Unlocking Brazil's Lithium Potential for the Global Market

Near-term production of high-quality, low-cost lithium concentrate in Minas Gerais' Lithium Valley, poised to support the global EV and battery supply chains.

TSX.V: LTH | OTCQX: LTHCF | FSE: H3N

Corporate Presentation - July 2024







CAUTIONARY NOTES

The NI 43-101 technical report associated with the Bandeira Lithium Project Feasibility Study (FS) will be available on SEDAR+ at www.sedarplus.ca under the Company's issuer profile, as well as the Company's website at www.lithiumionic.com within 45 calendar days from the May 29, 2024, press release.

Feasibility Study Consultants

The FS is prepared by independent representatives of AtkinsRéalis, GE21, Planminas and L&M each of whom are Qualified Person as defined by NI 43-101 Standards of Disclosure for Mineral Projects. Each of the QPs are independent of Lithium Ionic and have reviewed and confirmed that the content of the FS news release fairly and accurately reflects, in the form and context in which it appears, the information contained in the respective sections of the Bandeira FS for which they are responsible.

Qualified Persons

Mineral Resource Estimate: Carlos José Evangelista, Geologist from GE21; Underground mine studies: Engineer, Rubens Mendonça from Planminas; The mineral processing studies were consolidated and defined by Tony Lipiec, Process Engineer and Vice President Global, Minerals & Metals Processing at AtkinsRéalis; Environmental studies: Branca Horta from GE21; Tailings Disposal systems: Porfírio Cabaleiro from GE21; The economic and financial model was certified and validated by João Augusto Hilario de Souza from L&M Advisory, as the qualified professional.

This presentation contains, or incorporates by reference, "forward looking information" within the meaning of applicable Canadian securities legislation. Forward looking information may include, but is not limited to, statements with respect to the future performance of Lithium Ionic Corp. ("Lithium Ionic" or the "Company"), Lithium Ionic mineral properties, the future price of lithium and other metals, the mineralization of the Company's properties, results of exploration activities and studies, the realization of mineral resource and mineral reserve estimates, exploration activities, costs and timing of the development of new deposits, the results of future exploration and drilling, the results of environmental studies, management's skill and knowledge with respect to the exploration and development of mining properties in Brazil, the Company's ability to raise adequate financing; the Company's ability to obtain the requisite permits and approvals, the economic viability of its mining projects, government regulation of mining operations and exploration operations, timing and receipt of approvals and licenses under mineral legislation, the Company's local partners, and environmental risks and title disputes. In certain cases, forward looking statements can be identified by the use of words such as "plans", "expects", "is expected", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates" or "believes", or variations (including negative variations) of such words and phrases, or state that certain actions, events or results "may", "could", "would", "might" or "will" be taken, occur or be achieved.

Forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of Lithium Ionic to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Such factors include, among others, risks associated with the Company's dependence on the Bandeira property; general business, economic, competitive, political and social uncertainties; the actual results of current exploration activities; risks associated with dependence on key members of management; currency fluctuations (particularly in respect of the Canadian dollar, the United States dollar, the Brazilian reais

and the rate at which each may be exchanged for the others); uncertainty in the estimation of mineral resources and mineral reserves, exploration and development risks; infrastructure risks; inflation risks; defects and adverse claims in the title to the projects; accidents, political instability, insurrection or war; labour and employment risks; changes in government regulations and policies, including laws governing development, production, taxes, royalty payments, labour standards and occupational health, safety, toxic substances, resource exploitation and other matters; delays in obtaining governmental approvals or financing or in the completion of development or construction activities; insufficient insurance coverage; the risk that dividends may never be declared; and liquidity and financing risks related to the global economic crisis. Although Lithium lonic has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward looking statements, there may be other factors that cause actions, events or results to differ from those anticipated, estimated or intended. Forward looking statements contained herein are made as of the date of this presentation. There can be no assurance that forward looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward looking statements due to the inherent uncertainty therein.

Information in this presentation relating to other companies are from their sources believed to be reliable but that have not been independently verified by the Company.

Unless otherwise indicated, the scientific and technical information in this presentation has been reviewed and approved by Carlos Costa, Vice President of Exploration for Lithium Ionic, who is a Qualified Person as defined by National Instrument 43-101 of the Canadian Securities Administrators ("NI 43-101").

Outro Lado Mineral Resource Estimate was prepared by Maxime Dupere, P.Geo., M.Sc., and Faisal Sayeed, P.Geo of SGS, each a Qualified Person as defined by NI 43-101, with an effective date of June 24, 2023. The supporting Technical Report can be found on SEDAR+ under the Company's issuer profile and on the Company's website (www.lithiumionic.com).

DISCLOSURE FOR U.S. INVESTORS: The securities described herein have not been and will not be registered under the U.S. Securities Act 1933, as amended (the "U.S. Securities Act") or any U.S. state securities laws. Accordingly, the securities described herein will not be offered or sold in the United States except in reliance on exemptions from registration provided under the U.S. Securities Act and the rules thereunder. Securities may not be offered or sold in the United States absent registration with the Securities and Exchange Commission or an exemption from such registration. Under no circumstances is this presentation or the information contained herein to be construed as a prospectus, offering memorandum or advertisement, and neither any part of this written or oral presentation nor any information or statement contained herein or therein shall form the basis of or be relied upon in connection with any contract or commitment whatsoever. This presentation should not be construed as legal, financial or tax advice to any investor, as each investor's circumstances are different. Readers should consult with their own professional advisors regarding their particular circumstances. There are certain risks inherent in an investment in the securities of the Company that prospective investors should carefully consider before investing in the securities of the Company.

LITHIUM IONIC

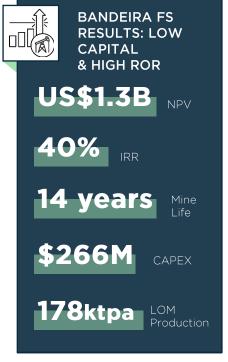
Near-term production of high-quality lithium concentrate to support the global EV and battery supply chains.



WHY LITHIUM IONIC?













BRAZIL Port of Ilhéus **EUROPE** USA **CHINA** Belo Horizonte MINAS **GERAIS** Port of Vitória ATLANTIC OCEAN

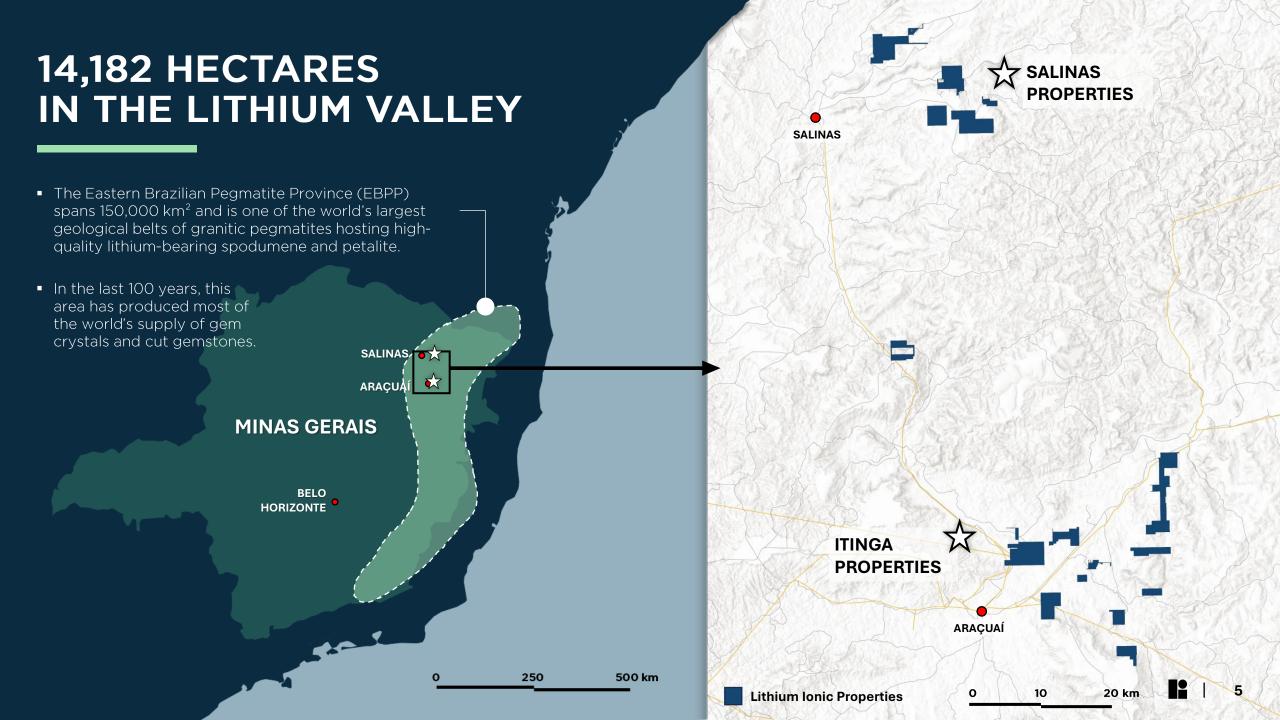
PROLIFIC LITHIUM DISTRICT

A REGION THAT IS EMERGING AS A GLOBALLY SIGNIFICANT HARD-ROCK LITHIUM-PRODUCING DISTRICT

 Minas Gerais ("General Mining"): A traditional mining jurisdiction with a highly efficient and expeditious permitting process

SIGNIFICANT EFFORT BY GOVERNMENT TO REDUCE BUREAUCRACY IN THE MINING SECTOR

- Unrestricted Trade: In July 2022, Brazil issued a presidential decree allowing unrestricted trade of any products containing lithium
- Launch of "Lithium Valley Brazil" in May 2023: Initiative launched by the state government of Minas Gerais and other municipal government agencies aimed at streamlining and facilitating lithium development and production to position it as a key global player in the lithium supply chain.



REGIONAL PROOF-OF-CONCEPT ITINGA PRODUCER **PROPERTIES CACHOEIRA LITHIUM MINE** Private Brazilian company Producing lithium since 1991 PRODUCER **GROTA DO CIRILO PROJECT** Among the world's largest lithium mines 1st production achieved in April 2023 EMERGING PRODUCER **BANDEIRA PROJECT** ■ LITHIUM ■ IONIC Feasibility Study completed in May 2024 Lithium Ionic Construction permits expected mid-2024 Mineralized Pegmatites Soil Anomalies Powerlines Access Road 5 km



BLUEPRINT NEXT DOOR: SIGMA LITHIUM CORP.

- Sigma is among the world's largest lithium operations and the largest hard rock lithium deposit in the Americas
- Bandeira is located within ~4km
- Strong potential to repeat and improve on Sigma's fast permitting timeline
 - Maiden Resource to Permit: 18 months
 - Maiden Resource to Production: <u>5 years</u>
- Sigma's current market cap of ~US\$1.4B provides compelling valuation goal post

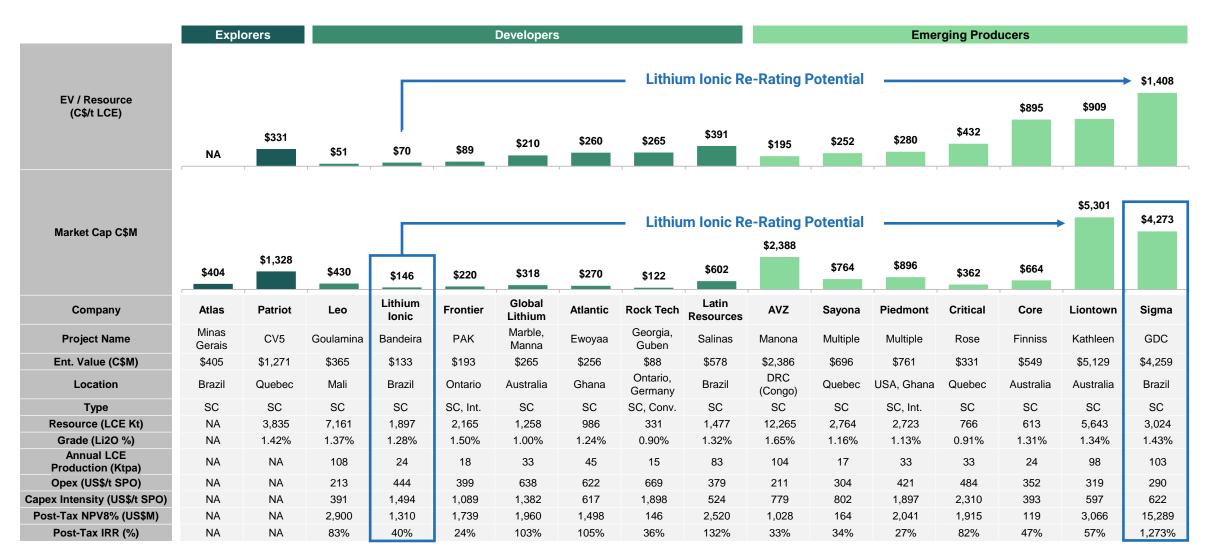


SIGMA'S RAPID TIMELINE TO PRODUCTION:



HARD ROCK LITHIUM PEER BENCHMARKING

LTH STRONG RE-RATING POTENTIAL WITH SIGMA AS PRIMARY COMPARABLE LOCATED WITHIN SAME LITHIUM BASIN IN BRAZIL



CAPITAL STRUCTURE

TSX.V: LTH

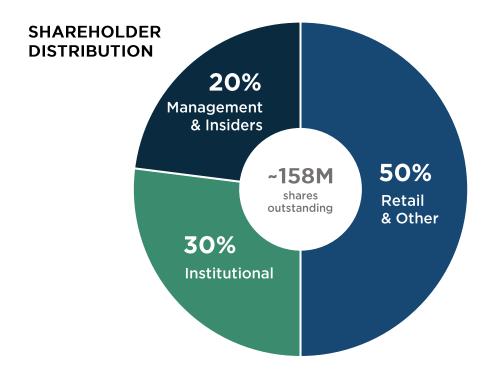
Common Shares Outstanding	158,579,158
Options	13,782,000
Warrants	12,715,495

Market Capitalization	~C\$90M
52-week High/Low	C\$2.70/C\$0.51
Share Price (07/04/24)	C\$0.56

Cash	~C\$40M*
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ANALYST COVERAGE:

CLARUS SECURITIES INC.	Varun Arora
вмо 😩	Greg Jones
STIFEL &GMP	Cole McGill
cg// Canaccord Genuity	Katie Lachapelle
↑ Desiardins	Frederic Tremblay



TOP INSTITUTIONAL SHAREHOLDERS



1832



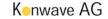














EXECUTIVE LEADERSHIP TEAM



Blake Hylands CEO, Director

Professional Geoscientist with 13 years of international experience in advanced and early-stage exploration (gold, base metals, iron ore). Cofounder of Troilus Gold where he led the technical team to the discovery of +8Moz AuEq gold in Quebec. Extensive capital markets, corporate development and community relations experience.



Helio DinizPresident, Director

+40 years of experience in the mining sector. Former Managing Director Brazil for Xstrata (Glencore) where he discovered the Araguaia Nickel Deposit (+100Mt, 1.5% Ni). Began his career with GENCOR South Africa: Sao Bento gold mine. Brazil (AngloGold Ashanti). Founder of Falcon Metais and HDX Consultoria to identify/explore and develop mining opportunities in Brazil. Founded and developed several companies for the F&M Group, incl: Brazil Potash (current Managing Director), Aguia Metais (potash), Belo Sun (gold) and Irati (oil shale).



Paulo Misk

COO

Mining engineer with +38 years of experience in the operational management of several multinational mining companies. He held several executive and operational roles at Largo Inc. (2014-2023), including President & COO, and CEO & director where he led the production commissioning and operations of its Maracás Menchen Mine, and led several expansion projects, including the company's battery business. Former Head of Niobium and Phosphate Operations at Anglo American. 10 years at AMG, most recently as Operational Director where he was responsible for the Tantalum and Niobium division and overall mining activities in Brazil, including the development of its Mibra lithium mine located in MG State.



Mike Westendorf VP Technical Services

Professional engineer with over 15 years of diversified experience in mining operations, capital projects, engineering, and corporate development. Most recently acted as Director of Operational **Excellence for Copper Mountain Mining** Corp. (now Hudbay Minerals), where he led initiatives to improve production, execute capital upgrades, and reduce costs at the Copper Mountain Mine, Canada. Here, he also acted as Production Manager, overseeing the development of their Eva Copper Project in Australia, and Director of Metallurgy, supporting resource expansions and development.



Tom Olesinski

CFO

+25 years of finance and executive management experience. Former forensic accountant for BDO Dunwoody. Former Director of Finance and Operations for Cossette Communication Group, CEO and CFO at Havas Media Canada, and COO and CFO for Brainrider. Current board member of Troilus Gold Corp.



Carlos Costa

VP Exploration
~40 years of experience; 29 yrs in base

metals, gold and PGE exploration throughout Brazil. Managed several exploration programs, from regional grassroots to bankable feasibility studies. 10 yrs experience in mine geology, including underground and open pit operations. Former Country Manager Brazil for Emerita; Led exploration programs for Belo Sun, Xstrata, Falconbridge; with experience at Vale and BP Mineração (British Petroleum Group).



André Guimarães
VP Corp. Development

PhD Geology graduate specializing in igneous petrology with +10 years of experience in research. Founder of Neolit Minerals (2020), where he has been directly involved in all corporate and exploration activities, including analyses and interpretation of geological data, particularly geochemical results, field work and contract negotiations. Former archaeologist who was involved in rescue archaeology projects associated with the development of mining sites in Brazil.

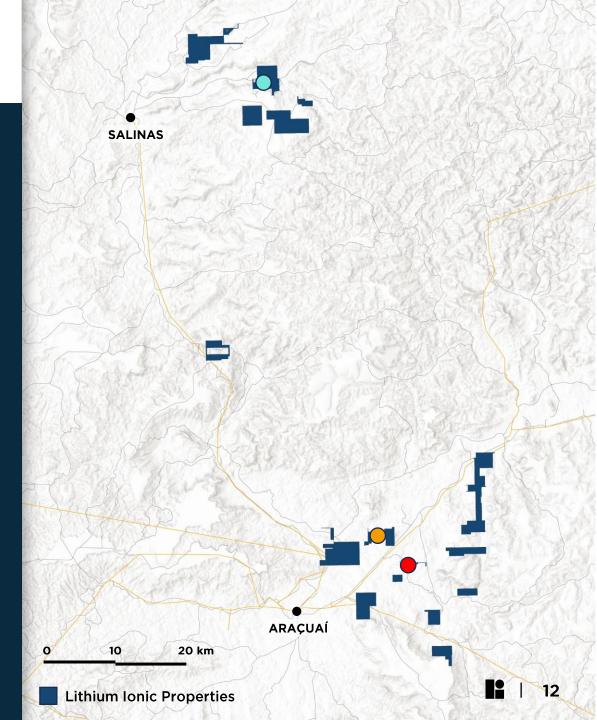


Damian LopezCorporate Secretary

Corporate securities lawyer with +15 years experience working as a legal consultant to various TSX and TSXV listed companies. Previously worked as a securities and merger & acquisitions lawyer at a large Toronto corporate legal firm, where he worked on a variety of corporate and commercial transactions.

MINERAL RESOURCES

BANDEIRA 23.68Mt grading 1.34% Li₂O Inferred: 18.25Mt grading 1.37% Li₂O **SALINAS** 60.1Mt M&I: **GLOBAL** 5.86Mt grading 1.09% Li₂O Inferred: **MINERAL** 8.90Mt grading 0.97% Li₂O **RESOURCES OUTRO LADO** M&I: 2.97Mt grading 1.46% Li₂O Inferred: 0.42Mt grading 1.48% Li₂O

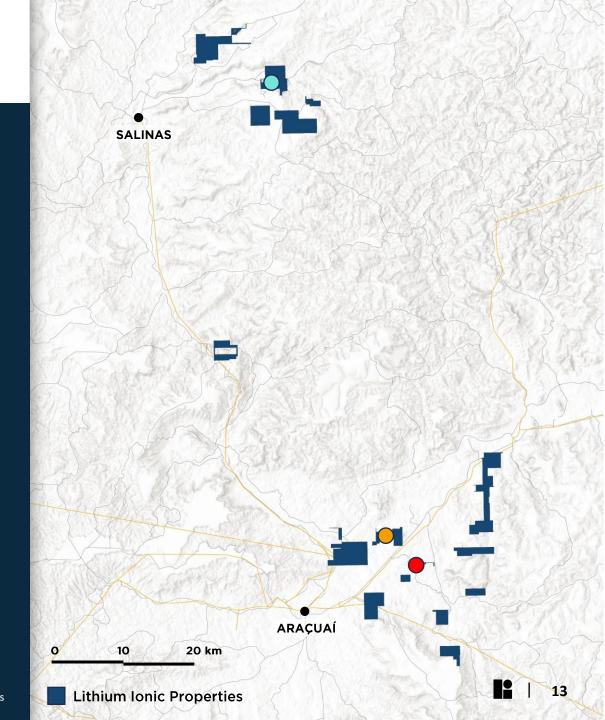


RAPID MINERAL GROWTH

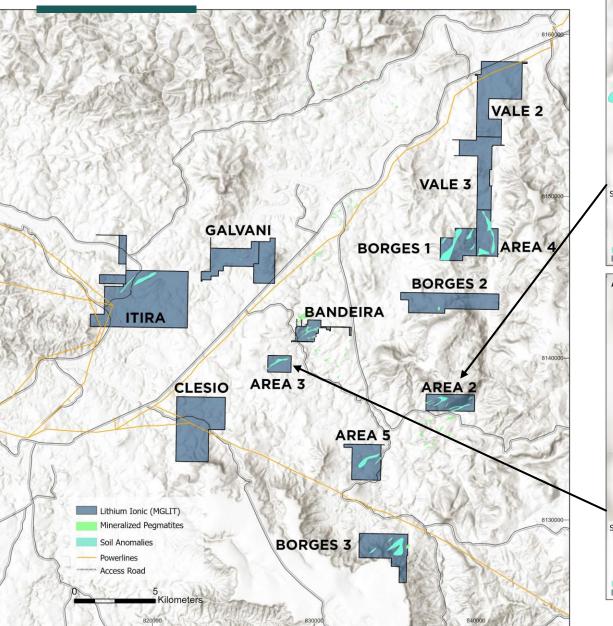
HIGH DISCOVERY RATE

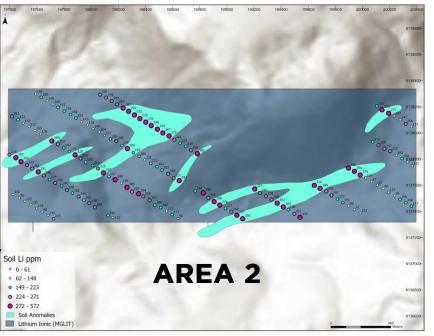
703t per metre drilled

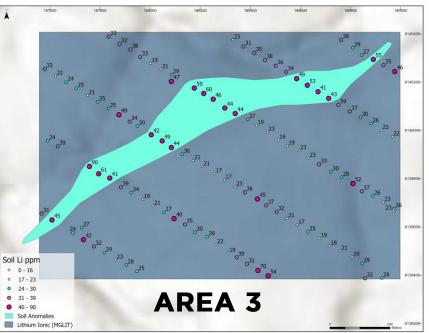




REGIONAL POTENTIAL







Significant regional soil anomalies have yet to be drilled near the Bandeira Project



BANDEIRA FEASIBILITY STUDY: KEY HIGHLIGHTS

Low CAPEX

Lean installation with estimates supported by recent adjacent projects



Low OPEX

In-line with regional producers & resilient to challenging market conditions

Low Disturbance UG Mine

Minimized impact on environment & local communities



Simple Process

Coarse mineralization supports simple and lean DMS processing method producing high-quality and sustainable SC

Established Infrastructure

Road access, hydroelectric power, local workforce & bulk loadout ports to global markets



2026 Production

Near-term value creation with on-track permitting and clear path to production

BANDEIRA FEASIBILITY STUDY: KEY RESULTS

Small footprint underground mine producing high-quality, low-cost lithium concentrate

178ktpa

AVERAGE ANNUAL PRODUCTION

1.3Mtpa ANNUAL THROUGHPUT

14-YEAR

MINE LIFE

17.2M ORE MINED

\$444/t

OPEX (PRODUCED) \$266M

CAPEX

Incl. 15% Project Contingency

\$2,277/t (SC5.5)

\$1.31B

POST-TAX NPV

40%

POST-TAX IRR

\$286M

AVG LOM POST-TAX FREE CASH FLOW

(post-payback, years 4-14)

41 Months

PAYBACK

BANDEIRA PRODUCTION

AVERAGE PLANT THROUGHPUT

1.23 Mtpa

(24.2 ktpa LCE)

RECOVERY

ORE MINED

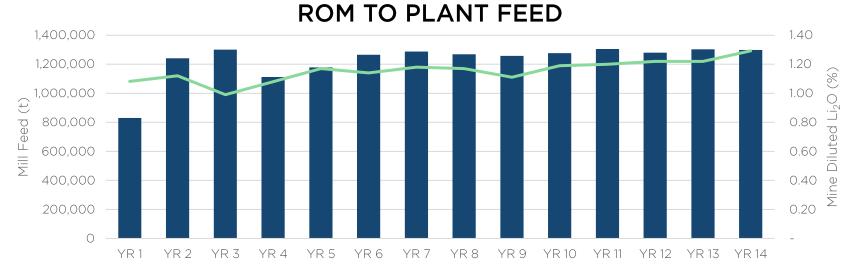
68.9%

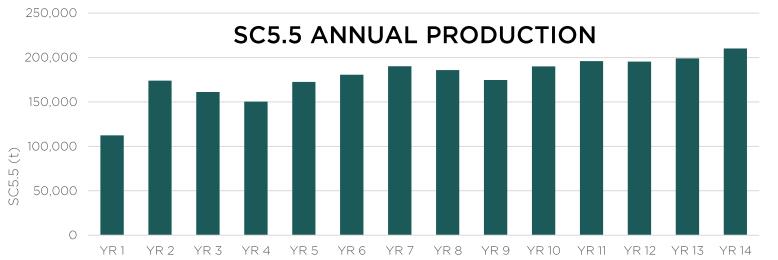
17.2Mt



Spodumene Concentrate Grading 5.5% Li₂O

178,000 tpa

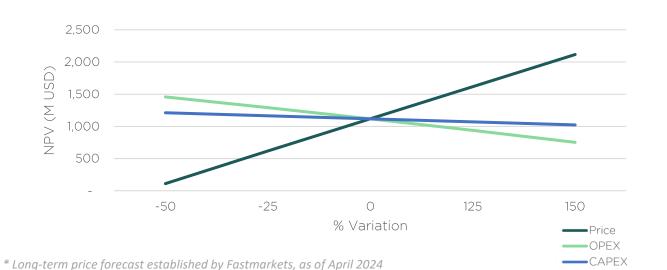




PROJECT ECONOMICS & SENSITIVITY

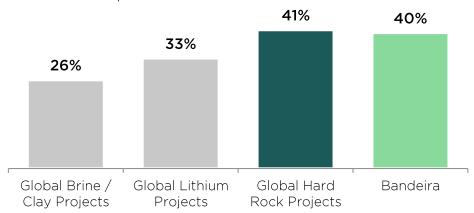
With the anticipated rise in lithium demand, the project is well positioned to benefit from future market conditions.

	Low Case	Base Case	High Case
SC5.5 Price	\$1,822/t	\$2,277/t	\$3,416/t
NPV	\$864 M	\$1.31B	\$2.41B
IRR	32.5%	40.3%	62.2%
Payback	4.3 years	3.4 years	2.2 years



IRR: GLOBAL BENCHMARKING

Based on 24 lithium project economic studies completed since 2022.





FEASIBILITY FINANCIAL RESULTS

Positioned to capture lithium market recovery

\$286M

AVG ANNUAL FREE CASH FLOW
(After repayment of initial capital, years 4-14)

Conservative Spodumene pricing model based on Fastmarkets analysis

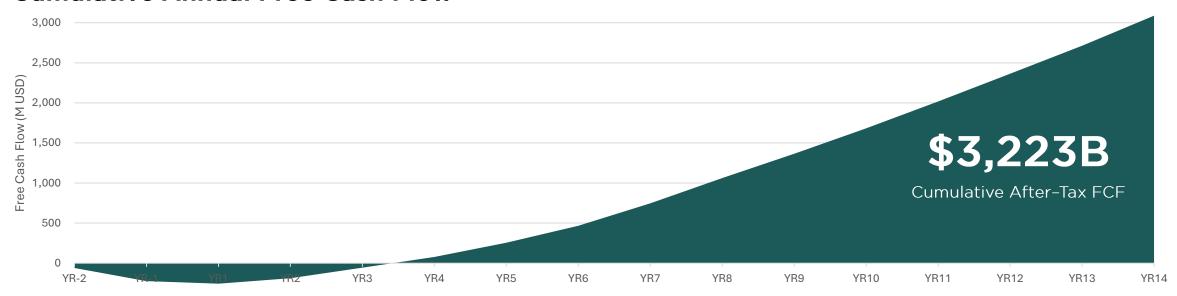
\$2,277/t SC5.5

3.4-year payback on capital despite lower near-term spodumene pricing of:

\$917/t SC5.5

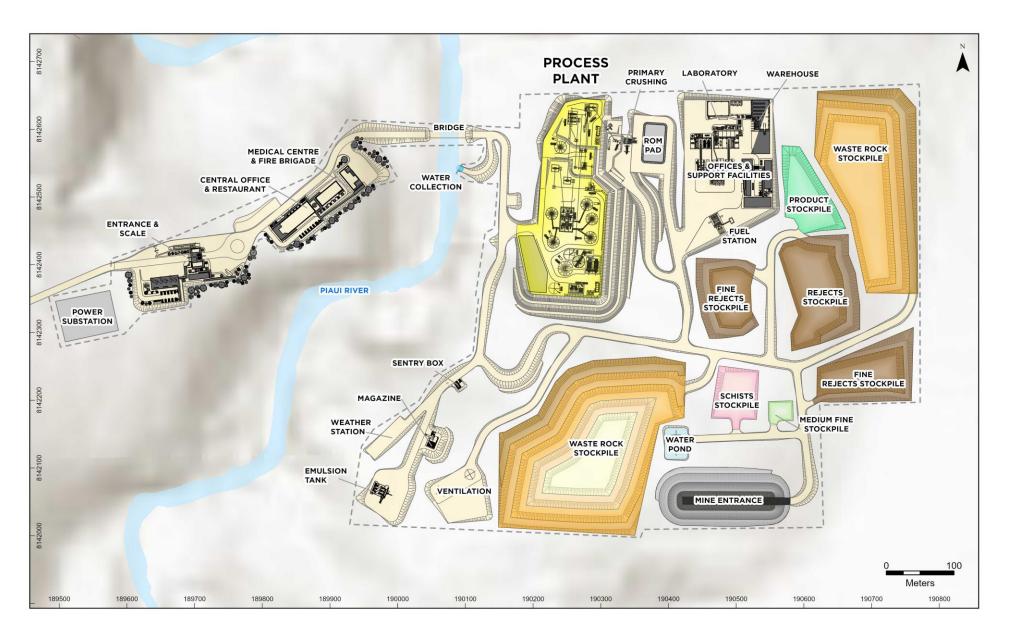
Opportunity to strengthen early project cash flow with conversion of near surface Inferred resources.

Cumulative Annual Free Cash Flow



SITE LAYOUT

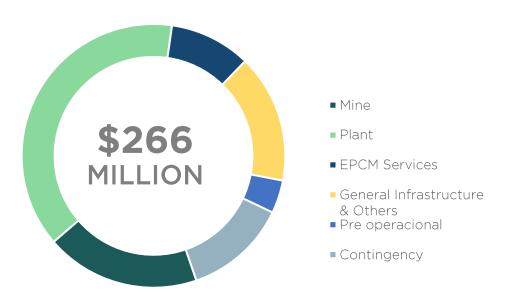
- Sustainable underground mining and minimal land-use footprint
- Low-cost and low complexity DMS (Dense Media Separation) operation



CAPEX & OPEX

CAPEX

Mine	\$50.5M
Plant	\$102.7M
EPCM Services	\$26.6M
Infrastructure & Other	\$41.9M
Pre-operation	\$10.8M
Contingency	\$33.7M
Total	\$266.2M



OPEX

(per tonne of ore processed)

Mining	\$36.7/t
Processing	\$24.6/t
SG&A	\$3.0/t
Total	\$64.4/t

OPEX

(per tonne of ore produced)

Mining	\$254/t
Processing	\$170/t
SG&A	\$21/t
Total	\$444/t
	·

Transportation costs to customer \$113/t



CAPEX & OPEX EFFICIENCY

\$266M INITIAL CAPEX

Conservative approach to capital costs

- Capital costs benchmarked with other recent construction projects in the region
- Established regional contractors and infrastructure to support site construction
- Regionally based engineering and construction management

\$444/t
OPERATING COSTS
(PRODUCED)

Low operating cost supporting strong cash flow

- CIF Shanghai operating cost of \$557/t SC5.5
- First principles buildup of operating costs validated by regional peer group
- Utilizes contract operations for mine development
- Owner-operated underground fleet for production mining
- Locally based workforce
- Simple process design minimizes high-cost unit operations



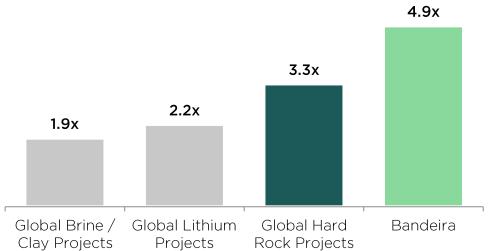


GLOBAL BENCHMARKING

RECENT LITHIUM PROJECT ECONOMIC STUDIES

NPV/CAPEX

Bandeira outperforms global hard rock lithium projects, highlighting its efficient use of capital and higher returns on investment.



CAPITAL INTENSITY

(US\$/t LCE)

Bandeira is more cost-effective compared to other global lithium projects, underscoring its economic viability and efficient use of resources.

\$1,439

\$961

\$785

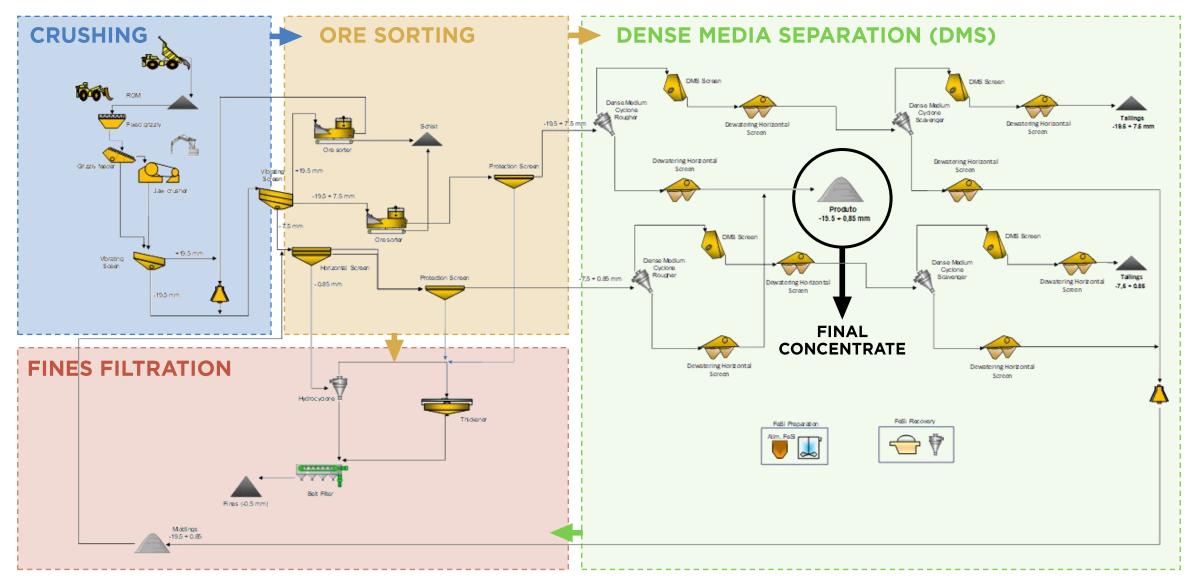
Global Brine / Global Lithium Global Hard
Clay Projects Projects Rock Projects

al Hard Bandeira



\$1,744

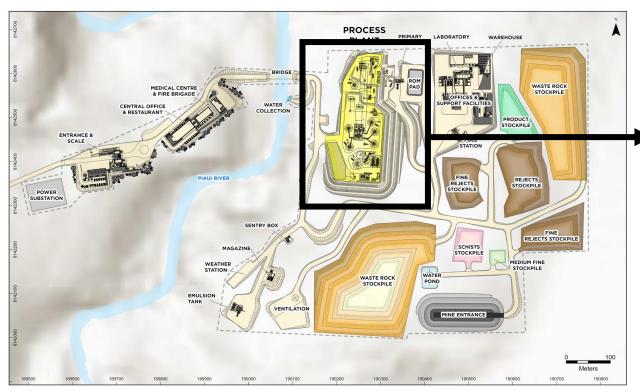
BANDEIRA FLOWSHEET

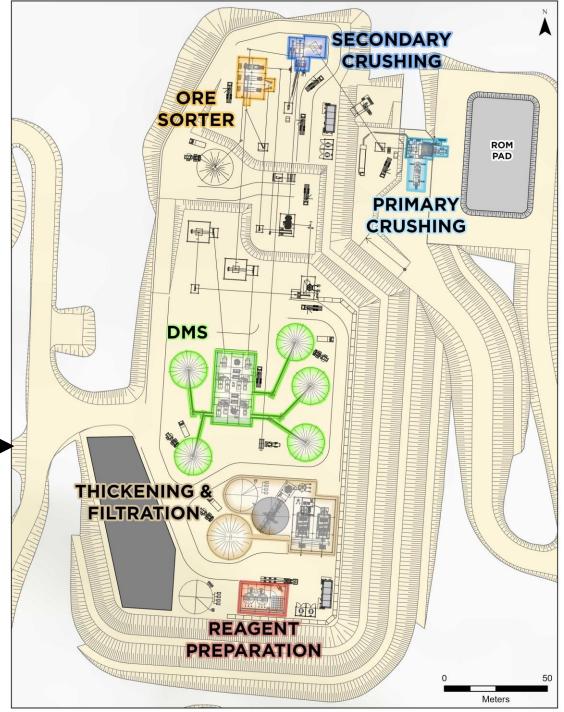


PLANT LAYOUT

Simple coarse dense medium separation (DMS) method for producing concentrate.

A demonstrated process by CBL and Sigma.





INFRASTRUCTURE

Favourable mining and transport infrastructure, hydroelectric power, water and easy access to foreign markets via nearby port access.





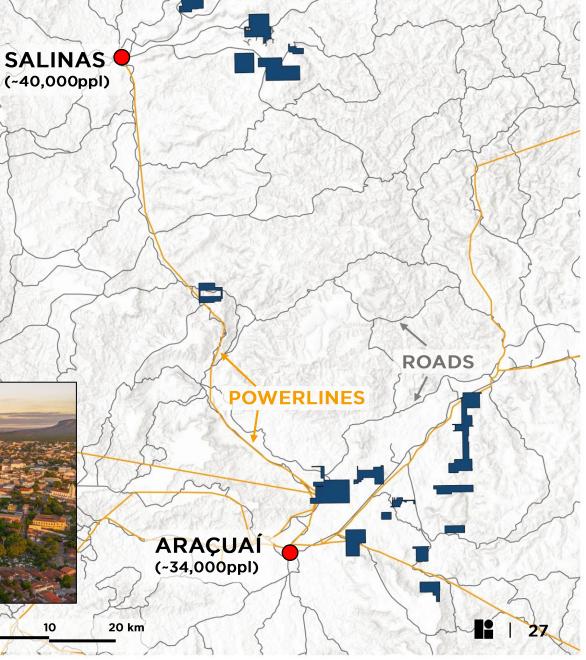


11h PAVED DRIVE TO PORT VITÓRIA









SUSTAINABLE MINE DESIGN & INFRASTRUCTURE



UNDERGROUND MINE

- Minimal Surface Disturbance: Reduces surface disruption and dust compared to open-pit mining.
- Efficient Resource Extraction: Moves ~16 times less rock



DRY STACKED TAILINGS

- Water Conservation: Reduced water consumption compared to traditional wet tailings storage methods.
- Improved Safety: Minimizes risk of environmental contamination, leaching, and groundwater pollution.
- Enhanced Stability: Offers better stability compared to conventional tailings and dams, mitigating the risk of a dam breach



SUSTAINABLE WATER ACCESS

- Secured Water Rights: Obtained Bandeira "Water Rights" permit for extraction from Ribeirão Piauí.
- **High Recirculation Goal:** Targeting 90% water recirculation once in production.



HYDROELECTRIC GRID ACCESS

- **Strategic Partnership:** Joint management partnership with Cemig Distribuição S.A., the largest renewable electricity distributor in Brazil, for the construction and electrification of power infrastructure to the mine.
- **Sustainable Power:** The agreement ensures the project will be powered by low-cost, renewable hydroelectric power.

LTH PROJECTS GRANTED PRIORITY STATUS

- July 2023: MOU signed with Invest Minas (State Economic Department of Minas Gerais and the Minas Gerais Integrated Development Institute), mutually supporting the development of the battery materials sector in the region.
- Lithium Ionic's Itinga and Salinas lithium projects are granted priority status by the state of Minas Gerais regional government bodies, facilitating support and acceleration of approvals and licensing through the development process.
- Invest Minas to support and prioritize Lithium Ionic from the exploration to operational stages, including environmental licensing and regulatory approvals.
- LAC Permit Approval: Initial meetings with regulators indicate that the LAC permit is on track for completion in early Q3 2024.



RECENT MILESTONES & PATH TO PRODUCTION





THANK YOU

Contract

TSX.V: LTH | OTCQX: LTHCF | FSE: H3N

Lithium Ionic Corp. 400-36 Lombard St., Toronto, Ontario, Canada, M5C 2X3

CONTACT

Investor Relations
Caroline Arsenault
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info@lithiumionic.com

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LOCAL SOCIAL & ECONOMIC CONTRIBUTIONS

Lithium Ionic is committed to advancing its projects responsibly and transparently while fostering positive social impact and bolstering local economic empowerment.

The Bandeira Project is expected to have a long-term positive impact on the local economy:



~866

Direct Local Workforce





Local Employment & Community Inclusion

MOU with Invest Minas: Commitment to regional employment and local supplier engagement throughout operations.

Active Community Engagement: Ongoing initiatives to support local residents and improve infrastructure.

2024 Goals:

Private Social Investment Policy: Publish policy to support local projects and strengthen economic resilience.

Community Consultations: Engage a third-party consultant to facilitate consultations, maintain dialogue, and execute a Social Communication Program.

Grievance Mechanism: Establish a community-level grievance mechanism.

GEOLOGY

Coarse grained spodumene rich pegmatites with simple mineralogy

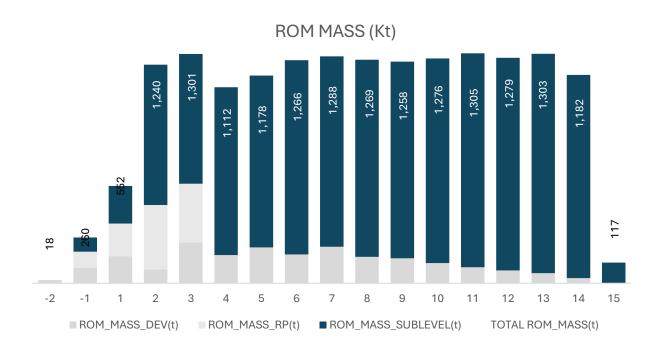
- Demonstrated regional geology with well understood orebody
- Coarse grained mineralogy and low iron content supporting simple processing with no concentrate quality concerns
- Opportunity to expand resource at depth and extents
- Opportunity to upgrade inferred resources near surface with additional infill drilling, improving early-stage mine plan



MINING & PROCESSING

Demonstrated mining methods supported by regional operating peers

- Demonstrated underground mining methods supported by 30 years of operating history at CBL operations
- Utilizes a room-and-pillar design for the southern portion of the orebody during start-up
- Transitions to sub-level stoping of the main orebody for the remaining life of mine





PROCESSING

Proven processing methods utilizing DMS to generate spodumene concentrate

- Ore sorting technology utilized to prevent unnecessary processing of barren material recovering 94% of Li₂O while rejecting 20% of mass
- Simple coarse dense medium separation (DMS) method for producing concentrate. Demonstrated process by CBL and Sigma.
- Coarse processing approach negates the need for a slurry tailings impoundment.
- Supported by recent pilot plant work by Steinert and SGS Geosol.
- 68.9% Overall plant recovery as supported by external qualified professional reviewers.

Rougher DMS Recovery -9,5 + 0,5 mm

