THE ELK CREEK CRITICAL MINERALS PROJECT

Enabling the green economy through secure, environmentally responsible supply of Critical Minerals

Calendar Q3 2022
Cautionary Notes & Technical Disclosures

Certain statements contained in this document may constitute forward-looking statements, including but not limited to statements regarding the Company's ability to secure sufficient project financing to complete construction and commence operation of the Project; the Company's expectation and ability to produce niobium, scandium, titanium and rare earth products at the Project; the outcome of current recovery process improvement testing; and the Company's expectation that such process improvements could lead to greater efficiencies and cost savings in the Project; the Company's expectation to emerge as a producer of magnetic rare earth metals; the potential for the Company's REEs to be mined; the Company's expectation to produce a fuller technical report assessing the feasibility of REE production; 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; and the Company's ongoing evaluation of the impact of inflation, supply chain issues and geopolitical unrest on the Elk Creek Project's economic model. Such forward-looking statements are based on estimates and assumptions made by the Company in light of its experience and its perception of historical trends, current conditions and expected future developments, as well as other factors that the Company believes are appropriate in the circumstances. Readers are cautioned that such forward-looking statements involve known and unknown risks, uncertainties, and other factors that may cause a change in such forward-looking statements and the actual outcomes and estimates to be materially different from those estimated or anticipated future results, achievements, or position expressed or implied by those forward-looking statements. Risks, uncertainties, and other factors that could cause NioCorp’s plans or prospects to change include risks related to NioCorp’s ability to operate as a going concern; risks related to NioCorp’s requirement of significant additional capital; risks related to feasibility study results; changes in demand for and price of commodities (such as fuel and electricity) and currencies; changes or disruptions in the securities markets; legislative, political or economic developments; the need to obtain permits and comply with laws and regulations and other regulatory requirements; 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 speculative nature of mineral exploration and development, including the risks of diminishing quantities of grades of reserves and resources; the risks involved in the exploration, development, and mining business, and the risks set forth in the Company’s filings with Canadian securities regulators at www.sedar.com and the SEC at www.sec.gov. NioCorp disclaims any intention or obligation to update or revise any forward-looking statements whether as a result of new information, future events or otherwise.

Qualified Persons: The following Qualified Persons as defined by National Instrument 43-101, have reviewed, and approved the technical information and verified the data contained in this presentation, which are derived from NioCorp’s 2022 Feasibility Study: Mineral Resource: Matthew Batty, P.Geo, Owner, Understood Mineral Resources Ltd.; Mineral Reserve: Richard Jundis, P. Eng, Director of Mining, Optimize Group; all other technical information: Scott Honan, M.Sc., SME-RM, of NioCorp Developments Ltd.
About NioCorp

Corporate Summary
(As of latest SEC filing date)

- Shares Outstanding: 268,083,716
- Warrants: 13,470,118
- Options: 14,089,000
- Convertible Debt: $4.65M (as of 3-31-2022)
- Market Cap: US $183.6 million (as of 8-1-2022)
- Insider Ownership: ≈ 8.99%
- Largest Shareholder: Mark Smith, CEO/Chairman, 19.4M shares
- Primary Project: Elk Creek Project in Nebraska, USA
- Incorporated: 1987

Investor Information
(as of 8-1-2022)

- Tickers: TSX:NB OTCQX:NIOBF FSE:BR3
- 52-Week Range: C$0.76 - $1.55 (TSX); US$0.586 - $1.25 (OTCQX)
- Average volume: 128,291 (TSX); 195,906 (OTCQX)
- Equity Analyst: Heiko Ihle, H.C. Wainwright & Co.

At a Glance

- A public company, NioCorp Developments Ltd. is developing the Elk Creek Critical Minerals Project, a large underground deposit in southeast Nebraska rich in Niobium, Scandium, Titanium and Rare Earth Elements.
- Fully permitted for construction, the Project features the 2nd largest indicated-or-better rare earth resource in the U.S., second only to MP Materials’ Mountain Pass deposit in California.\(^1\)
- All of NioCorp’s planned products have been designated as "critical minerals" by the U.S. Government, making this project one of America’s premier pure-play critical minerals developments.
- Only 3 primary Niobium mines operate in the world today while growing demand has created a global market value of >$5.0 billion.
- Light weighting is critical to increasing efficiency and reducing emissions from transportation and infrastructure re-building - all of which use Niobium, Scandium, and Rare Earth Elements.
- Niobium and Titanium are critical enablers for the next generation of highly efficient solid-state rapid-charge battery technologies.

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1. This debt can be paid back in cash or shares. The number of shares issued in any conversion is dependent upon share price and other factors at the time of conversion.
A Pure-Play Critical Minerals Project and the Second-Largest Rare Earth Resource in the U.S.¹

- A pure-play critical minerals project with the highest-grade Niobium deposit under development in N.A., large-scale production of Scandium, and the second-largest indicated-or-better rare earth resource in the U.S.¹
- A feasibility-level NI-43-101 Technical Report completed with attractive economic returns.²
- Large resource with a 38-year mine life.²
- 75% of planned Niobium production in the 1st 10 years has been pre-sold, and 12% of planned Scandium production in the 1st 10 years has been pre-sold.
- Highly experienced Board of Directors and management team, with >200 years of collective experience in minerals development, including commercial-scale production of separated rare earths.
- Project is guided by the Equator Principles ESG framework and incorporates recycling, water conservation, and many other sustainability strategies. It also presents a large Scope 3 GHG reductions potential.
- All key federal, state, and local permits secured to allow start of construction. Project is sited on private land with agreements in place with local landowners. NioCorp owns the primary land parcel.
- Strong support from local communities and state and local government, including state tax relief valued as much as $200 million over 10 years.

² Based on Feasibility Study Update first announced on May 18, 2022.
Niobium, Scandium and Rare Earths are key enablers of the green economy.

300 grams of Niobium in a mid-size vehicle reduces its weight by 200 kg and increases fuel efficiency by 5%.

$1-1.5 million of scandium in a single airliner offers approximately $21-$27 million of net present value in fuel savings.

0.025% Niobium in the steel of the Millau Viaduct bridge reduced the weight of steel and concrete by 60% in the overall project.

Niobium, Scandium, and REEs increase fuel economy in vehicles and aerospace. Nb, Ti, and Sc also have large potential uses in solid-state Lithium-ion batteries.

Niobium, Scandium, Titanium and REEs are all vital to the performance of a variety of high-performance defense systems.

Demand for magnetic rare earths is expected to grow by more than 150% from 2020 to 2030.

The global green economy will require these critical minerals.
The Problem

Lack of secure and reliable long-term supply is preventing fulfilment of latent market demand and realization of environmental benefits resulting from existing applications and from significant new technologies.

This is due to:

• Concentrated sources of supply for Niobium, Scandium, and separated magnetic rare earth oxides
• Extremely scarce and limited Scandium supply
• Some supply chains have politically sensitive and unreliable supply locations, particularly rare earths.
• Environmental impacts are high from many sources of current supply

The U.S. is dependent on foreign suppliers for most of NioCorp’s critical minerals.

Current Annual Niobium, Scandium, and Magnetic REE Oxide Production

<table>
<thead>
<tr>
<th>Country</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>11t</td>
</tr>
<tr>
<td>Russia</td>
<td>3t</td>
</tr>
<tr>
<td>FSU</td>
<td>1t</td>
</tr>
<tr>
<td>Estonia</td>
<td>3.3kt</td>
</tr>
<tr>
<td>Russia</td>
<td>3t</td>
</tr>
<tr>
<td>Philippines</td>
<td>7t</td>
</tr>
<tr>
<td>Malaysia</td>
<td>5.6kt</td>
</tr>
<tr>
<td>Magris</td>
<td>5 kt</td>
</tr>
<tr>
<td>CBMM</td>
<td>110 kt</td>
</tr>
<tr>
<td>CMOC</td>
<td>10 kt</td>
</tr>
<tr>
<td>China</td>
<td>40kt</td>
</tr>
</tbody>
</table>

1 Corporate reports and company information, ONG Commodities Report, Adamas Intelligence
Reliable, Low-Risk Supply is Key to Securing Energy Transition

The Solution

• Significant production volumes planned for Niobium, Scandium, Titanium, and separated magnetic Rare Earth Elements (‘REEs) from a low-risk jurisdiction:
  • Diversifies global supply
  • Creates reliable and meaningful Scandium supply volumes (∼100t per annum)
  • Provides non-Chinese REEs for expansion of renewables and electrified vehicles
• Underground mineral source and environmentally responsible processing creates sustainable production solution

The Elk Creek Project is a large underground hard-rock deposit in southeast Nebraska designed to produce critical minerals in a low-impact, sustainable manner.

Illustration of NioCorp’s planned Elk Creek Facility

Illustration of NioCorp’s planned Elk Creek Facility


NioCorp owns the primary land parcel and minerals rights to 90%+ of the Mineral Resource and Reserve.

2nd largest U.S. rare earth resource (indicated or better category)2

Based on Feasibility Study Update first announced on May 18, 2022.

NioCorp’s Planned Products Have The Highest-Ranked Criticality

The highly regarded U.S. Business Executives for National Security (BENS) ranked all critical minerals in terms of their criticality to vital U.S. industries.¹

NioCorp will make the TOP 3 MOST CRITICAL MINERALS.

<table>
<thead>
<tr>
<th>Mineral</th>
<th>Criticality Score</th>
<th>U.S. Net Import Reliance (and Score)</th>
<th>Major Import Sources and % of Import (and Score)</th>
<th>Primary U.S. Industry End Uses (and Score)</th>
<th>Mitigation Opportunities (and Score)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Rare Earths</td>
<td>10 100% (3)</td>
<td>China (80%), Estonia (6%), France (3%), Japan (3%) – (3)</td>
<td>Batteries and electronics – (2)</td>
<td>Substitutes are available for many applications but are generally less effective. (2)</td>
<td></td>
</tr>
<tr>
<td>2 Scandium</td>
<td>10 100% (3)</td>
<td>no percentages available - majority from China (3)</td>
<td>Alloys and fuel cells – (2)</td>
<td>Titanium and aluminum high-strength alloys and carbon-fiber (2)</td>
<td></td>
</tr>
<tr>
<td>3 Niobium</td>
<td>9 100% (2)</td>
<td>Brazil (72%), Canada (18%), Russia (3%), Germany (2%) – (2)</td>
<td>Steel alloys, jet engines – (2)</td>
<td>Ceramic matrix composites, molybdenum, tantalum, tungsten, titanium, vanadium (2)</td>
<td></td>
</tr>
<tr>
<td>24 Titanium</td>
<td>6 75% (2)</td>
<td>Japan (81%), Kazakhstan (7%), Ukraine (7%), China (3%) – (1)</td>
<td>White pigment or metal alloys, jet engines, artillery, airframes – (2)</td>
<td>Aluminum, intermetallics, steel, super-alloys, nickel, zirconium (1)</td>
<td></td>
</tr>
</tbody>
</table>

No other proposed project in the world will make these 3 most critical mineral groups.

Elk Creek Feasibility Study\(^1\) Highlights
(excluding impact of REE production)

These robust results do not include the impacts of adding rare earth products.

- **$2.8B** Pre-Tax NPV
- **29.2%** Pre-Tax IRR
- **$2.35B** After-Tax NPV
- **27.6%** After-Tax IRR
- **$403M** Averaged EBITDA\(^2\) over Run of Mine\(^3\)
- **68%** Averaged EBITDA\(^2\) Margin over Run of Mine\(^3\)
- **$21.9B** Gross Revenue over Mine Life
- **$10.9B** After-Tax Cumulative Net Free Cash Flow\(^2\) over Run of Mine\(^3\)
- **$1.14B** Total Net Up-Front CAPEX
- **38 Yrs.** Mine Life

\(^1\) Based on Feasibility Study Update first announced on May 18, 2022.

\(^2\) See endnotes at end of presentation regarding non-GAAP financial measures.

\(^3\) “Run of Mine” is defined as the period of time during which the mine is fully operational and excludes the periods of time when the mine is conducting its initial production ramp or is ramping down to closure.
Critical Minerals with Significant Market Potential

Niobium
- The global Niobium market is currently ≈125kt per annum with a value of ≈$5.0bn and is forecast to achieve 6% CAGR between 2020 and 2025.
- Market growth is expected to be underpinned by a shift toward an increasing use of light-weight high strength steel alloys in construction.
- Continued use in aircraft engines and additional long-term growth through light-weighting in transportation, defense, space applications and use in battery technology.

Scandium
- Momentum is building in the market, with new pilot production from Rio Tinto and planned production from others.
- Demand exceeds supply for solid oxide fuel cells (≈22t per annum demand growing at 23% CAGR); and aerospace / industrial (≈5t per annum forecast to reach 50t per annum over next 5 years).
- Forecast demand based on current applications expected to exceed 100t per annum by 2026.
- Supply is expected to lag demand by approx. 30%.
- Ultimate demand potential for several hundred tons per year of scandium oxide subject to scandium availability.
- Growing market from ≈$50million to ≈$1billion.

Titanium
- The global Titanium market is currently approximately 15.8mtpa with a value of ≈$11.4 bn and is forecast to achieve 6.0% CAGR between 2020 and 2025.
- Supply and demand are tight, and lack of new titanium dioxide feedstock has put upward pressure on prices.
- Growing demand for lightweight high strength titanium alloy products.

Magnetic Rare Earths
- NioCorp is now developing plans to produce three magnetic REE oxides: NdPr, Dy, and Tb.
- Global magnetic REE oxide consumption value is forecast to increase 3X by 2035, from US$15.1 billion in 2022 to US$46.2 billion by 2035.
- Demand for magnetic REE oxides is expected to grow at an 8.3% CAGR through 2035.
- Global REE markets are forecast to under-produce NdPr, Dy, and Tb oxides from 2022 onward unless significant new supplies are brought online.
Toshiba, CBMM, Nano One, Niobolt and others are developing solid-state Li-Ion batteries with niobium that:

- Can fully re-charge in <10 minutes
- Eliminate fire or explosion hazard
- 5X the battery life of Li-Ion batteries

CBMM now partnered with Volkswagen on rapid commercialization program

CBMM building a US$3 million pilot plant to produce niobium oxide for batteries.

- Expects global market to exceed 45,000 tonnes/year in 2030

Source: “CBMM strikes partnerships to pioneer niobium-bearing battery development,” S&P Global, 18 June 2021
Elk Creek: 2nd Largest Rare Earth Indicated Resource in the U.S.¹

America’s Newest Rare Earth Resource

According to NioCorp’s May 2022 Feasibility Study update,² the Elk Creek indicated resource contains 632.9 kilotonnes ("kt") of Total Rare Earth Oxide ("TREO"), including the following magnetic rare earth oxides:

- 26.9 kt of praseodymium
- 98.9 kt of neodymium
- 2.3 kt of terbium
- 9.1 kt of dysprosium

There currently is no commercial-scale production in North America of any of these separated rare earth products from ore mined in the U.S.

Separated & Purified Rare Earth Oxides
NioCorp is Likely to Produce³

There currently is no production of separated rare earth oxides in North America.

² Based on Feasibility Study Update first announced on May 18, 2022.
³ NioCorp is currently undertaking technical and economic evaluations around adding rare earths to the planned product suite.
Rare Earths are **Critical** to Sustainable Technologies

NioCorp is now developing plans to produce rare earths as byproducts. These elements are critical to a wide variety of products that enhance sustainability and help reduce energy consumption and greenhouse gas emissions.

- **Electric Vehicles**
- **Renewable Energy Systems**
- **Energy-saving pumps and motors**
- **Energy-Efficient Homes**

NioCorp’s separated REE products will enable Made-in-USA green technologies.
There are Multiple Rapidly Growing Markets for Magnetic REE Oxides

<table>
<thead>
<tr>
<th>Sector</th>
<th>CAGR</th>
</tr>
</thead>
<tbody>
<tr>
<td>EV Traction Motors</td>
<td>14.0%</td>
</tr>
<tr>
<td>Direct drive and hybrid drive wind power generators</td>
<td>13.0%</td>
</tr>
<tr>
<td>Automotive micromotors &amp; sensors</td>
<td>4.9%</td>
</tr>
<tr>
<td>Industrial motors, pumps, generators, robotics</td>
<td>4.2%</td>
</tr>
<tr>
<td>Electronics, appliances, power tools</td>
<td>4.1%</td>
</tr>
<tr>
<td>All other uses</td>
<td>12.6%</td>
</tr>
</tbody>
</table>

Source: Adamas Intelligence reports, 2020

The Elk Creek Project has multiple markets for its separated magnetic REEs.
As Sustainable Technologies Expand ...

... Demand Will Rise Sharply for Magnetic Rare Earths Used in REE Magnets

- Demand for NdPr Oxide for REE Magnets
  - + 181%
  - 2022: 10,000 tonnes, 2035: 29,000 tonnes

- Demand for Dysprosium Oxide for REE Magnets
  - + 217%
  - 2022: 5,000 tonnes, 2035: 12,000 tonnes

- Demand for Terbium Oxide for REE Magnets
  - + 226%
  - 2022: 1,000 tonnes, 2035: 2,500 tonnes

... And Acute Shortages of Magnetic REEs Are Forecast by 2035

- Annual global shortages of 206,000 tonnes of rare earth alloys for magnets
  - An amount equal to one-third of the total forecast market

- Annual global shortages of 68,000 tonnes of neodymium-praseodymium oxide for magnets
  - An amount roughly equal to China’s total production in 2021.

- Annual global shortages of 5,500 tonnes of dysprosium oxide
  - An amount equal to 2X-3X of total global output in 2021

1 Adams Intelligence, 2022
Rare Earths: From the Mine to Fuel Efficient Vehicles

What NioCorp would do in Nebraska:
1. Environmentally superior mining of Rare Earths (REEs)
2. Some companies only produce a low-value, unseparated REE concentrate. NioCorp avoids this step and moves to separated REE oxide production

To be conducted by NioCorp partners or others:
3. Separation & Purification of Individual REE oxides
   - REE oxide $\rightarrow$ REE metal
   - REE metal $\rightarrow$ Neodymium-Iron-Boron (NdFeB) alloy
   - NdFeB alloy $\rightarrow$ sintered NdFeB magnets

Relative GHG Usage Emissions
- Internal Combustion Engine Vehicle: 297 grams CO$_2$/km
- Battery Electric Vehicle: 150 grams CO$_2$/km


1 NioCorp is currently undertaking technical and economic evaluations around adding rare earths to the planned product suite.

The average hybrid or electric vehicle uses approximately one kilogram of REE magnets.
Use of NioCorp’s planned products in applications such as electric vehicles and commercial aviation could help avoid greenhouse gas emissions because of the higher efficiency these technologies can achieve with critical minerals such as NioCorp plans to produce.

**Calculating ONLY ONE YEAR of Potential Emissions Reductions**

- Ferroniobium 7,450 tpa
- Scandium Trioxide 104 tpa
- Titanium Dioxide 12,063 tpa

300 grams Nb reduces weight by 200 kg and increases fuel efficiency 5%[^3]

- 0.7% Sc in Al alloy reduces jet weight by 20%[^5]
- Niobium Titanium Oxide (NTO) as a next-generation anode in Li-ion solid state battery[^6]

**GHG Benefit**
- Ferroniobium: ~ 4,000 kt/year
- Scandium Trioxide: ~ 1,100 kt/year
- Titanium Dioxide: TBD

**Potential GHG Reductions:**
- Ferroniobium: ~ 5,100 kt CO₂/y

**If NioCorp Produces Rare Earths**

- Magnetic Rare Earth Oxides[^1]: 765 tpa [Nd/Pr, Tb, Dy][^2]

Each BEV requires 1 kg REE in magnets, improving GHG performance by 147 gCO₂/km[^4]

**Potential GHG Reductions:**
- ~ 2,100 kt CO₂/y

**TOTAL:**
- ~ 7,200 kt CO₂/y

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[^1]: NioCorp is currently evaluating the technical and economic feasibility of adding REEs to its planned product suite.
[^2]: REE production numbers cited as an example only.
[^3]: Source: Niobium.Tech (CBMM)
[^4]: Calculation for only one year of potential emissions reductions.
[^5]: Arnold Magnetics 2012, Bunting 2022
NioCorp has deployed a management system aligned with the latest version (EP4) of the Equator Principles’ Environmental, Social, and Governance (ESG) framework. NioCorp’s Environmental & Social Management System formalized and documented many of NioCorp’s existing ESG practices, and includes these elements:

- Environmental and Social Risk Assessment
- Climate Change Risk Assessment
- Environmental and Community Assessment, including an Environmental Justice evaluation
- A website-based Grievance Mechanism for members of the local community
- A series of management procedures to guide day-to-day activities
- Environmental and Social Management Plans for Air Emissions and Wastewater

A total of 138 financial institutions in 38 countries have officially adopted the Equator Principles and have pledged not to finance projects that do not adhere to the Equator Principles’ 10 key objectives.
Independent Board Members

Nilsa Guerrero-Mahon  
Audit Committee Chair

A former Chief Financial Officer and Controller for global corporations in the technology, energy, and government sectors, Ms. Guerrero-Mahon provides consulting services to domestic and international corporations as the principal at NG Mahon Business Consulting, LLC, a business consulting service, a position she has held since 2008. Ms. Guerrero-Mahon currently serves on the Board of the State of Colorado Division of Securities.

David C. Beling, P.E.

Mr. Beling is a Registered Professional Mining Engineer with 58 years of project and corporate experience. He has served as a director on the boards of 14 mining companies starting in 1981, including NioCorp since 2011. Mr. Beling is the owner of D.C. Beling & Assoc., LLC who provides strategic advisory, project and corporate development services to the mining industry. His previous employment and consulting included 14 years with five major mining companies and then 44 years with 30+ US and Canadian juniors. He was the President, CEO, and Director of Bullfrog Gold Corp. from 2011 until October 2000, and the Executive Vice President and COO of Geovic Mining Corp. from 2004 through 2010. Mr. Beling has examined, significantly reviewed, or been directly involved with 90 underground mines, 136 open pit mines and 174 process plants in the global metal, energy, and industrial mineral sectors.

Fernanda Fenga

A former senior executive at the world’s largest producer of niobium, Companhia Brasileira Metalúrgica e Mineração (“CBMM”), Ms. Fenga currently serves as a senior advisor to mining companies in Brazil and in the U.S. Prior to CBMM, she was Senior Manager at PriceWaterhouse- Coopers. A Certified Compliance & Ethic Professional – International Exam (“CCEP-I”), Ms. Fenga is a Brazilian lawyer and received her Master’s Degree in Law at Fundação Getúlio Vargas – FGV and her LLM in Corporate Law at IBMEC. She also conducted post-graduate studies in tax law at IBET and completed the Harvard Business School’s program for Risk Management for Corporate Leaders.

Michael J. Morris  
Lead Director

Mr. Morris served as a director from 2001 to 2007 and as Chairman of the Board of Heritage Oaks Bancorp from 2007 to 2017 when it merged into Pacific Premier Bancorp. Mr. Morris currently serves on the Board of Directors of Pacific Premier Bancorp, an $11.5 billion regional bank. Mr. Morris is the senior principal and chairman of the board of Andre, Morris & Buttery, a professional law corporation.

Anna Castner Wightman

A sixth generation Nebraskan and a graduate of Nebraska Wesleyan University, Ms. Wightman currently serves as Vice President of Government Relations for First National Bank in Omaha, Nebraska. Anna serves on the Board of Directors for the Nebraska Chamber of Commerce, Nebraska 4H Foundation Board of Trustees, and has served on other numerous nonprofit boards in Nebraska.

Peter Oliver

Mr. Oliver is the former Managing Director of Talison Lithium and a 30+ year veteran of the mining and critical minerals processing industries, With a background in chemistry, Mr. Oliver served for 18 years at Talison Lithium, including 12 years as CEO/Managing Director and then as Non-Executive Director. Prior to that, Mr. Oliver was General Manager of Talison’s Greenbushes and Wodgina Mines and served as Talison’s Chief Operating Officer. Prior to his work at Talison, Mr. Oliver worked in Rio Tinto’s Salt and Iron Ore divisions. He obtained his Bachelor of Applied Science in Chemistry from Curtin University (Western Australia), and he resides in Perth, Australia.

A highly experienced and diverse Board of Directors.
A management team with decades of combined experience in mineral production.
THE PROJECT
Elk Creek Project Location & Layout

The Project is centered within one 640-acre section of all private land.

Elk Creek Project Location

- 105 km (65 miles) southeast of Lincoln, Nebraska (the state capital)
- 129 km (80 miles) south of Omaha, Nebraska.
- 3 miles west of Elk Creek, Nebraska and 6 miles south of Tecumseh, Nebraska.

Excellent location near highways and supporting infrastructure.
NioCorp’s mineral reserve lies within a much larger carbonatite footprint.
NioCorps global team includes some of the world’s best in their field.
The Elk Creek Project has secured key federal and state permits required to proceed to the start of construction once project financing is obtained.

- Construction Air Permit from the State of Nebraska.
- The major federal permit required, a 404 permit from the U.S. Army Corps of Engineers (Nationwide Permit #12).
- A Special Use Permit from Johnson County, Nebraska, the key local land use permit for the Project.

NioCorp’s has in hand all of the permits required to begin construction.
The Elk Creek Project is located exclusively on private land with extensive nearby infrastructure (roads, rail, water, and utilities).

The Project enjoys strong community support as well as state and local government support.

Nebraska Governor Pete Ricketts nominated the Project as a "National High-Priority Infrastructure" Project to the White House.

The Project is slated to receive approximately $200 million in tax benefits from the State of Nebraska over its first 10 years of operation.

Nebraska recently cut its state corporate income tax rate from 7.81% to 7.5%, and this will further reduce to 7.25% beginning in tax year 2023.

### Estimated Economic Benefits and New Tax Revenue Generated by the Elk Creek Project

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Full-Time, Permanent Jobs Created</td>
<td>436</td>
</tr>
<tr>
<td>Indirect Jobs Created</td>
<td>~1,000</td>
</tr>
<tr>
<td>Peak Construction-Related Jobs</td>
<td>1,200</td>
</tr>
<tr>
<td>Total Investment over 36-Year Project Life</td>
<td>$7.8 billion</td>
</tr>
<tr>
<td>Cumulative Operating Expenses over Project Life</td>
<td>$6.6 billion</td>
</tr>
<tr>
<td>Employee Payroll over Project Life (included in cumulative operating expenses above)</td>
<td>$882 million</td>
</tr>
<tr>
<td>New Tax Revenue to State and Local Government over Project Life</td>
<td>$742 million</td>
</tr>
<tr>
<td>Royalties Paid to Nebraska Landowners over Project Life</td>
<td>$279 million</td>
</tr>
</tbody>
</table>

1. Based on Feasibility Study Update first announced on May 18, 2022.

The Project enjoys strong and broad-based state and local support.
NioCorp ‘Walks the Talk’ of ESG Principles & Practices

- Fully aligned with Equator Principles
- Zero process water discharge facility
- Additional protection of groundwater resources through artificial ground freezing
- Avoidance of permanent impacts to Federally Jurisdictional Waters
- Recycling of reagents
- Utilizing tailings as underground mine backfill
- Local Employment

The Elk Creek Project stands out for its environmental innovation.
NioCorp intends to integrate key ESG principles, such as those outlined below, into our business and the Elk Creek Project as we proceed toward its development and commercial operation.

**Environmental**  
Seek improvement in environmental performance, such as water stewardship, energy use, and air quality where technically and economically feasible.

**Sustainability**  
Integrate sustainable development principles into Company policies and practices where technically and economically feasible.

**Governance**  
Apply ethical business practices and sound systems of corporate governance and transparency. Equator Principles ESMS program has been deployed by the Company.

**Risk Management**  
Identify, assess, and seek to address significant social, health, safety, environmental and economic impacts.

**Health & Safety**  
Develop systems that seek to protect the health and safety of employees, contractors and people in the communities where we operate.

**Engagement**  
Proactively engage key stakeholders on sustainable development challenges and opportunities in an open and transparent manner.

NioCorp ‘walks the talk’ of ESG practices and principles.
For More Information

www.NioCorp.com

Jim Sims
Chief Communications Officer
jim.sims@niocorp.com
+1 (303) 503-6203
### Elk Creek REE Mineral Resource Update

**Mineral Resource as of Dec. 8, 2021**

<table>
<thead>
<tr>
<th>Class</th>
<th>NSR Cut-off</th>
<th>Tonnage (Mt)</th>
<th>La2O3 (%)</th>
<th>La2O3 (kt)</th>
<th>Ce2O3 (%)</th>
<th>Ce2O3 (kt)</th>
<th>Pr2O3 (%)</th>
<th>Pr2O3 (kt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicated</td>
<td>180</td>
<td>188.8</td>
<td>0.0773</td>
<td>145.8</td>
<td>0.1335</td>
<td>251.9</td>
<td>0.0143</td>
<td>26.9</td>
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<td></td>
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<td></td>
<td>N2O3 (%)</td>
<td>N2O3 (kt)</td>
<td>92.90</td>
<td>89.8</td>
<td>0.0129</td>
<td>24.3</td>
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<td></td>
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<td>0.0524</td>
<td>20.8</td>
<td>0.0012</td>
<td>2.3</td>
<td>0.0048</td>
<td>9.1</td>
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<td>Gd2O3 (%)</td>
<td>Gd2O3 (kt)</td>
<td>0.1108</td>
<td>0.1305</td>
<td>0.0015</td>
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<td>Ho2O3 (%)</td>
<td>Ho2O3 (kt)</td>
<td>0.0141</td>
<td>0.0017</td>
<td>0.0001</td>
<td>3.76</td>
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<td>Tb2O3 (%)</td>
<td>Tb2O3 (kt)</td>
<td>0.0007</td>
<td>0.0001</td>
<td>0.0091</td>
<td>11.9</td>
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<tr>
<td></td>
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<td>Yb2O3 (%)</td>
<td>Yb2O3 (kt)</td>
<td>0.0019</td>
<td>0.0001</td>
<td>0.0319</td>
<td>37.6</td>
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<td>Lu2O3 (%)</td>
<td>Lu2O3 (kt)</td>
<td>0.0196</td>
<td>0.0001</td>
<td>0.0091</td>
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<td>Nd2O3 (%)</td>
<td>Nd2O3 (kt)</td>
<td>0.0274</td>
<td>0.0579</td>
<td>0.3353</td>
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<td>Gd2O3 (%)</td>
<td>Gd2O3 (kt)</td>
<td>0.0043</td>
<td>0.0157</td>
<td>0.0063</td>
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<td>Tb2O3 (%)</td>
<td>Tb2O3 (kt)</td>
<td>0.0425</td>
<td>0.0115</td>
<td>0.0003</td>
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<td>Eu2O3 (%)</td>
<td>Eu2O3 (kt)</td>
<td>0.0093</td>
<td>0.0038</td>
<td>0.0047</td>
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<td>Ho2O3 (%)</td>
<td>Ho2O3 (kt)</td>
<td>0.0007</td>
<td>0.0001</td>
<td>0.0002</td>
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<tr>
<td></td>
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<td></td>
<td>Er2O3 (%)</td>
<td>Er2O3 (kt)</td>
<td>0.0007</td>
<td>0.0001</td>
<td>0.0002</td>
<td>0.2</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Tb2O3 (%)</td>
<td>Tb2O3 (kt)</td>
<td>0.0007</td>
<td>0.0001</td>
<td>0.0002</td>
<td>0.2</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Y2O3 (%)</td>
<td>Y2O3 (kt)</td>
<td>0.0007</td>
<td>0.0001</td>
<td>0.0002</td>
<td>0.2</td>
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<td></td>
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<td></td>
<td>La2O3 (%)</td>
<td>La2O3 (kt)</td>
<td>0.0007</td>
<td>0.0001</td>
<td>0.0002</td>
<td>0.2</td>
</tr>
</tbody>
</table>

**Notes:**

a. The Qualified Person for the Mineral Resource estimate is Matthew Baty, P.Geo., Owner, Understood Mineral Resources Ltd.


c. Mineral Resources are inclusive of Mineral Reserves. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

d. The Mineral Resources are reported at a Diluted Net Smelter Return (NSR) Cut-off of US $180/tonne.

e. The diluted NSR is defined as:
   a. Diluted NSR (US $)= Revenue per block Nb2O5 (diluted) + Revenue per block Sc (diluted) + Revenue per block 5e (diluted) + Revenue per block P (diluted) + Revenue per block Sr (diluted)

f. The diluted revenue from Nb2O5, TiO2, and Sc per block used the following factors:

i. Nb2O5 Revenue: a 94% grade recovery, a 0.696 factor to convert Nb2O5 to Nb, 82.36% assumption for plant recovery, and a US $39.60/kg selling price per kg of ferroniobium.

ii. TiO2 Revenue: a 94% grade recovery, a 40.31% assumption for plant recovery, and an US $0.88/kg selling price per kg of titanium oxide.

iii. Sc Revenue: a 94% grade recovery, a 1.534 factor to convert Sc to Sc2O3, 93.14% assumption for plant recovery, and a US $3.675/kg selling price per kg of scandium oxide.

f. The diluted tonnes are a 6% increase in the total tonnes of the block.

g. Price assumptions for FeNb, Sc2O3, and TiO2 are based upon independent market analyses for each product.

h. Numbers may not sum due to rounding. The rounding is not considered to be material.

i. Rare Earth Oxides (REO) were evaluated as a potential by-products to the mining of niobium, titanium, and scandium; thus, the estimated values of the REOs are reported using the previously determined diluted NSR as derived from the Nb2O5, TiO2, and Sc Mineral Resources.

j. The stated Light Rare Earth Oxides (LREO) grade (%) is the summation of La2O3 (%) and H2O3 (%) estimates.

k. The stated Heavy Rare Earth Oxides (HREO) grade (%) is the summation of Sm2O3 (%), Eu2O3 (%), Gd2O3 (%), Tb2O3 (%), Dy2O3 (%), Ho2O3 (%), Er2O3 (%), Tm2O3 (%), Y2O3 (%), Pr2O3 (%), and Nd2O3 (%) estimates.

l. The stated Total Rare Earth Oxide (TREO) grade (%) is the summation of LREO (%) and HREO (%) estimates.

m. The effective date of the Mineral Resource, including by-products, is December 8th, 2021 (date of last assay received).
Elk Creek Mineral Resource Update

(MINERAL RESOURCE AS OF Dec. 8, 2021)

<table>
<thead>
<tr>
<th>Classification</th>
<th>NSR Cutoff (US$/tonne)</th>
<th>Tonnage (Mt)</th>
<th>Grades</th>
<th>Tonnages</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Nb₂O₅ (%)</td>
<td>Nb₂O₅ (kt)</td>
</tr>
<tr>
<td>Indicated</td>
<td>180</td>
<td>188.8</td>
<td>0.51</td>
<td>970.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>TiO₂ (%)</td>
<td>TiO₂ (kt)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2.24</td>
<td>4,221</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sc (ppm)</td>
<td>Sc (t)</td>
</tr>
<tr>
<td></td>
<td></td>
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<td>60.06</td>
<td>11,337</td>
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<tr>
<td>Inferred</td>
<td>180</td>
<td>108.3</td>
<td>0.39</td>
<td>426.6</td>
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<tr>
<td></td>
<td></td>
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<td>TiO₂ (%)</td>
<td>TiO₂ (kt)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1.92</td>
<td>2,082</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sc (ppm)</td>
<td>Sc (t)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>52.28</td>
<td>5,660.2</td>
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</tbody>
</table>

See notes to this Mineral Resource table on the preceding slide.
Elk Creek Mineral Reserve
*(does not include rare earths)*

(MINERAL RESOURCE AS OF May 10, 2022)

<table>
<thead>
<tr>
<th>Classification</th>
<th>Tonnage (x1000 t)</th>
<th>Nb₂O₅ Grade (%)</th>
<th>Contained Nb₂O₅ (t)</th>
<th>Payable Nb (t)</th>
<th>TiO₂ Grade (%)</th>
<th>Contained TiO₂ (t)</th>
<th>Payable TiO₂ (t)</th>
<th>Sc Grade (ppm)</th>
<th>Contained Sc (t)</th>
<th>Payable Sc₂O₃ (t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proven</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Probable</td>
<td>36,656</td>
<td>0.811</td>
<td>297,278</td>
<td>170,409</td>
<td>2.92</td>
<td>1,071,182</td>
<td>431,793</td>
<td>70.2</td>
<td>2,573</td>
<td>3,677</td>
</tr>
<tr>
<td>TOTAL</td>
<td>36,656</td>
<td>0.811</td>
<td>297,278</td>
<td>170,409</td>
<td>2.92</td>
<td>1,071,182</td>
<td>431,793</td>
<td>70.2</td>
<td>2,573</td>
<td>3,677</td>
</tr>
</tbody>
</table>

**NOTES**
- The Qualified Person for the Mineral Reserve estimate is Richard Jundis, P.Eng., of Optimize Group Inc. The estimate has an effective date of May 10th, 2022.
- The Mineral Reserve is based on mine design and mine plan, utilizing an average cut-off grade of 0.688% Nb₂O₅ with an NSR cut-off of US$ 180/mt.
- The estimate of Mineral Reserves may be materially affected by metal prices, environmental, permitting, legal, title, taxation, socio-political, marketing, infrastructure development, or other relevant issues.
- The economic assumptions used to define Mineral Reserve cut-off grade are as follows:
  - Annual life of mine (LOM) average production rate of ~7,450 tonnes of FeNb/annum during the years of full production.
  - Mining dilution of ~6% was applied to all stopes and development, based on 3% for the primary stopes, 9% for the secondary stopes, and 5% for ore development.
  - Mining recoveries of 95% were applied in longhole stopes and 62.5% in sill pillar stopes.
  - Price assumptions for FeNb, Sc2O3, and TiO2 are based upon independent market analyses for each product.
  - Price and cost assumptions are based on the pricing of products at the "mine-gate," with no additional downstream costs required. The assumed products are a ferro niobium product (metallic alloy shots consisting of 65% Nb and 35% Fe), a titanium dioxide product in powder form, and scandium trioxide in powder form.
- The Mineral Reserve has an average LOM NSR of US$ 563 /tonne.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mining Cost</td>
<td>43.55</td>
<td>US$/t mined</td>
</tr>
<tr>
<td>Processing</td>
<td>108.16</td>
<td>US$/t mined</td>
</tr>
<tr>
<td>Water Management and Infrastructure</td>
<td>13.71</td>
<td>US$/t mined</td>
</tr>
<tr>
<td>Tailings Management</td>
<td>1.35</td>
<td>US$/t mined</td>
</tr>
<tr>
<td>Other Infrastructure</td>
<td>6.96</td>
<td>US$/t mined</td>
</tr>
<tr>
<td>General and Administrative</td>
<td>8.65</td>
<td>US$/t mined</td>
</tr>
<tr>
<td>Royalties/Annual Bond Premium</td>
<td>7.53</td>
<td>US$/t mined</td>
</tr>
<tr>
<td>Total Cost</td>
<td>189.91</td>
<td>US$/t mined</td>
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<tr>
<td>Nb₂O₅ to Niobium conversion</td>
<td>69.60</td>
<td>%</td>
</tr>
<tr>
<td>Niobium Process Recovery</td>
<td>82.36</td>
<td>%</td>
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<tr>
<td>Niobium Price</td>
<td>39.60</td>
<td>US$/kg</td>
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<tr>
<td>TiO₂ Process Recovery</td>
<td>40.31</td>
<td>%</td>
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<tr>
<td>TiO₂ Price</td>
<td>0.88</td>
<td>US$/kg</td>
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<tr>
<td>Sc Process Recovery</td>
<td>93.14</td>
<td>%</td>
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<tr>
<td>Sc to Sc₂O₃ conversion</td>
<td>1.53</td>
<td>%</td>
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<tr>
<td>Sc Price</td>
<td>3,675.00</td>
<td>US$/kg</td>
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Elk Creek Project: Sensitivity Analyses
(excluding impact of REE production)

(BASED ON FEASIBILITY STUDY UPDATE FIRST ANNOUNCED ON MAY 18, 2022)
Non-GAAP Financial Measures: This presentation includes certain forward-looking non-GAAP financial measures, including EBITDA and Net Free Cash Flow. These non-GAAP financial measures are included in this presentation because these statistics are key performance measures that management uses to monitor performance, to assess how the Company is performing, to plan and to assess the overall effectiveness and efficiency of operations. 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 mining companies. These performance measures should not be considered in isolation as a substitute for measures of performance in accordance with GAAP. Reconciliations of these forward-looking non-GAAP financial measures to the most directly comparable GAAP financial measures are not provided because the Company 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.

SEC Standards Regarding Mineral Resources and Reserves. Estimates of mineralization and other technical information included or referenced in this news release have been prepared in accordance with NI 43-101. The definitions of proven and probable mineral reserves used in NI 43-101 differ from the definitions in U.S. Securities and Exchange Commission ("SEC") Industry Guide 7. Under SEC Industry Guide 7 standards, a "final" or "bankable" feasibility study is required to report reserves, the three-year historical average price is used in any reserve or cash flow analysis to designate reserves and the primary environmental analysis or report must be filed with the appropriate governmental authority. As a result, the reserves reported by the Company in accordance with NI 43-101 may not qualify as "reserves" under SEC Industry Guide 7 standards. In addition, the terms "mineral resource," "measured mineral resource," "indicated mineral resource," and "inferred mineral resource" are defined in and required to be disclosed by NI 43-101; however, these terms are not defined terms under SEC Industry Guide 7 and normally are not permitted to be used in reports and registration statements filed with the SEC. Mineral resources that are not mineral reserves do not have demonstrated economic viability. Investors are cautioned not to assume that any part or all of the mineral deposits in these categories will ever be converted into reserves. "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 securities laws, estimates of inferred mineral resources may not form the basis of feasibility or pre-feasibility studies, except in rare cases. Additionally, the disclosure of "contained pounds" in a resource is permitted disclosure under Canadian securities laws; 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 measurements. Accordingly, information contained or referenced in this news release containing descriptions of the Company’s mineral deposits may not be comparable to similar information made public by U.S. companies subject to the reporting and disclosure requirements of United States federal securities laws and the rules and regulations thereunder.

Additionally, in October 2018, the SEC approved final rules requiring comprehensive and detailed disclosure requirements for issuers with material mining operations. The provisions in Industry Guide 7 and Item 102 of Regulation S-K have been replaced with a new subpart 1300 of Regulation S-K ("S-K 1300") under the Securities Act of 1933. The Company will be required to comply with these new rules in its disclosures for the fiscal year ending June 30, 2022, and thereafter. The requirements and standards under S-K 1300 differ from those under Canadian securities laws. The terms "mineral resource," "inferred mineral resource," "indicated mineral resource," "mineral reserve," "measured mineral resource," "indicated mineral reserve," "probable mineral reserve," and "proven mineral resource" used in this news release are mining terms as defined in accordance with NI 43-101 under guidelines set out in the Definition Standards for Mineral Resources and Mineral Reserves adopted by the Canadian Institute of Mining, Metallurgy and Petroleum Council. 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 resources or mineral reserves that the Company may report under NI 43-101 will be the same as resource or reserve estimates prepared under the standards adopted under S-K 1300.