established in 2010. The revised NI 43-101 Measured and Indicated scandium resource now totals 16.9 million tonnes at an average grade of 235ppm scandium, from all scandium-bearing sources including hematite, limonite, saprolite and some bedrock resource material. The updated resource retains the same economic cut-off value of 100ppm as was used in the earlier resource estimate. The new resource was established using Gemcom's SURPAC Block Model software and applied Ordinary Kriging techniques for estimation.

The feasibility study production plan is based on a portion of the new limonite-only resource, and provides a 20 year mining program consisting of two production pits, sufficient to supply the processing plant at a (nameplate) rate of 75,000 tpy and an average grade of 409ppm scandium over the life of the Project. Both the new resource estimate and the 20 year mining pit design are based on assay and lithology data from a property total of 141 drill holes, including assay and lithology data from recent (2014-2015) drilling work.

The updated and original Nyngan Project scandium mineral resources are as follows:

Table 2. Nyngan Scandium Resource

Nyngan Project Resource Summary (100ppm Sc cut-off)	Revised Resource (effective date: April 15, 2016)		Previous Resource (effective date: Feb. 9, 2010)	
	Resource Tonnes	Grade (ppm Sc)	Resource Tonnes	Grade (ppm Sc)
Measured Resource	5,690,000	256	2,718,000	274
Indicated Resource	11,230,000	225	9,294,000	258
Total Resource	16,920,000	235	12,012,000	261

NOTE: Mineral resources that are not mineral reserves do not have demonstrated viability

Mineral Reserve Estimate

The feasibility study includes the first established Reserve on a portion of the resource, associated specifically with that portion of the limonite resource on which economic viability has been established by the engineering and project development work in the feasibility study. The feasibility study utilizes 1.34 million tonnes of limonite resource over 20 years, almost all in the Measured Resource category, and that portion of the overall resource has generated the Reserve figure, as shown below:

Table 3. Nyngan Scandium Reserve

Nyngan Project Reserve Summary	Mineral Reserve (effective date: April 15, 2016)	
	Reserve Tonnes	Grade (ppm Sc)
Proven Reserve	794,514	394
Probable Reserve	641,915	429
Total Reserve	1,436,429	409

NOTE: Reserve strip ratio is 3.42 (waste/reserve tonnes)

Mining and Processing Summary

The mining element of this Project has always represented a relatively minor part, although a critical part, of the overall Project activity. The feasibility study mine plan is based on a plant feed of 240 tonnes/day (tpd) or 75,000 tonnes per year requirement. Mine production is based on conventional open pit methods with an average strip ratio of 2.1:1 (overburden/resource). The mine will be worked in campaigns, likely 3 one-month production periods per year, avoiding the wet months, in which a contract miner will be employed to extract and deliver material to a run-of-mine plant stockpile adjacent to the processing facility. The processing plant will run continuously, fed from plant stockpiles of previously mined resource, covered against moisture and weather.

The processing plant operations will size the input material, and then initially apply a high pressure acid leaching (HPAL) system, using a continuous autoclave pressure-fed with pre-heated ore, dosed with sulfuric acid. Subsequent circuits will then recover the liberated scandium using solvent extraction (SX), oxalate precipitation and calcination, to generate a finished scandium oxide product. Once at nameplate capacity, the processing plant is forecast to produce between 36,600 and 42,000 kilograms of scandium oxide product per year, averaging 37,690 kilograms/year over the 20 year feasibility study production period. Oxide product will be produced on-site at grades between 98% and 99.9%, as Sc_2O_3 , and will be offered at grades that meet various customer requirements, suitably packaged for direct sales to end users.

Plant tailings will be neutralized with lime to pH 8.5, dewatered, and stored in a Residue Storage Facility (tailings pond) meeting the environmental requirements of mining permits and NSW State regulators. Overall environmental programs covering the 20 year production life of the Project, as outlined in the feasibility study, will be documented in an Environmental Impact Statement (“EIS”), which is currently in development for submission to NSW governmental authorities.

Capital Cost Detail

Total capital costs for the Project are estimated at US\$87.1 million, and include a 10.5% contingency, allocated on a line item basis varying from 5% to 15%, depending on estimation method, vendor quotation details, and Lycopodium’s risk assessment for the capital cost area. The majority (87%) of the capital cost in the feasibility study was Australian-sourced, and consequently initially priced in Australian dollars (A\$). The capital cost estimate is established at a +15%/-5% level of accuracy, consistent with industry standards for a Definitive Feasibility Study.

The initial capital cost is spread over a number of areas, but the high pressure autoclave systems (HPAL), leaching and neutralization circuits contained in the processing plant are the most significant capital items, totalling US\$41M or 47% of total costs, including contingencies.

Sustaining plant and operations capital is provided as an annual expensed cost, and totals US\$3.6M over the life of the project. Sustaining tailings pond capital is similarly provided for and expensed annually to operating costs, and totals US\$22.4M, over the life of the project. These costs are treated as cash unit production costs, where those figures are provided.

The cash flow model includes US\$5.2M in costs for tailings pond closure, expensed one year after the final year of operation, which is 2038. The pond will likely have reached its optimal size at this time, and would need to be rehabilitated in any event. The model does not include any costs for demolition of facilities, or recovery of value for equipment or facilities in the form of salvage. The feasibility study authors did not undertake detailed investigations of alternate site uses for the project facility after 20 years, because the Measured and Indicated scandium resource is considerably larger than the current project would

consume, allowing for either expansions of capacity, extensions of the 20-year initial time period of operation, or both.

Table 4. Feasibility Study Capital Cost Detail

Nyngan Project Capital Cost Summary (millions)	Initial Project Capital Cost (US\$M)
Mining Capital	
Pre-Stripping Cost	\$1.72
Vehicles/Site Equipment	\$1.26
Mining Subtotal	\$2.98
Processing Plant Capital	
Process Plant Mechanicals	\$40.96
Site Infrastructure	\$25.95
Construction Costs	\$3.91
EPCM Costs	\$10.41
Owners Costs	\$2.93
Process Plant Subtotal	\$84.16
Total Project Capital Cost	\$87.14

Operating Costs Detail

Operating costs were estimated based on metallurgical test work results and METSIM modelling quantities and requirements. The single most significant cost item in operating costs is reagent cost, with the single largest component in this category being sulfuric acid. The acid price used was A\$270/tonne, as quoted by a sulfuric acid broker, delivered to site. The second most significant cost is staff/labor, where the feasibility study assumes a staffing level of 73 full time personnel. The level of accuracy on the operating component was estimated at +15%/- 15%.

Operating cost details in the feasibility study, as to total average annual cash costs, and also unit costs on an annual average ore tonnage throughput basis and a kilogram oxide basis, are as follows:

Table 5. Feasibility Study Operating Costs, and Unit Costs Per kg Oxide

Nyngan Project OpEx Mine/Process Expense	Average Annual Cost US\$ M	Unit Cost/ Processed Tonne US\$/tonne	Unit Cost/ Oxide kg US\$/kg
Mining Costs			
Stripping Cost	\$0.5	\$7.49	\$14.27
Mining Costs	\$0.8	\$10.96	\$20.88
Total Mining Costs	\$1.3	\$18.45	\$35.15
Processing Cost			
Labor Cost	\$5.9	\$82.19	\$156.60
Utilities Costs	\$2.2	\$29.99	\$57.15
Reagents	\$7.1	\$98.24	\$187.19
Consumables	\$0.6	\$8.02	\$15.29
Maintenance	\$1.6	\$22.80	\$43.44
General	\$0.2	\$2.23	\$4.24
Total Processing Costs	\$17.5	\$243.48	\$463.92
General Costs			
Tailings Pond Costs	\$1.1	\$15.60	\$29.72
Site G&A Costs	\$0.6	\$7.82	\$14.90
Consultants & Marketing	\$0.5	\$6.76	\$12.88
Total General Costs	\$2.2	\$30.18	\$57.50
Annual Cash Operating Cost	\$21.0	\$292.10	\$556.57

The Project plan has provided for a gradual ramp-up to full (nameplate) capacity in the first two years of operation. The ramp-up

provides for 35% of nameplate throughput (26,250 tonnes) in production year 1 (2018) and 80% of nameplate throughput (60,000 tonnes) in production year 2 (2019). The respective scandium oxide product output estimate during those years is 13,300kg and 30,900kg, respectively. This 2 year ramp-up to nameplate capacity was determined based on the commissioning experience of other HPAL plants of similar general design, built and brought online in the last 15 years. All of these benchmarking examples were nickel plants processing lateritic ores, all but one were initial installations, and all were of much bigger size than the Nyngan processing plant.

Pricing Assumptions

The price assumption in the feasibility study is US\$2,000 per kilogram (kg) of scandium oxide product, as an average price covering all product sold, over various product grades. Current market pricing, such as that can be established, is substantially above these levels based on small unit quantities and varying grades. This product pricing benchmark applied in the feasibility study remains the same as was applied in the 2014 Preliminary Economic Assessment (“PEA”) on this Project, and for the same reasons. In order to encourage a viable, over-subscribed and vigorous scandium market, across numerous applications, product suppliers will need to provide for adequate supply of quality product, available from trusted jurisdictions, at prices lower than product trades for today.

In addition to limited publically available price quotes for scandium oxide, the feasibility study notes two other reference points on the US\$2,000/kg price assumption. The Company has an offtake agreement in place, for 7,500 kg/year (3 years), with pricing being supportive of the pricing assumption in the feasibility study. The customer is a knowledgeable alloy group, with longstanding interest in aluminum-scandium alloys. The feasibility study price assumption is also supported by a recent, independent marketing report that examines the 10 year scandium supply/demand outlook, and includes scenario-based 10 year price forecasts. The details and contents of this market outlook report will remain confidential, but select information will be included in the feasibility study. Both of these reference points support that the scandium value proposition for customers/consumers is valid at this price level.

Sensitivities

The project is most sensitive to changes in the value of the Australian dollar relative to the US dollar, along with changes in the product price. The Project is somewhat less sensitive to either operating or capital cost changes. Sensitivities to various parameters are shown below.

Table 6. Sensitivity to Product Price

Project	Constant Dollar (after Tax) Project NPV at Various Discount Rates and Various Oxide Product Prices					
Financial Sensitivity						
to Product Price						
Product Price (US\$/kg)	\$1,200	\$1,500	\$2,000	\$2,500	\$3,000	\$3,500
Constant Dollar						
Net Present Value (US\$ M)						
6% Discount	\$82.4	\$159.7	\$287.6	\$414.9	\$542.2	\$669.4
8% Discount	\$55.1	\$119.3	\$225.3	\$330.9	\$436.3	\$541.7
10% Discount	\$34.3	\$88.3	\$177.5	\$266.1	\$354.7	\$443.1
Internal Rate of Return (IRR)	15.2%	22.4%	33.1%	42.8%	52.0%	60.6%

Table 7. Profitability Sensitivities to Changes in Key Financial Assumptions

Sensitivity to Financial Parameters	NPV (10%i)	
	US\$ M	IRR (%)
DFS Result	\$177.5	33.1%
Operating Cost Sensitivity		
Cost Increase (10%)	\$166.3	31.6%
Cost Decrease (10%)	\$188.7	34.5%
Price Sensitivity		
Lower Realized Oxide Price (10%)	\$142.0	29.0%
Higher Realized Oxide Price (10%)	\$212.9	37.0%

Capital Cost Sensitivity		
Higher Capital Cost (10%)	\$169.6	30.4%
Lower Capital Cost (10%)	\$185.4	36.2%
Fx Sensitivity (\$0.70)		
US\$/A\$ @ \$0.80	\$150.3	27.6%
US\$/A\$ @ \$0.75	\$163.9	30.2%
US\$/A\$ @ \$0.65	\$191.3	36.4%

General Assumptions

The feasibility study is presented on a 100% ownership basis. The Company effectively owns 80% of the Project through its 80%-owned Australian subsidiary, EMC Metals Australia Pty Ltd. The remaining 20% of EMC Australia Pty Ltd is owned by Scandium Investments LLC, a Nevada corporation owned by private interests.

All cash flows and financial analyses have been presented on a 100% equity basis. No debt leverage has been assumed in providing capital for development. No inflation factors have been applied to future cash flows, making the discounted cash flow performance measures constant dollar figures.

The Project schedule identifies 2017 as the initial year in the cash flow, with construction initiated and completed in that year. Some commissioning is scheduled for Q4 2017. Further wet commissioning and start-up is scheduled for Q1 2018. First production is planned for March 2018, which is year 1 of 20 (calendar) years of production, completing in 2037. Reclamation of the Residue Storage Facility is scheduled for 2038. The supply and delivery estimate on the specialist autoclave and flash vessels is setting the timeframe for first production in Q1 2018.

CONCLUSIONS AND RECOMMENDATIONS

The production assumptions in the feasibility study are backed by solid independent flow sheet test work on the planned process for scandium recovery. The report consolidates a significant amount of metallurgical test work and prior study on the Project, including important test work results completed since the PEA was generated in 2014. The entire body of work demonstrates a viable, conventional process flow sheet utilizing a continuous-system HPAL leaching process, and good metallurgical recoveries of scandium from the resource. The metallurgical assumptions are supported by various bench and pilot scale independent test work programs that are consistent with known outcomes in other laterite resources. The continuous autoclave configuration, as opposed to batch systems explored in previous flow sheets, is also a more conventional and current design choice.

The level of accuracy established in the feasibility study substantially reduces the uncertainty levels inherent in earlier studies, specifically the PEA. The greater confidence intervals around this Technical Report are achieved by reliance on significant project engineering work, a capital and operating cost estimate supported by detailed requirements and vendor pricing, plus one offtake agreement and an independent marketing assessment, both supportive of the marketing assumptions on the business.

The feasibility study delivers a positive result on the Nyngan Scandium Project, and recommends the Project owners seek finance and proceed to construction. Recommendations are made for additional immediate work, notably to win additional offtake agreements with customers, complete some optimizing flow sheet studies, and to initiate as early as possible detailed engineering required on certain long-lead capital items.

QUALIFIED PERSONS AND NI 43-101 TECHNICAL REPORT

The Company will file a Technical Report prepared pursuant to the requirements of National Instrument 43-101 providing the details and results of the feasibility study, on SEDAR within 45 days.

Dr. Geoffrey Duckworth, B.Eng (Chem), M.Eng.Sc, PhD, FIChemE, MIEAust, FAusIMM, RPEQ 2702, of Lycopodium Limited, Brisbane, Australia, with support from Dr. Nigel Jeffrie Ricketts, MAusIMM CP (Metallurgy), Principal with Altrius Engineering Services Pty Ltd., both qualified persons for the purposes of NI 43-101 have reviewed and approved the technical content of this press release as it relates to financial and economic statements.

Stuart Hutchin, BSc (Applied Geology) and member of the AusIMM, of Mining One, Melbourne, Australia, is a qualified person for the purposes of NI 43-101 and has reviewed and approved the technical content of this press release as it relates to estimates of mineral resources.

Dean Basile, B.Eng(Mining), GDipAppF&I, MAusIMM CP(Min), of Mining One, Melbourne, Australia, is a qualified person for the purposes of NI 43-101 and has reviewed and approved the technical content of this press release as it relates to mining, and estimates of mineral reserves.

Willem Duyvesteyn, Msc, AIME, CIM, a Director and CTO of the Company, is a qualified person for the purposes of NI 43-101 and has reviewed and approved the technical content of this press release on behalf of the Company.

ABOUT SCANDIUM INTERNATIONAL MINING CORP.

The Company is focused on developing the Nyngan Scandium Project into the world's first scandium-only producing mine. The Company owns an 80% interest in both the Nyngan Scandium Project, and the adjacent Honeybugle Scandium Property, in New South Wales, Australia, and is manager of both projects. Our joint venture partner, Scandium Investments LLC, owns the remaining 20% in both projects, along with an option to convert those direct project interests into SCY common shares, based on market values, prior to construction.

The Company filed an amended NI 43-101 technical report in 2015 on a preliminary economic assessment of the Nyngan Scandium Project, based on extensive metallurgical test work on the resource.

In addition to the two lateritic scandium properties in Australia, SCY owns a 100% interest in the Tørdal Scandium/REE property in southern Norway, where we continue our exploration efforts, specifically for scandium and REE minerals.

For further information, please contact:

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This press release contains forward-looking statements about the Company and its business. Forward looking statements are statements that are not historical facts and include, but are not limited to: reserve and resource estimates, estimated NPV of the project, anticipated IRR, anticipated mining and processing methods for the Project, the estimated economics of the project, anticipated Scandium recoveries, production rates, scandium grades, estimated capital costs, operating cash costs and total production costs, planned additional processing work and environmental permitting. The forward-looking statements in this press release are subject to various risks, uncertainties and other factors that could cause the Company's actual results or achievements to differ materially from those expressed in or implied by forward looking statements. These risks, uncertainties and other factors include, without limitation risks related to uncertainty in the demand for Scandium and pricing assumptions; uncertainties related to raising sufficient financing to fund the project in a timely manner and on acceptable terms; changes in planned work resulting from logistical, technical or other factors; the possibility that results of work will not fulfill expectations and realize the perceived potential of the Company's properties; uncertainties involved in the estimation of Scandium reserves and resources; the possibility that required permits may not be obtained on a timely manner or at all; the possibility that capital and operating costs may be higher than currently estimated and may preclude commercial development or render operations uneconomic; the possibility that the estimated recovery rates may not be achieved; risk of accidents, equipment breakdowns and labor disputes or other unanticipated difficulties or interruptions; the possibility of cost overruns or unanticipated expenses in the work program; risks related to projected project economics, recovery rates, and estimated NPV and anticipated IRR and other factors identified in the Company's SEC filings and its filings with Canadian securities regulatory authorities.

Forward-looking statements are based on the beliefs, opinions and expectations of the Company's management at the time they are made, and other than as required by applicable securities laws, the Company does not assume any obligation to update its forward-looking statements if those beliefs, opinions or expectations, or other circumstances, should change.

Cautionary Note to U.S. Investors Regarding Resource Estimates: The Company's technical disclosure uses terms such as "indicated resources" and "measured resources" which are defined by the Canadian Institute of Mining, Metallurgy and Petroleum, and are required to be disclosed in accordance with Canadian National Instrument 43-101 (NI 43-101). The disclosure standards in the U.S. Securities and Exchange Commission's (SEC) Industry Guide 7 normally do not recognize information concerning these terms or other descriptions of the amount of mineralization in mineral deposits that do not constitute "reserves" by U.S. standards in documents filed with the SEC. Accordingly, information concerning mineral deposits set forth in the Company's disclosure documents may not be comparable with information presented by companies using only U.S. standards in their public disclosure

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