

SCANDIUM-ALUMINUM ALLOYS: GAME CHANGERS FOR TRANSPORTATION AND DEFENSE APPLICATIONS

Mark Smith, CEO
NioCorp Developments
Ltd.

Metal-Events Scandium
Symposium

October 18, 2023

NioCorp
Critical Mineral Security



Disclaimers & Technical Disclosures

Forward-Looking Statements

This Presentation contains forward-looking statements within the meaning of the United States Private Securities Litigation Reform Act of 1995 and forward-looking information within the meaning of applicable Canadian securities laws. Forward-looking statements may include, but are not limited to, the anticipated benefits of NioCorp's business combination (the "Business Combination") with GX Acquisition Corp. II ("GXII") and NioCorp's previously announced standby equity purchase facility (the "Yorkville Equity Facility Financing" and, together with the Business Combination, the "Transactions") with YA II PN, Ltd., an investment fund managed by Yorkville Advisors Global, LP (together with YA II PN, Ltd., "Yorkville"), including the ability to access the full amount of the expected net proceeds of the Yorkville Equity Facility Financing over the next three years; NioCorp's ability to receive a final commitment of financing from the Export-Import Bank of the United States ("EXIM"); anticipated benefits of the listing of NioCorp's common shares on Nasdaq; the financial and business performance of NioCorp; NioCorp's anticipated results and developments in the operations of NioCorp in future periods; NioCorp's planned exploration activities; the adequacy of NioCorp's financial resources; NioCorp's ability to secure sufficient project financing to complete construction and commence operation of the Elk Creek Project; NioCorp's expectation and ability to produce niobium, scandium, and titanium at the Elk Creek Project; NioCorp's plans to produce and supply specific products and market demand for those products; the outcome of current recovery process improvement testing, and NioCorp's expectation that such process improvements could lead to greater efficiencies and cost savings in the Elk Creek Project; the Elk Creek Project's ability to produce multiple critical metals; the Elk Creek Project's projected ore production and mining operations over its expected mine life; the completion of the demonstration plant and technical and economic analyses on the potential addition of magnetic rare earth oxides to NioCorp's planned product suite; the exercise of options to purchase additional land parcels; the execution of contracts with engineering, procurement and construction companies; NioCorp's ongoing evaluation of the impact of inflation, supply chain issues and geopolitical unrest on the Elk Creek Project's economic model; and the creation of full time and contract construction jobs over the construction period of the Elk Creek Project. In addition, any statements that refer to projections (including Averaged EBITDA, Averaged EBITDA Margin, and After-Tax Cumulative Net Free Cash Flow), forecasts or other characterizations of future events or circumstances, including any underlying assumptions, are forward-looking statements. Forward-looking statements are typically identified by words such as "plan," "believe," "expect," "anticipate," "intend," "outlook," "estimate," "forecast," "project," "continue," "could," "may," "might," "possible," "potential," "predict," "should," "would" and other similar words and expressions, but the absence of these words does not mean that a statement is not forward-looking.

The forward-looking statements are based on the current expectations of the management of NioCorp and are inherently subject to uncertainties and changes in circumstances and their potential effects and speak only as of the date of such statement. There can be no assurance that future developments will be those that have been anticipated. Forward-looking statements reflect material expectations and assumptions, including, without limitation, expectations, and assumptions relating to the future price of metals, the stability of the financial and capital markets and other current estimates and assumptions regarding the Transactions and their benefits. Such expectations and assumptions are inherently subject to uncertainties and contingencies regarding future events and, as such, are subject to change. Forward-looking statements involve a number of risks, uncertainties or other factors that may cause actual results or performance to be materially different from those expressed or implied by these forward-looking statements. These risks and uncertainties include, but are not limited to, those discussed and identified in public filings made by NioCorp with the Securities and Exchange Commission (the "SEC") and with the applicable Canadian securities regulatory authorities and the following: NioCorp's ability to recognize the anticipated benefits of the Transactions, including NioCorp's ability to access the full amount of the expected net proceeds under the Yorkville Equity Facility Financing Agreement over the next three years; unexpected costs related to the Transactions; the outcome of any legal proceedings that may be instituted against NioCorp following closing of the Transactions; NioCorp's ability to receive a final commitment of financing from EXIM on the anticipated timeline, on acceptable terms, or at all; NioCorp's ability to continue to meet Nasdaq and TSX listing standards; NioCorp's ability to operate as a going concern; risks relating to the Common Shares, including price volatility, lack of dividend payments and dilution or the perception of the likelihood any of the foregoing; NioCorp's requirement of significant additional capital; the extent to which NioCorp's level of indebtedness and/or the terms contained in agreements governing NioCorp's indebtedness or the Yorkville Equity Facility Financing Agreement may impair NioCorp's ability to obtain additional financing; covenants contained in agreements with NioCorp's secured creditors that may affect its assets; NioCorp's limited operating history; NioCorp's history of losses; the restatement of NioCorp's consolidated financial statements as of and for the fiscal years ended June 30, 2022 and 2021 and the interim periods ended September 30, 2021, December 31, 2021, March 31, 2022, September 30, 2022 and December 31, 2022 and the impact of such restatement on NioCorp's future financial statements and other financial measures; the material weaknesses in NioCorp's internal control over financial reporting, NioCorp's efforts to remediate such material weaknesses and the timing of remediation; the possibility that NioCorp may qualify as a PFIC under the Code; the potential that the Transactions could result in NioCorp becoming subject to materially adverse U.S. federal income tax consequences as a result of the application of Section 7874 and related sections of the Code; cost increases for NioCorp's exploration and, if warranted, development projects; a disruption in, or failure of, NioCorp's information technology systems, including those related to cybersecurity; equipment and supply shortages; variations in the market demand for, and prices of, niobium, scandium, titanium and rare earth products; current and future offtake agreements, joint ventures, and partnerships; NioCorp's ability to attract qualified management; the effects of the COVID-19 pandemic or other global health crises on NioCorp's business plans, financial condition and liquidity; estimates of mineral resources and reserves; mineral exploration and production activities; feasibility study results; the results of metallurgical testing; changes in demand for and price of commodities (such as fuel and electricity) and currencies; competition in the mining industry; changes or disruptions in the securities markets; legislative, political or economic developments, including changes in federal and/or state laws that may significantly affect the mining industry; the impacts of climate change, as well as actions taken or required by governments related to strengthening resilience in the face of potential impacts from climate change; the need to obtain permits and comply with laws and regulations and other regulatory requirements; the timing and reliability of sampling and assay data; the possibility that actual results of work may differ from projections/expectations or may not realize the perceived potential of NioCorp's projects; risks of accidents, equipment breakdowns, and labor disputes or other unanticipated difficulties or interruptions; the possibility of cost overruns or unanticipated expenses in development programs; operating or technical difficulties in connection with exploration, mining, or development activities; the management of the water balance at the Elk Creek Project site; land reclamation requirements related to the Elk Creek Project; the speculative nature of mineral exploration and development, including the risks of diminishing quantities of grades of reserves and resources; claims on the title to NioCorp's properties; potential future litigation; and NioCorp's lack of insurance covering all of NioCorp's operations.

Should one or more of these risks or uncertainties materialize or should any of the assumptions made by the management of NioCorp prove incorrect, actual results may vary in material respects from those projected in these forward-looking statements.

All subsequent written and oral forward-looking statements concerning the Transactions or other matters addressed in this communication and attributable to NioCorp or any person acting on its behalf are expressly qualified in their entirety by the cautionary statements contained or referred to in this communication. Except to the extent required by applicable law or regulation, NioCorp undertakes no obligation to update these forward-looking statements to reflect events or circumstances after the date of this communication to reflect the occurrence of unanticipated events.

Qualified Persons

All technical and scientific information included in this Presentation derived from NioCorp's 2022 NI 43-101 Elk Creek Technical Report with respect to mineral resources has been reviewed and approved by Matthew Batty, P.Geo., Owner, Understood Mineral Resources Ltd., and all such information respecting NioCorp's mineral reserves has been reviewed and approved by Richard Jundis, P. Eng., Director of Mining, Optimize Group. Each of Messrs. Batty and Jundis is a "Qualified Person" as such term is defined in NI 43-101. Each of Mr. Batty and Mr. Jundis and their respective firms are independent consultants who provide consulting services to NioCorp. All technical and scientific information included in this Presentation derived from NioCorp's S-K 1300 Elk Creek Technical Report Summary with respect to mineral resources has been reviewed and approved by Understood Mineral Resources Ltd., and all such information respecting NioCorp's mineral reserves has been reviewed and approved by Optimize Group. Understood Mineral Resources Ltd. and Optimize Group are "Qualified Persons" as such term is defined in S-K 1300. All other technical and scientific information included in this Presentation has been reviewed and approved by Scott Honan, M.Sc., SME-RM, NioCorp's Chief Operating Officer. Mr. Honan is a "Qualified Person" as such term is defined in both NI 43-101 and S-K 1300.

Disclaimers & Technical Disclosures

Financial Information; Non-GAAP Measures

Certain financial information and data included in this Presentation is unaudited and may not conform to Regulation S-X. This Presentation also includes certain financial measures not presented in accordance with generally accepted accounting principles (“GAAP”), including, but not limited to, “Averaged EBITDA,” “Averaged EBITDA Margin,” and “After-Tax Cumulative Net Free Cash Flow.” These performance measures do not have a standard meaning within GAAP and, therefore, amounts presented may not be comparable to similar data presented by other companies. These non-GAAP financial measures, and other measures that are calculated using these non-GAAP measures, are not measures of financial performance in accordance with GAAP and may exclude items that are significant in understanding and assessing NioCorp’s financial results. Therefore, these measures should not be considered in isolation or as an alternative to net income, cash flows from operations or other measures of profitability, liquidity or performance under GAAP. These non-GAAP financial measures are included in this Presentation because they are key performance measures used in the June 2022 Feasibility Study for purposes of projecting the economic results of the Elk Creek Project, and NioCorp believes that these non-GAAP measures provide useful information to management and investors regarding certain financial and business trends relating to NioCorp’s financial condition and results of operations. NioCorp believes that the use of these non-GAAP financial measures provides an additional tool for investors to use in evaluating ongoing operating results and trends and in comparing NioCorp’s financial measures with other similar companies, many of which present similar non-GAAP financial measures to investors. These non-GAAP financial measures are subject to inherent limitations as they reflect the exercise of judgments by management about which expense and income are excluded or included in determining these non-GAAP financial measures.

The non-GAAP financial measures included in this Presentation are projections. Reconciliations of these forward-looking non-GAAP financial measures to the most directly comparable GAAP financial measures are not provided because NioCorp is unable to provide such reconciliations without unreasonable effort, due to the uncertainty and inherent difficulty of predicting the occurrence and the financial impact of such items impacting comparability and the periods in which such items may be recognized. For the same reasons, the Company is unable to address the probable significance of the unavailable information, which could be material to future results. See “Forward-Looking Statements.”

In addition to the non-GAAP financial measures, this Presentation may contain financial forecasts and projections (collectively, “prospective financial information”) of NioCorp. Neither the independent registered public accounting firm of NioCorp audited, reviewed, compiled or performed any procedures with respect to the prospective financial information for the purpose of their inclusion in this Presentation, and accordingly, neither of them expressed an opinion or provided any other form of assurance with respect thereto for the purpose of this Presentation. This prospective financial information constitutes forward-looking statements and should not be relied upon as being guarantees or necessarily indicative of future results. The assumptions and estimates underlying such prospective financial information are inherently uncertain and are subject to a wide variety of significant business, economic, competitive and other risks and uncertainties that could cause actual results to differ materially from those contained in the prospective financial information. See “Forward-Looking Statements.” Accordingly, there can be no assurance that the prospective financial information is indicative of future performance of NioCorp or that actual results will not differ materially from the results presented in the prospective financial information included in this Presentation. Actual results may differ materially from the results contemplated by the prospective financial information included in this Presentation. The inclusion of such prospective financial information herein should not be regarded as a representation by any person that the results reflected in such projections will be achieved.

The purpose of the prospective financial information is to assist investors, shareholders and others in evaluating the performance of NioCorp’s business. The prospective financial information may not be appropriate for other purposes. Information about NioCorp’s guidance, including the various assumptions underlying it, is forward-looking and should be read in conjunction with “Forward-Looking Statements” in this Presentation, and the related disclosure and information about various economic, competitive, and regulatory assumptions, factors, and risks that may cause NioCorp’s actual future financial and operating results to differ from what NioCorp currently expects.

All amounts in this Presentation are expressed in U.S. dollars unless otherwise indicated.

Mineral Reserves and Resources

Unless otherwise indicated, information concerning NioCorp’s mining property included in this Presentation, including mineral resource and reserve estimates, has been prepared in accordance with the requirements of National Instrument 43-101– Standards of Disclosure for Mineral Projects (“NI 43-101”) and the Canadian Institute of Mining and Metallurgy (“CIM”) “Definition Standards – For Mineral Resources and Mineral Reserves, May 10, 2014” (the “CIM Definition Standards”). Beginning with NioCorp’s Annual Report on Form 10-K for the fiscal year ended June 30, 2022 (the “NioCorp Form 10-K”), NioCorp’s mining property disclosures included or incorporated by reference in its SEC filings, including mineral resource and reserve estimates, are required to be prepared in accordance with the requirements of subpart 1300 of Regulation S-K (“S-K 1300”). Previously, NioCorp prepared its estimates of mineral resources and mineral reserves following only NI 43-101 and the CIM Definition Standards. On June 28, 2022, NioCorp issued a CIM-compliant NI 43-101 technical report (the “2022 NI 43-101 Elk Creek Technical Report”) for the Elk Creek Project, which is available through the website maintained by the Canadian Securities Administrators at www.sedar.com. On September 6, 2022, the Company filed a technical report summary for the Elk Creek Project that conforms to S-K 1300 reporting standards (the “S-K 1300 Elk Creek Technical Report Summary”) as Exhibit 96.1 to “the NioCorp Form 10-K, which is available through the website maintained by the SEC at www.sec.gov. The 2022 NI 43-101 Elk Creek Technical Report and S-K 1300 Elk Creek Technical Report Summary are based on a feasibility study (the “June 2022 Feasibility Study”) prepared by qualified persons (within the meaning of both NI 43-101 and S-K 1300, as applicable) and are substantively identical to one another except for internal references to the regulations under which the report is made, and certain organizational differences. The requirements and standards under Canadian securities laws, however, differ from those under S-K 1300. The terms “mineral resource,” “inferred mineral resource,” “indicated mineral resource,” “mineral reserve,” “probable mineral reserve,” and “proven mineral reserve” included herein are used as defined in accordance with NI 43-101 under the CIM Definition Standards. While the terms are substantially similar to the same terms defined under S-K 1300, there are differences in the definitions. Accordingly, there is no assurance any mineral resource or mineral reserve estimates that the Company may report under NI 43-101 will be the same as the mineral resource or mineral reserve estimates that the Company may report under S-K 1300.

NioCorp discloses estimates of both is mineral resources and mineral reserves. You are cautioned that mineral resources are subject to further exploration and development and are subject to additional risks and no assurance can be given that they will eventually convert to future reserves. Under both regimes, inferred resources, in particular, have a great amount of uncertainty as to their existence and their economic and legal feasibility. Investors are cautioned not to assume that any part or all of the inferred resource exists or is economically or legally mineable. See Item 1A, Risk Factors in the NioCorp Form 10-K. Reference should be made to the full text of the 2022 NI 43-101 Elk Creek Technical Report and the S-K 1300 Elk Creek Technical Report Summary for further information regarding the assumptions, qualifications and procedures relating to the estimates of mineral reserves and mineral resources as defined under NI 43-101 and S-K 1300, respectively.

Critical Minerals in the Elk Creek Resource¹

Critical Minerals



Ferroniobium

970,300
tonnes

No production
in the U.S.

Highest grade
Niobium project
under development
in N.A.¹



**Scandium
Oxide**

11,337
tonnes

No production
in the U.S.

Largest
planned producer
in N.A.



**Titanium Dioxide
(or TiCl₄)²**

4,221,000
tonnes

High import
reliance for U.S.

Is expected to be
produced by
NioCorp as a
co-product.

Magnetic Rare Earths



**Neodymium-
Praseodymium
Oxide³**

125,800
tonnes

No production
in the U.S.

Elk Creek Project
contains the 2nd
largest indicated
NdPr Mineral
Resource in the
U.S.⁴



**Dysprosium
Oxide³**

9,100
tonnes

No production
in the U.S.

Elk Creek Project
contains the 2nd
largest indicated
Dysprosium Mineral
Resource in the
U.S.⁴



**Terbium
Oxide³**

2,300
tonnes

No production
in the U.S.

Elk Creek Project
contains the largest
indicated Terbium
Mineral Resource in
the U.S.⁴

¹ Based on the 2022 Elk Creek Technical Report. See “Mineral Reserves and Resources” in the Disclaimers & Technical Disclosures at the beginning of this presentation.

² NioCorp is currently assessing the feasibility of producing Titanium Tetrachloride in addition to, or in lieu of, Titanium Dioxide. Final determination of possible rare earth production can be made only after work related to a mineral reserve update, additional engineering, updated project capital and operating cost estimates, and other required information is produced for publication in a new Feasibility Study.

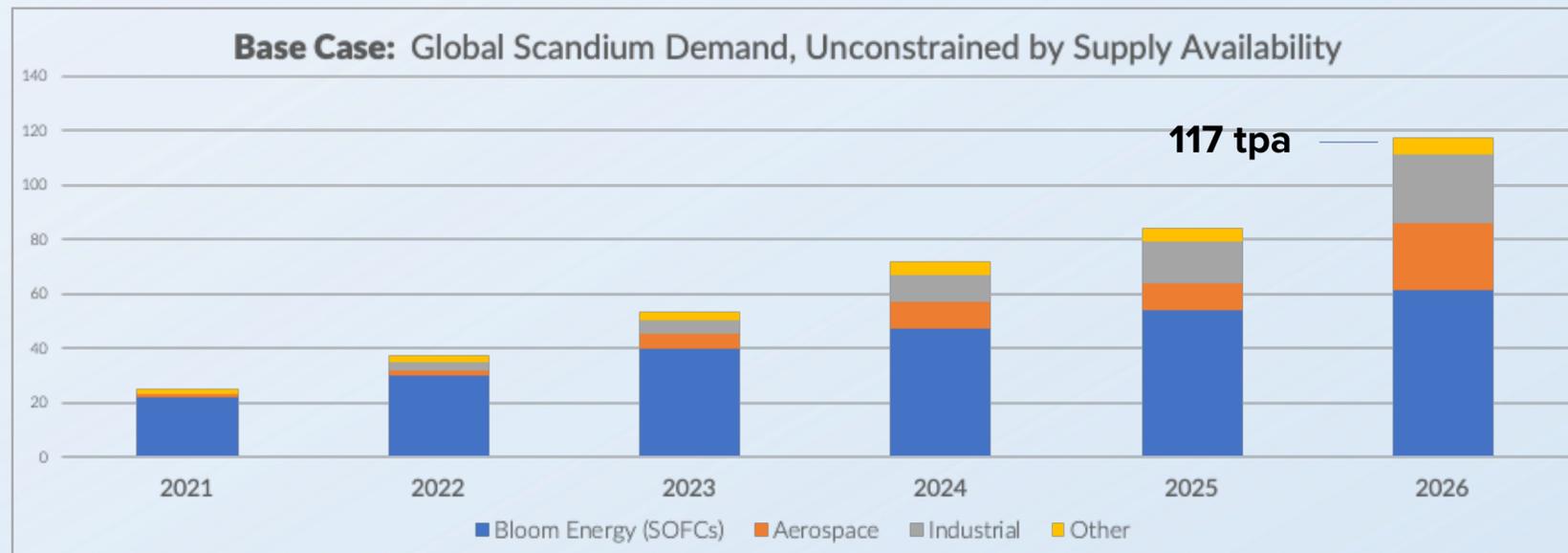
³ NioCorp is currently conducting technical and economic analyses on the potential addition of magnetic rare earth oxides to its planned product suite.

⁴ Indicated mineral resource, based on data from the “Critical Mineral Resources of the United States—Economic and Environmental Geology and Prospects for Future Supply,” U.S. Geological Survey, 2017, and from company-issued reports.

SCANDIUM: Limited Supply But Very Large Latent Demand

Scandium

- Forecast demand (117 tpy by 2026) greatly exceeds current supply (25 tonnes/year)¹ and exceeds NioCorp's potential annual scandium production.
 - Solid oxide fuel cell use of Scandium (\approx 22 tpy) forecast to grow at 23% CAGR¹
 - Aerospace + industrial use in 2022 (\approx 5 tpy) forecast to reach 50tpy over next 5 years¹
- Momentum building in the market, with new pilot production from Rio Tinto² and planned production from others.
- Potential in EV/Automotive:** Net pounds of aluminum per light duty vehicle is forecast to increase from 459 lbs. in 2020 to 570 lbs. in 2030,³ representing a large potential for scandium use in aluminum-scandium alloys, even at low overall penetration; just 10% of this volume using 0.1% scandium would mean 700 tons/year scandium demand.¹



Source: ONG Commodities Ltd., 2021

Global Scandium Demand Drivers



Increasing focus on lighter-weight and more fuel efficient commercial jets

Approximately \$2M of scandium in a single airliner offers an estimated \$27M million of net present value in fuel savings.⁴



Development of lighter-weight and more fuel efficient railway cars and large transport

One of the world's largest aluminum companies has already produced aluminum-scandium rail hopper cars.⁵



Weight reduction in EV components is high priority for automakers.

IEA forecast 25% CAGR growth in demand for EVs to 2030.⁶

¹ ONG Commodities Ltd.

² Rio Tinto.

³ Advanced Casting Research Center.

⁴ Company estimate.

⁵ Aluminum International Today, Jan. 25, 2022.

⁶ EA Global EV Outlook 2022.

The Power of Aluminum-Scandium Master Alloy

- No need to quench cast parts
- High specific strengthening effect
- Inhibition of recrystallization
- Grain size refinement
- Better fatigue life
- Improved resistance to hot cracking and improved corrosion resistance
- Enables better parts recycling and circular economics for manufacturers

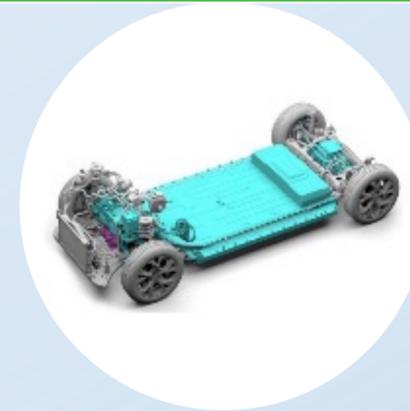


Superior Grain Refinement:
Aluminum Alloy without scandium (left) and Al-Sc (right)¹

NioCorp's Phased Commercialization of Aluminum-Scandium Master Alloy

NioCorp Goal: To produce in the U.S. both scandium oxide and aluminum-scandium master alloy.

NioCorp



↑
High margin capture

Scandium Market Development Initiative

- Established NioCorp Technologies Ltd in the UK
- Focused on developing Al-Sc mass market applications for lightweighting and recycling of automotive components
- Partnering with a leading UK university to undertake advanced Al-Sc research
- Working closely with leading automotive OEMs, Tier 1 suppliers and specialist manufactures
- Undertaking rapid prototyping to build early track record and accelerated market adoption



EXAMPLE: Cast Node on Battery Box requires strength, corrosion resistance, weldability

First Al-Sc Master Alloy Ingot Produced

- Successful pilot-scale production of 1 kg Al-Sc alloy ingot this week at testing facility in Pennsylvania.
- We are avoiding traditional approach (calciothermic reduction of fluoride)
- Nanoscale process: metallothermic reduction of scandium chloride
 - Less environmental impacts
 - Very high prospective yield
 - Separates Sc reduction and alloying with Al into 2 steps

NioCorp's Al-Sc Master Alloy pilot-scale testing at Creative Engineers in New Freedom, Penn.



Phased Commercialization Deployment Progression



Pilot-Scale Manufacturing

Goal: production of three 1-kg ingots of 5% wt.% scandium. Work underway now in New Freedom, Penn. Scandium chloride obtained from various commercial sources.



Commercial Demonstration

Scale to production of 10-kg and then to 100-kg ingots. Work to be performed at 3rd party ingot casting facility in the US, which helps to provide a blueprint for commercial-scale master alloy plant with 100 tonnes (contained Sc) per year production capacity delivered at end of demonstration. Scandium chloride from various commercial sources.



Full-Scale Commercialization

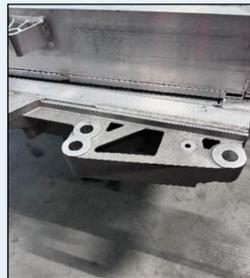
Facility co-located with Elk Creek facility in Nebraska to take advantage of existing infrastructure. Scandium from Elk Creek Project in Nebraska.

Industrial Sectors Seeking Greater Access to Scandium Alloys

Automotive

NioCorp is now working with automotive manufacturers to explore different aluminum-scandium alloy chemistries to be used for prototype parts for EV and ICE vehicles.

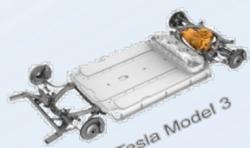
Application Examples



Cast Node on Battery Box



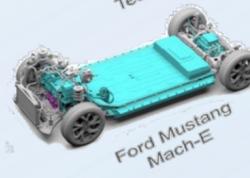
Extruded Bumpers



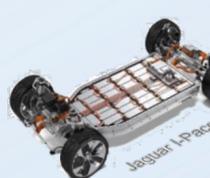
Tesla Model 3



VW MEB



Ford Mustang Mach-E



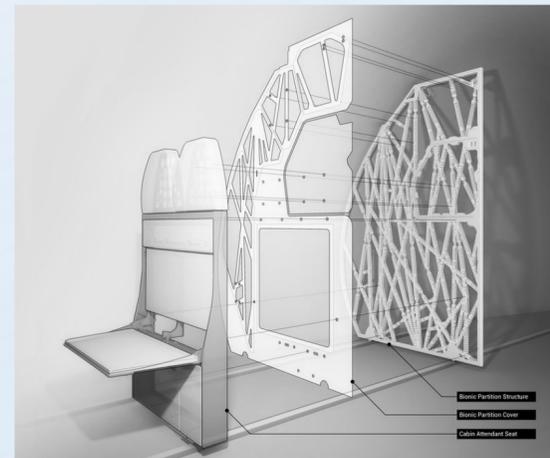
Jaguar I-Pace

Battery Enclosures

Commercial Aviation

Commercial airlines intensely interested in light-weighting jets to reduce emissions. Al-Sc alloy parts have already been developed that can be swapped out with current alloy parts to reduce weight.

Application Examples



APWorks, and Airbus subsidiary, developed a lightweight aircraft bulkhead partition using Scalmalloy®, an aluminum-magnesium-scandium alloy.

Defense/Space

DoD interested in aluminum-scandium alloys in land-, air-, sea-, and space systems. NioCorp, DoD, and Congress working to potentially accelerate our current Al-Sc master alloy commercialization effort.

Application Examples



5G / Communications

5G networks require improved RF filtering. Designs incorporating scandium-aluminum-nitride are much more efficient. This requires high-purity scandium metal for production.

Application Examples



Scandium Sputtering Target

Questions?

NioCorp
Critical Mineral Security



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