

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549**

**FORM 10-K**

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

**For the fiscal year ended December 31, 2020**

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

**000-54416**

(Commission File Number)

**Scandium International Mining Corp.**

(Exact Name of Registrant as specified in its charter)

**British Columbia, Canada**

(State or other Jurisdiction of Incorporation  
or organization)

**98-1009717**

(I.R.S. Employer  
Identification No.)

**1430 Greg Street, Suite 501  
Sparks, Nevada**

(Address of Principal Executive Offices)

**89431**

(Zip Code)

Registrant's Telephone Number, including area code: **(775) 355-9500**

Securities registered pursuant to Section 12(b) of the Act: **None**

Securities to be registered pursuant to Section 12(g) of the Act: **Common Shares without par value**  
(Title of class)

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes  No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes  No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes [X] No [ ]

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of “large accelerated filer,” “accelerated filer” “smaller reporting company” and “emerging growth company” in Rule 12b-2 of the Exchange Act (Check one):

Large Accelerated Filer

Accelerated Filer

Non-Accelerated Filer

Smaller Reporting Company

Emerging Growth Company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. [ ]

Indicate by check mark whether the registrant has filed a report on and attestation to its management’s assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. [ ]

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes [ ] No [X]

State the aggregate market value of the voting and non-voting common equity held by non-affiliates computed by reference to the price at which the common equity was sold, or the average bid and asked price of such common equity, as of the last business day of the registrant’s most recently completed second fiscal quarter: \$14,493,219 as at June 30, 2020.

Indicate the number of shares outstanding of each of the registrant’s classes of common equity, as of the latest practicable date: 316,172,595 common shares as at February 25, 2021.

#### DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's Proxy Statement for the Annual Meeting of Stockholders are incorporated by reference into Part III of this Form 10-K, which Proxy Statement is to be filed within 120 days after the end of the registrant's fiscal year ended December 31, 2020.

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## PART I

### *Note about Forward-Looking Statements*

Certain statements contained in this annual report on Form 10-K and the documents incorporated by reference herein constitute "forward-looking statements." Forward-looking statements may include, but are not limited to, statements with respect to the future price of commodities, the estimation of mineral resources, the realization of mineral resource estimates, the timing and amount of estimated future production, costs of production, capital expenditures, costs and timing of the development of new deposits, success of exploration activities, our ability to fund property acquisition costs, our ability to reach targeted time frames for establishing feasibility, permitting time lines, currency fluctuations, requirements for additional capital, government regulation of mining operations, environmental risks, unanticipated reclamation expenses, title disputes or claims, our ability to raise funds necessary for ongoing and planned expenditures and operations, and regulatory approvals. In certain cases, forward-looking statements can be identified by the use of words such as "plans," "expects" or "does not expect," "is expected," "scheduled," "estimates," "intends," "anticipates" or "believes," or variations of such words and phrases or state that certain actions, events or results "may," "could," "would" or "will be taken," "occur" or "be achieved." Forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Such factors may include, among others, risks related to our joint venture operations; actual results of current exploration activities or production technologies that we are currently testing; actual results of reclamation activities; future metal prices; accidents, labour disputes and other risks of the mining industry; delays in obtaining governmental or regulatory approvals or financing or in the completion of development activities, as well as those factors discussed in the section entitled "Risk Factors" and elsewhere in this Form 10-K. Although we have attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward looking statements, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. There can be no assurance that forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements.

### *Glossary of Terms*

"Company," "SCY," "we," "us," "our" and similar words of similar meaning refer to Scandium International Mining Corp.

**\$, A\$, C\$** mean respectively, United States dollars, Australian dollars and Canadian dollars.

**Alteration** Usually referring to chemical reactions in a rock mass resulting from the passage of hydrothermal fluids.

**Assay** An analysis to determine the presence, absence or quantity of one or more components, elements or minerals.

<b>Core</b>	The long cylindrical piece of a rock, up to several inches in diameter, brought to the surface by Diamond drilling.
<b>Diamond drilling</b>	A drilling method in which the cutting is done by abrasion using diamonds embedded in a matrix rather than by percussion. The drill cuts a core of rock, which is recovered in long cylindrical sections.
<b>Fractures</b>	Breaks in a rock, usually due to intensive folding or faulting.
<b>Grade</b>	The concentration of a valuable mineral within an Ore.
<b>Hydrothermal</b>	Hot fluids, usually water, which may or may not carry metals and other compounds in solution to the site of mineral deposition or wall rock alteration.
<b>Igneous</b>	A rock formed by the cooling of molten silicate material.
<b>Intrusion</b>	A general term for a body of igneous rock formed below the surface of the earth.
<b>Kg</b>	Kilogram which is equivalent to approximately 2.20 pounds.
<b>Km</b>	Kilometer which is equivalent to approximately 0.62 miles.
<b>Mineralization</b>	A term used to describe the presence of minerals of possible economic value. Also used to describe the process by which concentration of economic minerals occurs.
<b>Net Smelter Returns Royalty</b>	A share of the net revenues generated from the sale of metal produced by a mine.
<b>NI 43-101</b>	National Instrument 43-101 – <i>Standards for Disclosure of Mineral Projects</i> , being the regulation adopted by Canadian securities regulators that governs the public disclosure of technical and scientific information concerning a mineral property.
<b>Ore</b>	A naturally occurring solid material from which a metal or valuable mineral can be profitably extracted.
<b>Outcrop</b>	An exposure of rock at the earth's surface.
<b>ppm</b>	Parts per million.
<b>Pyrite</b>	Iron sulphide mineral. The most common and abundant sulphide mineral and often found in association with copper and gold.
<b>Qualified Person</b>	Means a Qualified Person as defined in National Instrument 43-101, including an engineer or geoscientist in good standing with their professional association, with at least five years of relevant experience.
<b>Quartz</b>	The second most common rock forming mineral in the earth's crust. SiO <sub>2</sub> .

<b>Resource</b>	<p>Means any of a measured, indicated or inferred resource as used in NI 43-101, and having the following meanings:</p> <p>“<b>measured resource</b>” is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough to confirm both geological and grade continuity.</p> <p>“<b>indicated resource</b>” is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics, can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed.</p> <p>“<b>inferred resource</b>” is that part of a Mineral Resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes.</p> <p>For the purposes of the above a “<b>mineral resource</b>” means a concentration or occurrence of diamonds, natural solid inorganic material, or natural solid fossilized organic material including base and precious metals, coal, and industrial minerals in or on the Earth’s crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge.</p> <p>(Please refer to “<i>Item 2. Properties - Cautionary Note to U.S. Investors Regarding Resource Estimates</i>” in regards to the use of the above terms in this Form 10-K.)</p>
<b>Sulphide</b>	A class of minerals characterized by the linkage of sulphur with a metal (such as Pyrite (FeS <sub>2</sub> )).
<b>Tpd/Tpa</b>	Tonnes per day/tonnes per annum.
<b>Tonne</b>	A metric ton which is equivalent to approximately 2,204 pounds.
<b>Sediments</b>	The debris resulting from the weathering and breakup of rocks that have been deposited by or carried by runoff, streams and rivers, or left over from glacial erosion or sometimes from wind action.

**Vein**

A geological feature comprised of minerals (usually dominated by quartz) that are found filling openings in rocks created by faults or replacing rocks on either side of faults or fractures.

## **ITEM 1. BUSINESS**

### **General**

We were incorporated on July 17, 2006 under the laws of British Columbia, Canada under the name Golden Predator Mines Inc. We were incorporated as a wholly owned subsidiary of Energy Metals Corp. for the purpose of holding precious metals and certain specialty metals assets. In order to focus on specialty metals, during February 2009 we transferred most of our precious mineral assets to our then wholly-owned subsidiary Golden Predator Corp., and on March 6, 2009 we completed a spin-out of Golden Predator Corp. to our shareholders. Effective March 12, 2009, we changed our name to EMC Metals Corp. In order to reflect a new emphasis on mining for scandium minerals, effective November 19, 2014, we changed our name to Scandium International Mining Corp (“SCY” or the “Company”).

We are a reporting issuer in the Canadian Provinces of British Columbia, Alberta and Ontario and our common shares are listed for trading on the Toronto Stock Exchange under the trading symbol “SCY.”

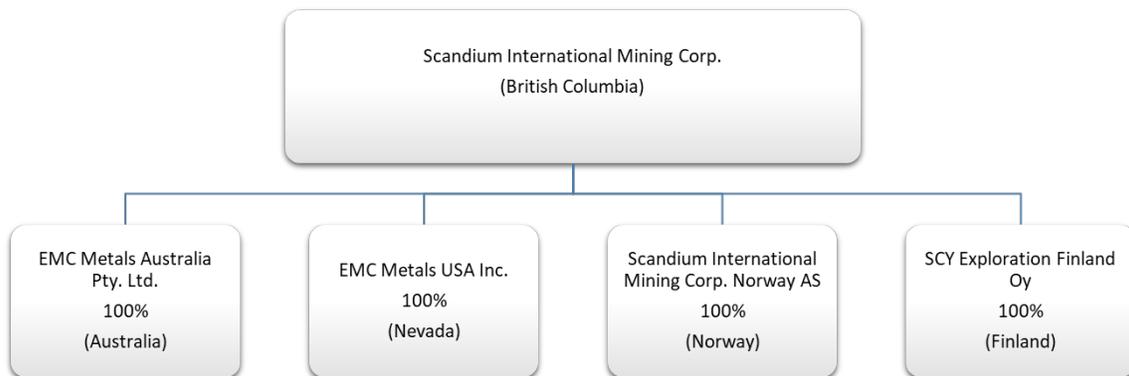
Our head office is located at 1430 Greg Street, Suite 501, Sparks, Nevada 89431. The address of our registered office is 1200 - 750 West Pender Street, Vancouver, British Columbia, Canada, V6C 2T8.

Our primary development project is the Nyngan Scandium Project, located in New South Wales, Australia (the “Nyngan Scandium Project”), on which we hold a mine lease grant and a development consent. We also hold an exploration license on a scandium mineral property located nearby Nyngan known as the “Honeybugle Scandium property” and a reservation on an exploration license on a scandium mineral property in Finland, known as the “Kiviniemi Scandium property.” In addition to these scandium mining project interests, the Company is pursuing copper industry interest in our ion exchange (IX) technology and knowhow to recover scandium, nickel, cobalt and other technology-driven metals from mineral processing solutions, and other acidic waste streams in certain acid leach copper operations. This project effort is known as the “Critical Metals Recovery (CMR) Project,” with a specific focus on North American opportunities.

Our plan of operation for the remainder of 2021 is to obtain copper industry partners for our ion exchange (IX) technology, and to subsequently secure offtake sales agreements with counterparties for those critical metals planned to be produced at participating separation sites. The Company continues to pursue scandium product customers for offtakes, either from critical metals projects or from the Nyngan Scandium Project product. We will seek additional funding for corporate working capital in 2021, and also for advanced development of an approved CMR Project, once that project is identified.

### **Intercorporate Relationships**

The chart below illustrates our corporate structure on December 31, 2020, including our subsidiaries, the jurisdictions of incorporation, and the percentage of voting securities held.



Pursuant to a share exchange agreement dated June 30, 2017, the Company acquired the remaining 20% interest in EMC Metals Australia Pty. Ltd. from Scandium Investments LLC (“SIL”). On completion of the share exchange, the Company issued an aggregate of 58,830,645 common shares to SIL and granted to SIL the right to nominate two individuals to the board of the Company for so long as SIL holds at least 15% of SCY’s issued and outstanding shares, and one director for so long as SIL holds at least 5% but less than 15% of SCY’s issued and outstanding shares.

## **Business Operations**

### Company Summary

We are a mineral exploration and development company that is primarily focused on the development of scandium mineral resources, and scandium end-use markets, through identification of value-added applications for scandium in aluminum alloys and end products. The Company has also considered exploration and project development opportunities in rare earth minerals, and other specialty metals, specifically including nickel, cobalt, boron, manganese, tantalum, titanium, zirconium and high-purity alumina (HPA). We have not commenced construction on of any of our scandium projects, and as a result we are an exploration stage company.

Our principal project is the Nyngan Scandium Project located in New South Wales, Australia, in which we own 100% of the mineral rights. The Company is in possession of both a development consent and a mining lease grant on the property that corresponds to a definitive feasibility study on the Nyngan Scandium Project dated May 4, 2016 (the “Feasibility Study” or “DFS”), which was prepared independently in accordance with NI 43-101. The results of the DFS include a 16.9 million tonne measured and indicated resource (grading 235ppm at a 100ppm cut-off) and a 1.43 million tonne mineral reserve (combined proven and probable), based on economics established in that study. The DFS was filed on May 6, 2016 and is available on SEDAR ([www.sedar.com](http://www.sedar.com)), on the Company’s website ([www.scandiummining.com](http://www.scandiummining.com)) and on the SEC’s website ([www.sec.gov](http://www.sec.gov)). A summary of the DFS is provided herein under “*Item 2. Properties – Description of Mineral Projects – Nyngan Scandium Project – Nyngan Feasibility Study.*”

The Company also holds exploration licenses on two separate scandium-prospective properties:

- an exploration license on the Honeybugle Scandium property, located 24 kilometers from the Nyngan Scandium Project, granted in 2014; and
- an exploration license on the Kiviniemi Scandium Property a scandium-prospective property in central Finland, granted in 2018.

In addition, the Company is currently pursuing copper industry interest in our ion exchange (IX) technology and knowhow to recover various critical metals (usually including scandium) from mineral processing solutions and other acidic waste streams present in acid leach copper operations. This effort has a principal focus on opportunities in North America.

### Corporate Objectives and Strategy

Our corporate focus is in the development of projects that enable the production and sale of scandium and scandium-based products. That scandium focus has now been expanded to include other specialty metals, identified by the US Department of Commerce in 2018 on a list of 35 critical metals, which specifically includes scandium. In this regard, the Company is pursuing various host project opportunities that can produce a basket of metal products, including scandium, along with other technology-driven critical metals.

The Nyngan Scandium Project remains the most advanced project in the Company portfolio at this time, with permitting largely complete and a published DFS on SEDAR. Subject to successful construction financing and customer sales agreements, we intend to develop the Nyngan Scandium Project for production and supply of scandium oxide and scandium-content products. The Company has been successful in developing capability to manufacture an aluminum-scandium master alloy product, specifically for sale to aluminum alloy customers. This additional product capability enhances the Company’s ability to sell scandium-containing products to the aluminum industry, and potentially generate additional margins in certain markets. For further information on the Nyngan Scandium Project, please refer to “*Item 2. Properties - Description of Mineral Projects – Nyngan Scandium Project*” and “*Item 1A. Risk Factors.*”

The Company is independently pursuing opportunities to deploy both ion exchange (IX) and solvent extraction (SX) separation technologies and knowhow to recover critical metals from mineral processing solutions and acidic waste streams, commonly found in copper leaching operations. The critical metals present are dependent on the specific operation, and value depends on concentration, but cobalt, nickel and scandium represent key targets for recovery. This strategy depends on SCY’s ability to identify suitable mine operations with acceptable economics and to establish hosting arrangements with existing mine operators that will support attractive project returns. For further information on our ion exchange

technology, please refer to “*Item 2. Properties - Description of Mineral Projects – Critical Metals Recovery Technology Program*” and “*Item 1A. Risk Factors.*”

### Global Scandium Production and Market

Scandium is the 31<sup>st</sup> most abundant element in the earth’s crust (average 33 ppm), which makes it more common than lead, mercury, and precious metals, but less common than copper. Scandium has characteristics that are similar to rare earth elements, and it is often classified as a member of that group, although it is technically a light transition metal. Scandium occurs in nature as an oxide, rarely occurs in concentrated quantities because it does not selectively combine with the common ore-forming anions, and is very difficult to reduce to a pure metal state. Scandium is typically produced and sold as scandium oxide (Sc<sub>2</sub>O<sub>3</sub>), more properly known as scandia.

Global annual production estimates of scandium range from 15 tonnes to 20 tonnes, but accurate statistics are not available due to the lack of public information from countries in which scandium is currently being produced. There are five known, primary production sources globally today: stockpiles from the former Zhovti Voty uranium mine in Ukraine, the rare earth mine at Bayan Obo in China, apatite mines on the Kola Peninsula in Russia, by-product production from titanium dioxide (TiO<sub>2</sub>) pigment refiners in China, and recent start-up production of scandium oxide concentrates from the Taganito Nickel Mine in the Philippines (Sumitomo Metal Mining Co., Ltd.). Recent announcements from Rio Tinto indicate their Quebec titanium feedstock producer, Rio Tinto Fer et Titane (RTFT), is planning to initiate small scale scandium production in 2021, with expansion capability planned for the future.

There is no reliable pricing data on global scandium oxide trading. The U.S. Geological Survey (“USGS”) in its latest available report (dated January 2021) documents the 2020 price of scandium oxide (99.99% grade) at US\$3,800/kg, indicating a reduction from the 2019 price estimate of US\$3,900/kg. Small quantities of scandium oxide, suitable for laboratory investigations, are currently offered on the internet by traders for prices at this level. Larger quantities of oxide product at varying purities are available at considerably lower prices, typically below US\$2,000/kg. Scandium oxide grades of 95% or greater are considered commercially suitable, with 99.9% grade used for electrical applications, and grades higher than 99.9% reserved for science and new technical applications. Scandium oxide grades of 95-99% are generally considered suitable for aluminum alloy applications.

Scandium oxide is typically traded in small quantities, between private parties, and pricing is not transparent to other buyers or sellers as there is no clearing facility as is more common with commercially traded metals and commodities. Prices do vary, based on purity and quantity supplied. Small sale quantities tend to command premium prices, and large quantities (over one tonne) are simply not available to establish appropriate commercial pricing.

Scandium can also be effectively purchased in the form of aluminum-scandium (Al-Sc) master alloy, typically containing 2% scandium by weight. This product is the preferred form for manufacture of aluminum alloys containing scandium. The latest available 2021 USGS report indicates the 2020 price for Al-Sc 2% master alloy at US\$340/kg, somewhat higher than the 2019 USGS average. Recent USGS estimated prices for Al-Sc 2% master alloy have also been high relative to commonly available prices, which have trended under US\$100/kg and are available in one tonne lots or greater today.

Principal uses for scandium are in high-strength aluminum alloys, high-intensity metal halide lamps, electronics, and laser research. Recently developed applications include welding wire and fuel cells which are expected to be in future demand. Approximately 15 different commercial aluminum-scandium alloys have been developed, and some of them are used for aerospace applications. In Europe and the U.S.,

scandium-containing alloys have been evaluated for use in structural parts in commercial airplanes and high stress parts in automobile engines and brake systems. Military and aerospace applications are known to be of interest, although with less specificity. The combination of high strength, weldability and ductility makes aluminum-scandium alloys potentially attractive replacements for existing aluminum alloys in a number of applications where improved alloy properties can add value to final products.

### Competitive Conditions

We compete with numerous other companies and individuals in the search for and the acquisition or control of attractive rare earth and specialty metals mineral properties. Our ability to acquire further properties will depend not only on our ability to operate and develop our properties but also on our ability to select and acquire suitable properties or prospects for development or mineral exploration.

In regard to our plan to produce scandium, there are a limited number of scandium producers presently. If we are successful at becoming a producer of scandium, our ability to be competitive will require that we establish a reliable supply of scandium to the market, delivered at purity levels demanded by various applications, and that our operating costs generate margins at prices that will be set by customers and competitors in a market yet to mature.

### Governmental Regulations and Environmental Laws

The development of any of our properties, and specifically the Nyngan Scandium Project, will require numerous local and national government approvals and environmental permits. For further information about governmental approvals and permitting requirements, please refer to “*Item 1A. Risk Factors*”.

### Employees

As at January 1, 2021, we have 5 full and part time employees and 2 individuals working on a consulting basis. Our operations are managed by our officers with input from our directors. We engage geological, metallurgical, and engineering consultants from time to time as required to assist in evaluating our property interests and recommending and conducting work programs.

## **ITEM 1A. RISK FACTORS**

In addition to the factors discussed elsewhere in this Form 10-K, the following are certain material risks and uncertainties that are specific to our industry and properties that could materially adversely affect our business, financial condition and results of operations.

### **Risks Associated with the Nyngan Scandium Project**

***There are technical challenges to scandium production that may render the Nyngan Scandium Project not economic.*** The economics of scandium recovery are known to be challenging. There are very few facilities producing scandium and the existing scandium producers are secretive in their techniques for recovery. In addition, the recovery of scandium product from laterite resources, such as are found on the Nyngan property, has not been demonstrated at an operating facility. The Nyngan processing facility design, if constructed, will be the first of its kind for scandium production. These factors increase the possibility that we will encounter unknown or unanticipated production and processing risks. Should we encounter any of these risks, they could increase the cost of production thereby reducing margins on the Nyngan Scandium Project or rendering it uneconomic.

***There is no guarantee that we will be able to finance the Nyngan Scandium Project for production.*** Any decision to proceed with production on the Nyngan Scandium Project will require significant production financing. Scandium projects are uncommon, and economic and production uncertainty may limit our ability to attract the required amount of capital to put the project into production. If we are unable to source production financing on commercially viable terms, we may not be able to proceed with the project and may have to write off our investment in the project.

***We may not be successful in attracting copper industry interest in our ion exchange (IX) technology.*** Our technology is designed to recover scandium, cobalt and other critical metals from solvent extraction (SX) raffinate and other acidic waste streams in certain acid leach copper operations. Access to these processing streams is dependent on obtaining contractual relationships with existing copper mine operations. If we are unable to locate any existing copper mine operations willing to initiate access rights, then we may not be able to proceed with a CMR Project.

***If we are successful at achieving scandium production, we may have difficulty selling scandium-containing products.*** Scandium is characterized by unreliable supply, resulting in limited development of markets for scandium oxide. Markets may take longer to develop than anticipated, and Nyngan and other potential scandium producers may have to wait for products and applications to create adequate demand. Certain applications may require lengthy certification processes that could delay usage or acceptance. In addition, certain scandium applications require very high purity scandium product, which is much more difficult to produce than lower grade product. If we commence production, our inability to supply scandium in sufficient quantities, in a reliable and timely manner, and in the correct quality, could reduce the demand for any scandium produced from our projects and possibly render the project uneconomic.

#### **General Risks Associated with our Mining Activities and Company**

***We may not receive permits necessary to proceed with the development of a mining project.*** The development of any of our properties, including the Nyngan Scandium Project, will require the acquisition and sustained possession of numerous local and national government approvals and permits. Our ability to secure all necessary permits required to develop any of our projects is unknown until such permits are received. If we cannot obtain or retain all necessary permits, the Nyngan Scandium Project cannot be developed, and our investment in the project will potentially be lost. While the critical permits for the Nyngan Scandium Project have been received, other permits remain outstanding at this time and continuing compliance with the terms of the permits is required. Our future market value will likely be significantly reduced to the extent one or more of our projects cannot proceed to the development or production stage due to an inability to secure all required permits.

***Mineral Resource Estimates on our properties are subject to uncertainty and may not reflect what may be economically extracted.*** Resource estimates included for scandium on our Nyngan property are estimates only and no assurances can be given that the estimated levels of scandium minerals will actually be produced or that we will receive the metal prices assumed in determining our resources. Such estimates are expressions of judgment based on knowledge, mining experience, analysis of drilling and exploration results and industry practices. Estimates made at any given time may change significantly when new information becomes available or when parameters that were used for such estimates change. By their nature resource estimates are imprecise and depend, to a certain extent, upon statistical inferences which may ultimately prove unreliable. Furthermore, market price fluctuations in scandium, as well as increased capital or production costs or reduced recovery rates, may limit our ability to establish reserves at some future point on Nyngan, or on any of our properties. The extent to which more Nyngan project resources may ultimately be reclassified as proven or probable reserves is dependent upon the demonstration of their profitable recovery. The evaluation of reserves or resources is always influenced by economic and technological factors, which may change over time. Accordingly, further current

resource estimates on our material properties may never be converted into reserves, or be economically extracted, and we may have to write off such properties or incur a loss on sale of our interest on such properties, which will likely reduce the value of our shares.

***Our potential for a competitive advantage in specialty and rare metals production depends on the availability of our technical processing abilities, as currently provided by our Chief Technology Officer.*** We are dependent upon the personal efforts and commitment of Willem Duyvesteyn, our CTO, a director and significant shareholder of the Company, for the continued development of new extractive technologies related to scandium and other rare and specialty metals production. The loss of the services of Mr. Duyvesteyn would likely limit our ability to use or continue the development of such technologies, which would remove the potential competitive and economic benefit of such technologies.

***Our operations are subject to losses due to exchange rate fluctuation.*** We maintain accounts in Canadian, Australian, Euro and U.S. currency. Our equity financings have to date been priced in Canadian dollars. All of our material projects and non-cash assets are located outside of both Canada and the USA, however, and require regular currency conversions to local currencies where such projects and assets are located. Our operations are accordingly subject to foreign currency fluctuations and such fluctuations may materially affect our financial position and results. We do not engage in currency hedging activities.

***We do not currently earn any revenue and without additional funding, we will not be able to carry out our business plan, and if we raise additional funding existing security holders may experience dilution.*** As an exploration stage mining company, none of our principal properties are in operation and we do not currently earn any revenue. In order to continue our exploration activities and to meet our obligations on the Nyngan Scandium Project, we will need to raise additional funds. Recently, we have relied entirely on the sale of our securities to raise funds for operations. Our ability to continue to raise funds from the sale of our securities is subject to significant uncertainty due to volatility in the mineral exploration marketplace. If we are able to raise funds from the sale of our securities, existing security holders may experience significant dilution of their ownership interests and possibly to the value of their existing securities.

***Risks Related to the COVID-19 Pandemic.*** The current outbreak of the novel coronavirus (COVID-19) that was first reported from Wuhan, China in December 2019, and the spread of this virus could continue to have a material adverse effect on global economic conditions which may adversely impact our business. The World Health Organization (WHO) declared a global emergency on January 30, 2020 with respect to the outbreak and characterized it as a pandemic on March 11, 2020. Cases of COVID-19 have been reported in 223 countries, areas or territories as of February 17, 2021, including China, Australia, the United States, Canada and countries in the European Union. The extent to which the outbreak impacts the Company's business will depend on future developments, which are highly uncertain and cannot be predicted, including new information which may emerge concerning the severity of the coronavirus and the actions to contain the outbreak or treat its impact, among others. Moreover, the actual and threatened spread of the coronavirus globally could also have a material adverse effect on the regional economies in which the Company intends to operate, continue to negatively impact stock markets and adversely impact the Company's ability to raise capital. Any of these developments, and others, could have a material adverse effect on the Company's business. In particular, the COVID-19 pandemic has resulted in restrictions including quarantines, closures, cancellations and travel restrictions, which may have a material adverse effect on the Company's business including delays or disruptions in regulatory submissions, exploration activities on the Nyngan Scandium Project and CMR Project development.

## ***ITEM 2. PROPERTIES***

## **Cautionary Note to U.S. Investors Regarding Resource Estimates**

Certain terms used in this section are those used in accordance with the requirements of the securities laws in effect in Canada, which differ from the requirements of U.S. securities laws. Canadian requirements, including NI 43-101, differ significantly from the requirements of the U.S. Securities and Exchange Commission (the “SEC”), and resource information contained herein may not be comparable to similar information disclosed by U.S. companies.

In particular, and without limiting the generality of the foregoing, the term “resource” does not equate to the term “reserves.” The requirements of NI 43-101 for identification of “reserves” are not the same as those of the SEC, and reserves reported in compliance with NI 43-101 may not qualify as “reserves” under SEC standards. Under U.S. standards, mineralization may not be classified as a “reserve” unless the determination has been made that the mineralization could be economically and legally produced or extracted at the time the reserve determination is made.

The SEC’s disclosure standards normally do not recognize information concerning “measured mineral resources,” “indicated mineral resources” or “inferred mineral resources” 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. In addition, resources that are classified as “inferred mineral 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 an “inferred mineral resource” will ever be upgraded to a higher category. Under Canadian rules, estimated “inferred mineral resources” may not generally form the basis of feasibility or pre-feasibility studies. Investors are cautioned not to assume that all or any part of an “inferred mineral resource” exists or is economically or legally mineable.

Disclosure of “contained ounces” in a resource is permitted disclosure under Canadian regulations, however, the SEC normally only permits issuers to report mineralization that does not constitute “reserves” by SEC standards as in-place tonnage and grade without reference to unit measures.

Accordingly, information concerning mineral deposits set forth herein may not be comparable with information presented by companies using only U.S. standards in their public disclosure.

## **Description of Mineral Projects**

### **Nyngan Scandium Project**

#### ***Property Description and Location***

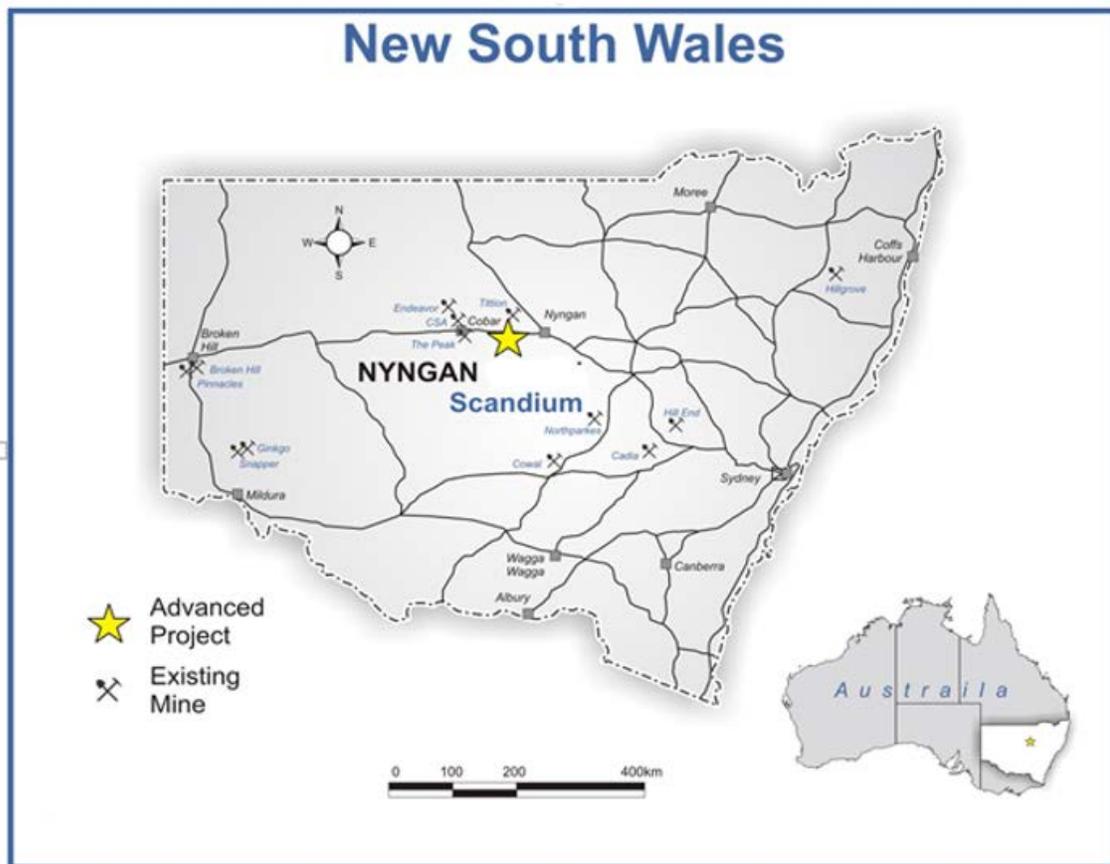
The Nyngan Scandium Project site is located approximately 450 kilometres northwest of Sydney, NSW, Australia and approximately 20 kilometres due west from the town of Nyngan, a rural town of approximately 2,900 people. The deposit is located 5 kilometres south of Miandetta, off the Barrier Highway that connects the town of Nyngan to the town of Cobar. The license area can be reached via the paved Barrier Highway, which allows year-round access, but final access to the site itself is reached by clay farm tracks. The general area can be characterized as flat countryside and is classified as agricultural land, used predominantly for wheat farming and livestock grazing. Infrastructure in the area is good, with available water and electric power in close proximity to the property boundaries.

The Nyngan property is classified as an Australia Property for purposes of financial statement segment information.

The scandium resource is hosted within the lateritic zone of the Gilgai Intrusion, one of several Alaskan-type mafic and ultramafic bodies which intrude Cambrian-Ordovician metasediments collectively called the Girilambone Group. The laterite zone, locally up to 40 meters thick, is layered with hematitic clay at the surface followed by limonitic clay, saprolitic clay, weathered bedrock and finally fresh bedrock. The scandium mineralization is concentrated within the hematitic, limonitic, and saprolitic zones with values up to 350 ppm scandium.

The general location of the Nyngan Scandium Project is provided in Figure 1 below. The specific location of the exploration licenses that we may earn an interest in are provided in Figure 2 below.

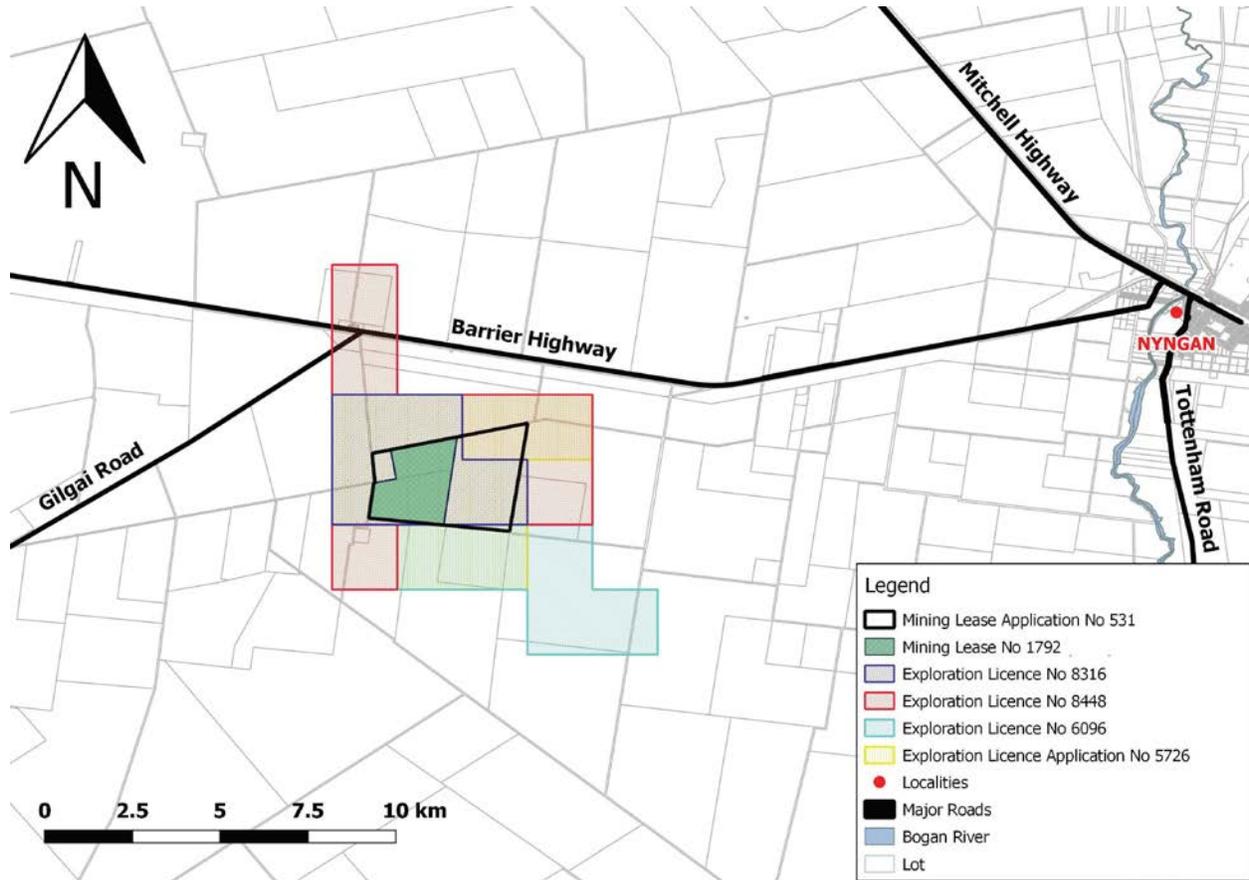
**Figure 1: Location of Nyngan Scandium Project**



Note: None of the Existing Mines identified in Figure 1 produce scandium.



**Figure 2: Location of the Exploration Licenses and Mining Lease for the Nyngan Scandium Project**



**Mineral License Details**

The scandium resource is held under Exploration License (EL) 8316 (Block Number 3132, units d, e, j, k and Block no. 3133, unit f) and EL 6096 (Block 3132, unit p, and Block 3133, units l, m, r and s); a total of ten (10) graticular units. The exploration licenses allow the license holder to conduct exploration on private land (with landowner consents and signed compensation agreements in place) and public lands not including wildlife reserves, heritage areas or National Parks. The scandium resource is fully enclosed on private agricultural land.

The Company’s Australian subsidiary holds legal title to both the surface and mineral exploration rights on the Nyngan Scandium Project.

During 2017, an additional EL (EL 8448) was granted. Figure 2 provides details of the location of EL 8448 and the locations of Mining Lease 1792 and Mining Lease Application 531, both of which overlay the exploration license area.

The exploration licenses cover 29.25 square kilometers (2,925 hectares). The resource site is located at geographic coordinates MGA zone 55, GDA 94, Lat: - 31.5987, Long: 146.9827, Map Sheets 1:250k – Cobar (SH/55-14) and 1:100k Hermidale (8234).

The project surface rights (freehold) total 810 acres (370 hectares) on the portion of the exploration license area corresponding to the Mine Lease 1792 area. The freehold property boundaries are defined by standard land survey techniques undertaken by the Lands Department and currently presented in the form of Cadastral Deposited Plans (DP) and Lots. The land associated with the project rights is DP 752879, Lots 6 and 7 (Appendix 2, Lots 6 and 7 - Nyngan).

The Company is required to lodge individual A\$10,000 environmental bonds with the NSW Mines Department for each license, and must meet total minimum work requirements annually of approximately A\$65,000, covering both licenses.

Royalties attached to the properties include a 1.5% Net Profits Interest royalty to private parties involved with the early exploration on the property, a 1.7% Net Smelter Returns Royalty payable to Jervois for 12 years after production commences, subject to terms in the settlement agreement, and a 0.7% royalty on gross mineral sales to a private investor. Another revenue royalty is payable to private interests of 0.2%, subject to a US\$370k cap. A NSW minerals royalty will also be levied on the project, subject to negotiation, currently 4% on revenue.

### ***Metallurgy Development***

The Company has invested in and developed methodology for extracting scandium from the Nyngan property resource since 2010. A portion of the work done over this period has been superseded by work that followed, but subsequent test programs universally benefitted from prior efforts. In summary, the programs have been as follows:

- 2010 – The Company inherited work done on Nyngan from the previous property owner, and applied that work to a quick flowsheet and capital estimate done for management by Roberts & Schaefer of Salt Lake City, Utah;
- 2011 – The Company employed Hazen Research, Inc., of Golden, Colorado, USA (“Hazen”) to test acid baking techniques and solvent extraction (“SX”) processes with Nyngan resource material. The Company also employed SGS-Lakefield (Ontario) to test pressure acid leach techniques on Nyngan resource, as a replacement for or an enhancement to acid bake techniques done earlier in the year by Hazen;
- 2012 – The Company engaged SNC-Lavalin to do an economic study for management, utilizing an acid bake flowsheet and SX work from the Hazen test program;
- 2014 – The Company published a preliminary economic assessment (“PEA”) entitled NI 43-101F1 Technical Report on the Feasibility of the Nyngan Scandium Project, authored by Larpro Pty Ltd, utilizing both Hazen and SGS-Lakefield test work results; and
- 2015 – The Company amended and refiled the 2014 PEA Report as the “*Amended Technical Report and Preliminary Economic Analysis on the Nyngan Scandium Project, NSW, Australia.*”
- 2016 – The Company published an independently prepared definitive feasibility study (“DFS”) on the Nyngan Scandium Project. The technical report on the feasibility study entitled “*Feasibility Study – Nyngan Scandium Project, Bogan Shire, NSW, Australia*” was independently compiled pursuant to the requirements of NI 43-101 and incorporated the results of current and previous test work.

### **Nyngan Feasibility Study**

On April 18, 2016, the Company announced the results of an independent definitive feasibility study on the Nyngan Scandium Project. The technical report on the feasibility study entitled “*Feasibility Study – Nyngan Scandium Project, Bogan Shire, NSW, Australia*” is dated May 4, 2016 and was independently

compiled pursuant to the requirements of NI 43-101 (the “Feasibility Study” or “DFS”). The report was filed on May 6, 2016 and is available on SEDAR ([www.sedar.com](http://www.sedar.com)), the Company’s website ([www.scandiummining.com](http://www.scandiummining.com)) and the SEC’s website ([www.sec.gov](http://www.sec.gov)). A full discussion on the technical report was provided in the Company’s Form 10Q for the quarterly period ending March 31, 2016, as filed with the SEC and on SEDAR on May 13, 2016.

The Feasibility Study concluded that the Nyngan Scandium Project has the potential to produce an average of 37,690 kilograms of scandium oxide (scandia) per year, at grades of 98.0%-99.8%, generating an after-tax cumulative cash flow over a 20 year project life of US\$629 million, with an NPV<sub>10%</sub> 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 Nyngan Scandium Project location and environment.

#### ***Nyngan Scandium Project Highlights***

- Capital cost estimate for the project is US\$87.1 million,
- Annual scandium oxide product volume averages 37,690 kg, over 20 years,
- Annual revenue of US\$75.4 million (oxide price assumption of US\$2,000/kg),
- Operating cost estimate for the project is US\$557/kg scandium oxide,
- Project Constant Dollar NPV<sub>10%</sub> is US\$177 million, (NPV<sub>8%</sub> is US\$225 million),
- Project Constant Dollar IRR is 33.1%,
- Oxide product grades of 98-99.8%, 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.

#### ***DFS 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 Feasibility Study consolidates a significant amount of metallurgical test work and prior study on the Nyngan Scandium 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. A number of the key elements of this flowsheet work have been protected by the Company under US Patent Applications. 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 the Feasibility Study were achieved by reliance on significant project engineering work, a capital and operating cost estimate supported by detailed requirements and vendor pricing, plus one conditional offtake agreement and an independent marketing assessment, both supportive of the marketing assumptions for the business.

The Feasibility Study delivered a positive result on the Nyngan Scandium Project, and recommends the Nyngan Scandium Project owners seek finance and proceed to construction. Recommendations were made therein 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. The Company intends to act on these recommendations as financing permits.

### ***Confirmatory Metallurgical Test Results***

The final Nyngan Project DFS contained several recommended confirmatory process investigations be undertaken prior to commencing detailed engineering and construction. Specific study areas included pressure leach (“HPAL”), counter-current decant circuits (“CCD”), solvent extraction (“SX”), and oxalate precipitation, with specific work steps suggested in each area. The Company engaged Altrius Engineering Services (AES) of Brisbane, Australia to undertake these studies, which AES devised and supervised at the SGS laboratory in Perth, Australia and at the Nagrom laboratory in Brisbane, Australia.

On June 29, 2016, the Company announced the results of the subsequent AES metallurgical test work, which confirmed recoveries and efficiencies that either meet or exceed the parameters used in the DFS. Highlights of the independent testing were as follows:

- Pressure leach test work achieved 88% recoveries, from larger volume tests,
- Settling characteristics of leach discharge slurry show substantial improvement,
- Residue neutralization work meets or exceeds all environmental requirements as presented in the DFS and the environmental impact statement,
- Solvent extraction circuit optimization tests generated improved performance, exceeding 99% recovery in single pass systems, and
- Product finish circuits produced 99.8% scandium oxide, completing the recovery process from Nyngan ore to finished scandia product.

### ***Engineering, Procurement and Construction Management Contract***

On May 30, 2017, the Company announced that its subsidiary EMC Metals Australia Pty. Ltd. signed an Engineering, Procurement and Construction Management (“EPCM”) contract with Lycopodium Minerals Pty Ltd (“Lycopodium”), to build the Nyngan Scandium Project in New South Wales, Australia. The EPCM contract also provides for start-up and commissioning services.

The EPCM contract appoints Lycopodium (Brisbane, QLD, Australia) to manage all aspects of project construction. Lycopodium is the principal engineering firm involved with the DFS. Lycopodium's continued involvement in project construction and commissioning ensures valuable technical and management continuity for the project during the construction and start-up of the project.

On October 19, 2017, we announced that Lycopodium has been instructed to initiate critical path engineering for the Nyngan Scandium Project. Lycopodium commenced work on select critical path components for the project, including design and specification engineering on the high-pressure autoclave

unit, associated flash and splash vessels and several specialized high-pressure input pumps. The engineering work was completed in 2018 and will enable final supplier selection, firm component pricing and delivery dates for these key process components.

### ***Environmental Permitting/Development Consent/Mining Lease***

On May 2, 2016, the Company announced the filing of an Environmental Impact Statement (“EIS”) with the New South Wales, Australia, Department of Planning and Environment, (the “Department”) in support of the planned development of the Nyngan Scandium Project. The EIS was prepared by R.W. Corkery & Co. Pty. Limited, on behalf of the Company’s subsidiary, EMC Metals Australia Pty. Ltd. (“EMC Australia”), to support an application for Development Consent for the Nyngan Scandium Project. The EIS is a complete document, including a Specialist Consultants Study Compendium, and was submitted to the Department on April 29, 2016.

#### EIS Highlights:

- The EIS finds residual environmental impacts represent negligible risk.
- The proposed development design achieves sustainable environmental outcomes.
- The EIS finds net-positive social and economic outcomes for the community.
- Nine independent environmental consulting groups conducted analysis over five years, and contributed report findings to the EIS.
- The Nyngan project development is estimated to contribute A\$12.4M to the local and regional economies, and A\$39M to the State and Federal economies, annually
- The EIS is fully aligned with the DFS and with a NSW Mining License Application for the Nyngan project.

#### Conclusion statement in the EIS:

“In light of the conclusions included throughout this *Environmental Impact Statement*, it is assessed that the Proposal could be constructed and operated in a manner that would satisfy all relevant statutory goals and criteria, environmental objectives and reasonable community expectations.”

#### EIS Discussion:

The EIS is the foundation document submitted by a developer intending to build a mine facility in Australia. The Nyngan Scandium Project is considered a State Significant Project, in that capital cost exceeds A\$30million, which means State agencies are designated to manage the investigation and approval process for granting a Development Consent, from the Minister of Planning and Environment. This Department will manage the review of the Proposal through a number of State and local governmental agencies.

The EIS is a self-contained set of documents used to seek a Development Consent. It is however, supported in many ways by the recently completed DFS.

On November 10, 2016, the Company announced that the Development Consent had been granted. This Development Consent represents an approval to develop the Nyngan Scandium Project and is based on the EIS. The Development Consent follows an in-depth review of the EIS, the project plan, community impact studies, public EIS exhibition and commentary, and economic viability, and involved more than 12 specialized governmental agencies and groups.

## Mining Lease:

During July 2019, EMC Australia received notice of approval for its mining lease (ML) application. The ML (ML 1792) overlays select areas previously covered by exploration licenses and represents the final major development approval required from the NSW Government to begin construction on the project. The ML 1792 grant is issued for a period of 21 years and is based on the development plans and intent submitted in the ML application. The ML can be modified by NSW regulatory agencies, as requested by EMC Australia over time, to reflect changing operating conditions.

In addition to these two key governmental approvals, other required licenses and permits must be acquired but are considered routine and require only compliance with fixed standards and objective measurements. These remaining approvals include submittal of numerous plans and reports supporting compliance with Development Consent and Mining Lease. In addition, the following water, roads, dam and electrical access reviews and arrangements must be finalized:

- Water Supply Works and Use Approval and Water Access License,
- State and local approval for construction of the intersection of the Site Access Road and Gilgai Road,
- An approval from the NSW Dams Safety Committee for the design and construction of the Residue Storage Facility, and
- A high voltage connection agreement with Essential Energy.

The 2019 ML 1792 grant covers 810 acres (370 hectares) of surface area fully owned by the Company, an area adequate to construct and operate a scandium mine of a scale outlined in the definitive Feasibility Study. The Company had originally filed a mining lease application (MLA 531) covering an area of 874 hectares, which was granted in 2017 as a mining lease (ML 1763), and later ruled invalid. At that time, it was unknown, to both the Department and the Company, that a local landowner had filed a prior, timely and valid objection to the granting of that mining lease. The reduction in area between the initial 2017 ML 1763 and the replacement 2019 ML 1792 represented acreage protested in an “Agricultural Land” objection lodged by a local landowner. The landowner holds freehold surface ownership over a portion of the original grant that was previously covered by the 2017 ML 1763.

On September 10, 2020, the Company announced receipt of a final determination letter from the Deputy Secretary, Department of Regional NSW, Division of Mining, Exploration and Geoscience resolving the outstanding objection filed by the landowner in 2016.

Written advice from the Department to the Company makes clear that all required independent investigative processes, and all affected party comment periods, are now completed, and the Department’s decision is final. There are further state courts of appeal available to the landowner, but the facts supporting this final decision are confirmed by the NSW Department of Primary Industry and follow governing law.

This Final Determination from the NSW Government will again allow all measured and indicated resource included in the Nyngan Scandium Project DFS to be reinstated in a new mining lease grant, for which the Company intends to file application.

## **Patent Application Filings**

### **Patent Application Filings**

The Company is in the process of establishing a significant portfolio of intellectual property through the filing of scandium related patents both in the US and abroad.

To date, the following seven US patents have been granted to the Company:

TBD	Scandium Master Alloy Production
10,450,634	Scandium-Containing Master Alloys And Method For Making The Same
10,378,085	Recovery Of Scandium Values Through Selective Precipitation Of Hematite And Basic Iron Sulfates From Acid Leachates
10,260,127	Method For Recovering Scandium Values From Leach Solutions
9,982,326	Solvent Extraction Of Scandium From Leach Solutions
9,982,325	Systems And Methodologies For Direct Acid Leaching Of Scandium-Bearing Ores
8,372,367	System and Method for Recovering Boron Values from Plant Tailings

Below is a list of thirteen US patents that have been filed, but have not been granted yet:

US20200001407	Control Of Recrystallization In Cold-Rolled AlMn(Mg)ScZr Sheets For Brazing Applications
US20190161827	Extraction Of Scandium Values From Copper Leach Solutions
US20160289795	Systems and Processes for Recovering Scandium Values From Laterite Ores
US20190218645	Direct Scandium Alloying
US20120305452	Dry, Stackable Tailings and Methods for Producing the Same
US20110298270	In Situ Ore Leaching Using Freeze Barriers
US20120055851	Low Carbon Dioxide Footprint for Coal Liquefaction
US20120204680	System and Method for Recovery of Nickel Values From Nickel-Containing Ores.
US20120207656	System and Method for Recovery of Scandium Values From Scandium-Containing Ores
Provisional (4)	Titles not yet publicly disclosed

#### **Patent Applications Discussion:**

- These patents and patent applications cover novel, unique flowsheet designs, applicable to both scandium extraction and other metals extraction;
- The patented designs on scandium are largely supported by test work done with Nyngan Scandium Project resource material and known design parameters;
- The scandium patents cover HPAL system material flows, solvent extraction (SX), ion exchange systems (“IX”), atmospheric tank and heap leaching systems and techniques, and processes for directly making select master alloys containing scandium; and
- A number of the scandium-focussed designs are incorporated as part of the DFS.
- Recovery by-product scandium from certain other mineral resources is also covered.
- Recovery of base metals, such as copper, cobalt, nickel, manganese and aluminum from process solutions or waste products is also covered.
- Use of scandium in lithium-ion batteries is addressed.

These patent applications, filed with the US Patent Office, protect the Company’s position and rights to the intellectual property (IP) contained and identified in the applications as of the date filed, within the worldwide jurisdiction limits of the US patent system. Review by the US Patent Office will take further time, but the dates of filing these patents define the basis of IP ownership claims, as is generally afforded U.S. patentholders.

The Company intends to utilize the IP contained in these process patents in the development of process

flowsheets for recovery of scandium from its Nyngan Scandium Project, as well as its Honeybugle project, and potentially from future by-product opportunities from leach solutions and/or waste products. The Company believes that patent protection of these specific, novel process designs will be granted. Many of the basic design elements contemplated in the Nyngan Scandium Project flowsheet are commonly applied to other specialty metals, particularly nickel. However, the application of these basic design elements has not been commonly applied to scandium extraction from laterite resources, and there are enough intended and required operational differences in the application to permit the Company to patent-protect IP on those differences.

These patent claims are the result of ten years of metallurgical test work with independent resource laboratories and specific design work by Willem Duyvesteyn, the Company's Chief Technology Officer. This work is ongoing. Patent protection on flowsheet intellectual property will serve to limit or prevent the unauthorized use of that IP by others without the Company's consent. We believe these filings are an important action to protect the ownership of a Company asset, on behalf of all SCY shareholders.

### **Downstream Scandium Products**

In February 2011, we announced results of a series of laboratory-scale tests investigating the production of aluminum-scandium master alloys directly from aluminum oxide and scandium oxide feed materials. The overall objective of this research was to demonstrate and commercialize the production of aluminum-scandium master alloy using impure scandium oxide as the scandium source, potentially significantly improving the economics of aluminum-scandium master alloy production. In 2014, the Company announced it applied for a US patent on master alloy production, which is still in the application phase.

During the 2015-2017 timeframe, we continued our own internal laboratory-scale investigations into the production of aluminum-scandium master alloys, furthering our understanding of commercial processes, and achievable recoveries. We advanced our abilities to make a standard-grade 2% scandium master alloy product typical of commercially available products offered today.

On March 2, 2017, we announced the signing of a Memorandum of Understanding ("MOU") with Weston Aluminium Pty Ltd. ("Weston") of Chatswood, NSW, Australia. The MOU defines a cooperative commercial alliance to jointly develop the capability to manufacture aluminum-scandium master alloy. The intended outcome of this alliance will be to develop the capability to offer Nyngan Scandium Project aluminum alloy customers scandium in form of Al-Sc master alloy, should customers prefer that product form.

The MOU outlines steps to jointly establish the manufacturing parameters, metallurgical processes, and capital requirements to convert Nyngan Scandium Project scandium product into Master Alloy, on Weston's existing production site in NSW. The MOU does not include a binding contract with commercial terms at this stage, although the intent is to pursue the necessary technical elements to arrive at a commercial contract for conversion of scandium oxide to master alloy, and to do so prior to first mine production from the Nyngan Scandium Project.

On March 5, 2018, the Company announced that it had initiated a small-scale pilot program (4kg scale) at the Alcerco Inc. metallurgical research facilities in Kingston, Ontario, to confirm and refine previous lab-scale work on the manufacture of aluminum-scandium 2% master alloy (MA). The program advanced the process understanding for commercial scale upgrade of Nyngan scandium oxide product to master alloy product.

The 2018 pilot program consisted of five separate trials on two MA product types, production of MA in various forms, and dross analysis to ascertain scandium recoveries to product. The mass of master alloy

and product variants produced in the program totaled approximately 20kg and was completed in December of 2018. The results of the program included the successful production of 2% grade MA, with recoveries of scandium to product of 85%.

A second phase of the small-scale pilot program was initiated in the first half of 2019, again at 4kg scale, building on the work done in phase I. The results of this second program included successful production of 2% grade MA, with improvements in form of rapid kinetics, and recoveries of scandium to product of +90%.

On March 5, 2018, the Company also announced that it filed for patent protection on certain process refinements for master alloy manufacture that it believes are novel methods, and also on certain product variants that it believes represent novel forms of introducing scandium more directly into aluminum alloys.

### ***Master Alloy Capability Demonstrated***

On February 24, 2020, the Company announced the completion of a three year, three stage program to demonstrate the capability to manufacture aluminum-scandium master alloy (Al-Sc2%), from scandium oxide, using a patent pending melt process involving aluminothermic reactions.

This master alloy capability will allow the Company to offer scandium product from the Nyngan Scandium Project in a form that is used directly by aluminum alloy manufacturers globally, either major integrated manufacturers or smaller wrought or casting alloy consumers.

#### **Research Highlights:**

- Program achieved full 2% target product quality requirement,
- Sc recoveries from oxide exceeded target, demonstrated in final tests,
- The microstructure and metal quality meet major alloy producers' specifications,
- Rapid kinetics achieved, important for commercial viability,
- Individual testing batches done at 4kg scale, and
- Successful program testing forms a basis for a larger scale demonstration facility, supporting large scale samples required for industrial aluminum alloy trials.

### **Focus on Aluminum Alloy Applications for Scandium Products**

The Company is in the process of obtaining sales agreements for scandium products produced from our Nyngan Scandium Project. Our focus is on the use of scandium as an alloying ingredient in aluminum-based products. The specific scandium product forms we intend to sell from the Nyngan project include both scandium oxide ( $\text{Sc}_2\text{O}_3$ ) and aluminum-scandium master alloys (Al-Sc 2%).

Scandium as an alloying agent in aluminum allows for aluminum metal products that are much stronger, more easily weldable and exhibit improved performance at higher temperatures than current aluminum-based materials. This also means lighter structures, lower manufacturing costs and improved performance in areas that aluminum alloys do not currently compete.

### **Aluminum Alloy Research Partner – Alcereco**

In 2015, the Company entered into a memorandum of understanding (“MOU”) with Alcereco Inc. of Kingston, Ontario (“Alcereco”), forming a strategic alliance to develop markets and applications for

aluminum alloys containing scandium. This MOU represented keen mutual interest in foundry-based test work on aluminum alloys containing scandium, based on understandings that Alcereco's team had gained from prior work with Alcan Aluminum, and based on SCY's twin goals of understanding and identifying quality applications for scandium, and also understanding the scandium value proposition for customers.

The Company subsequently sponsored considerable research work with the Alcereco team. This work has developed and documented the improvement in strength characteristics scandium can deliver to aluminum alloys without degrading other key properties. The Alcereco team has run multiple alloy mix programs where scandium loading is varied, in order to look at response to scandium additions on a cost/benefit basis. This work has been done in the context of industries and applications where these alloys are suitable for application today. The programs focused on 1000 series, 3000 Series, 5000 Series and 7000 Series Al-Sc alloys, and have served to make independent data and volume samples available for sales efforts.

Along with the signing of the MOU in 2015, the parties also signed an offtake agreement for scandium sales from the Nyngan Scandium Project. The 2015 offtake agreement specified product prices, annual delivery volumes, and timeframes for commencement of delivery of scandium oxide product. This offtake agreement expired in late 2017 and was renewed on similar price/volume terms, although the sale product was redefined to an aluminum-scandium 2% master alloy. Neither of these offtake agreements contained a mandatory annual minimum purchase volume of scandium product by Alcereco, nor any requirement for payment in lieu of purchase.

The 2017 Alcereco offtake agreement expired in December 2020, and was not renewed by the parties. Alcereco was seeking new company sponsorship at this time, was financially distressed, and the parties could see no benefit to renewal under those circumstances. Alcereco had notified SCY of a planned closure of operations in December, with future re-start possibilities unknown. Alcereco halted operations in late December, at which time all current programs with SCY were completed.

The results of our research work with Alcereco are positive, and consistent with the body of published literature available today on aluminum scandium alloys. We are observing noteworthy strengthening effects with scandium additions at and above 0.1%, and dramatic strengthening improvements with additions of 0.3%, while preserving or enhancing other alloy properties and characteristics. We have also demonstrated that alloy hardening process techniques can have significant effect on the final alloy properties, offering the opportunity to tune alloy characteristics to suit specific applications. These findings belong to SCY, and can continue to be shared with select potential customers, as is deemed relevant to their specific areas of commercial interest.

### **Letters of Intent with Potential Customers**

During 2018 and 2019, the Company announced that it entered into letter of intent ("LOI") agreements with nine unrelated partnering entities. In each LOI, we have agreed to contribute scandium samples, either in form of scandium master alloy product, or aluminum-scandium alloy product, for trial testing by the partners in their downstream manufacturing applications

These formal LOI sampling agreements, with distinct industry segment leaders, represent a key marketing program for the Company, demonstrating how scandium will perform in specific products and in production-specific environments. Potential scandium customers insist on these sample testing opportunities, directly in their research facilities or on their shop floor, to ensure their full understanding of the impacts and benefits of introducing scandium into their traditional aluminum feedstocks.

The partnering entities in these LOI agreements are set out below:

Austral Ltd. (“Austral”), headquartered in Henderson, Western Australia, (Australia). Austral is a public corporation, listed on the Australian Stock Exchange (ASX:ASX), with shipbuilding facilities in Perth, Australia, Mobile, Alabama (USA), Vung Tau, Vietnam and Balamban, Cebu (Philippines). The company is a recognized world leader in the design and construction of large aluminum commercial and defense vessels.

Impression Technologies Ltd. (“ITL”), based in Coventry, UK. ITL is a privately held technology company, developing and licensing its advanced aluminum forming technology, Hot Form Quench (“HFQ®”), to automotive, aerospace, rail and electronics industries, globally.

PAB Coventry Ltd. (“PAB”), based in Coventry, UK. PAB is a privately held manufacturing and prototyping company offering specialty metal parts and design capabilities, serving the automotive, aerospace, defense and HVAC industries.

Eck Industries Inc. (“Eck”), based in Manitowoc, Wisconsin, USA. Eck is a privately held manufacturer of precision sand cast parts, and engineering services. Customer segments include commercial aircraft parts, automotive and trucking cast parts, military drivetrain casings, marine propulsion system castings, and military aerospace components.

Grainger & Worrall Ltd. (“GW”), based in Shropshire, UK. GW is a privately held manufacturer of precision sand cast parts, and engineering services. GW is a well-recognized precision air-set sand cast parts manufacturer in the UK, specializing in low to intermediate volume cast parts for commercial automotive, motorsports/racing, defense, marine, and aerospace applications.

Gränges AB (“Gränges”), based in Stockholm, Sweden. Gränges is a public company, traded on the NASDAQ Stockholm Stock Exchange (GRNG:OMX), and a large global player in the rolled aluminum products business, with production assets in Europe, USA, and China. Gränges holds a leading global position in rolled products for brazed heat exchangers.

Ohm & Häner Metallwerk GmbH & Co. GK (“O&H”), based in Olpe, Germany. O&H is a privately held manufacturer of sand cast and gravity die cast parts, servicing a significant, global customer base.

AML Technologies (“AML”), is an Adelaide, Australia based start-up company with proprietary technology for applying aluminum wire alloys to additive manufacturing (3D printing) processes.

Bronze-Alu Group (“BAL”), based in La Couture-Boussey, northern France. BAL is a privately held precision high-pressure die cast parts manufacturer, offering prototyping, machining, finishing and engineering services.

These LOI agreements are part of the Company’s marketing strategy to engage with innovative, research-capable partners, willing to test scandium in their applications. The various programs cover a wide range of specific testing and R&D efforts. Some of these trials delivered positive results to our program, while others did not show clear benefits from scandium additions, particularly as they relate to specific parts or individual partner processes. Each of the results has, however, progressed the Company forward in the pursuit of applications for scandium in aluminum alloys that outperform the incumbent alloy choices.

These programs have had very encouraging results in both the wrought and casting segments of the aluminum marketplace. Scandium has demonstrated an ability to deliver meaningful strength improvement, both at ambient temperature and at significantly elevated temperature, along with improved corrosion resistance, and superior welding characteristics, and to do so without diminished electrical

conductivity, where that property is also demanded. These benefits have been documented by our work with Alcerco, reinforced by these commercial partner trials and testing, and will continue to support future customer trials and sales discussions.

The Company has similar agreements with other research capable partners whom do not wish to be publicly named at this time. The emphasis for the program is now to seek out additional testing partners who we know are best suited to advancing the scandium story. That priority comes in front of any ability to disclose those partners and ongoing programs prior to recognizing results. The Company plans to conduct further application-specific programs in pursuit of sales contracts with quality aluminum alloy customers across numerous industry segments.

### ***Cerium-Scandium Aluminum Alloy Program Agreement***

On February 27, 2020, the Company announced signing a Program Agreement with Eck Industries (“ECK”) located in Manitowoc, Wisconsin, to pursue novel alloy development of a combined cerium-scandium aluminum alloy, based on previous work done independently by the companies in this area.

The companies intend to pursue alloy refinements in both wrought and cast alloy applications, specifically targeting property improvements related to strength, corrosion resistance, and heat-working tolerance, principally in A5000 series alloys.

#### **Program Highlights:**

- Joint economic and technical support to alloy design,
- Joint sharing of previous data, and new data produced from this program,
- Samples production for customer trials, either as cast products, or wrought sample shapes for various potential customers and alloy manufacturers,
- Initial high value application expected to be in marine applications, and
- Program work is protected by existing patent applications filed by ECK.

### **Use Of Scandium In Lithium-Ion Batteries**

On September 24, 2020 the Company announced the filing of a provisional patent application with the US Patent Office seeking patent rights on various applications of scandium in lithium-ion batteries. The patent application covers a number of scandium enhancements, including doping potential for both anodes and cathodes, and for solid electrolytes.

#### ***Patent Application Highlights:***

- US Patent Application filed for use of scandium in lithium-ion battery applications.
- Scandium doping applications are explained for anodes, cathodes and electrolytes.
- Scandium offers conductivity advantages as a dopant, over other options, and
- Scandium in other aluminum components offers numerous property improvements, including conductivity, strength and corrosion resistance.

#### ***Patent Application Discussion:***

Rechargeable lithium-ion batteries (LIBs) are a staple of everyday life. The search for improved performance through design and materials advances is intense today. Considerable effort is being expended in developing next-generation materials for LIBs that will make batteries safer, lighter, more

durable, faster to charge, more powerful, and more cost-effective. A sampling of some these efforts are as follows:

- Minimizing or removing cobalt from cathode materials, based on cost, supply and geographic sourcing issues.
- Improving the durability of liquid electrolytes with dopants, or substitution with safer and higher performing liquid or solid electrolyte systems.
- Designing for higher voltage potential by utilizing different anode or cathode materials.
- Determining combinations of metals that can better withstand harsh internal conditions.
- Scandium, along with other specialty metals, has a clear role to play in each of these areas.

One particularly promising area for scandium contributions is in a lithium nickel manganese oxide (LNMO) battery. The cathode in this design substitutes manganese for cobalt and supports a higher nickel content as well. The substitution then delivers higher working potentials (voltage), higher energy densities, and faster charge/discharge rates, all of which offer the promise of improved battery performance.

Delivering on that promise requires a number of improvements, including employing a dopant for stabilization of the manganese in the LNMO cathode, potential stabilization of lithium titanate (LTO) anode materials as well, and use of dopants to improve the conductivity of both these anode and cathode materials. Conventional liquid electrolytes may see improved function and longevity with the improved cathode and anode conductivity. Scandium represents a suitable and effective dopant in each of these applications.

Solid state electrolytes (SSEs) represent another potential break-through improvement in LIBs. They will handle higher voltages, higher temperatures, greater power densities, are potentially easier to package, and are considered safer in use. Scandium represents a suitable and effective dopant in these applications, analogous to the use of scandium to stabilize solid zirconia electrolytes in solid oxide fuel cells. Recently technical papers (available upon request) covering the use of Lithium Super Ion Conductors (LiSICON) for SSEs have indicated that primary compounds containing scandium, such as  $\text{Li}_3\text{Sc}_2(\text{PO}_4)_3$ ,  $\text{LiScP}_2\text{O}_7$  and  $\text{Li}_3\text{Sc}(\text{BO}_3)_2$ ,  $\text{LiScO}_2$  as well as certain doped compounds such as  $\text{Li}_{1.33}\text{ScSi}_{0.33}\text{P}_{1.67}\text{O}_7$ ,  $\text{Li}_{3.375}\text{Mg}_{0.375}\text{Sc}_{0.625}(\text{BO}_3)_2$ ,  $\text{Li}_{1.5}\text{Al}_{0.33}\text{Sc}_{0.17}\text{Ge}_{1.5}(\text{PO}_4)_3$ , etc. can provide desirable crystal structural frameworks for solid state electrolytes. Non-oxide LiSICON fast conductors have also been identified recently, such as some lithium cryolite types:  $\text{Li}_3\text{ScCl}_6$ , as well as its fluoride counterpart  $\text{Li}_3\text{ScF}_6$ .

Lithium-ion batteries employ aluminum in a number of areas, specifically in cathode structure, current connectors, and in general battery structure. Aluminum-scandium alloys represent an enhanced aluminum alloy option, based on their combination of conductivity and strength.

The intent of this SCY patent filing was to advise the battery industry that scandium is a prospective dopant choice for enhanced performance of LIBs, both under existing design parameters and in particular for next-gen LNMO batteries. We want to ensure that battery research and design groups consider scandium additions, amongst their various materials choices, as they race to build a better lithium-ion battery.

#### ***Nyngan Scandium Project - Planned Activities for 2021-2022***

The following development steps are planned for the Company's initiatives in 2021 and 2022;

- Pursue scandium offtake agreements in support of future scandium product sales,

- Seek copper industry host(s) for a CMR Project development.
- CMR development includes a project LOI and advanced test work, pilot plant studies, and marketing samples generation in 2021,
- Negotiate customer sales contracts for specific products planned for production, and raise capital for a CMR Project in 2022, on basis of success in a development program,
- Commence construction of a CMR separation facility and an off-site product finish plant, in 2022.
- Initiate project commissioning in early 2023, with product available for sale by mid-year 2023.

### **Honeybugle Scandium Property**

On April 2, 2014 the Company announced that it had secured a 100% interest in an exploration license (EL 7977) covering 34.7 square kilometers in New South Wales (NSW), Australia referred to as the Honeybugle Scandium property. The license area is located approximately 24 kilometers west-southwest from SCY's Nyngan Scandium Project. The license area covers part of the Honeybugle geologic complex, and will carry that name in our future references to the property. The ground was released by the prior holder, and SCY intends to explore the property for scandium and other metals.

The Company does not consider the Honeybugle Scandium property to be a material property at this time. No resources or reserves are known to exist on the property. The property is classified as an Australian property for purposes of financial statement segment information.

The location of the Honeybugle Scandium property is provided below.

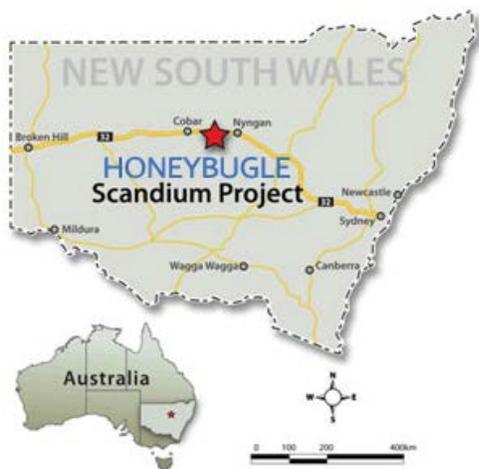


Figure 4. Location of Honeybugle Scandium property

### **Honeybugle Drill Results**

On May 7, 2014 the Company announced completion of an initial program of 30 air core (AC) drill holes on the property, specifically at the Seaford anomaly, targeting scandium (Sc). Results on 13 of these holes are shown in detail in the table below. These holes suggest the potential for scandium mineralization on the property similar to our Nyngan Scandium Project.

Highlights of initial drilling program results are as follows:

- The highest 3-meter intercept graded 572 ppm scandium (hole EHAC 11);
- EHAC 11 also generated two additional high grade scandium intercepts, grading 510 ppm and 415 ppm, each over 3 meters;
- The program identified a 13-hole cluster which was of particular interest;
- Intercepts on these 13 holes averaged 270 ppm scandium over a total 273 meters at an average continuous thickness of 21 meters per hole, representing a total of 57% (354 meters) of total initial program drilling;
- The 13 holes produced 29 individual (3-meter) intercepts over 300 ppm, representing 31% of the mineralized intercepts in the 273 meters of interest; and
- This initial 30-hole AC exploratory drill program generated a total of 620 meters of scandium drill/assay results, over approximately 1 square kilometer on the property.

The detail results of 13 holes in the initial drill program are as follows:

Table 7. Results of 13-Hole Initial Drill Program

<b>Honeybugle 30 Hole Drill Program - April 2014 Target-Scandium</b>						
<b>Drill Hole Number</b>	<b>Honeybugle Drill Area</b>	<b>Hole Type</b>	<b>From (meter depth)</b>	<b>To (meter depth)</b>	<b>Intercept Length (meters)</b>	<b>Total Scandium Grade (ppm)</b>
<b>EHAC 1</b>	Seaford	<b>Explore (AC)</b>	21	42	21	218
		<i>including</i>	27	36	9	262
<b>EHAC 2</b>	Seaford	<b>Explore (AC)</b>	0	12	12	300
		<i>including</i>	0	9	9	333
<b>EHAC 3</b>	Seaford	<b>Explore (AC)</b>	3	12	9	295
		<i>including</i>	6	9	3	352
<b>EHAC 5</b>	Seaford	<b>Explore (AC)</b>	0	15	15	244
		<i>including</i>	12	15	3	333
<b>EHAC 6</b>	Seaford	<b>Explore (AC)</b>	0	24	24	185
		<i>including</i>	0	9	9	214
		<i>including</i>	18	24	6	214
<b>EHAC 7</b>	Seaford	<b>Explore (AC)</b>	9	51	42	225
		<i>including</i>	15	42	27	220
		<i>including</i>	42	51	9	252
<b>EHAC 9</b>	Seaford	<b>Explore (AC)</b>	6	27	21	272
		<i>including</i>	9	24	15	350
<b>EHAC 10</b>	Seaford	<b>Explore (AC)</b>	0	18	18	251
<b>EHAC 11</b>	Seaford	<b>Explore (AC)</b>	0	30	30	369
		<i>including</i>	9	15	6	461
		<i>including</i>	21	24	3	572
<b>EHAC 12</b>	Seaford	<b>Explore (AC)</b>	0	21	21	177
<b>EHAC 26</b>	Seaford	<b>Explore (AC)</b>	0	21	21	309
	Seaford	<i>including</i>	3	18	15	343
<b>EHAC 28</b>	Seaford	<b>Explore (AC)</b>	0	18	18	344
	Seaford	<i>including</i>	3	15	12	363
<b>EHAC 29</b>	Seaford	<b>Explore (AC)</b>	3	21	18	316
		<i>including</i>	9	18	9	396
Assumes 175 ppm cut-off grade						

Seaford is characterized by extensive outcrops of dry, iron-rich laterites, allowing for a particularly shallow drill program. Thirty (30) air core (AC) holes on nominal 100-meter spacing were planned, over

an area of approximately 1 square kilometer. Four holes were halted in under 10 meters depth, based on thin laterite beds, low scandium grades, and shallow bedrock.

The 13 holes highlighted in the table are grouped together on either side of Coffills Lane, and represent all of the drill locations where meaningful intercept thickness generated scandium grades exceeding 175 ppm. Some of these 13 holes showed significant scandium values on the immediate surface, and alternately, other holes exhibited favorable scandium grades that began at shallow depth. The highest grade Sc sample was found in a 21-24 meter interval (572 ppm), although several holes produced better than 350 ppm Sc intercepts at depths of under 9 meters. The deepest hole (EHAC 7) was drilled to 57 meters, showing good scandium grades over a 12-meter horizon (245 ppm) near the bottom of the hole, from 39 to 51 meters depth. Higher scandium grades were associated with higher iron levels. Holes were drilled to a depth where they contacted the fresh ultramafic bedrock, which generally signaled the end of any scandium enrichment zones.

The drill plan divided Seaford into four sub-areas, 1-4, as highlighted Figure 5, below. Area 1 was relatively higher ground and therefore the least impacted by ground moisture. Consequently, this dryer area received the greatest attention, although that had been the general intention in the plan. Area 1 received 17 holes, with 13 presented in detail in the table above. Areas 2-4 were each intended as step-out areas that need to be further examined in the next program. The three step-out areas did not generate results of particular note, although hole locations were not optimal due to ground conditions and access.

Area 2 received 3 holes, 60 meters total, and generated Sc grades from 45-75 ppm,  
Area 3 received 4 holes, 87 meters total, and generated Sc grades from 47-122 ppm,  
Area 4 received 5 holes, 72 meters total, and generated Sc grades from 60-101 ppm, and  
The average depth of all of these holes was 18 meters, with the deepest 30 meters.

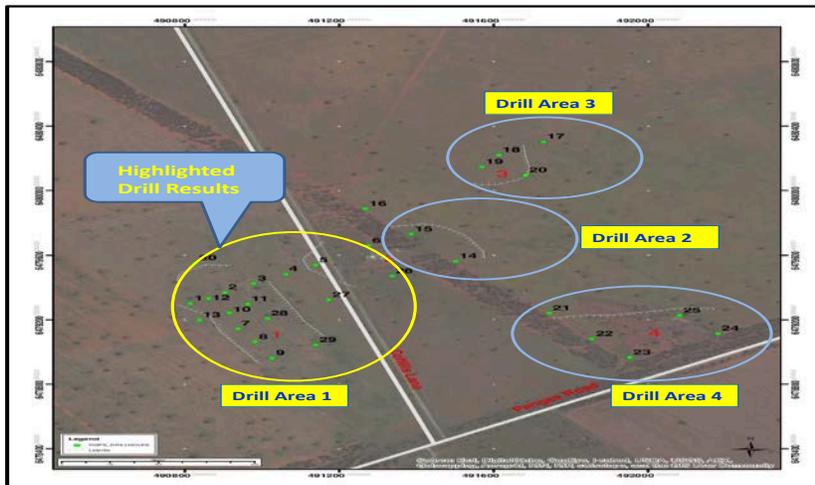


Figure 5. Initial Drill Program Map

This 13-hole cluster (Area 1) was noted to be in a relatively thick laterite zone which was constrained to the west by contact with meta-sediments, to the east by fresh ultramafic bedrock, and to some extent in the north by a poor intersection result in hole 30. Area 1 remains somewhat open to the south, with the

two southern-most holes (EHAC 9 and EHAC 29) generating some of the best scandium grade intercepts in the area.

The surface and near surface mineralization at this property is an advantage, both in locating areas of interest for future exploration work, and also because of extremely low overburden ratios. This particular characteristic for the Honeybugle Scandium property is different from our Nyngan Scandium Project, where mineralization is typically covered by 10-20 meters of barren alluvium.

Further drilling at Seaford is warranted, based on the results of this introductory and modest program, specifically to the north and south of the existing area 1 drill pattern, along with investigation and select drilling at the other three remaining anomalies on the property.

During 2018 we performed site work at the Honeybugle Scandium property to meet the expenditure commitment to maintain the exploration license. Work performed during 2018 does not change the previous conclusions, as described above. No work was required or performed during 2019 and 2020.

#### Qualified Person and Quality Assurance/Quality Control

John Thompson, B.E. (Mining); Vice President - Development at SCY is a qualified person as defined in NI 43-101 and has reviewed the technical information on this property. The drilling, sampling, packaging and transport of the drill samples was carried out to industry standards for QA/QC. SCY employed an independent local geology consulting and drill supervisory team, Rangott Mineral Exploration Pty. Ltd., (RME) of Orange, NSW, Australia, to manage the drill work on-site. Bulk samples of drill returns were collected at one metre intervals from a cyclone mounted on the drilling rig, and a separate three-tier riffle splitter was used on site to obtain 2.0-4.5kg composite samples collected over 3 metre intervals, for assay. Individual sample identifiers were cross-checked during the process. The assay samples were placed in sealed polyweave bags which remained in RME's possession until the completion of the drilling program, at which time they were transported to RME's office in Orange. There, the sequence of sample numbers was validated, and the assay samples were immediately submitted to Australian Laboratory Services' (ALS') laboratory in Orange. The remnant bulk samples, which were collected in sealed polythene bags, were transported by RME to a local storage unit at Orange, for long-term storage.

ALS/Orange dried and weighed the samples, and pulverized the entire sample to 85% passing 75 microns or better (technique PUL-21). These 50g sample bags of pulps were then sent to the ALS laboratory at Stafford in Brisbane, Queensland for analysis. ALS/Brisbane analyzed the pulps for scandium, nickel, cobalt, chromium, iron and magnesium, using Inductively Coupled Plasma Atomic Emission Spectroscopy (ICP-AES) after a four acid (total) digestion (technique ME-ICP61). The lower detection limit for scandium using this technique is 1ppm. For their internal quality control, ALS/Brisbane added 4 standard samples (for 20 repeat analyses), 10 blank samples and 16 duplicate samples to the batch. Please see news release see news release dated May 7, 2014 and available on [www.sedar.com](http://www.sedar.com) for further information on the Honeybugle drill results.

#### **Kiviniemi Scandium Property (Eastern Finland Province, Finland)**

On September 25, 2017 the Company announced that its wholly-owned subsidiary company, Scandium International Mining Corp., Norway AS, was granted a reservation on an Exploration License for the Kiviniemi Scandium property in central Finland from the Finnish regulatory body governing mineral exploration and mining in Finland. The exploration license was subsequently granted during August 2018, and our exploration rights have been moved to SCY Exploration Finland Oy, a wholly owned Finnish subsidiary.

The Geological Survey of Finland (“GTK”) conducted airborne survey work on the area in 1986, conducted exploration drilling on the property in 2008-2010, and published those program results on their public GTK website in 2016.

The Company does not consider the Kiviniemi Scandium property to be a material property at this time. No NI 43-101 resources or reserves are known to exist on the property. The property is classified as the Finland property for purposes of financial statement segment information.

### *Highlights*

- Kiviniemi property was previously identified for scandium and explored by GTK,
- Property is a high iron content, medium grade scandium target, located on surface, with on-site upgrade potential,
- Early resource upgrade work done for GTK promising, confirmed by SCY,
- Property is all-weather accessible, close to infrastructure, and
- Finland location is mining-friendly and ideally suited to EU customer markets.

### *Property/Location*

The Kiviniemi property is located in the municipality of Rautalampi, Eastern Finland Province, approximately 350km northeast of Helsinki, by road. The closest major city/airport is Kuopio (pop. 110,000), approximately 70km to the northeast of the property. The exploration target is located on a small portion of a family farm, partially cleared for farming. Most of the property is wooded, including the area where the mineralization has been located,

### *Exploration License*

During August 2018, an exploration license for the Kiviniemi Scandium property was granted from the Finnish regulatory body governing mineral exploration and mining in Finland. The exploration area is approximately 24.6 hectares (0.25 square kilometer), identical to the historic GTK exploration license on the property, which expired in 2015. The mineralized area, as defined on GTK resource modeling maps, is approximately 25% of the total reservation. The exploration license requires us to report our exploration activities annually to Finland government agencies and to demonstrate in the annual reports that exploration work has been effective and systematic.

### *Prior Exploration Work*

GTK performed magnetic surveys on the general area in 1986, focused on copper/nickel/cobalt targets, and based on current mining activity in the area. That initial field work located a significant magnetic anomaly on the Kiviniemi property. In 2008, GTK initiated an exploration drilling program on the property, completing 4 diamond core holes in that first program phase, followed by a further 5 diamond holes in 2010, totaling 1,250 meters, at an average (angled) length of 139 meters, and a maximum vertical extension of 167 meters. The drill spacing varied from 50-200 meters, using a diamond drill size of 46mm (T56).

Four of the nine total holes drilled (approx. 850 meters) are in the mineralized area, with the remainder defining portions of the mag zone that did not contain scandium. The mag zone is generally very high in iron, ranging from about 20% to 35% Fe. The GTK published the results of the drill program assays, and other information on the geology and mineralization, on their website in 2016.

### *Geology of Resource Target*

The host rock is very iron-rich, garnet-bearing fayalite ferro(monzo) diorite. The main minerals in the deposit include: plagioclase, potassium feldspar, ferrohedenbergite (clinopyroxene), ferrohastingsite (amphibole), almandine garnet and fayalite. The principal scandium carrier minerals are ferrohastingsite (59 %) and ferrohedenbergite (40 %).

### *Resource Modeling*

GTK completed and published a paper outlining property work including a 3D modeling and resource estimation on the project, in March 2016. The authors employed data from 6 holes, and used an industry standard GEOVIA Surpac software to produce a geological 3D domain model, and inverse distance was run to estimate resource grades into the block model. The authors declined to specifically characterize the resource on the basis of limited holes and uneven spacing, describing their estimate as an “exploration potential measurement”. The authors estimated that another 500-700 meters of drilling (5-7 holes) would establish 50 meter centers on the target and allow a resource classification. The mineralized target remains open at depth. The authors did provide a table of results on tonnage estimates from their modeling work, at various cut off values, excerpts of which are presented below.

<b>Kiviniemi Scandium Property - GTK Resource Potential Estimate</b>				
<b>Estimated Potential Tonnage (Mt)</b>	<b>Sc Cut Off Grade (ppm)</b>	<b>Average Grade Estimate (ppm)</b>		
		<b>Scandium</b>	<b>Yttrium</b>	<b>Zirconium</b>
<b>12.6</b>	<b>60</b>	<b>170.1</b>	<b>80.5</b>	<b>1745</b>
<b>12.5</b>	<b>100</b>	<b>170.9</b>	<b>80.3</b>	<b>1744</b>
<b>11.1</b>	<b>150</b>	<b>173.3</b>	<b>80.2</b>	<b>1830</b>

**SOURCE: Publication, GTK, "3D Modeling and Mineral Resource Estimation of the Kiviniemi Scandium Deposit, Eastern Finland". Authors, Janne Hokka & Tapio Halkoaho**

The Company believes the standards and controls employed by GTK are reliable and consistent with proper industry practice. However, the potential quantity and grade is conceptual in nature and there has been insufficient exploration to define a mineral resource and it is uncertain whether further exploration will result in a mineral resource. The Company considers the above estimates as historical in nature, and such estimates do not use the categories prescribed by NI 43-101. A qualified person (as defined in NI 43-101) has not done sufficient work to classify the historical estimate as a current mineral resource. The Company is not treating the historical estimate as a current mineral resource.

### *Metallurgical Upgrade Work*

In 2010, GTK engaged their metallurgical research laboratory (at Outokumpu) to conduct standard upgrade testing on the drill core sample material, specifically magnetic gravity separations. The mag separation work suggested a scandium upgrade to approximately 346ppm, based on a resource material head grade of 160-200ppm, and a 72% scandium recovery.

In June 2017, SCY engaged FLSmidth (Salt Lake City, Utah) seeking to duplicate the earlier 2010 upgrade work and confirm the earlier results. The earlier results were generally confirmed, in that the

2017 work achieved magnetic separation upgrade assays of 286ppm on a resource material head grade of 186ppm. We supplied FLSmidth with approximately 16kg of resource material sourced from GTK, all samples from a single hole (P433-R3). FLSmidth also carried out scandium check assays on the individual drill hole samples provided by GTK, with good grade correlation to GTK data.

### *Kiviniemi Summary*

The Kiviniemi property represents a medium grade scandium resource target that has remained unrecognized and overlooked by earlier exploration work, largely due to the absence of the more commonly sought-after minerals in the region, specifically copper, nickel and cobalt. We believe that Kiviniemi is Europe's largest underdeveloped primary scandium mining resource.

The target has benefited significantly from valuable early exploration work by the GTK, which has advanced the property to a stage where successful metallurgical investigations may prove value that offsets grade concerns. SCY estimates roughly US\$2M of work value has been directed at this property to date, including field work, drilling programs, assay work, overheads, and metallurgical upgrade studies, but firm numbers are not available.

We plan a limited drill program to augment the existing GTK data, and provide more sample material for metallurgical test work programs to define economic site upgrade possibilities on the scandium mineralization observed to date.

### **Critical Metals Recovery Technology Program**

On May 13, 2020, we announced our pursuit of copper industry interest in our ion exchange (IX) technology and knowhow to recover scandium, cobalt and other critical metals from solvent extraction (SX) raffinate and other acidic waste streams in certain acid leach copper operations.

Recovery metals targeted by this application include cobalt, copper, nickel, scandium, and zinc, and possibly other metals and rare earth elements, depending on recovery economics. The suitability of this IX technology, and the target metal opportunities, vary with the specifics of individual orebodies, and associated SX plant characteristics. Depending on specific project variables, and the value and volume of critical metals recovered, the end result economics are expected to be significant to the parties involved.

### *Concept Highlights*

- IX technology offers rapid deployment to existing Cu operation waste streams,
- Recoveries target critical metals with transparent, established markets,
- Includes potential for significant scandium production alongside other valuable products,
- Represents near term production sources that can address security of supply issues, conflict metal issues, and concentrated supply source issues,
- Represents a project focus on metals prominent in the US Critical Metals priority list, and on production from US and North American operation locations, and
- Promises real potential to deliver positive economic benefits to both SCY and the established copper producers that can host this program.

### *Program Discussion*

The copper industry is fully aware of the opportunity to harvest valuable metals from copper process waste streams, and the industry does so with significant success today in precious metals. Most specialty

metals recovery work has historically been considered un-economic, based on effective recovery costs and recovered metals pricing. The technology in this area has advanced, improving both operating costs and recoveries. New, technology-driven uses for critical metals are stressing supply channels. Traditional jurisdiction risk concerns are now multiplied by ethical sourcing issues, and long-term sustainability questions, all of which elevate the interest in broader, more localized sourcing. These issues are receiving heightened governmental and industry priority, and metals markets customers are now seeking and favoring new, economic, responsible solutions.

On the basis of this dynamic critical metals opportunity, and the fact that SCY has a significant capability to apply advanced mineral recovery technologies to the separation of critical metals from both ores and waste streams, the Company began a search for a North American copper industry host, in order to build a Critical Metals Recovery (CMR) Project. This effort immediately recognized an attractive economic value from recovery of multiple metals, specifically metals used in lithium-ion battery manufacture, along with scandium, zinc and other metals present in source systems employing solvent extraction techniques.,

The potential new revenue stream of the combined metals residual varies by orebody, and also by the specifics of the mineral processing systems in place, but collectively the metals basket is more instantly marketable and shows superior economics to the solo scandium target we had in mind at the start. This IX technology also represents a viable precursor for direct refining cobalt, nickel and potentially copper into high purity sulfate product forms, as required for battery manufacture, specifically in the electric vehicle (EV) industry.

The Company has filed for patent protection on various aspects of its relevant technical program ideas with the US Patent Office, using technical information from preliminary bench scale testing with actual copper SX raffinate solutions. The Company believes this work can be demonstrated with a working and successful copper plant installation, with proven knowhow, and intends to pursue a copper industry partner to demonstrate the economic viability of this technology. It is the Company's intent to fully participate in the operation, ownership and production economics associated with a plant asset that is developed in concert with that partner.

### ***ITEM 3. LEGAL PROCEEDINGS***

We are not a party to any pending legal proceedings and, to the best of our knowledge, none of our properties or assets are the subject of any pending legal proceedings.

### ***ITEM 4. MINE SAFETY DISCLOSURES***

The Company has no active mining operations or dormant mining assets at this time, and has no outstanding mine safety violations or other regulatory safety matters to report.

## **PART II**

### ***ITEM 5. MARKET FOR REGISTRANTS' COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES***

#### **Price Range of Common Shares**

The principal market on which our common shares are traded is the Toronto Stock Exchange. Our common shares commenced trading on the Toronto Stock Exchange on April 24, 2008 under the symbol “GP”. Effective March 11, 2009, the common shares were listed and posted for trading on the Toronto Stock Exchange under the symbol “EMC”. Effective November 28, 2014, the common shares were listed and posted for trading on the Toronto Stock Exchange under the symbol “SCY”. The following table shows the high and low trading prices of our common shares on the Toronto Stock Exchange for the periods indicated.

<b>Year</b>	<b>High (C\$)</b>	<b>Low (C\$)</b>
<b>Fiscal Year ended December 31, 2020</b>		
First quarter	0.095	0.060
Second quarter	0.135	0.060
Third quarter	0.135	0.110
Fourth quarter	0.230	0.110
<b>Fiscal Year ended December 31, 2019</b>		
First quarter	0.220	0.145
Second quarter	0.170	0.110
Third quarter	0.190	0.095
Fourth quarter	0.145	0.075

## Exchange Rates

We maintain our books of account in United States dollars and references to dollar amounts herein are to the lawful currency of the United States except that we are traded on the Toronto Stock Exchange and, accordingly, stock price quotes and sales of stock are conducted in Canadian dollars (C\$). The following table sets forth, for the periods indicated, certain exchange rates based on the noon rate provided by the Bank of Canada. Such rates are the number of Canadian dollars per one (1) U.S. dollar (US\$). The high and low exchange rates for each month during the previous six months were as follows:

	<u>High</u>	<u>Low</u>
January 2021	1.2788	1.2627
December 2020	1.2952	1.2718
November 2020	1.3257	1.2965
October 2020	1.3349	1.3122
September 2020	1.3396	1.3055
August 2020	1.3377	1.3042

The following table sets out the exchange rate (price of one U.S. dollar in Canadian dollars) information as at each of the years ended December 31, 2019 and 2020.

	Year Ended December 31 (Canadian \$ per U.S. \$)	
	<u>2020</u>	<u>2019</u>
Rate at end of Period	1.2732	1.2988
Low	1.2718	1.2988
High	1.4496	1.3600

As of February 25, 2021, there were 104 registered holders of record of the Company's common shares and an undetermined number of beneficial holders.

### **Dividends**

We have not paid any cash dividends on our common shares since our inception and do not anticipate paying any cash dividends in the foreseeable future. We plan to retain our earnings, if any, to provide funds for the expansion of our business.

### **Securities Authorized for Issuance under Compensation Plans**

The following table sets forth information as at December 31, 2020 respecting the compensation plans under which shares of the Company's common stock are authorized to be issued.

<b>Plan Category</b>	<b>Number of securities to be issued upon exercise of outstanding options, warrants and rights</b> <b>(a)</b>	<b>Weighted-average exercise price of outstanding options, warrants and rights</b> <b>(b)</b>	<b>Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))</b> <b>(c)</b>
Equity compensation plans approved by security holders	35,100,000	C\$0.170	12,004,889
Equity compensation plans not approved by security holders	Nil	Nil	Nil
<b>Total</b>	<b>35,100,000</b>	<b>C\$0.170</b>	<b>12,004,889</b>

### **Purchases of Equity Securities by the Company and Affiliated Purchasers**

Neither the Company nor an affiliated purchaser of the Company purchased common shares of the Company in the year ended December 31, 2020.

### **ITEM 6. SELECTED FINANCIAL DATA**

Not applicable.

### **ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITIONS AND RESULTS OF OPERATIONS**

#### **Overview**

The Company is a specialty metals and alloys company focusing on scandium and other specialty metals.

The Company was incorporated under the laws of the Province of British Columbia, Canada in 2006. The Company currently trades on the Toronto Stock Exchange under the symbol “SCY”.

The Company’s focus is on the exploration, evaluation and future development of its specialty metals assets, specifically the Nyngan Scandium Project and Honeybugle Scandium property located in New South Wales, Australia and the Kiviniemi scandium prospect in Finland, all of which are 100% owned by SCY. The Company is also actively seeking an appropriate copper mine owner to host an ion-exchange metals recovery project, designed to harvest select metals including scandium from recirculating process solutions. The Company is an exploration stage company and anticipates incurring significant additional expenditures prior to production at any and all of its properties.

These consolidated financial statements have been prepared on a going concern basis that contemplates the realization of assets and discharge of liabilities at their carrying values in the normal course of business for the foreseeable future. These financial statements do not reflect any adjustments that may be necessary if the Company is unable to continue as a going concern.

The Company currently earns no operating revenues and will require additional capital to advance both the Nyngan Scandium Project and the Honeybugle property. The Company’s ability to continue as a going concern is uncertain and is dependent upon the generation of profits from mineral properties, obtaining additional financing and maintaining continued support from its shareholders and creditors. These are material uncertainties that raise substantial doubt about the Company’s ability to continue as a going concern. If additional financial support is not received or operating profits are not generated, the carrying values of the Company’s assets may be adversely affected.

## **RESULTS FOR THE YEAR ENDED DECEMBER 31, 2020**

### Liquidity and Capital Resources

At December 31, 2020, we had working capital of \$(951,674) including cash of \$170,284 and current liabilities of \$1,154,388 as compared to working capital of \$(376,893) including cash of \$115,568 at December 31, 2019.

At December 31, 2020, we had a total of 35,100,000 (2019 – 34,610,000) stock options exercisable between C\$0.065 and C\$0.37 (2019 – between C\$0.10 and C\$0.60) which have the potential upon exercise to generate a total of C\$5,962,625 (2018 – C\$6,513,250) in cash over the next four and a half years. There is no assurance that these securities will be exercised.

Our continued development is contingent upon our ability to raise sufficient financing both in the short and long term. There are no guarantees that additional sources of funding will be available to us; however, management is committed to pursuing all possible sources of financing to execute our business plan.

Our major capital requirement in the next 12 months relates to the start of construction on the Nyngan Scandium Project and our entry into a critical metals recovery program.

The Company will need additional funding to develop the Nyngan project into a mine in 2022 and will seek to raise additional equity financing at that time.

### Results of Operations

**Quarter ended December 31, 2020**

The net loss for the quarter increased by \$394,499 to \$706,306 from a loss of \$311,807 in the prior year mainly as a result of increased stock-based compensation costs which is partially offset by lower consulting fees. Details of the individual items contributing to the decreased loss are as follows:

<b>Q4 2020 vs. Q4 2019 - Variance Analysis (US\$)</b>		
<b>Item</b>	<b>Variance Favourable / (Unfavourable)</b>	<b>Explanation</b>
Stock based compensation	(\$422,026)	In Q4 of 2020 the Company granted 5,900,000 stock options all of which vested immediately. In the comparative quarter of 2019, no options grant was made, and the only expense was the amortization of certain options that had a two-year vesting period.
Foreign exchange loss	(\$18,946)	In Q4 2020 the US dollar weakened against both the Canadian and Australian dollar. This meant that for any accounts payable held in Canadian and Australian dollars those liabilities increased. Such was not the case in the comparative quarter of one year ago.
General and administrative	(\$17,371)	The Q4 2020 expense is higher than in Q4 2019 due to higher property tax expense at our Nyngan project.
Exploration	(\$6,387)	The Company spent funds on procuring aluminum/scandium alloys at a higher cost when compared to the comparative quarter of 2019.
Professional fees	(\$3,497)	The higher cost in Q4 2020 is due to a general increase in fees for tax return filings and financial statement review.
Salaries and benefits	(\$2,168)	The slightly higher cost in Q4 2020 is due to the strengthening of the Australian dollar and against the US dollar.
Insurance	(\$631)	Higher insurance premiums for the Company when compared to one year ago results in this minor negative variance.
Travel	\$11,869	The Company has curtailed travel due to the Corona virus pandemic in 2020 resulting in the much lower expenditure in the comparative periods.
Consulting	\$64,661	The Company released several contractors who were no longer required, resulting in this positive variance in the current 3-month period.

**Results of Operations for the Year ended December 31, 2020**

The net loss for the year decreased by \$560,097 to \$1,378,840 from \$1,947,934 in the prior year, mainly because of a one-time royalty sale and lower consulting and general and administrative costs. Details of the individual items contributing to the decreased net loss are as follows:

<b>2020 vs. 2019 - Variance Analysis (US\$)</b>		
<b>Item</b>	<b>Variance Favourable / (Unfavourable)</b>	<b>Explanation</b>
Sale of royalty interest	\$382,430	In January of 2020, the Company sold a royalty interest for net proceeds of \$382,430. This was a non-recurring event.
Consulting	\$259,177	The Company released several contractors who were no longer required, resulting in this positive variance in the current year.
General and administrative	\$91,879	The decrease in this expense is due to the downturn of activity in 2020 compared to 2019.
Travel	\$66,689	Less travel in 2020 was due to an overall decrease in Company activities when compared to 2019. Also, in Q3 2019, the Company did extensive travel in Europe.
Exploration	\$38,721	With the Company in a conservation of cash mode in 2020, less funds were expended on this activity.
Professional fees	\$10,024	Lower 2020 activity levels resulted in the favourable variance.
Insurance	(\$1,841)	The slightly higher cost in 2020 is due to overall increases in insurance premiums for the Company's operations.
Salaries and benefits	(\$2,759)	The slightly higher cost in 2020 is due to the strengthening of the Australian dollar and against the US dollar.
Foreign exchange loss	(\$31,302)	In 2020 the US dollar weakened against both the Canadian and Australian dollar. This meant that for any accounts payable held in Canadian and Australian dollars those liabilities increased. Such was not the case one year ago.
Stock-based compensation	(\$252,922)	In 2020 the Company granted 14,425,000 stock options compared to 9,860,000 stock options issued in 2019. However, more immediate vesting provisions resulted in a higher expense in 2020.

### ***Cash flow discussion for the year ended December 31, 2020 compared to December 31, 2019***

The cash outflow from operating activities decreased by \$1,211,649 to \$81,981 (2019 – \$1,129,668) due mainly to the sale of a royalty interest, increased accounts payable and overall lower operating costs.

Cash inflows from financing activities of \$136,697 reflect no private placements in the year when compared with private placements of \$799,484 in 2019. Cash inflows from exercises of stock options of \$136,697 were lower than \$160,995 for the year ending December 31, 2019.

### ***Summary of quarterly results (US\$)***

	2019				2019			
	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
Net Sales	-	-	-	-	-	-	-	-
Net Income (Loss)	(706,306)	(265,057)	(270,463)	(146,014)	(311,807)	(443,426)	(859,934)	(332,766)
Basic and diluted Net Income (Loss) per share	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)

### ***Financial Position***

#### ***Cash***

The increase in cash of \$54,716 to \$170,284 (2019 - \$115,568) results from lower operations spending.

#### ***Prepaid expenses and receivables***

Prepaid expenses and receivables have decreased by \$3,333 to \$42,430 (2019 - \$45,763) due to lower activity levels in 2020.

#### ***Reclamation bond***

A reclamation bond of \$11,444 was purchased for the Kiviniemi property in 2018.

#### ***Property, plant and equipment***

Property plant and equipment consists of office furniture and computer equipment at the Sparks, Nevada office. The decrease of \$2,307 to \$4,660 at December 31, 2020 (2019 - \$6,967) is due to depreciation of computer servers at the Sparks office.

#### ***Mineral interests***

Mineral interests remained at \$704,053 at December 31, 2019 (2018 - \$704,053).

#### ***Accounts Payable, Accounts payable with related parties and Accrued Liabilities***

Accounts payable, accounts payable with related parties and accrued liabilities have increased by \$616,164 to \$1,154,388 at December 31, 2020 (2019 – \$538,224) due to the deferral of consulting fees and salaries.

### *Capital Stock*

Capital stock increased by \$251,410 to \$109,627,071 (2019 - \$109,375,661) due to stock option exercises.

Additional paid-in capital decreased by \$569,342 to \$6,505,416 (2019 - \$5,936,074) as a result of stock option expensing which was partially offset by stock option exercises.

Treasury shares remained at \$1,264,194 through the 2020 fiscal period.

### Off-balance sheet arrangements

At December 31, 2020, we had no material off-balance sheet arrangements such as guarantee contracts, contingent interest in assets transferred to an entity, derivative instruments obligations or any obligations that trigger financing, liquidity, market or credit risk to us.

### **Transactions with related parties**

During the year ended December 31, 2020, the Company expensed \$542,722 for stock-based compensation for stock options issued to Company directors. During the year ended December 31, 2019, the Company expensed \$314,104 for stock options issued to Company directors.

During each of the years ended December 31, 2020 and December 31, 2019 the Company paid a consulting fee of \$102,000 to one of its directors.

As at December 31, 2020, the Company owed \$702,456 (2019 - \$269,165) to officers of the Company.

## **Additional Information and Accounting Pronouncements**

### Outstanding share data

At February 25, 2021 we had 316,172,595 issued and outstanding common shares and 30,925,000 outstanding stock options at a weighted average exercise price of C\$0.175. No warrants are outstanding at February 25, 2021.

### Critical Accounting Estimates

The preparation of financial statements in conformity with generally accepted accounting policies requires our management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. These estimates are based on past experience, industry trends and known commitments and events. By their nature, these estimates are subject to measurement uncertainty and the effects on the financial statements of changes in such estimates in future periods could be significant. Actual results will likely differ from those estimates.

### *Stock-based compensation*

We use the Black-Scholes option pricing model to calculate the fair value of stock options and compensatory warrants granted. This model is subject to various assumptions. The assumptions we make will likely change from time to time. At the time the fair value is determined, the methodology that we use is based on historical information, as well as anticipated future events. The assumptions with the greatest impact on fair value are those for estimated stock volatility and for the expected life of the instrument.

#### *Deferred income taxes*

We account for tax consequences of the differences in the carrying amounts of assets and liabilities and our tax bases using tax rates expected to apply when these temporary differences are expected to be settled. When the deferred realization of income tax assets does not meet the test of being more likely than not to occur, a valuation allowance in the amount of the potential future benefit is taken and no future income tax asset is recognized. We have taken a valuation allowance against all such potential tax assets.

#### *Mineral properties and exploration and development costs*

We capitalise the costs of acquiring mineral rights at the date of acquisition. After acquisition, various factors can affect the recoverability of the capitalized costs. Our recoverability evaluation of our mineral properties and equipment is based on market conditions for minerals, underlying mineral resources associated with the assets and future costs that may be required for ultimate realization through mining operations or by sale. We are in an industry that is exposed to a number of risks and uncertainties, including exploration risk, development risk, commodity price risk, operating risk, ownership and political risk, funding and currency risk, as well as environmental risk. Bearing these risks in mind, we have assumed recent world commodity prices will be achievable. We have considered the mineral resource reports by independent engineers on the Nyngan project in considering the recoverability of the carrying costs of the mineral properties. All of these assumptions are potentially subject to change, out of our control, however such changes are not determinable. Accordingly, there is always the potential for a material adjustment to the value assigned to mineral properties and equipment.

### **Recent Accounting Pronouncements**

Accounting Standards Update 2019-12 – Income Taxes (Topic 740) The Financial Accounting Standards Board (“Board”) is issuing this Update as part of its initiative to reduce complexity in accounting standards. This standard is effective for interim and annual reporting periods beginning after December 15, 2020, with early adoption permitted. The Company is currently evaluating the impact this guidance will have on its financial statements.

Accounting Standards Update 2019-01 – Leases (Topic 842) Codification Improvements - Issue 3 Transition Disclosures Related to Topic 250, Accounting Changes and Error Corrections. The amendments in this Update clarify the Board’s original intent by explicitly providing an exception to the paragraph 250-10-50-3 interim disclosure requirements in the Topic 842 transition disclosure requirements. The effective date is for fiscal years beginning after December 15, 2020, and interim periods within fiscal years beginning after December 15, 2020. The Company has evaluated that this guidance will have little or no impact on its financial statements.

### **Financial instruments and other risks**

Our financial instruments consist of cash, receivables, accounts payable and accrued liabilities, accounts payable with related parties, and promissory notes payable. It is management's opinion that we are not exposed to significant interest, currency or credit risks arising from our financial instruments. The fair values of these financial instruments approximate their carrying values unless otherwise noted. The Company has its cash primarily in two commercial banks, one in Vancouver, British Columbia, Canada and in one in Chicago, Illinois.

***ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK***

Not applicable.

***ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA***

The Consolidated Financial Statements of the Company and the notes thereto are attached to this report following the signature page and Certifications.

***ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE***

For the fiscal years ended December 31, 2020 and 2019 we did not have any disagreement with our accountants on any matter of accounting principles, practices or financial statement disclosure.

***ITEM 9A. CONTROLS AND PROCEDURES***

**Disclosure controls and procedures**

The Company's management, including our principal executive officer and our principal financial officer, evaluated the effectiveness of disclosure controls and procedures (as defined in Exchange Act Rule 13a-15(e)) as of the end of the period covered by this report. Based on that evaluation, the principal executive officer and principal financial officer concluded that as of the end of the period covered by this report, the Company has maintained effective disclosure controls and procedures in all material respects, including those necessary to ensure that information required to be disclosed in reports filed or submitted with the SEC (i) is recorded, processed, and reported within the time periods specified by the sec, and (ii) is accumulated and communicated to management, including the principal executive officer and principal financial officer, as appropriate to allow for timely decision regarding required disclosure.

**Management's report on internal control over financial reporting**

The Company's management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rule 13a-15(f) or 15d-15(f) of the Exchange Act). Management assessed the effectiveness of our internal control over financial reporting as of December 31, 2019, using criteria established in *Internal Control-Integrated Framework* issued in 1992 by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Even an effective internal control system, no matter how well designed, has inherent limitations, including the possibility of human error and circumvention or overriding of controls and therefore can provide only reasonable assurance with respect to reliable financial reporting. Furthermore, the effectiveness of an internal control system in future periods can change with conditions.

A material weakness is a deficiency, or combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of the Company's annual or interim financial statements will not be prevented or detected on a timely basis.

The Company's management has determined that the internal controls over financial reporting are effective as of December 31, 2020.

#### Changes in Internal Control

There have been no changes in internal control over financial reporting that occurred during the last fiscal quarter that have materially affected, or are reasonably likely to materially affect, internal control over financial reporting.

### **ITEM 9B. OTHER INFORMATION**

None.

## **PART III**

Information with respect to Items 10 through 14 is set forth in the definitive Proxy Statement to be filed with the Securities and Exchange Commission on or before April 30, 2020 and is incorporated herein by reference. If the definitive Proxy Statement cannot be filed on or before April 30, 2020, the Company will instead file an amendment to this Form 10-K disclosing the information with respect to Items 10 through 14.

## **PART IV**

### **ITEM 15. EXHIBITS, FINANCIAL STATEMENTS SCHEDULES**

#### **Financial Statements**

The following Consolidated Financial Statements are filed as part of this report.

<b>Description</b>	<b>Page</b>
Financial statements for the years ended December 31, 2020 and 2019 and audit reports thereon.	F-1

#### **Exhibits**

The following table sets out the exhibits filed herewith or incorporated herein by reference.

<b>Exhibit</b>	<b>Description</b>
3.1	Certificate of Incorporation, Certificate of Name Change dated March 2009, Notice of Articles dated March 2009 <sup>(1)</sup> Certificate of Name Change dated November 19, 2014 and Notice of Articles dated November 19, 2014 <sup>(2)</sup>
3.2	Corporate Articles <sup>(1)</sup> Amendment to Corporate Articles dated November 10, 2014 <sup>(2)</sup>

10.1 <sup>(3)</sup>	2015 Stock Option Plan
10.2 <sup>(1)</sup>	Management Contract with George Putnam dated May 1, 2010
10.3 <sup>(4)</sup>	Management Contract with Edward Dickinson dated August 13, 2011
10.4 <sup>(5)</sup>	Share Exchange Agreement dated June 30, 2017
21.1 <sup>(7)</sup>	List of Subsidiaries
23.1 <sup>(7)</sup>	Consent of Davidson & Company LLP
23.2 <sup>(7)</sup>	Consent of Stuart Hutchin
23.3 <sup>(7)</sup>	Consent of Dean Basile
23.4 <sup>(7)</sup>	Consent of Geoffrey Duckworth
31.1 <sup>(7)</sup>	Certification Pursuant to Rule 13a-14(a) or 15d-14(a) of the U.S. Securities Exchange Act of 1934 of the Principal Executive Officer
31.2 <sup>(7)</sup>	Certification Pursuant to Rule 13a-14(a) or 15d-14(a) of the U.S. Securities Exchange Act of 1934 of the Principal Financial Officer
32.1 <sup>(7)</sup>	Section 1350 Certification of the Principal Executive Officer and Principal Financial Officer of the Principal Executive Officer
32.2 <sup>(7)</sup>	Section 1350 Certification of the Principal Executive Officer and Principal Financial Officer of the Principal Financial Officer

<sup>(1)</sup> Previously filed as exhibits to the Form 10 filed May 24, 2011 and incorporated herein by reference.

<sup>(2)</sup> Previously filed as exhibits to the Form 10-K filed February 27, 2015 and incorporated herein by reference.

<sup>(3)</sup> Previously filed as Schedule "A" to the Form DEF 14A filed October 5, 2015 and incorporated herein by reference.

<sup>(4)</sup> Previously filed as an exhibit to the Form 10-K/A filed May 1, 2014 and incorporated herein by reference.

<sup>(5)</sup> Previously filed as an exhibit to the Form 8-K filed July 26, 2017 and incorporated herein by reference.

<sup>(7)</sup> Filed herewith.

## SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

### SCANDIUM INTERNATIONAL MINING CORP.

By: /s/ George Putnam  
George Putnam  
President and Principal Executive Officer

Date: February 25, 2021

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ George Putnam</u> George Putnam	President, Principal Executive Officer, and Director	February 25, 2021
<u>/s/ William Harris</u> William Harris	Chairman and Director	February 25, 2021
<u>/s/ James Rothwell</u> James Rothwell	Director	February 25, 2021
<u>/s/ Willem Duyvesteyn</u> Willem Duyvesteyn	Director	February 25, 2021
<u>/s/ Warren Davis</u> Warren Davis	Director	February 25, 2021
<u>/s/ Peter Evensen</u> Peter Evensen	Director	February 25, 2021
<u>/s/ R.Christian Evensen</u> R. Christian Evensen	Director	February 25, 2021

/s/ Edward Dickinson      Principal Accounting Officer and  
Edward Dickinson      Principal Financial Officer

February 25, 2021