

Forward-looking statements and disclaimer



FORWARD-LOOKING STATEMENTS

The reader is advised that the information summarized in this presentation is preliminary in nature and is intended to provide an initial, high-level review of the project's economic potential and design options. The PEA mine plan and economic model includes numerous assumptions and the use of Inferred Resources. Inferred Resources are considered to be too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the PEA will be realized.

Certain statements contained in this presentation may constitute "forward-looking statements." All statements in this presentation, other than statements of historical fact, that address events or developments that the Company expects to occur are forward-looking statements. Forward-looking statements are statements that are not historical facts and are generally, but not always, identified by the words "expects", "plans", "estimates", "projects", "potential", "scheduled" and similar expressions, or that events or conditions "will", "would" or "should" occur including, but not limited to, the statements regarding the Company's strategic plans, its anticipated benefits and the use of proceeds resulting thereof, in particular, future financial results, production targets and timetables, the evolution of mineral reserves and resources, mine operating costs, capital expenditures, work programs, development plans, exploration programs, objectives and budgets, the possible determination of additional reserves, and the Company's eventual success to execute its strategy to focus on building its portfolio of properties. Forward looking statements express, at this date, the Company's plans, estimates, forecasts, projections, expectations or beliefs as to future events and results. Forward-looking statements involve a number of risks and uncertainties, and there can be no assurance that such statements will prove to be accurate. Therefore, actual results and future events could differ materially from those anticipated in such statements. Risks and uncertainties that could cause results or future events to differ materially from turrent expectations expressed or implied by the forward-looking statements include, but are not limited to, factors associated with fluctuations in the market price of metals, mining industry risks, exploration risks, risks associated with foreign operations, environmental risks and hazards, uncertainty as to calculation of mineral reserves, requirement of additional financing or additional permit

Although the Company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, including, without limitation, that all technical, economical and financial conditions will be met to achieve such events qualified by the foregoing cautionary note regarding forward-looking statements, such statements are not guarantees of future performance and actual results may differ materially from those in forward-looking statements. Factors that could cause the actual results to differ materially from those in forward-looking statements. Factors that could cause the actual results to differ materially from those in forward-looking statements. Factors that could cause the actual results to differ materially from those in forward-looking statements. Factors that could cause the actual results to differ materially from those in forward-looking statements. Factors that could cause the actual results to differ materially from those in forward-looking statements. Factors that could cause the actual results may differ materially from those in forward-looking statements. Factors that could cause the actual results may differ materially from those in forward-looking statements. Factors that could cause the actual results may differ materially from those in forward-looking statements. Factors that could cause the actual results may differ materially from those in forward-looking statements. Factors that could cause the actual results may differ materially from those in forward-looking statements included in this presentation such forward-looking statements. Factors and such forward-looking statements included in this presentation should not be unduly relied upon. These statements speak only as of the date of this presentation.

DISCLAIMER

NI 43-101 is a rule developed by the Canadian Securities Administrators that establishes standards for all public disclosure an issuer makes of scientific and technical information concerning mineral projects. Unless otherwise indicated, all reserve and resource estimates referred to or contained in this Slide Deck have been prepared in accordance with NI 43-101. These NI 43-101 standards differ significantly from the requirements of the SEC, and such resource information may not be comparable to similar information disclosed by U.S. companies. For example, while the terms "mineral resource", "measured resource" and "inferred resource" are recognized and required by Canadian regulations, they are not recognized by the SEC. It cannot be assumed that any part of an inferred resource exists. In accordance with Canadian rules, estimates of "inferred resources" cannot form the basis of feasibility or other economic studies. In addition, under the requirements of the SEC, 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. Certain of the technical reports referenced in this Slide Deck use the terms "mineral resource," "indicated mineral resource". We advise investors that these terms are resources" have a great amount of uncertainty as to their existence, and great uncertainty as to their existence of Inferred mineral resources may not form the basis of feasibility or pre-feasibility or pre-ference cases. Investors are cautioned not to assume that all or any part of an inferred mineral resource exists or is economically negally mineable. As a reporting issuer in Canada, we are required to pr

Under the United States Securities and Exchange Commission's (the "SEC") Industry Guide 7 as currently in effect ("Guide 7"), the terms "indicated mineral resource" and "inferred mineral resource" are normally not permitted to be used in reports and registration statements filed with the SEC. Under current Guide 7 standards, a "final" or "bankable" feasibility study is required to report must be filed with the appropriate governmental authority. 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 Guide 7 standards as in place tonnage and grade without reference to unit measures.

Accordingly, information contained in this Slide Deck contain descriptions of the Company's mineral deposits that may not be comparable to similar information made public by United States companies subject to the reporting and disclosure requirements under the United States federal securities laws and the rules and regulations thereunder, included Industry Guide 7.

TSXV: **NBY** | OTCQB: **NBYCF** | Our future is **green**



Who are we?



NioBay is a Canadian junior explorer, with a small market cap, which

- Is a **critical minerals** and **green** play (lowering carbon emissions worldwide)
- Has completed successful exploration programs resulting in NI 43-101 resources and PEAs
- Has critical minerals properties where it owns the right to mine **niobium**, **tantalum**, and **titanium** in Quebec and Ontario, Canada
- Has access to **end markets**: mostly steel, EV batteries and electronics (100,000 mt for steel and 20,000 mt for others)
- Is in discussion with medium and large steel and battery customers to supply materials
- Has support from the Quebec government (subsidy and capital for plant construction) and a major mining group (Osisko – shareholder and board)

OUR GOAL: unlock value by creating a vertically integrated supply chain for our critical minerals. Once we have signed contracts, we'll build a processing plant and deliver a finished product to our customers.

Corporate profile



- Founded in 1954, NioBay is a public company developing the James Bay Niobium Project, the Crevier Niobium and Tantalum Project, and the Foothills Titanium Project
- Our vision is to become a critical minerals producer that applies best practice ESG principles to every stage of mine development
- The NioBay leadership team has extensive experience developing and managing mines
- Niobium is classified as a critical mineral in Canada, the United States, and the European Union, as well as in many other jurisdictions
- The demand for niobium is rising due to an increase in decarbonization applications for critical minerals

Structure corporative (September 24, 2025)	
Stock price	C\$0.08
Shares outstanding	132M
Fully diluted	174M
Capitalization	C\$10.6M
Cash Excluding subsidies received	C\$2.4M
Major shareholders Osisko group and management	15.5%
TSXV: NBY OTCQB: NBYCF	

Our ESG commitment





INCLUSION AND TRANSPARENCY

We are actively involved with local and Indigenous communities on every project, ensuring that their voices are not only heard, but actively influence our decisions and actions.

- discussions with Moose Cree First Nation (MCFN)
- signing of a collaboration agreement with the Mashteuiatsh
- seats on the Economic Committee of the Maria-Chapdelaine MRC and the Mine Committee of the Charlevoix Region
- ongoing dialogue with the Municipality of Girardville

ENVIRONMENTAL BEST PRACTICES

Our commitment to sustainable development goes beyond compliance, as we actively seek innovative solutions to further reduce our environmental impact.

We offset the carbon footprint of our drilling and exploration activities (GHG emissions) by contributing to Carbone Boréal, which finances tree planting in Quebec.

Board of Directors





Jean-Sebastien David, P. Geo
President, CEO, and Director
Arianne Phosphate, Osisko, lamgold,
Cambior



Serge Savard
Chairman of the Board
NHL veteran, Business Executive,
Real Estate Developer



Josianne Beaudry
Director
Partner at Lavery, de Billy LLP
TSXV Quebec Advisory Committee Member



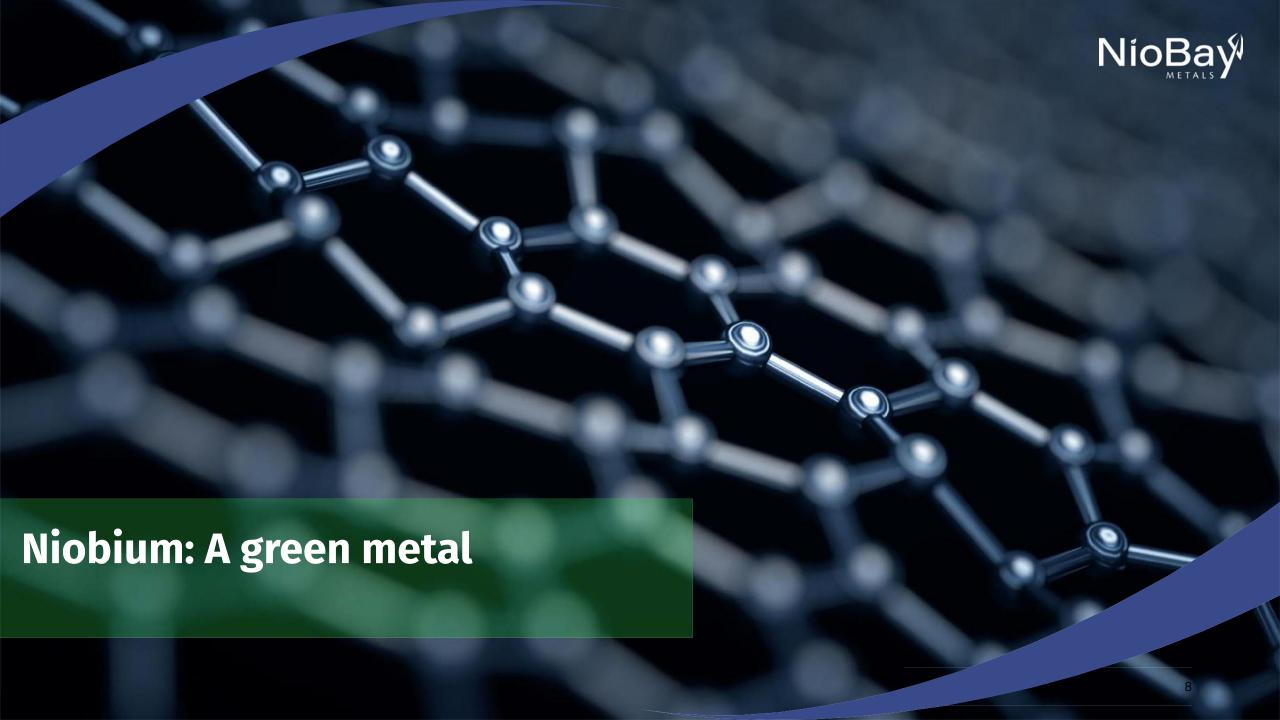
Laurence Farmer
Director
President, Electric Elements,
Osisko Development, RBC



Dawn Madahbee Leach
Director
Director General, Waubetek Business
Development / First Nations



Raymond Legault
Director
Retired Financial Advisor

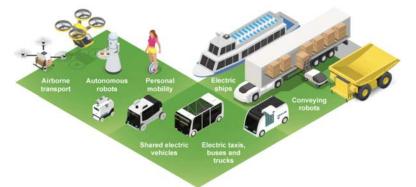


Niobium transforms materials, enabling greener structures, cleaner energy, and sustainable mobility





Adding niobium to the steel used to build a car reduces the overall weight of the finished car and increases fuel efficiency



Niobium was added to the steel used to build **Øresund Bridge**, reducing weight, and leading to significant cost savings.

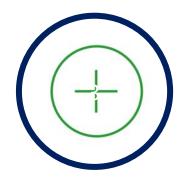
Adding Niobium to steel increases the overall strength of steel and reduces the amount of material required.



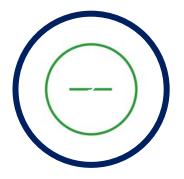
Next-generation SCiB™, made of Niobium Titanium Oxide anode, supporting smart mobility in the age of MaaS

An essential battery metal





Niobium is being
used to develop
cobalt-reduced or
cobalt-free,
lithium-rich and
manganese-based
new cathode
materials with higher
energy density and
longer-term stability



Fast charging, safer and higher energy capacity batteries are being made possible by the use of niobium in the formulation of new anode materials under current industrial trials

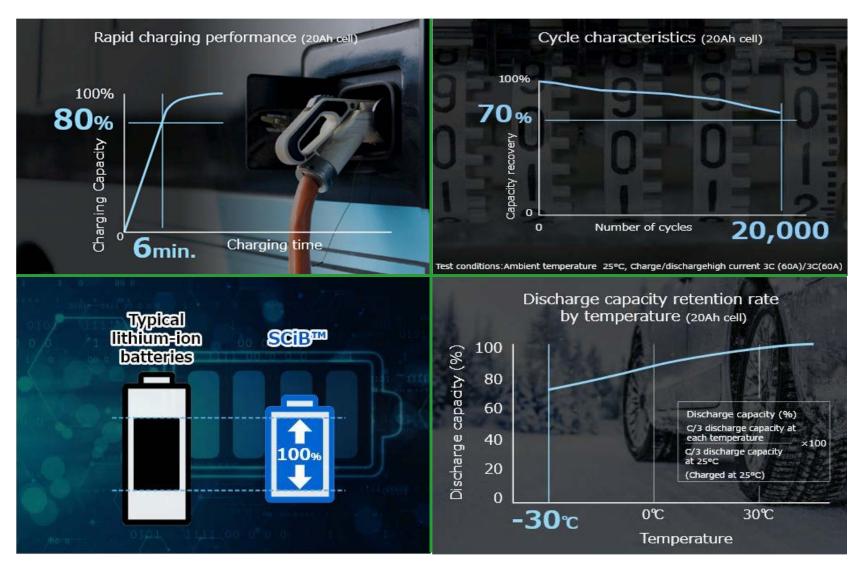


Niobium is becoming an essential element to further the development of all solid-state batteries, the ultimate solution in battery technology

Source: CBMM

Niobium-based anode advantages





Source: Toshiba

Niobium battery technology: current players











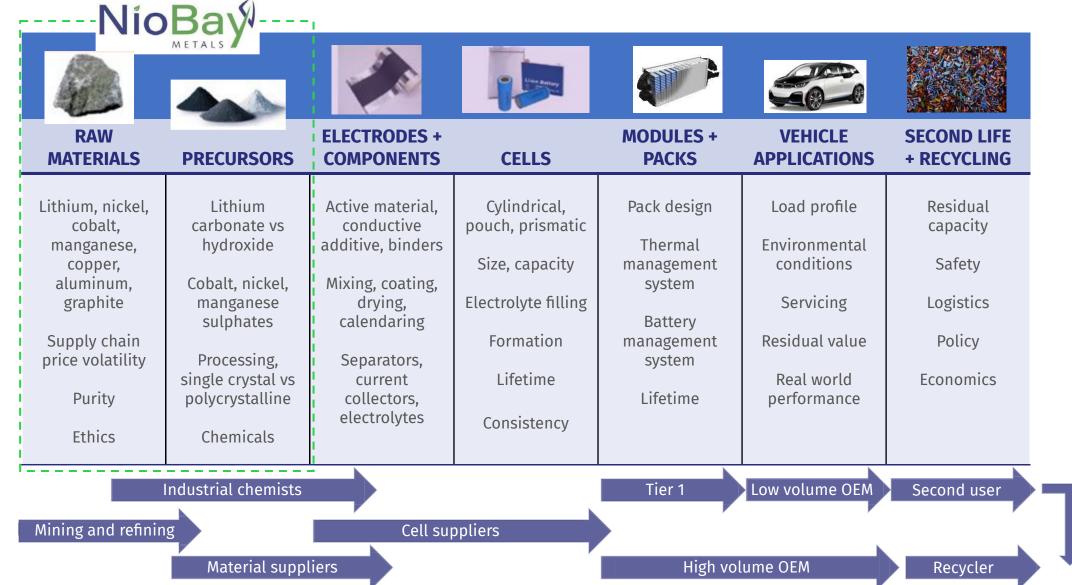






Battery industry structure





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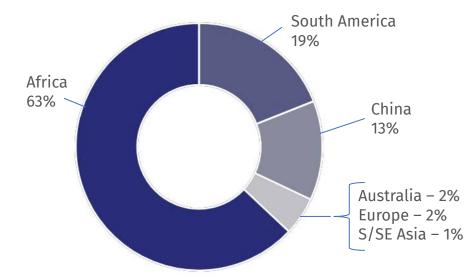
CONSIDERATIONS

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Tantalum: Procurement



- Tantalum comes mainly from Rwanda and the Democratic Republic of Congo (DRC).
- In 2008, the Obama administration passed the Dodd-Frank Act, which included a section sanctioning companies consuming raw materials from the DRC or nearby areas that benefit armed groups.
- Forecast of a 6% CAGR for 2022-2027 on a market of 2,200 mt.
- A Canadian source of tantalum would be welcome and supported by users.



Sources: Roskill; https://www.novethic.fr/actualite/social/droits-humains/isr-rse/afrique-des-grands-lacs-la-quete-dumineral-sans-conflit-144047.html

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Tantalum is a critical mineral with many hi-tech applications



Product	Application
Oxide (Ta ₂ O ₅)	Camera lenses X-Ray film
Carbide (TaC)	Cutting tools
Metal (Ta)	Cathode pulverization (semi-conductors) Superalloys for turbines
Salt (K ₂ TaF ₇)	Capacitors for electronics



Crevier Overview

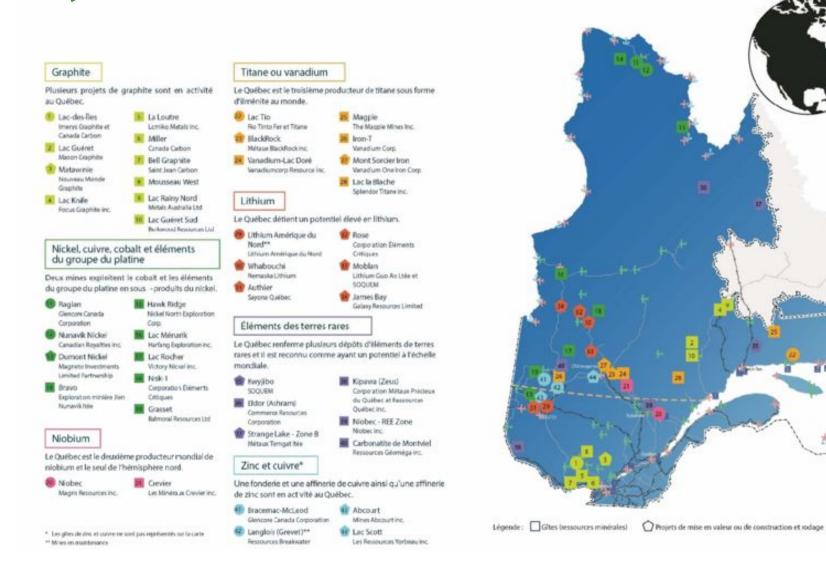




- Located 50 km north of Girardville in the Lac Saint-Jean Region, Quebec, Canada
 - Leading mining jurisdiction
 - Access to high quality infrastructure
 - Near a producing niobium mine
- Mineral Resource Estimate → NSR US\$100/t
 - M&I: 25.4 Mt at 0.20% **Nb₂O₅** for 49.7 Mkg and 234 ppm **Ta₂O₅** for 5.9 Mkg
 - Inf: 15.4 Mt at 0.17% Nb_2O_5 for 26.2 Mkg and 252 ppm Ta_2O_5 for 3.9 Mkg
- 2019 PEA update demonstrates a strong project subject to niobium price

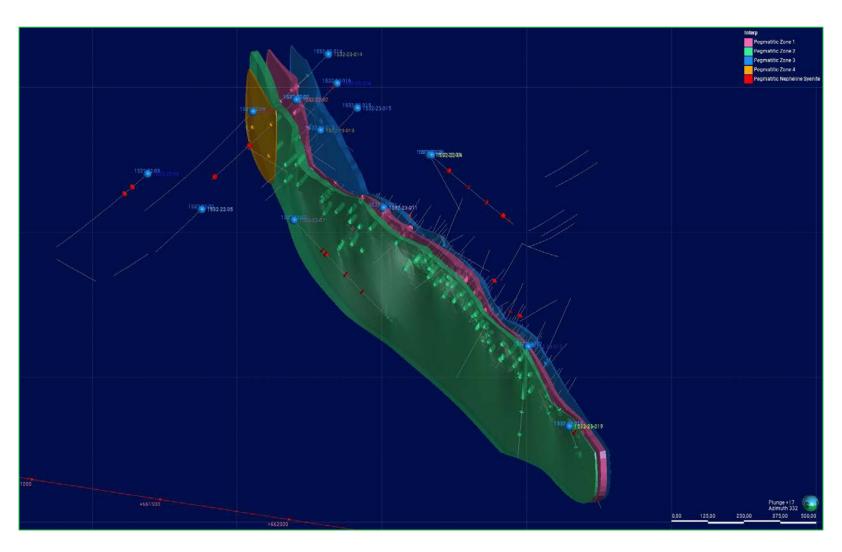
MCS Projects, In Québec?





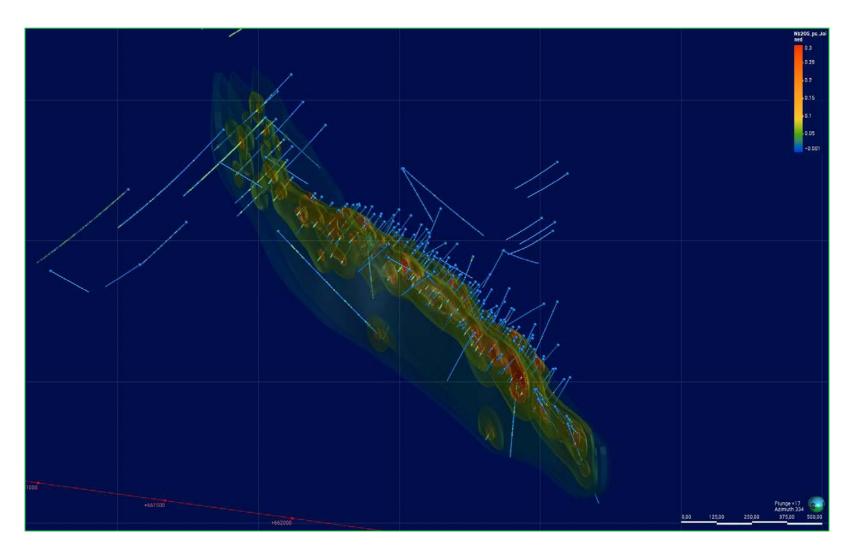
Crevier Deposit: Exploration 1957 - 2023





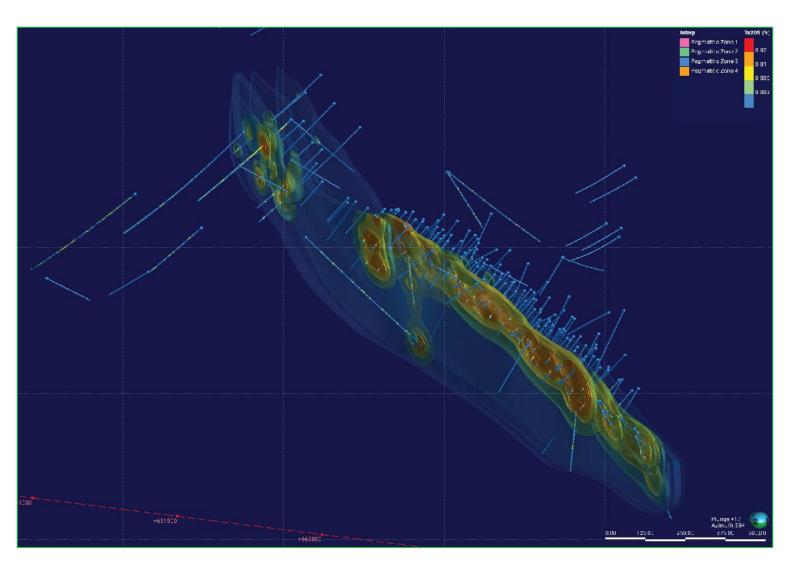
Crevier Deposit (Nb): 1957 - 2023





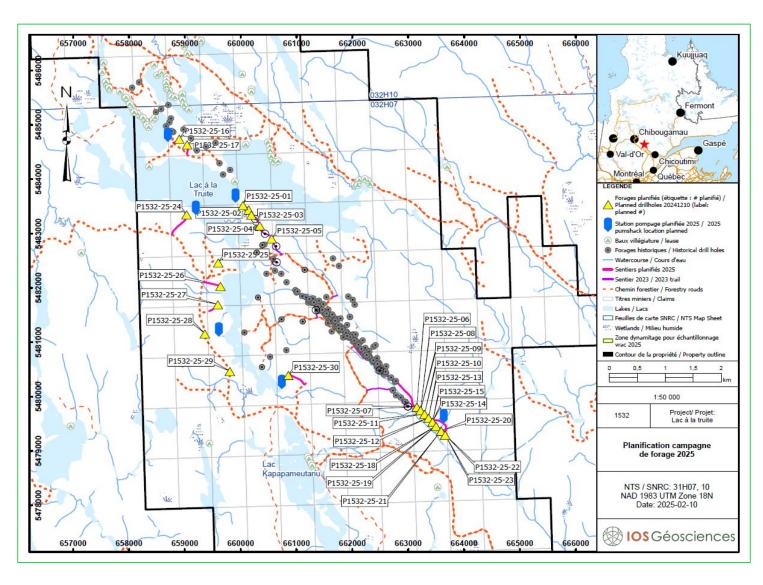
Crevier Deposit (Ta): 1957 - 2023





2025 Drill Campaign





Cooperation Agreement with Pekuakamiulnuatsh First Nation - Crevier



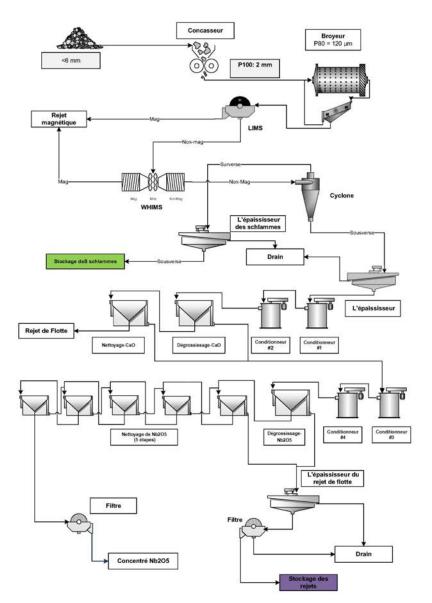


Metallurgical Testing and Creation of Samples for Customers





At present, niobium oxalate is obtained from China or CBMM in Brazil.









James Bay Niobium Overview





- Located 42 km south of Moosonee in the James Bay Lowlands, Ontario, Canada
 - Leading mining jurisdiction
 - Access to high quality infrastructure
- Protection agreement in place with Moose Cree First Nation
- Mineral Resource Estimate → NSR US\$184/t

 - Ind: 29.7 Mt at 0.53% Nb₂O₅ for 158 Mkg
 Inf: 33.8 Mt at 0.52% Nb₂O₅ for 177 Mkg
- Positive PEA highlights robust project
- Targeting less than 5% world market
- Exploration upsides as deposit is underexplored at depth - no drill hole below 330 m

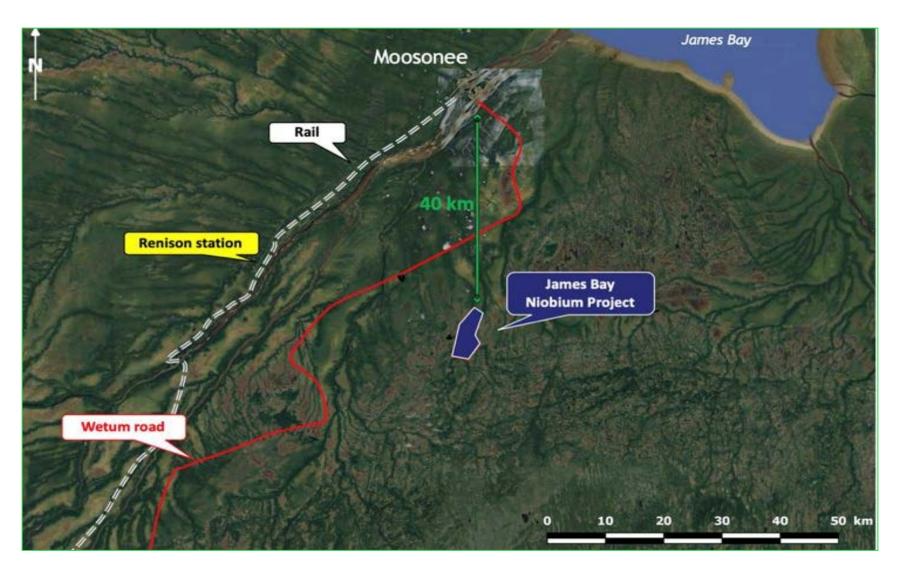
Exploration Activities at James Bay Niobium





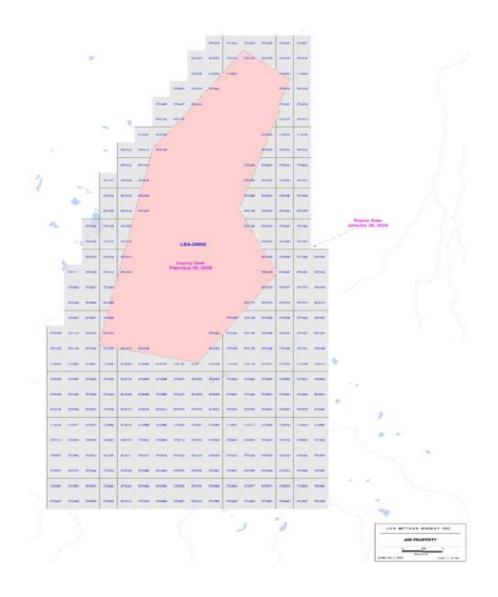
James Bay Niobium Project





Claims and Mining Leases at James Bay Niobium





James Bay Niobium PEA highlights



Scenario	Mine life	Production	Post-tax NPV _{8%}	Post-tax IRR
Open pit	30 years	5 , 470 tpa	C\$1,008M	27.5%
Open pit and underground	23 years	6,213 tpa	C\$865M	27.0%
Underground	23 years	6,283 tpa	C\$733M	21.6%

Production limited to less than five per cent of global demand

PEA Summary

	Underground
Pre-tax internal rate of return	26.0%
Pre-tax net present value (NPV) 8%	\$1,104M
Pre-tax payback (years)	3.8 years
After-tax internal rate of return	21.6%
After-tax NPV 8%	\$733M
After-tax payback (years)	4.3 years
Pre-production CAPEX	\$579M
(Incl. 25% contingency)	
Average annual LOM Nb production	6,283 t
Mine life	23 years
Total mineral resources mined	53.6 Mt
Average grade mined (Nb ₂ O ₅)	0.51%
Gross revenue after royalties (LOM)	\$8,454 M
After-tax operating cash flow (LOM)	US\$19.11/kg Nb
C1 costs over LOM*	\$66.94
All-in costs	US\$21.43/kg Nb
(Sustaining CAPEX+closure+OPEX)	\$78.08/t



ECONOMIC IMPACT

- \$500 million Construction
- \$3.8 billion in OPEX
- \$300-\$400 million sustaining
- Provincial Tax: \$479 million
- Mining Tax: \$226 million
- MCFN receive: \$100 million of Mining Tax
- Federal Tax: \$718 million
- \$7 billion GDP impact
- 400 highly paid jobs
- 23-30 years mine life
- High potential to extend mine life

An active partner in the local community



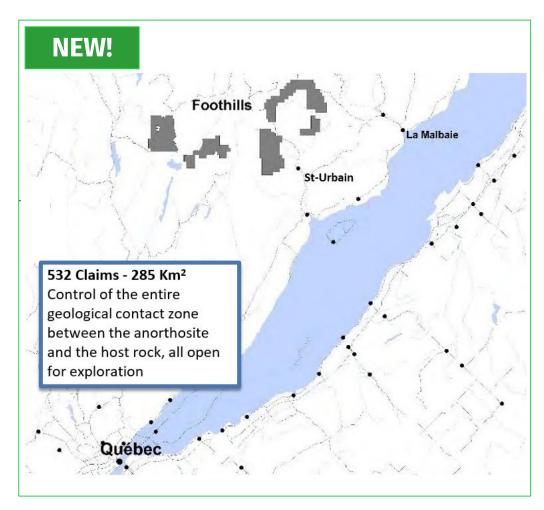


Source: Toshiba



Foothills Titanium and Phosphate Project





PROPERTY STATUS

- Exploration stage to local drilling stage
- Ilmenite-bearing anorthosite intrusions containing:
 - Rutile-Ilmenite minerals (up to 57.6% TiO₂)
 - Apatite minerals (up to 12.1% P_2O_5)
- Excellent location near St. Urbain, Quebec (100 km NE of Quebec City)
- Good road infrastructure and easy access to deep water port
- Potential district-scale project

Over 300 of mining history in Saint-Urbain

1665

Jean Talon, Intendant of New France, commissioned a certain Callhaut de la Tesserie (later Seigneur de la Chevrotière, aka Deschambault) to explore the Vallée du Gouffre.

1906-1914

St. Urbain mines revived: Baie St. Paul Titanic Iron founded in 1908. The J. Bouchard and General Electric mines came on stream around 1911.

1957-1965

The Continental Titanium Corporation operated the mine, building an onsite lab to ensure quality control.

2015

Vior geophysical prospecting campaign.

1872-1874

Canadian Titanic Iron
Company began mining
the Furnace mine.

1920-1945

Mining activity: Baie St.
Paul Titanic Iron was still
active, shipping ore to the
Titanium Alleys Co. in
Niagara Falls

1970 SOQUEM

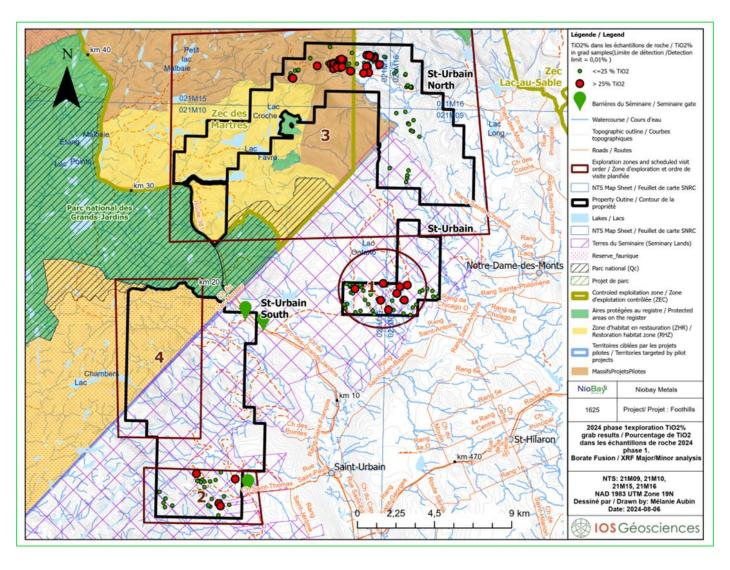
exploration ag

FEBRUARY 2024

NioBay signed an option agreement to acquire the Foothills project.

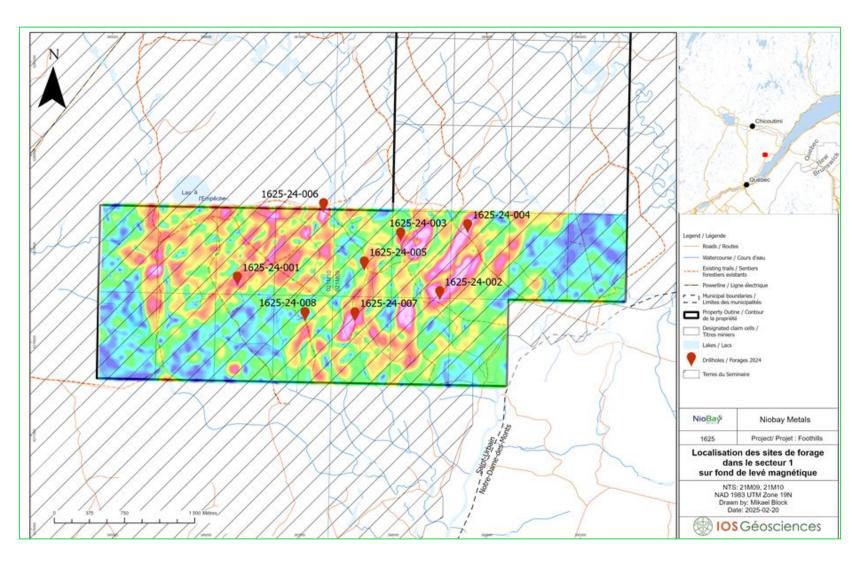
Foothills –prospecting area and sample locations (June 2024)





Foothills – Location of Drill Sites





Intercepted Mineralization



Sample number	Area	Туре	TiO2 (%)
162590024	2	boulder	44.2%
162590171	2	boulder	41.0%
162590172	2	boulder	40.0%
162590319	2	boulder	42.5%
162590034	3	boulder	34.6%
162590035	3	bedrock	37.9%
162590329	3	bedrock	37.9%
162590330	3	bedrock	38.2%
162590331	3	bedrock	38.5%
162590332	3	bedrock	37.7%
162590333	3	bedrock	38.0%
162590037	3	bedrock	36.3%
162590064	3	bedrock	30.6%
162590065	3	bedrock	37.5%
162590069	3	bedrock	35.5%
162590070	3	bedrock	34.7%
162590075	3	bedrock	39.8%
162590076	3	bedrock	38.0%
162590077	3	bedrock	38.7%
162590079	3	bedrock	39.5%
162590080	3	bedrock	38.1%

Sample number	Area	Туре	TiO2 (%)
162590082	3	boulder	37.5%
162590083	3	boulder	40.2%
162590084	3	boulder	39.6%
162590085	3	boulder	37.8%
162590086	3	boulder	37.8%
162590104	3	bedrock	36.6%
162590106	3	bedrock	32.9%
162590107	3	bedrock	32.1%
162590110	3	sub-bedrock	32.9%
162590112	3	bedrock	37.7%
162590113	3	bedrock	35.8%
162590192	3	bedrock	38.0%
162590193	3	bedrock	35.9%
162590200	3	bedrock	36.4%
162590201	3	bedrock	40.3%
162590203	3	bedrock	36.1%
162590204	3	bedrock	36.1%
162590210	3	bedrock	37.8%
162590212	3	bedrock	34.6%
162590213	3	bedrock	38.3%
162590215	3	bedrock	38.4%

Sample number	Area	Туре	TiO2 (%)
162590335	3 New showing discovered north of Brassard showing	bedrock	38.0%
162590336	3 New showing discovered north of Brassard showing	bedrock	38.0%
162590337	3 New showing discovered north of Brassard showing	bedrock	32.5%
162590338	3 New showing discovered north of Brassard showing	bedrock	35.8%
162590339	3 New showing discovered north of Brassard showing	bedrock	38.0%
162590340	3	bedrock	37.7%
162590341	3	bedrock	38.2%
162590342	3	bedrock	39.9%
162590346	3	bedrock	39.9%

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Price of our Metals Today



Ferro niobium	US\$45,000/mt
Niobium oxide	US\$100,000-US\$350,000/mt ¹
Tantalum oxide	US\$140,000-US\$220,000/mt ¹
Strontium oxide	US\$6,000/mt ²
Titanium	US\$US51,000/mt
Crevier and James Bay niobium price in our last model	US\$44,000/mt
Crevier tantalum price in our last model	US\$150,000/mt

¹Depending on purity and customer

² Source: SDM Magnetics and Bunting Berkhamsted



CSIS Center for Strategic and International Studies
Critical Minerals Security Program | Defense and
Security



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Priorities for 2025



- CREVIER: Production of customer samples and search for partners
- JAMES BAY: Discussions with MCFN and the Ontario government to return to the field and complete the #2 drilling program and obtain three-year permits
- **FOOTHILLS:** Continue exploration work on the Foothills property initiated by Vior, and find ilmenite/rutile zones, mainly on Zone 3
- OPEN TO OPPORTUNITIES: Priority given to projects located in Québec





Our Future is Green

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