NioCorp Reports Rare Earth Assay Results

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CENTENNIAL, Dec. 14, 2021 - NioCorp Developments Ltd. ("NioCorp" or the "Company") (TSX: NB; OTCQX: NIOBF) to announce the results of assaying completed on drill core samples from the Elk Creek Project (the "Project") that were through an agreement with the University of Nebraska's Conservation and Survey Division ("CSD").

A total of 1,094 samples originating from 18 diamond drill holes completed by previous operators of the Project were ob pursuant to an agreement between the Company and CSD and were assayed for rare earth element content at Actlabs Ancaster, Ontario. The assay results were subjected to a Quality Assurance and Quality Control program consistent wi best practices.

These new assay results complement the analysis previously completed by the Company of the geological and metallu evaluation of all of the rare earth data associated with the Project (see this announcement).

With the completion of this recent assay work, the rare earth assay database is considered complete for the purposes o calculating the potential rare earth content within the footprint of the previously announced niobium, scandium, and titan Mineral Resource at the Elk Creek Project. If NioCorp is able to complete an update to its existing Mineral Resource an information on rare earth content data, that update is expected to provide the average content (ore grade as expressed parts-per-million, or PPM) and total contained tonnage of each individual rare earth element in the Mineral Resource.

In addition to the work now being conducted by independent geologic consultants on a potential updated Mineral Resou rare earth data added, NioCorp is aggressively pursuing a technical work plan that includes metallurgical testing, miner and reserve calculations, and additional market studies focused on rare earths.

Mark Smith, CEO and Executive Chairman of NioCorp, said: "I am extremely pleased with the completion of this import towards the development of a rare earth component to the mineral resource and reserve for the Elk Creek Project. If ou content is found to be rich enough to economically justify extraction of individual rare earths as a byproduct of our planr scandium, and titanium production, the Elk Creek Project could ultimately emerge as a U.S. producer of the magnetic ra assuming adequate project funding is secured."

"In fact, our polymetallic deposit contains an array of some of the most important critical metals that are required by ele transportation and other climate-friendly technologies," Mr. Smith added. "This includes heavy magnetic rare earths suc dysprosium and terbium, which are currently produced in commercially significant quantities only in Asia. Some sources rare earths, such as the nation of Myanmar, are considered to have a high political risk from the perspective of supply c security. The more critical minerals we produce in the U.S., the better positioned we will be to rapidly ramp up productio climate-friendly technologies with Made in USA minerals."

The tables below outlines intervals of interest in particular drill holes.

Table 1: Drill Hole Assay Results

	Azimuth	Dip	From	To	Length	La_2O_3	Ce_2O_3	Pr_6O_{11}	Nd_2O_3	Sm_2O_3	Eu_2O_3	Gd_2O_3
Drillhole	(degrees)	(degrees	(feet)	(feet)	(feet)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
EC-011	300	-60	695	785	90	1,639	2,894	322	1,109	157.4	40.8	90.6
			1,295	1,530	235	1,259	1,985	205	678	112.4	31.3	69.7
EC-015	120	-60	1,590	1,810	220	904	1,407	149	493	79.4	22.3	54.5
			2,360	2,755	395	680	1,187	132	454	70.6	19.0	45.2
EC-018	0	-90	610	1,517	907	500	941	108	394	66.7	17.3	39.2
EC-019	0	-90	1,890	2,160	270	1,301	2,523	286	1,015	150.0	40.3	87.1
EC-020	0	-90	1,110	1,360	250	536	924	99	347	58.6	17.0	39.4
EC-021	300	-60	1,740	2,000	260	1,629	2,664	283	933	149.7	41.5	94.2
EC-024	0	-90	760	870	110	560	1,046	125	469	89.6	24.7	60.2
EC-027	0	-90	660	793	133	1,141	1,889	190	656	91.5	23.8	59.8
EC-030	0	-90	2,280	2,430	150	1,147	1,957	210	704	119.8	36.6	89.8
	Azimuth	Dip	From	To	Length	Tb_2O_3	Dy_2O_3	Ho_2O_3	Er_2O_3	Tm_2O_3	Yb_2O_3	Lu_2O_3
Drillhole	(degrees)	(degrees	(feet)	(feet)	(feet)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)	(ppm)
EC-011	300	-60	695	785	90	10.1	42.9	6.2	14.0	1.7	9.2	1.3
			1,295	1,530	235	7.6	33.2	5.1	12.0	1.5	8.8	1.3
EC-015	120	-60	1,590	1,810	220	6.3	27.5	4.0	8.9	1.1	6.1	0.9
			2,360	2,755	395	5.7	27.3	4.1	9.0	1.1	5.8	0.8
EC-018	0	-90	610	1,517	907	4.6	22.2	3.6	8.4	1.0	5.9	0.9
EC-019	0	-90	1,890	2,160	270	9.7	42.4	6.1	13.0	1.5	7.9	1.1
EC-020	0	-90	1,110	1,360	250	4.5	20.3	3.0	6.8	0.8	4.8	0.7
EC-021	300	-60	1,740	2,000	260	11.8	55.4	8.6	19.8	2.4	12.9	1.8
EC-024	0	-90	760	870	110	7.9	39.0	6.3	15.0	1.8	10.3	1.5
EC-027	0	-90	660	793	133	6.9	32.1	5.2	13.4	1.7	10.1	1.5
EC-030	0	-90	2,280	2,430	150	11.4	54.3	8.5	19.3	2.2	12.4	1.7

Table 2: Drill Hole Assay Results of Light, Heavy, Total, and Magnetic REEs

Drillhole	Azimuth (degrees)	Dip (degrees	From (feet)	To (feet)	Length (feet)	LREO[1] (ppm)	HREO[2] (ppm)	TREO[3] (ppm)	Percent Magnetics[4]
EC-011	300	-60	695	785	90	5,964	374	6,338	23.4%
			1,295	1,530	235	4,127	283	4,410	20.9%
EC-015	120	-60	1,590	1,810	220	2,953	211	3,164	21.4%
			2,360	2,755	395	2,453	189	2,642	23.4%
EC-018	0	-90	610	1,517	907	1,943	170	2,113	25.0%
EC-019	0	-90	1,890	2,160	270	5,126	359	5,485	24.7%
EC-020	0	-90	1,110	1,360	250	1,907	156	2,063	22.8%
EC-021	300	-60	1,740	2,000	260	5,509	398	5,907	21.7%
EC-024	0	-90	760	870	110	2,199	256	2,455	26.1%
EC-027	0	-90	660	793	133	3,876	246	4,122	21.5%
EC-030	0	-90	2,280	2,430	150	4,018	356	4,374	22.4%

[1] LREO is the sum of the following: La2O3, Ce2O3, Pr6O11, Nd2O3.

[2] HREO is the sum of the following: Sm2O3, Eu2O3, Gd2O3, Tb2O3, Dy2O3, Ho2O3, Er2O3, Tm2O3, Yb2O3, Lu2O3

[3] TREO is the sum of the following: La2O3, Ce2O3, Pr6O11, Nd2O3, Sm2O3, Eu2O3, Gd2O3, Tb2O3, Dy2O3, Ho2O3

[4] Percent Magnetics is calculated as the sum of LPr6O11, Nd2O3, Tb2O3, Dy2O3 divided by the calculated TREO. Th

The Company's focus continues to be on the four "magnetic" rare earths: neodymium, praseodymium, terbium, and dysprosium. The table above indicates that a substantial portion of the rare earths present in this dataset are comprised of the magnetic rare earths ("Percent Magnetics"). These elements are the critical ingredients in rare earth permanent magnets, which are the strongest permanent magnets commercially available. Rare earth magnets are key to the decarbonization of the world's economy, as they are indispensable in the production of electric cars, wind turbines, and high-efficiency electric motors. Publicly available average indicative pricing for the magnetic rare earths from metal.com as of December 3, 2021, appears below:

Rare Earth Oxide Product	Metal.com Indicative Average Price, 12/3/21 (USD/kg)
Neodymium Oxide	$128
Praseodymium Oxide	$130
Terbium Oxide	$1,665
Dysprosium Oxide	$439

The assay intervals noted do not constitute a Mineral Resource or a Mineral Reserve under any regulatory

definition. Each drill hole is within the footprint of the 7,800-acre Elk Creek Carbonatite as well as being within the footprint of the existing niobium, scandium, and titanium mineral resource. Each drill hole noted above is located on land that the Company currently owns or is subject to an exclusive Option to Purchase agreement with the local landowner. The mineral resource is depicted on the map below using a 0.3% Nb_2O_5 grade shell, along with the drill holes noted in the table above.

Scott Honan, NioCorp's COO, said: "NioCorp is extremely grateful to the staff and leadership of CSR, without which we would not have been able to complete this important step forward towards realizing the rare earth potential of the Elk Creek Project."

The University of Nebraska's UNL's Conservation and Survey Division ("CSD"), is a unique, multi-disciplinary research, service and data-resource organization that originated in 1893. As Nebraska's geological survey, its mission is to investigate and record information about the state's geologic history, its rock and mineral resources, the quantity and quality of its water resources, land cover, and other aspects of its geography, as well as the nature, distribution and uses of its soils. CSD was actively involved in the discovery of the Elk Creek carbonatite more than five decades ago. CSD continues to curate samples and data from the deposit, among its many other collections, for the benefit of stakeholders and in the public interest. CSD has been an invaluable source of data and expertise for minerals development and other Earth-science issues in Nebraska since its founding.

The information contained in this press release does not change any of the mineral resource or mineral reserve estimates contained in NioCorp's April 16, 2019, NI 43-101 Technical Report, Feasibility Study, Elk Creek Superalloy Materials Project, Nebraska. The information contained in this press release is provided to inform the reader of the growth of our geologic understanding of the rare earth potential of the Project. There has been insufficient work to define a mineral resource with respect to rare earth data and it is uncertain if further work will result in rare earth data being delineated as a mineral resource.

A Quality Assurance / Quality Control protocol following industry best practices was incorporated into the program and included systematic insertion of certified reference materials into sample batches at a rate of 7.4%. A total of 1,181 samples, including 87 QAQC samples, were submitted to Activation Laboratories (Actlabs) in Ancaster, ON for assay. Collected samples targeted original pulverized splits generated during historical sampling program. If pulverized samples could not be located coarse crush samples were used, resulting in 1047 original pulverized splits and 47 original coarse-splits being submitted for analysis. Samples were selected and extracted from a locked storage core and prepared sample repository, under the supervision of a qualified person and the curator in charge of the repository.

The lab analysis package included eight-major oxides, rare earths, and trace elements. Samples were analyzed via fusion inductively coupled plasma (ICP) and inductively coupled plasma-mass spectrometry (ICP-MS) in addition to niobium by XRF, using packages 8-REE and 8-Nb2O5 - XRF. Samples were received, weighed and prepared by crushing to 80% passing 10 mesh (for coarse-splits), followed by a 250 g riffle split and pulverizing to 95% passing 105 µ (package RX1).

Qualified Person:

Brad Ulry, P.Geo., Chief Operating Officer, Dahrouge Geological Consulting Ltd., a qualified person as defined in National Instrument 43-101, has reviewed and approved the technical information contained in this news release and verified the data disclosed in this news release.

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For More Information:
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About NioCorp

NioCorp is developing a superalloy materials project in Southeast Nebraska that will produce Niobium,

Scandium, and Titanium. The Company also is evaluating the potential to produce several rare earth byproducts from the Project. Niobium is used to produce superalloys as well as High Strength, Low Alloy ("HSLA") steel, which is a lighter, stronger steel used in automotive, structural, and pipeline applications. Scandium is a superalloy material that can be combined with Aluminum to make alloys with increased strength and improved corrosion resistance. Scandium is also a critical component of advanced solid oxide fuel cells. Titanium is used in various superalloys and is a key component of pigments used in paper, paint and plastics and is also used for aerospace applications, armor, and medical implants. Magnetic rare earths, such as Neodymium, Praseodymium, Terbium, and Dysprosium are critical to the making of Neodymium-Iron-Boron ("NdFeB") magnets, which are used across a wide variety of defense and civilian applications.

Cautionary Note Regarding Forward-Looking Statements

Certain statements contained in this document may constitute forward-looking statements, including statements regarding the Company's ability to produce Niobium, Scandium, Titanium and rare earths products at the Elk Creek Superalloy Materials Project and the Company's belief that it may be able to emerge as a significant U.S. producer of magnetic rare earths. 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 the Company's ability to operate as a going concern; risks related to the Company's requirement of significant additional capital; changes in demand for and price of commodities (such as fuel and electricity) and currencies; changes in economic valuations of the Project, such as Net Present Value calculations, 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; and 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.

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