CORMARK SECURITIES INC.

RESEARCH REPORT

WEDNESDAY, DECEMBER 4, 2024

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Recommendation: **Buy (S)**
Target Price: **$3.50**

| | | | |
|---|---|---|---|
| Current Price | $0.85 | Shares Outstanding (MM) | |
| 52 Wk High | $1.78 | Basic | 158.6 |
| 52 Wk Low | $0.41 | Diluted | 185.5 |
| Cash (MM) | $28.1 | Mgmt and Dir | 31.7 |
| Debt (MM) | $0.0 | Mkt Cap. (MM) | $134.8 |
| NAV | $3.60 | EV (MM) | $106.7 |
| P/NAV | 0.24x | | |
| NAV (spot) | $1.12 | | |
| P/NAV (spot) | 0.76x | | |
| Total Return | 312% | | |

### Company Description:

Lithium Ionic is a Brazilian hard rock lithium developer with a 17,000 ha land package in Minas Gerais' prospective Lithium Valley. The flagship Bandeira project is located adjacent to the only two lithium producers in the region: Sigma Lithium's Xuxa open pit (Phase 1 operation) and CBL's Cachoeira underground mine. The project is in the final stages of environmental permitting following a July 2024 FS centred on the 1.4 MMt LCE contained (M&I+I resources) deposit. Resource and technical study updates are anticipated in the year ahead as the company continues to de-risk Bandeira towards near-term construction and targeted first production.

# Lithium Ionic Inc.

(LTH - TSXV)

## Next Up In The Lithium Valley: Bandeira

Unless otherwise denoted, all figures shown in C$

Lithium Ionic is developing its flagship Bandeira hard rock lithium project in Brazil's prolific Lithium Valley toward targeted near-term first production. Following on the operational success of Sigma Lithium's Grota do Cirilo Phase 1 operation and private company CBL's Cachoeira underground mine, the company has advanced Bandeira through a 2023 PEA to the July 2024 FS and is poised to become the next hard rock lithium producer in the mining-friendly Minas Gerais state. In addition to a robust FS based on a 17.2 MMt reserve grading 1.15% $Li_2O$ (November 2023 database cutoff), the project is in the final stages of assessment for a LAC environmental permit (expected YE24) and the company has signed a power infrastructure contract with country-wide electricity distributor Cemig and received local water use approval—***making it the most publicly advanced hard rock lithium developer in the region.***

- ***Anticipated YE24 / Early 2025 Resource Update Likely To Extend Bandeira Runway:*** An April 2024 resource update increased total project resources to 41.9 MMt M&I+I grading 1.35% $Li_2O$ (March 2024 cutoff), more than double the reserves defined to date and a likely source of additional material for future project expansion. Importantly, the resource does not include the additional infill and expansion drilling completed at the project since Q1/24.
- ***Salinas Project Represents A Potential Source Of Bandeira Funding:*** Since November 2023, the 14.8 MMt M&I+I resource grading 1.02% $Li_2O$ has received +35 km of additional drill testing toward the anticipated YE24/early 2025 resource update. The deposit likely represents an eastward extension of Latin Resources' Colina deposit, and could provide successive owners Pilbara (~US$369 MM takeout offer) with incremental resource tonnage and room for pit wall laybacks to capture more of the original resource.
- ***...But Recent EXIM LOI Could Provide Project Funding Optionality:*** The Letter of Interest from the US Export-Import Bank includes potential Bandeira funding for up to US$266 MM—the total FS-defined capex. Although the LOI is subject to due diligence and final application submission by Lithium Ionic, a portion of this total could provide the majority of project funding and likely incentivizes associated funding interest from US automotive companies and future downstream chemical producers.

***Cormark is initiating coverage on Lithium Ionic with a Buy (S) rating and a $3.50 target price*** based on a P/NAV multiple of 1.0x and a fully funded company NAV of $966 MM. Our valuation is centred around a future Bandeira operation based on the 2024 FS for a project NAV10% of $381 MM and IRR of 25%, using Cormark's long-term lithium price of US$1,625/t SC6 and first production modelled in late 2027. Consideration for Bandeira's future incremental reserve growth and the Salinas project to the north are calculated using in-situ values between $200-$300/t LCE, demonstrating additional upside to the advanced Lithium Valley project. At a P/NAV ratio of 0.24x, Lithium Ionic is the most competitive near-term developer alternative to recently operational single asset peers trading upward of 0.35x (i.e., Lithium Americas (Argentina), Sigma Lithium). Bandeira is on track to become one of the next producing mines in Brazil's Lithium Valley.

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# Investment Highlights

**Executive Summary**

Lithium Ionic Corp. is a hard rock lithium exploration and development company with projects in Brazil's Minas Gerais state, in the prospective 'Lithium Valley' proximal to producers Sigma Lithium and the private Companhia Brasileira de Lítio (CBL). The company is steadily advancing its flagship Bandeira project toward production, with a proposed underground operation based on the 41.9 MMt M&I+I deposit grading 1.35% $Li_2O$. To the north, Lithium Ionic's Salinas property is located adjacent to the east of Latin Resources' 70.9 MMt Colina deposit grading 1.25% $Li_2O$ – which was acquired by the world's 3rd largest hard rock lithium producer Australia's Pilbara Minerals in August 2024 for a 67% premium (~US$369 MM).

- Lithium Ionic's May 2024 FS demonstrated robust economics, with similar costs and a more streamlined production flowsheet to its October 2023 PEA. Neighbouring CBL's Cachoeira underground hard rock operation and Sigma Lithium's Xuxa mine and Phase 1 plant to the north have set successful examples for Bandeira's operation, providing robust cost comparisons and tested process flowsheets for the planned underground, DMS-only operation. The addition of Mike Westendorf as VP Technical Services earlier this year (previously Copper Mountain Mining Company) to an experienced team of geologists and engineers in Minas Gerais is anticipated to yield further mine and process optimization as the Bandeira project moves toward the detailed engineering phase.
- In November 2024, the company received a Letter of Interest (LOI) from the Export-Import Bank of the United States (EXIM) for debt financing of up to US$266 MM – the exact capex figure for the Bandeira project. While there is no guarantee the entire amount will be granted, the LOI represents a substantial source of future project funding and a vote of confidence for the viability of the project, likely incentivizing additional sources of funding from offtake, partnerships, and less-dilutive equity participation.
- The company's Itinga and Salinas properties represent some of the highest quality junior-held spodumene plays in Brazil following Pilbara's premium acquisition of Latin Resources. The potential sale of Salinas could represent an additional source of funding for Bandeira's US$266 MM capex, as Baixa Grande is likely an easterly extension of the Colina deposit and could provide additional tonnage and (importantly) layback room to capture more of the currently modelled tonnage at Latin's (now Pilbara's) large planned open pit operation.
- Significant upcoming catalysts include:

1. Approval of the LAC permit for Bandeira by year-end 2024, allowing construction to begin.
2. Resource updates from continued Salinas, Bandeira drilling in late Q4/24 to Q1/25.
3. Bandeira project operations update later in 2025.

Brazil's Lithium Valley is now the 5th largest contributor to the global lithium supply chain, spearheaded by Sigma Lithium's Phase 1 success (now ~240 ktpa SC production rate, note) at its flagship Grota do Cirilo project, with access to western, Japanese/Korean, and Chinese markets. Cormark's detailed report from January 25, 2024, outlined the developer opportunities in Brazil's Lithium Valley and flagged Lithium Ionic as the most advanced developer in the region, with an excellent technical team on the ground, extensive and prospective land package, and premium deposit locations.

Cormark is initiating coverage with a Buy (S) rating and a $3.50 target price based on a P/NAV multiple of 1.0x. Our estimated NAV of $966 MM is centred on a fully-funded underground mine plan scenario for the Bandeira deposit, largely based on FS results (0.5 MMt LCE produced, with visibility to +1.0 MMt LCE at next year's anticipated resource update) using Cormark's long-term price of US$1,625/t 6% $Li_2O$ spodumene concentrate equivalent (SC6). With additional upside in the drilled Salinas project to the north, and a large 17,000 ha land package in an emerging, highly prospective lithium district, Lithium Ionic is poised to become a significant contributor to the region's output – with a catalyst-rich year ahead.

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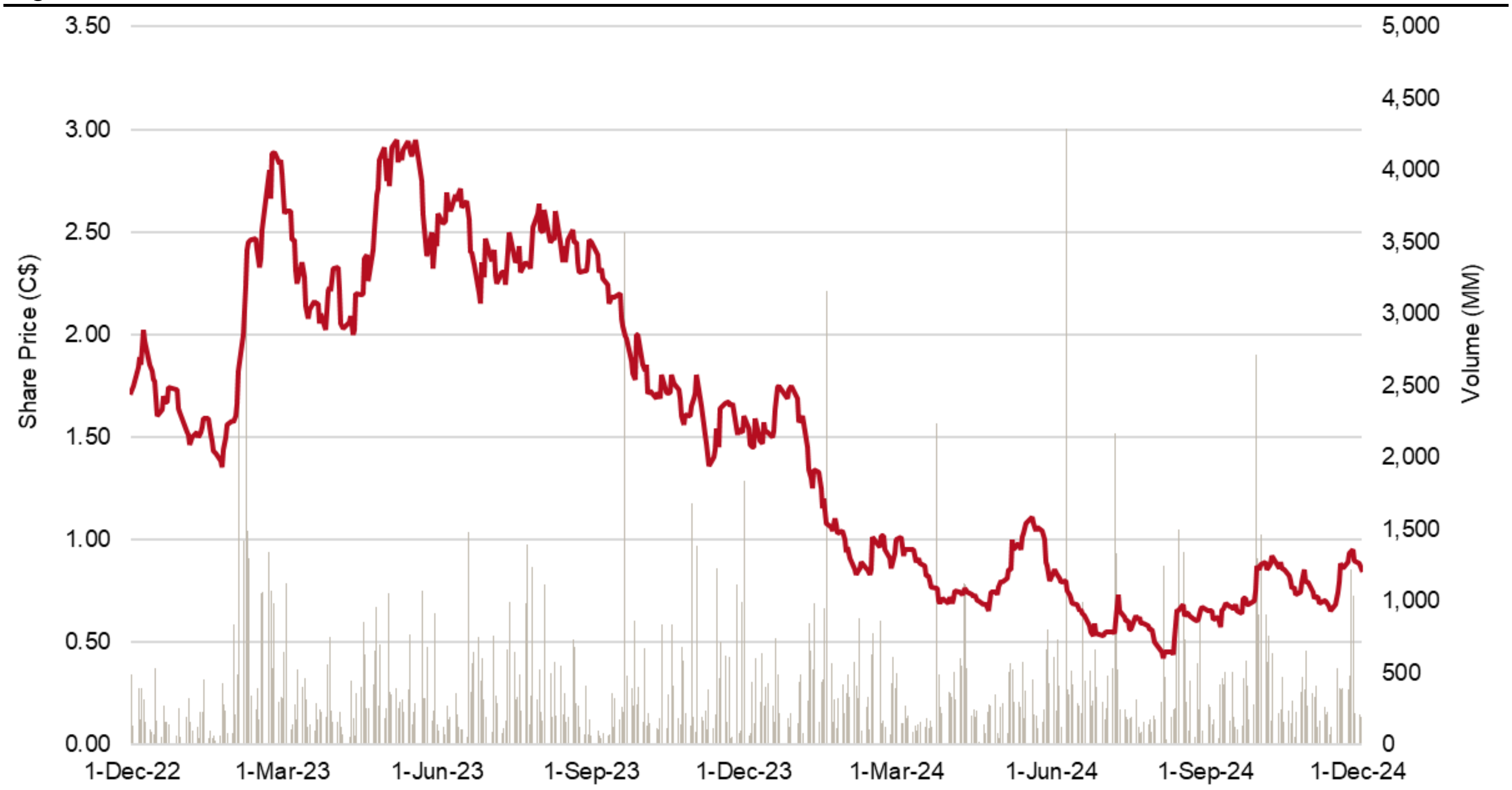
**Company Review**

Lithium Ionic is helmed by CEO and Director Blake Hylands, the co-founder and former Chairman of Troilus Gold, and President and Director Helio Diniz, previously Managing Director of Brazil Potash and Xstrata Brazil and founder of Belo Sun Mining, among others. Management and insiders own ~20% of the 159 MM outstanding LTH shares. The company is advancing its flagship Bandeira project toward targeted first production in late 2026 (Cormark models 2027 start up) – details below.

The company had a cash balance of $28 MM at Q3/24, following the close of a US$20 MM agreement with Appian Capital for a 2.25% GOR royalty on the Bandeira project in July 2024. The agreement included an option for Lithium Ionic to fully buy back the royalty within five years from the agreement's close for US$67 MM. Prior to this, Lithium Ionic raised $16 MM in an oversubscribed private placement in June 2024 with long-term strategic shareholders Fourth Sail Capital and PowerOne Capital, at $0.90/sh.

In November 2024, Lithium Ionic received a Letter of Interest (LOI) from the Export-Import Bank of the United States (EXIM) for debt financing of up to US$266 MM – the company's exact capex figure (after projected ECA equipment financing) for the Bandeira project. Details of EXIM's terms were not included, but the loan would have a maximum repayment period of 15 years and EXIM is mandated to be fully competitive with foreign export credit agency rates, terms, and other conditions (likely slightly above treasury rates). The LOI is subject to the completion of EXIM due diligence and the submission of a formal application by Lithium Ionic demonstrating Bandeira's impact on the US economy (e.g., equipment and manufacturing contracts, product sales/offtake to US companies, and/or downstream processing).

**Figure 1** **LTH-TSXV 2-Year Price Chart**




Source: S&P Cap IQ, Cormark Securities Inc.

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**FS Update Establishes Bandeira As One Of Brazil's Next Low-Cost Lithium Mines**

In May 2024, Lithium Ionic published a Feasibility Study (FS) for its flagship Bandeira project. The study defined an after-tax NPV8% of US$1.3 B and IRR of 40% on 14-year average pricing of US$2,277/t SC5.5 (or LOM-weighted average pricing of US$2,309/t, noting initial production sold [2026 start date] is calculated at much lower pricing of US$917/t in the FS, and ramps up to long-term pricing of US$2,750 by year 7 of production). Nameplate annual production from the underground mining operation is targeted at 178,000 t SC5.5 over the 14-year LOM. Total capital expenditure of US$266 MM (US$279 MM plus a proposed ECA cross-border loan with equipment provider Sandvik) includes a 15% contingency with an after-tax payback period of 3.4 years.

Recall, the October 2023 PEA defined an NPV8% was $1.5 B with a 121% IRR. The FS LOM decreased to 14 yrs from 20 years on a 25% reduction of material mined over LOM with the conversion of resources to reserves, and the company also removed sales of a 3% $Li_2O$ concentrate, which is likely not economic at today's market prices. Metallurgical recoveries increased slightly to 68.9% from 65.7% based on additional DMS pilot plant and ore sorting testwork. Capex increased only 14% from US$233 MM and remains extremely low compared to other DMS-only operations globally, while cash costs increased ~20% to US$557/t SC5.5 (US$444 opex + US$112.5 for transportation) which are comparable to Sigma Lithium's globally competitive operating costs at US$513/t CIF China in Q3/24 (note). We note that although Lithium Ionic used a long-term spodumene concentrate price of US$2,750/t, which is much higher than Cormark's LT price at US$1,625/t, a base case scenario envisioned at average LOM prices of US$1,822/t return a robust NPV8% of US$864 MM and an IRR of 32.5%.

Engineering, procurement, and construction management (EPCM) services were initiated at Bandeira in October 2024. Hatch, a global engineering firm with a Belo Horizonte office and Brazil expertise, has been selected to provide engineering and design services and Reta, a Brazilian construction management firm specializing in greenfield mining project construction, was contracted to begin construction following permit approval. Lithium Ionic is also in the process of selecting additional personnel to join its technical Management team on the ground and bolster project development expertise following the addition of Mike Westendorf as VP Technical Services in February 2024. Mr. Westendorf was instrumental in improving production and reducing costs at the 40 ktpd Copper Mountain mine in BC, Canada, as the Director of Operational Excellence prior to the namesake company's acquisition by HudBay Minerals in Q2/23.

Notably, the Bandeira FS is based on drill results at November 2023, totalling 186 drill holes for 41,831 m at Bandeira. Since then, Lithium Ionic published a Bandeira resource update totalling 41.9 MMt grading 1.35% $Li_2O$ (1.4 MMt LCE contained) in May 2024 (based on 233 drillholes for 50,760 m, resource cutoff March 2024), an increase of ~40% from the previous estimate. The company has continued infill and extension drilling throughout 2024, targeting 50,000 m to be split between Bandeira and Salinas this year. We anticipate a robust future resource update (Cormark estimates late 2024/early 2025) would likely result in a modest upsized reserve calculation based on additional, de-risked tonnage in a subsequent study update some time next year.

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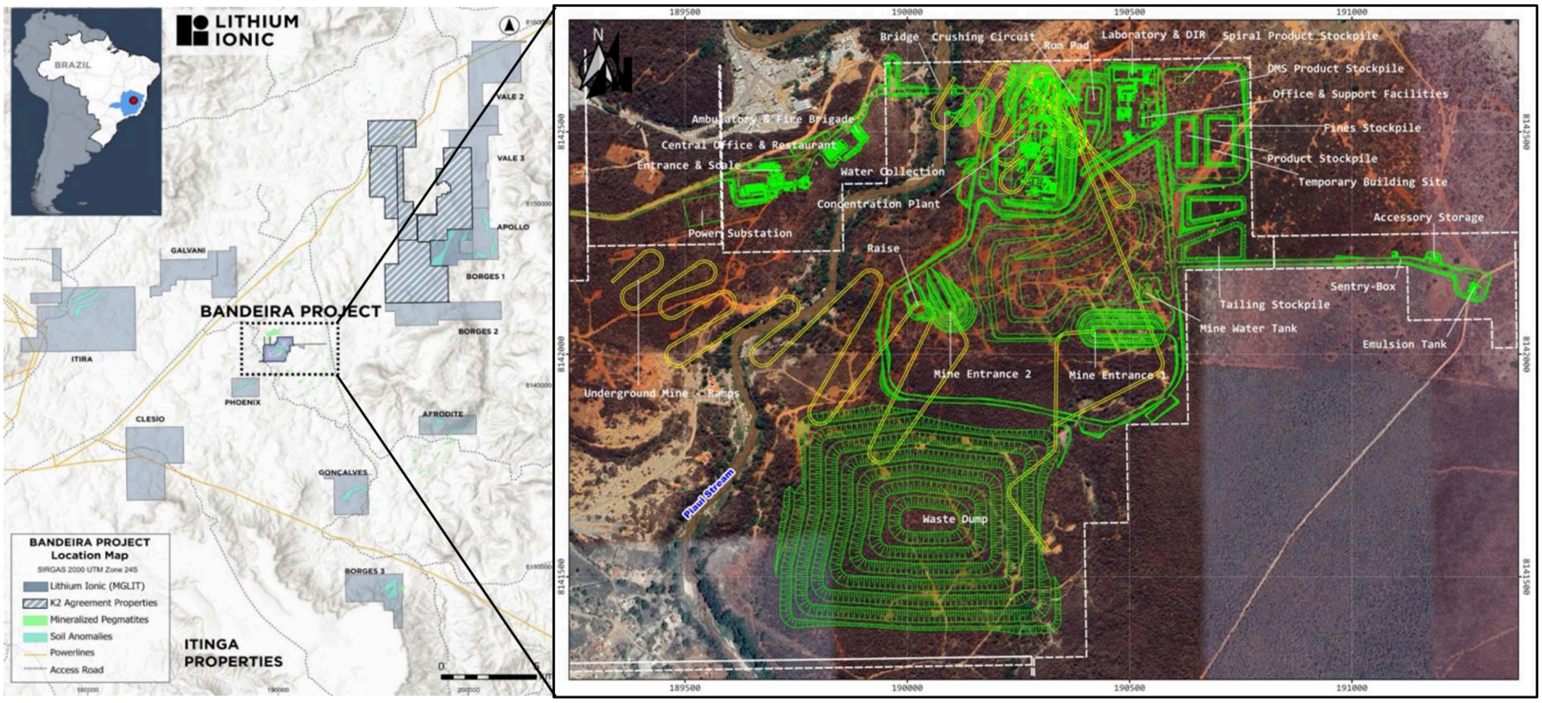
**Figure 2** **LTH Property Locations In Brazil's Lithium Valley, FS Mine Layout (inset)**




Source: Lithium Ionic Corp.

**Figure 3** **2024 FS Versus 2023 PEA Metrics – Costs Maintained Despite Inflation**

| Project | | Bandeira | |
|---|---|---|---|
| **Technical Report** | **2023 PEA** | **2024 FS** | **Δ** |
| Deposit M&I+I Resources (MMt) | 37.9 | **41.9** | *11%* |
| Grade (% Li2O) | 1.37% | **1.35%** | |
| LCE Contained (kt) | 1,280 | **1,401** | *9%* |
| LOM Ore Processed (MMt) | 22.9 | **17.2** | *-25%* |
| LOM Average Grade (% Li2O) | 1.23% | **1.15%** | *-6%* |
| Dilution (%) | 16.8% | **17.0%** | |
| Throughput (MMtpa) | 1.3 | **1.2** | |
| LCT Pegmatite Type | SRP | **SRP** | |
| Recovery (SC5.5) (%) | 66% | **69%** | *5%* |
| Iron Oxide Content (% Fe2O3) | 0.24% | **0.23%** | |
| Recovery (SC3) (%) | 11% | **---** | |
| LOM (years) | 20 | **14** | *-30%* |
| First Production (year) | 2025 | **2026** | |
| Production SC5.5 (ktpa) | 187 | **178** | *-5%* |
| Production SC3 (ktpa) | 56 | **---** | |
| Mining Method | | Underground | |
| Process Flowsheet | | Ore sorting + DMS | |
| Total Cash Cost (US$/t SC) | $469 | **$557** | *19%* |
| Capital Costs (US$ MM)* | $233 | **$266** | *14%* |
| Contingency (%) | 25% | **15%** | *-40%* |
| Sustaining Costs (US$ MM) | $118 | **$81** | *-31%* |
| SC5.5 Price (US$/t) | $1,859 | **$2,309** | *24%* |
| SC3 Price (US$/t) | $865 | **---** | |
| Post-tax NPV (US$ MM) | $1,586 | **$1,309** | *-17%* |
| Discount Rate (%) | 8% | **8%** | |
| Post-tax IRR (%) | 121% | **40%** | *-67%* |

*Total capital cost is US$279 MM – US$13 MM ECA financing for Sandvik equipment
Source: Company Reports, Cormark Securities Inc.

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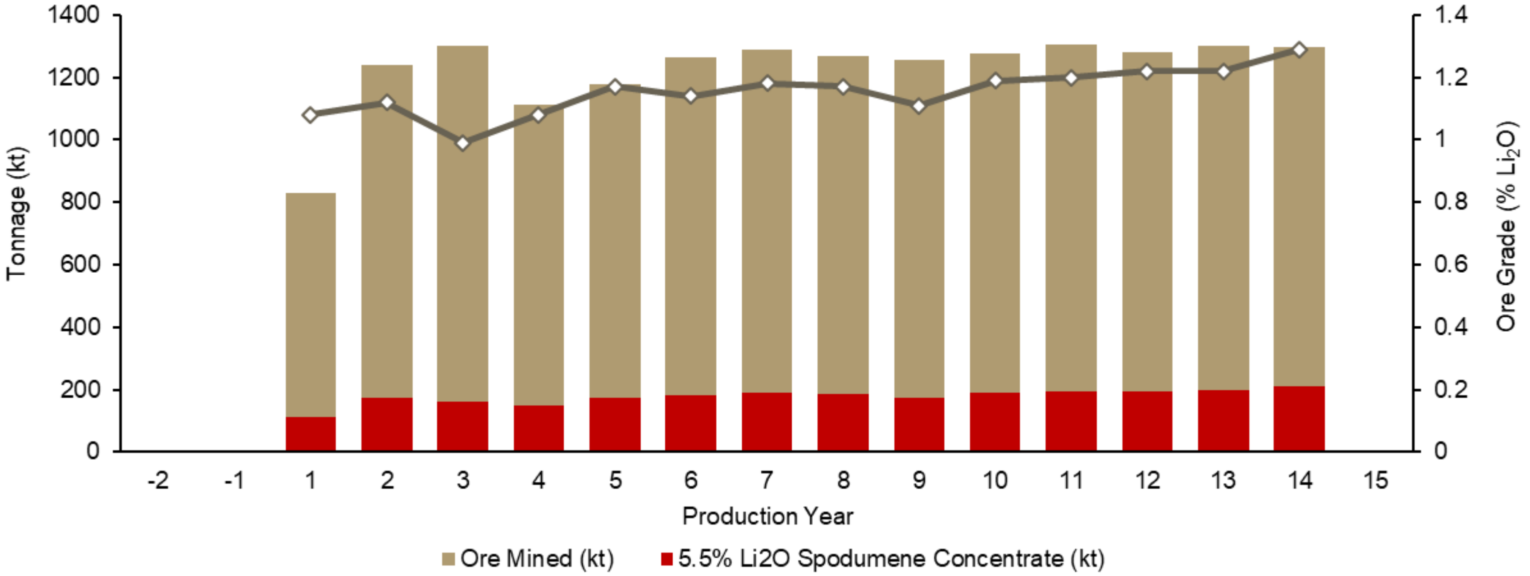
**Figure 4** **Bandeira Proposed FS Production Schedule**




Source: Company Reports, Cormark Securities Inc.

**Figure 5** **LTH Global Resources And Bandeira Reserves**

| Category | Tonnage (t) | Grade (%Li2O) | Contained (t LCE) |
|---|---|---|---|
| **Bandeira Underground (0.5%Li2O COG, as at Nov 2023)** | | | |
| Proven | 2,300,000 | 1.17% | 66,380 |
| Probable | 14,900,000 | 1.15% | 422,660 |
| **Total P&P** | **17,200,000** | **1.15%** | **489,040** |
| **Bandeira Underground (0.5%Li2O COG, as at Mar 2024)** | | | |
| **Measured + Indicated** | **23,680,000** | **1.34%** | **783,000** |
| Inferred | 18,250,000 | 1.37% | 618,400 |
| Total M&I+I | 41,930,000 | 1.35% | 1,401,400 |
| **Outro Lado (Galvani) Underground (0.8%Li2O COG, as at Jun 2023)** | | | |
| **Measured + Indicated** | **2,971,285** | **1.46%** | **107,599** |
| Inferred | 415,767 | 1.48% | 15,168 |
| Total M&I+I | 3,387,052 | 1.46% | 122,767 |
| **Salinas (Baixa Grande) OP & UG (0.5%Li2O COG, as at Nov 2023)** | | | |
| **Measured + Indicated** | **5,860,000** | **1.09%** | **158,678** |
| Inferred | 8,900,000 | 0.97% | 214,572 |
| Total M&I+I | 14,760,000 | 1.02% | 373,250 |
| **TOTAL Global Resources** | | | |
| **Measured + Indicated** | **32,511,285** | **1.31%** | **1,049,277** |
| Inferred | 27,565,767 | 1.24% | 848,140 |
| Total M&I+I | 60,077,052 | 1.28% | 1,897,417 |

Source: Lithium Ionic Corp.

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**Bandeira Project Advancement A Standout In The Lithium Valley**

With FS work further underpinning project costs and ongoing engineering continuing to derisk Bandeira's operating parameters, Lithium Ionic has established itself as the most advanced lithium developer in Brazil and potentially the next producer in the region to follow Sigma Lithium. We note that although developer peer Atlas Lithium received its Mining Concession and Operating License (LO) from the state in October, the company has not yet tabled a defined resource or technical study detailing its plan of operations at Das Neves. Atlas Lithium is looking to begin production in 2025 following site construction and the receipt, assembly, and commissioning of its modular DMS plant (currently partially loaded in South Africa).

Following multiple resource estimates and subsequent technical studies, Lithium Ionic is now awaiting final approval of the Concomitant Environmental and Installation License (LAC) which will allow the company to begin construction at Bandeira. Site visits by state and federal representatives have been completed and the review process is underway, with approval anticipated by the company prior to YE24. Once constructed, a final as-built inspection will be required prior to granting the final Mining Concession and Operating License (LO), allowing commercial production to begin. This process compares to the conventional LP + LI approvals, which are covered by the LAC (small footprint disturbance permit). Also recall, the company signed a non-binding MoU in July 2023 with the State Economic Department of Minas Gerais and the Integrated Development Institute, collectively known as 'Invest Minas', which granted the Itinga and Salinas projects priority status to streamline the regulatory approval process for critical minerals projects. It should be noted that Atlas Lithium's permitting agreement is directly with the state regulatory bodies and is distinct from Lithium Ionic's MoU with Invest Minas (report).

Additionally in October 2023, Lithium Ionic announced it had signed a contract with Cemig Distribuição S.A. (Cemig), the largest electricity distributor in the country, to facilitate the construction and electrification of power infrastructure between the existing grid and Bandeira (~3 km). Total project costs are expected to be ~$4.6 MM, with construction anticipated to be completed by Q4/25. The company plans to construct the connection and substation infrastructure, with the two companies to jointly manage environmental permitting. Lithium Ionic will also be eligible for an ~18% rebate on capital expenditures. The company has also received local water use approval for the project by the Minas Gerais Institute of Water Management (IGAM), authorizing a flow rate of 101.3 $m^3$/hour – the projected consumption requirement of a future mining operation and processing plant at Bandeira.

Lithium Ionic's Bandeira project continues to advance steadily toward future operation. With resource estimation, technical studies, power and water use agreements largely complete, we look to approval of the project LAC permit to allow the company to begin breaking ground – and subsequent project financing to cover the FS-defined US$266 MM capital cost to build. The recent EXIM Letter of Interest (LOI) will likely serve as a catalyst for project financing once the company's application is submitted and reviewed in 2025. Although the LOI for debt financing may cover up to the entire cost of FS-defined capex, a more likely scenario includes a commitment to partial funding from EXIM on the back of interest from US OEMs or downstream partnerships (potential offtake) and a subsequent equity raise to cover the remainder of required funds.

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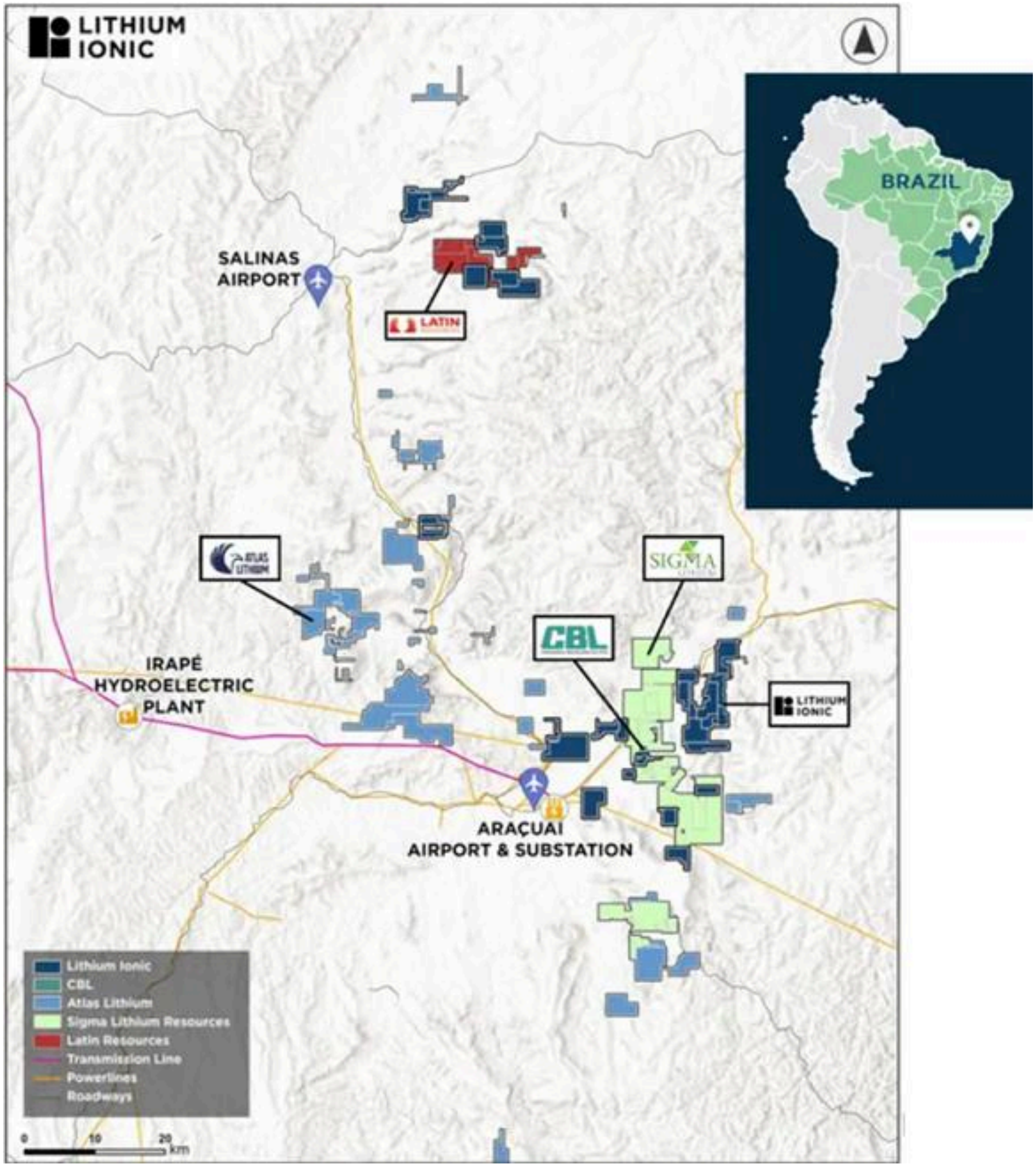
**Figure 6** **Regional Map Highlighting Location Of LTH's Lithium Valley Properties**




Source: Lithium Ionic Corp.

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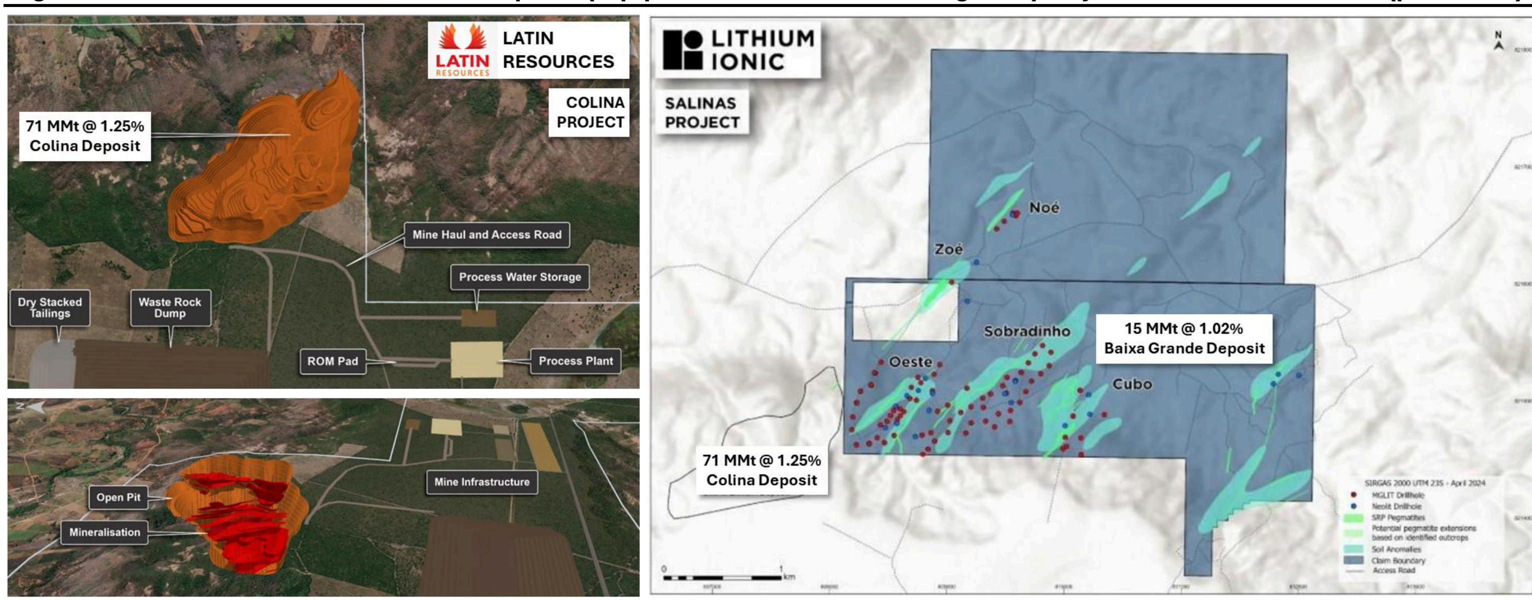
**Salinas Project A Potential Supplement To Pilbara Acquisition And Additional Source Of Funding**

Recall in November 2023, Cormark toured the top 3 hard rock lithium development projects in Brazil's Lithium Valley. At the time, Australian developer Latin Resources and Lithium Ionic had both published PEAs and were the standout projects in the region for their relatively advanced project stage, high-quality mineralization (spodumene-rich, with relatively large crystal sizes, report), and experienced local technical teams. In August 2024, Australian major hard rock lithium producer Pilbara Minerals tabled an offer to acquire Latin Resources offer of ~US$369 MM, a 67% premium to the prior LRS-ASX closing price – representing the +800 ktpa spodumene concentrate operator's first foray outside of Australia and another vote of confidence for the historic, mining-friendly jurisdiction of Minas Gerais following Sigma Lithium's success in the region. We note that outside of ASX-listed synergies, Latin Resources represents a standard, deep, large open-pit resource – in line with Pilbara's expertise. At the time of acquisition, Latin had defined 71 MMt @ 1.25% $Li_2O$ M&I+I resources (2.2 MMt LCE contained) at the Colina deposit with a projected nameplate output of 405 ktpa SC5.5 in Phase 1 of its PEA, making it the largest single hard rock deposit in Brazil and potentially the second largest operation after Sigma Lithium (projected to reach +500 ktpa output in 2026, note).

Although regional upside exists along Latin Resources' southwest-northeast Salinas trend, the most immediate potential for additional tonnage likely comes from Lithium Ionic's Baixa Grande deposit located adjacent to Colina's northeast border. An initial 14.8 MMt @ 1.02% $Li_2O$ resource (0.37 MMt LCE contained) was defined in April 2024 by Lithium Ionic with ~27,030 m of drilling (completed November 2023) on the stacked, southeast-dipping pegmatite intrusions. The company's 2024 planned 30,000 m drill program at Baixa Grande is mainly targeting resource growth, with a resource update expected prior to YE24. Not only does Baixa Grande represent additional defined tonnage to Colina, the potential acquisition of Lithium Ionic's land package by Latin Resources would likely allow the Australian-listed company to capture more of the Colina deposit's stacked, east-dipping pegmatite intrusions in expanded pit wall laybacks to the east – noting open pit production modelled in the PEA captured only 44% (31 MMt @1.24% $Li_2O$) of the total Colina deposit.

**Figure 7** **Colina Deposit (top plan view, bottom looking east) Adjacent To Baixa Grande (plan view)**




Source: Cormark Securities Inc. after Latin Resources Ltd. and Lithium Ionic Corp.

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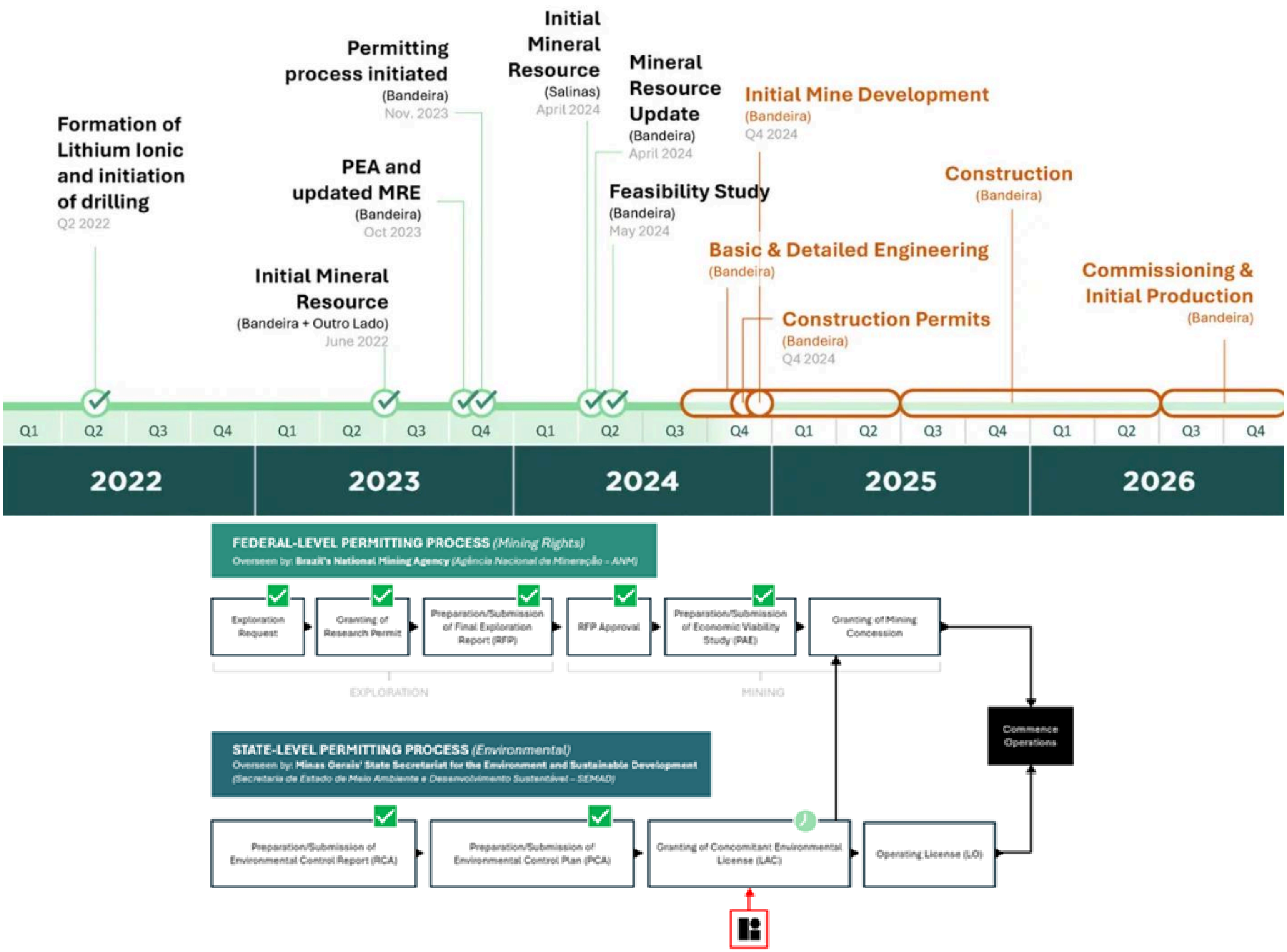
**Upcoming Catalysts**

Since the start of drilling at the Itinga properties in April 2022, Lithium Ionic has completed over 81,000 m of diamond drilling and another +35,000 m at the Salinas property to the north. Upcoming catalysts include:

- Approval of the LAC permit for Bandeira, ***estimated prior to YE24***, which would allow earthworks and subsequent construction to begin.
- Targeted publication of ***updated resource estimates for Baixa Grande (Salinas) and Bandeira (Itinga) in Q4/24 or early Q1/25.***
- ***Anticipated announcement of updated Bandeira project engineering parameters in 2025*** following resource updates, likely focused on processing flowsheet parameters, mining and processing costs.
- Following the above resource and technical study updates, we expect announcements regarding Bandeira capex financing (including but not limited to EXIM debt financing, offtake, and/or equity raise).
- It is likely that a PEA study for the Salinas project will be delayed allowing the company to focus on Bandeira project advancement through Q4/24 and 2025.

**Figure 8** **LTH Proposed Timeline To Bandeira First Production (top) And Permit Approvals (bottom)**




Source: Lithium Ionic Corp.

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# Valuation

**NAV Envisions Single Underground Operation With Regional Upside**

Cormark's financial model is centred around the Bandeira underground mine, based largely on the operational parameters outlined in Lithium Ionic's 2024 FS and calculated using our long-term price estimate of US$1,625/t SC6. Consideration for additional minable material is given for a portion of the remaining Bandeira resource at an in-situ value of US$300/t, which we anticipate should contribute to an extended LOM following an anticipated resource and subsequent technical study update. The assumptions below are based on comparable operations and/or feasibility study results for producers and developers in Brazil, along with Management guidance.

- A minable inventory of 0.49 MMt LCE contained is based on a 17.2 MMt reserve grading 1.15% $Li_2O$ calculated with a November 2023 cutoff date. We note that the Bandeira deposit contains 1.40 MMt LCE (41.9 MMt grading 1.35% $Li_2O$) from a resource update with a March 2024 cutoff date, thus only ~35% of contained material is included in the reserve calculation. Initial production is set to begin in late 2027 with nameplate throughput of 1.23 MMtpa to be reached in 2029.
- An average dilution factor of 17% is calculated for the ROM. While initial room and pillar mining of the relatively flat-lying southeastern pegmatite from years 1 to 4 (0.97 MMt @ 1.05% $Li_2O$) will have a lower dilution factor of 9% planned and 10% operational, subsequent sublevel stoping from years 2 to 14 (14.3 MMt @ 1.19% $Li_2O$) should have just 14% planned dilution. These figures do not include ore from development (1.96 MMt @ 0.97% $Li_2O$).
- Recoveries to a 5.5% $Li_2O$ spodumene concentrate were found to be 68.9% from pilot scale metallurgical testwork. The flowsheet defined in the FS involves crushing, 2 stage screening, ore sorting, and a 2 stage DMS plant (rougher and scavenger). Such recoveries from a 'DMS-only' style flowsheet are theoretically possible from ore with 14% spodumene by weight and just 1% petalite for lithium bearing minerals, relatively coarse 3 cm to +30 cm spodumene mineralogy, <1% iron content in concentrate, and dominantly mica schist host rock. However, it is likely that ramp up to these recoveries will take 1-2 years, as the plant is optimized and adjusted. Cormark models average LOM recoveries at 65%.
- Capital expenditures in the FS are estimated at US$279 MM plus estimated export credit agency loan via mining equipment supplier Sandvik of US$13 MM for US$266 MM total. These costs include a 15% contingency, which we believe should be sufficient given Sigma Lithium's very low capex costs to build its Xuxa mine and Phase 1 plant (US$112.8 MM). This estimate includes earthworks and initial box cut for the underground portal. Sustaining costs for the LOM are estimated at US$84 MM and closure costs at US$2.8 MM are included following the final year of mining. Capital expenditure is estimated to begin in 2025 through our projected late 2027 project start up.
- Operating costs defined in the FS are pegged at US$444/t SC5.5 or US$557/t SC5.5 CIF China, the latter including US$112.6/t in transportation costs. The company estimates mining costs of US$36/t milled, processing costs at US$25/t milled, G&A of US$3/t milled to calculate opex. Cormark includes a 5-7% contingency for price inflation for LOM average cash costs of US$610/t SC5.5. The 2.25% GOR royalty die to Appian and the 2% sales revenue royalty due to the Brazilian government (CFEM) are included with sustaining costs in the all in costs of US$697/t.
- We note that the company's current $28 MM cash balance will likely be sufficient to cover preliminary earthworks, the planned Piauí River bridge, and the ~$4.6 MM of power infrastructure agreed with Cemig to connect Bandeira to the grid.

Using these assumptions, our long-term spodumene concentrate price of US$1,625/t from 2027 onward, CAD/US exchange rate of 1.35, and BRL/US exchange rate of 5.07, this mining scenario would translate into an after tax NAV10% of $381 MM and an IRR of 25% for the Bandeira project.

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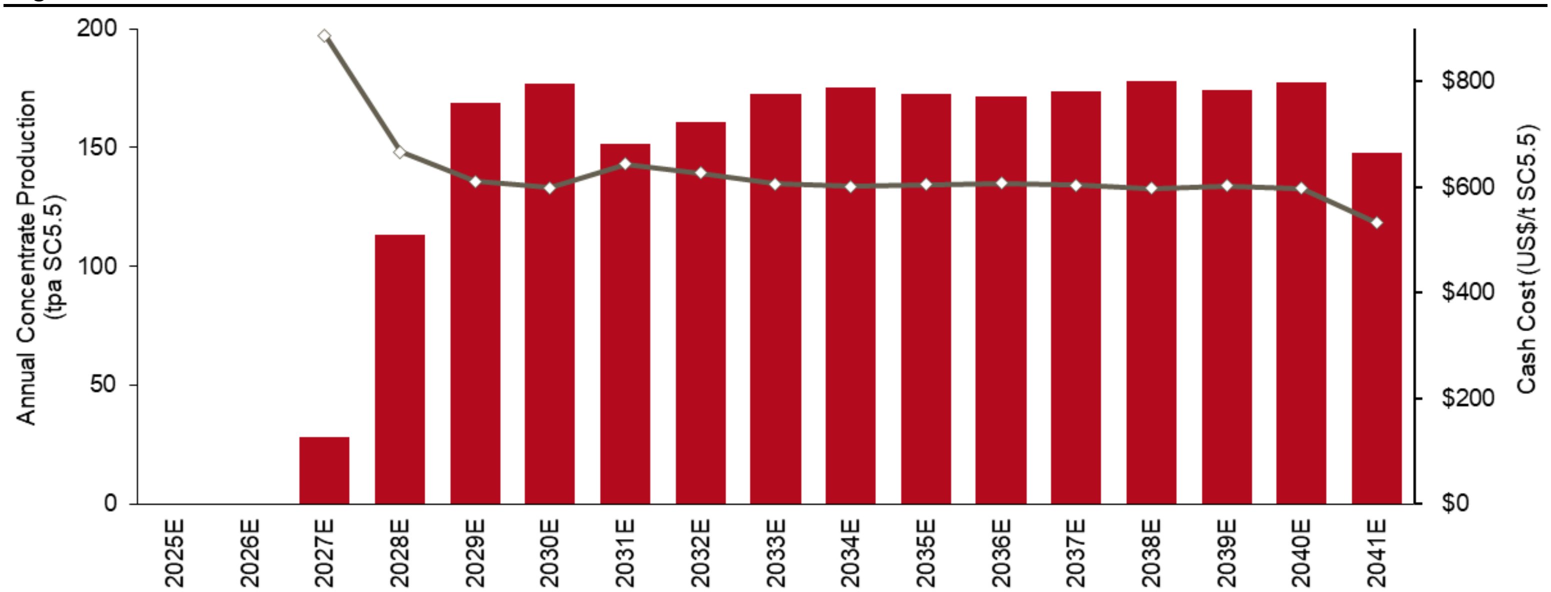
**Figure 9** **Bandeira FS-Based Mining Scenario**

**Bandeira UG Mine (100%)**

| | | | | | |
|---|---|---|---|---|---|
| Ore tonnes mined | *MMt* | 17 | Open pit mining cost | *C$/t milled* | $48.79 |
| Dilution (avg LOM) | | 17% | Processing cost | *C$/t milled* | $33.25 |
| Average grade | *% Li2O* | 1.15% | Transportation cost | *C$/t milled* | $151.96 |
| LCE contained | *MMt LCE* | 0.49 | G&A cost | *C$/t milled* | $4.05 |
| | | | Operating costs | *C$/t milled* | $238.05 |
| Average processing rate | *tpd* | 3,576 | | | |
| Annual tonnes processed (peak) | *Mmtpa* | 1.31 | Average cash cost | *US$/t SC5.5* | $610 |
| | | | Average AISC | *US$/t SC5.5* | $697 |
| Average head grade | *% Li2O* | 1.15% | | | |
| Average recovery | *%* | 65% | Initial capital cost | *C$ MM* | $377 |
| | | | LOM sustaining capital | *C$ MM* | $114 |
| Average SC5.5% production (peak) | *ktpa* | 178 | | | |
| Average LCE production (peak) | *ktpa* | 24 | Long-term SC price | *US$/t* | $1,625 |
| Life of Mine | *years* | 15 | Discount rate | *%* | 10% |
| **Total SC5.5% produced** | ***MMt*** | **2.3** | **Post-tax NPV** | ***C$ MM*** | **$381** |
| **Total LCE produced** | ***MMt LCE*** | **0.32** | **Post-tax IRR** | ***%*** | **25%** |

Source: Cormark Securities Inc.

**Figure 10** **Bandeira FS-Based Production & Cost Profile**




Source: Cormark Securities Inc.

**Initiating Lithium Ionic Coverage With A $3.50 Target Price**

Our $3.50 target price is based on a 1.0x P/NAV multiple and represents an upside of 312% from the current share price. Our modelled company NAV of $966 MM is predicated on the following:

- A NAV10% of $381 MM and an IRR of 25% for the Bandeira project based largely on the FS-defined underground mine plan to produce 17.2 MMt grading 1.15% $Li_2O$ from the Bandeira deposit.
- Consideration for additional minable material at Bandeira is given for 75% of the remaining Bandeira resource (excluding reserves) at an in-situ value of US$300/t. Cormark anticipates a near-term resource update and a subsequent technical study optimization to contribute to an extended LOM – likely not encompassing the entirety of the Bandeira resource, but the remainder can be considered (unvalued) upside.

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- Cormark has modelled funding for this US$266 MM ($377 MM) initial project cost with 25% equity (at today's share price, rounded to $0.90), a $50 MM offtake for 33% of LOM production, and the remaining $172 MM as debt from EXIM. To maintain our 2027 initial production timeline, we estimate the funds are raised in 2025.
- Lithium Ionic's $28 MM cash balance is likely to be sufficient to cover preliminary earthworks and regional infrastructure (bridge, electrification) beginning in 2025.
- Consideration for the Salinas project was also included at an in-situ value of US$200/t plus an additional 30% for a projected deposit size increase in the anticipated near-term resource update – a similar valuation to Pilbara's recent acquisition of Latin Resources, based on total contained resources. The potential future sale of Salinas could cover a portion of Bandeira project capex. However, should depressed market conditions persist through 2025, consolidation of the Salinas region may be delayed, especially considering Colina's development timeline (previously a 2026 start-up) has likely been further delayed by the acquisition.
- Cormark's estimated company NAV is based on a pro-forma share count of 268 MM. This includes the 159 MM shares outstanding, an additional 5 MM ITM shares from options and warrants, and the 104 MM shares hypothetically issued to fund Bandeira project construction.

**Figure 11** **LTH NAV Summary**

| Asset | | Ownership | Total Resource | In-Situ Value | Discount | NAV (Att.) | IRR |
|---|---|---|---|---|---|---|---|
| Bandeira FS | C$MM | 100% | 0.489 MMt LCE | | 10% | $381 | 25% |
| *Bandeira Deposit* | *C$MM* | *100%* | *0.912 MMt LCE* | *US$300/t LCE in-situ* | | *$277* | |
| *Salinas Project* | *C$MM* | *100%* | *0.373 MMt LCE* | *US$200/t LCE in-situ* | | *$131* | |
| **Total Mining Assets** | **C$MM** | | | | | **$789** | |
| Cash & Equivalents | C$MM | *at* | *September 30, 2024* | | | $28.1 | |
| *Future Offtake Funding* | *C$MM* | | | | | *$50.0* | |
| Debt | C$MM | | | | | $0.0 | |
| ITM FD Proceeds | C$MM | | | | | $4.4 | |
| *Future Equity Proceeds* | *C$MM* | *avg. price* | *C$0.90* | | | *$94.0* | |
| **Total NAV** | **C$MM** | | | | | **$966** | |
| Shares O/S | MM | *at* | *November 20, 2024* | | | 158.6 | |
| *Pro-forma FD ITM Shares* | *MM* | | | | | *268.3* | |
| Current Share Price | C$/sh | | | | | $0.85 | |
| **Total NAVPS** | **C$/sh** | | | | | **$3.60** | |
| **Price to NAV Multiple** | | | | | | **0.24x** | |
| Spot NAVPS | C$/sh | | | | | $1.12 | |
| Price to Spot NAV Multiple | | | | | | 0.76x | |
| **Cormark Target** | **C$/sh** | | | **Target Multiple 1.00x** | | **$3.50** | |

Note: Bandeira project NAV estimated at Cormark's long term price estimate of US$1,625/t 6.0% $Li_2O$ spodumene concentrate.
Source: Cormark Securities Inc.

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**Valuation Sensitivities**

Cormark's LTH valuation is very sensitive to fluctuations in pricing, while more moderately sensitive to changes in the discount rate. We can see that as pricing recovers from US$1,000/t SC6 (current spot US$780/t) to Cormark's long-term pricing (US$1,625/t SC6), so too does our valuation (at the 10% discount) from $1.85 to $3.60 per share. Our NAVPS is also sensitive to the price at which future potential equity is raised to partially fund the construction of Bandeira. Because we model equity covering 25% of targeted capex to be raised following FID in 2025, our issue price is estimated around current pricing ($0.90). However, an increase in the issue price to $1.10/sh – perhaps due to improved market sentiment and/or announcement of additional, non-dilutive funding (i.e., debt, offtake) – could increase our NAVPS to $3.87.

While the modelled Bandeira project NAV is clearly sensitive to tonnage, grade, and metallurgical recoveries, we believe the latter could be most variable. With increased recoveries, the project NAV increases from $381 MM at 65% to $468 MM at 70% recoveries. Similarly, a decrease in recoveries to 60% pushes the project NAV to $295 MM. Optimization of the processing plant will be a key component to value realization at Lithium Ionic's flagship Bandeira project. Increased tonnage with resource growth and conversion to reserves should also boost the NAV, with an increase to 27 MMt reserves at the same grades (1.15% $Li_2O$) moving the modelled project NAV to $509 MM.

**Figure 12** **LTH Price Target Sensitivity To Spodumene Concentrate Price And Discount Rate**

| Discount Rate (%) | Long-Term Spodumene Concentrate Price (US$/t) $1,000 | $1,200 | $1,400 | $1,625 | $1,800 | $2,000 | $2,200 |
|---|---|---|---|---|---|---|---|
| 13% | C$1.72 | C$2.16 | C$2.61 | C$3.11 | C$3.50 | C$3.94 | C$4.39 |
| 12% | C$1.76 | C$2.23 | C$2.71 | C$3.25 | C$3.67 | C$4.15 | C$4.63 |
| 11% | C$1.80 | C$2.31 | C$2.83 | C$3.42 | C$3.87 | C$4.39 | C$4.91 |
| 10% | C$1.85 | C$2.41 | C$2.97 | **C$3.60** | C$4.09 | C$4.65 | C$5.22 |
| 9% | C$1.90 | C$2.51 | C$3.12 | C$3.81 | C$4.34 | C$4.95 | C$5.56 |
| 8% | C$1.97 | C$2.63 | C$3.29 | C$4.04 | C$4.62 | C$5.28 | C$5.94 |
| 7% | C$2.04 | C$2.76 | C$3.49 | C$4.30 | C$4.93 | C$5.65 | C$6.38 |

Source: Cormark Securities Inc.

**Figure 13** **LTH Price Target Sensitivity to Equity Financing Component Of CAPEX And Issue Price**

| Equity Component (%) | Equity Issue Price ($/sh) $0.6 | $0.7 | $0.8 | $0.9 | $1.0 | $1.1 | $1.2 |
|---|---|---|---|---|---|---|---|
| 65% | C$1.95 | C$2.17 | C$2.38 | C$2.56 | C$2.73 | C$2.89 | C$3.03 |
| 55% | C$2.12 | C$2.35 | C$2.55 | C$2.74 | C$2.91 | C$3.06 | C$3.21 |
| 45% | C$2.33 | C$2.56 | C$2.77 | C$2.95 | C$3.12 | C$3.27 | C$3.41 |
| 35% | C$2.62 | C$2.85 | C$3.05 | C$3.23 | C$3.39 | C$3.54 | C$3.67 |
| 25% | C$3.01 | C$3.24 | C$3.43 | **C$3.60** | C$3.75 | C$3.87 | C$3.99 |
| 15% | C$3.59 | C$3.79 | C$3.95 | C$4.09 | C$4.21 | C$4.31 | C$4.39 |
| 5% | C$4.56 | C$4.66 | C$4.75 | C$4.82 | C$4.87 | C$4.92 | C$4.96 |

Source: Cormark Securities Inc.

**Figure 14** **Bandeira NAV Sensitivity to Grade And Recovery**

| Recovery (%) | Mineral Inventory Grade (% $Li_2O$) 0.85% | 0.95% | 1.05% | 1.15% | 1.25% | 1.35% | 1.45% |
|---|---|---|---|---|---|---|---|
| 80% | C$281 | C$401 | C$521 | C$641 | C$761 | C$881 | C$1,002 |
| 75% | C$217 | C$329 | C$442 | C$554 | C$667 | C$780 | C$892 |
| 70% | C$152 | C$258 | C$363 | C$468 | C$573 | C$678 | C$783 |
| 65% | C$88 | C$186 | C$284 | **C$381** | C$479 | C$577 | C$674 |
| 60% | C$24 | C$115 | C$205 | C$295 | C$385 | C$475 | C$565 |
| 55% | -C$39 | C$43 | C$126 | C$208 | C$291 | C$373 | C$456 |
| 50% | -C$103 | -C$28 | C$47 | C$122 | C$197 | C$272 | C$347 |

Source: Cormark Securities Inc.

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## Figure 15 — Bandeira NAV Sensitivity to Grade and Tonnage

| Tonnage (MMt LCE) | Mineral Inventory Grade (% $Li_2O$) 0.85% | 0.95% | 1.05% | 1.15% | 1.25% | 1.35% | 1.45% |
|---|---|---|---|---|---|---|---|
| **42** | C$204 | C$331 | C$457 | C$584 | C$711 | C$838 | C$964 |
| **37** | C$195 | C$319 | C$443 | C$568 | C$692 | C$816 | C$941 |
| **32** | C$181 | C$302 | C$423 | C$544 | C$665 | C$786 | C$907 |
| **27** | C$161 | C$277 | C$393 | C$509 | C$625 | C$741 | C$856 |
| **22** | C$132 | C$241 | C$349 | C$458 | C$566 | C$675 | C$783 |
| **17** | C$88 | C$186 | C$284 | **C$381** | C$479 | C$577 | C$674 |
| **12** | C$22 | C$104 | C$186 | C$268 | C$349 | C$431 | C$513 |

Source: Cormark Securities Inc.

Lithium Ionic's conceptual EV/t LCE of US$40/t LCE positions it at the lowest end of its hard rock developer peer group range. We note that globally, most hard rock developers trade between US$50/t LCE and US$150/t LCE, whereas (more established) hard-rock single asset producers trade well north of this, such as Brazil's Sigma Lithium at $422/t LCE and Australia's Liontown Resources at $232/t LCE. The very large attributable contained lithium resources owned by diversified mining/chemical companies Arcadium and Ganfeng result in comparably lower EV/t valuations at $156/t LCE and $309/t LCE, respectively.

## Figure 16 — Brazil & Select Low-Cost Hard Rock Lithium Producer / Developer Characteristics

| | | **Lithium Ionic** *LTH* | **Sigma Lithium** *SGML* | | **Latin Resources** *LRS* | **Atlas Lithium** *ATLX* | **Arcadium Lithium** *ALTM* | **Ganfeng Lithium** *002460* | **Liontown Resources** *LTR* |
|---|---|---|---|---|---|---|---|---|---|
| Project | | Bandeira | Xuxa | Grota do Cirilo | Colina | Neves | Whabouchi | Goulamina | Kathleen Valley |
| Stage | | Development | Production | | Feasibility | Resource Definition | Construction | Construction | Production |
| District M&I+I Res. | MMt | 60.1 | 21.2 | 108.9 | 77.7 | --- | 54.3 | 211 | 156 |
| ***Grade*** | ***% Li2O*** | *1.28%* | *1.56%* | *1.40%* | *1.24%* | --- | *1.40%* | *1.37%* | *1.40%* |
| ***LCE Contained*** | ***kt*** | *1,897* | *816* | *3,760* | *2,383* | --- | *1,877* | *7,149* | *5,401* |
| LOM Ore Processed | MMt | 17.2 | 11.8 | 54.7 | 31.4 | --- | 38.2 | 82.0 | 82.7 |
| LOM Average Grade | % Li2O | 1.15% | 1.55% | 1.44% | 1.24% | --- | 1.31% | 1.43% | 1.30% |
| Strip Ratio | | --- | 16.4:1 | 14.7 | 17.6:1 | --- | 2.7 | 3.3 | 6.8 |
| Dilution | % | 17.0% | --- | --- | --- | --- | 10% | --- | --- |
| Throughput | MMtpa | 1.2 | 1.5 | 4.2 | 3.6 | --- | 1.0 | 4.0 | 4.0 |
| ***Recovery (SC5.5)*** | ***%*** | *69%* | *60%* | *57%* | *67.2%* | *70%* | *82.0%* | *80.0%* | *78.0%* |
| Iron Oxide Content | % Fe2O3 | 0.23% | --- | 0.34% | 0.40% | 0.53% | 2.11% | 0.60% | 0.80% |
| Recovery (SC3) | % | --- | --- | --- | 11.1% | --- | --- | --- | --- |
| LOM | years | 14 | 8 | 13 | 11 | --- | 33 | 22 | 23 |
| First Production | year | 2026 | 2023 | --- | 2026 | 2025 | 2027 | 2024 | 2024 |
| Production SC5.5 | ktpa | 178 | 270 | 766 | 405 | 150 | 235 | 726 | 608 |
| Production SC3 | ktpa | --- | --- | --- | 123 | --- | --- | --- | --- |
| Mining Method | | Underground | Open pit | Open pit | Open Pit | Open Pit | Open pit & underground | Open Pit | Open pit & underground |
| Process Flowsheet | | Ore sorting + DMS | DMS + gravity circuit + magnetic separation | | Ore sorting + DMS + gravity circuit | DMS | DMS + flotation | DMS + flotation | DMS + flotation |
| ***Total Cash Cost*** | ***US$/t SC*** | *$557* | *$539* | *$521* | *$536* | --- | *$650* | *$312* | *$327* |
| ***Capital Costs*** | ***US$ MM*** | *$266* | *$131* | *$285* | *$308* | *$50* | *$447* | *$439* | *$490* |
| SC5.5 Price | US$/t | $2,309 | $1,375 | $1,375 | $1,699 | --- | $600 | $978 | $1,392 |
| SC3 Price | US$/t | --- | --- | $250 | $927 | --- | --- | --- | --- |
| Post-tax NPV | US$ MM | $1,309 | $5,699 | $15,289 | $2,500 | --- | $2,330 | $3,915 | $3,822 |
| Discount Rate | % | 8% | 8% | 8% | 8% | --- | 8% | 8% | 8% |
| Post-tax IRR | % | 40% | 1282% | 1273% | 132% | --- | 27% | 83% | 57% |
| Market Cap | US$ MM | $96 | $1,473 | | $308 | $111 | $5,496 | $10,401 | $1,123 |
| Share Count | MM | 159 | 112 | | 2,801 | 15 | 1,076 | 2,002 | 2,425 |
| EV | US$ MM | $76 | $1,587 | | $295 | $100 | $6,977 | $14,144 | $1,342 |
| **EV/t Resource** | **US$/t LCE** | **$40** | **$422** | | **$124** | **---** | **$156** | **$309** | **$232** |

Note: Lithium resources & reserves only (does not include consideration for other industrial minerals).
Source: Company Reports, S&P CapIQ Pro, and Cormark Securities Inc. Shaded text identifies Cormark estimates.

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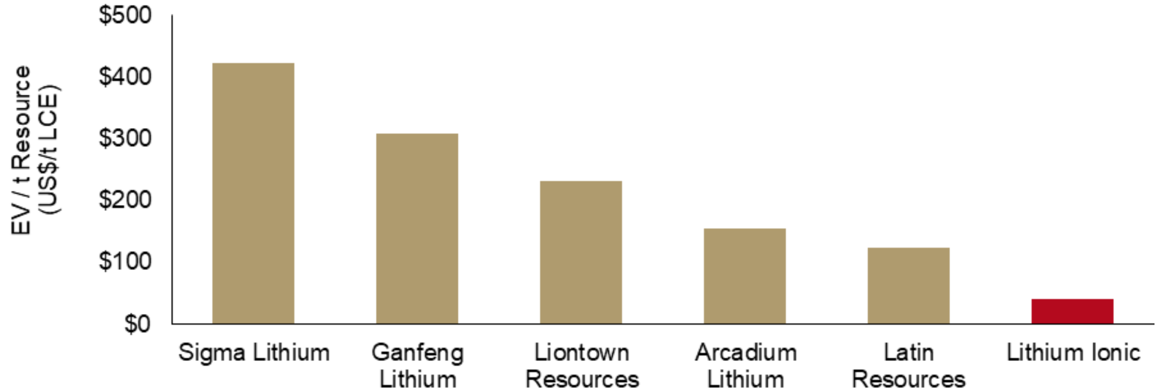
**Figure 17** **EV/Contained Tonnage (LCE) Of Hard Rock Lithium Producer/Advanced Developer Peers**




Source: Company Reports, S&P CapIQ Pro, and Cormark Securities Inc.

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# Appendix A: Management & Board of Directors

| | |
|---|---|
| **Blake Hylands**<br>Chief Executive Officer & Director | Mr. Hylands is a Professional Geoscientist with +10 years of experience in advanced and early-stage exploration, eventually also holding numerous board positions for junior mining companies. Notably, he is a co-founder of Troilus Gold Corp. where he led the company's technical team to the discovery of +8 MM gold equivalent ounces at its namesake development stage asset in northern Quebec. Mr. Hylands has a B.Sc. in Geology from the University of Western in London, Ontario. |
| **Helio Diniz**<br>President & Director | Mr. Diniz has 40 years of experience in the exploration and mining sector and has served as the Managing Director of Brazil Potash Corp. from 2009. Mr. Diniz began his career at GENCOR South Africa's Sao Bento gold mine in Brazil, and then became the country Managing Director Brazil for Xstrata (now Glencore) during the discovery of the Araguaia deposit (+100 MMt @ 1.5% Ni). He helped to start Falcon Metals and HDX Consultoria, also founding and developing several companies for the Forbes & Manhattan Inc. group including Brazil Potash, Aguia Metais, Belo Sun Mining, and Irati Petroleo e Energia Ltda. |
| **Paulo Guimarães Misk**<br>Chief Operating Officer | Mr. Misk is a Brazilian-based mining engineer with over 38 years of in-country experience at several multinational mining companies across a diverse range of commodities. He was most recently CEO and previously COO at Largo Inc. Prior to that he was the head of Niobium and Phosphate Operations at Anglo American and spent 10 years at AMG serving as Operational Director, responsible for the Tantalum and Niobium division. |
| **Tom Olensinski**<br>Chief Financial Officer | Mr. Olesinski has over 20 years of finance and executive management experience. Most recently, he served as COO and CFO for Brainrider. He formerly worked as managing forensic accountant for BDO Dunwoody, as the Director of Finance and Operations for Cossette Communication Group, and as CEO and CFO at Havas Media Canada. He is also a board member of Troilus Gold Corp. He holds a Bachelor of Commerce and Economics from the University of Toronto and is a Chartered Professional Accountant. |
| **Mike Westendorf**<br>VP, Technical Services | Mr. Westendorf is a professional engineer with over 15 years of diversified experience in mining operations, capital projects, engineering, and corporate development. He most recently served as Director of Operational Excellence, among other roles, for Copper Mountain Mining Corp. (now HudBay Minerals Inc.) Earlier in his career, he worked as a Process Engineer for Hatch, conducting engineering design for base and precious metal projects internationally. Mr. Westendorf holds a B.A.Sc. degree in Metals and Materials Engineering from the University of British Columbia and is a registered Professional Engineer. |
| **Carlos Costa**<br>VP Exploration | Mr. Costa has 39 years of experience in base metals, gold and PGE exploration throughout Brazil, managing regional grassroots programs to bankable feasibility studies, as well as mine geology, including underground and open-pit operations. Mr. Costa has worked as Brazil's Country Manager of Emerita, Belo Sun and Xstrata. He also worked for Vale and BP Mineração. Mr. Costa is a P.Geo. and holds a B.Sc. Geology from Federal University of Rio de Janeiro. |
| **André Guimarães**<br>VP Corporate Development | Mr. Guimarães has a PhD in igneous petrology and +10 years of research experience. He founded Neolit in early 2020 and has been directly involved in all corporate and exploration activities, including field work and contract negotiations. He also acquired extensive experience dealing with the necessary social-related foundational work required for the development of a mining site as an archaeologist earlier in his career. |

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| | |
|---|---|
| **Damien Lopez**<br>Corporate Secretary | Mr. Lopez is a corporate securities lawyer and legal consultant to TSX and TSX-V listed companies. He previously worked as a securities and merger & acquisitions lawyer at a large Toronto legal firm. Mr. Lopez obtained a JD from Osgoode Hall and he received a Bachelor of Commerce with a major in Economics from Rotman Commerce at the University of Toronto. |
| **Patrizia Ferrarese**<br>Director | Ms. Ferrarese has more than 20 years of experience in capital markets, entrepreneurship, and strategy consulting in North and South America and EMEA spanning graphite, oil and gas, and potash industries, and equity and options markets. She is currently Vice President (VP) of Business Design and Innovation at Investment Planning Counsel (IPC). Ms. Ferrarese holds an MBA from Wilfrid Laurier University and a Bachelor of Arts (Honours) in Economics from York University. |
| **David Gower**<br>Director | Mr. Gower has held executive and director positions with several junior and midsize mining companies over 12 years, including CEO and Director of Emerita Resources, Nobel Resources, and President of Brazil Potash Corp. He spent +20 years with Falconbridge (now Glencore) as Director of Global Nickel and PGM exploration, including a number of brown and greenfield discoveries. He is also a Director at Alamos Gold. |
| **Lawrence Guy**<br>Director | Mr. Guy is a Managing Director with Next Edge Capital. Previously, Mr. Guy was Vice President with Purpose Investments from inception, and prior to that he was a Portfolio Manager with Aston Hill Financial and Chief Financial Officer and Director of Navina Asset Management Inc. (acquired by Aston Hill Financial). Mr. Guy holds a BA (Economics) degree from the University of Western Ontario and is a Chartered Financial Analyst. |
| **Michael Shuh**<br>Director | Mr. Shuh is a Managing Director, Investment Banking, at Canaccord Genuity where he leads the Financial Institutions Group, with 20 years of investment banking experience. Mr. Shuh is also the CEO and Chairman of Canaccord Genuity Growth II Corp. Mr. Shuh holds a Bachelor of Business Administration from the Wilfrid Laurier University and an MBA from the Ivey School of Business at Western University. |
| **David D'Onofrio**<br>Director | Mr. D'Onofrio brings over 15 years of extensive experience in corporate finance and capital markets, with a focus on the natural resources sector. Currently, he serves as the Chief Financial Officer of PowerOne Capital Markets Limited. He has served as an early investor, director, financier, and advisor to several leading lithium companies since 2008, including Lithium Americas Corp., Neo Lithium Corp., Nevada Lithium Resources Inc., and Lithium Ionic. Mr. D'Onofrio holds a CPA designation, a Master's in Taxation from the University of Waterloo, and is a graduate of the Schulich School of Business. |
| **Ian Pritchard**<br>Director | Mr. Pritchard has over 30 years of experience in project and operations management in the mining industry both in North America as well as internationally, including, in particular, Brazil. He has held senior executive positions at various organizations worldwide including SNC-Lavalin and De Beers Canada. |

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# Appendix B – Risks To Target

**Geopolitical Risk**

This risk deals with policies such as permitting and tax laws that are managed by governments and the perceived stability and investment environment. These policies can greatly affect mining companies, and in some cases prevent mining from occurring. Generally, developing countries are seen as being riskier because of the potential of a quick change in power to drastically change policies. Developed countries have their own geopolitical risk issues, and jurisdictions with powerful environmental lobbies can also make mining or exploration difficult.

Minas Gerais is an active, mining-friendly state in Brazil, with a long extractive industry history. The current centre-left government headed by President Luis Inácio Lula da Silva is supportive of the mining industry, especially in terms of critical minerals. Although the government places more emphasis on environmental and social permitting during development than the previous party, critical minerals and energy transition growth programs and funds totaling ~US$500 MM have been launched in the past two years. We note that Brazilian exports are not explicitly an IRA-compliant, but that the country and the USA have discussed a critical minerals agreement (CRA).

Lithium Ionic incurs relatively minor risk with regard to community relations in the Araçuaí region of Minas Gerais. Although Minas Gerais state benefits from a mining-supportive government, hydroelectric power, and robust infrastructure (i.e., Sigma Lithium's Grota do Cirilo project), maintaining strong relations, open communication, and continued collaboration with the communities surrounding Bandeira will be critical to the project's success.

**Environmental Risk**

The state and federal permitting process for the Bandeira project is well defined (see above). The project should benefit from minimal additional scrutiny in the permitting review process as it is planned to be an underground operation with minimal surface disturbance. Additionally, as a DMS-only spodumene concentrate operation, no harmful byproducts are anticipated to come from the benign dry-stacked tailings. However, despite the MoU signed with Invest Minas (see above), permitting timelines for the project cannot be guaranteed. The Araçuaí region is characterized by a hot, dry, semi-arid climate and work can persist year-round, with minor interruptions for a short period (~December) of heavy rain. Environmental permitting and minor seasonal disruptions are risks that should be considered in the context of project timing, as delays incurred by permitting amendments or unpredictable weather could significantly affect the timing of first production and necessitate additional funding.

**Financing Risk**

Mining and exploration companies generally require external capital, particularly when building new mines. To finance these endeavors, equity or project dilution may be taken in order to fund the equity portion of the capital costs if the project is to be developed. Shareholders may also be subordinated by lenders in order to finance a mining project.

Lithium Ionic's current estimated cash position of $28 MM is likely sufficient for continued desktop optimization, advancement of detailed engineering, construction of the Piauí River bridge, and early-stage earthworks. Upon receipt of the LAC permit, earthworks and Piauí River bridge construction can begin. The remainder of project capital financing will likely be raised subsequent to anticipated resource and technical study updates. Said project milestones (i.e., resource updates) and lithium market improvement could reduce dilution for a potential future equity raise but this is not guaranteed. Lithium Ionic has a number of additional financing alternatives to fund its remaining US$266 MM capital cost including traditional debt, sale of non-core assets, a strategic partner, an offtake agreement, or a joint venture. The 2.25% GOR royalty on the Bandeira project renders potential sale of additional royalties unlikely.

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**Commodity Price Risk**

Our short- and long-term commodity price assumptions are based on detailed research and viewed to be reasonable based on current information. However, the timing and magnitude of commodity price fluctuations are always a significant risk that, in most cases, strongly affects the value of mining and mineral exploration/development companies focused on a specific commodity.

Although there has been a rapid recent decline in lithium pricing (down +47% YoY to US$780/t SC6), we interpret the current environment to represent approximate market-bottom prices. While we anticipate volatility in the remainder of the decade as new supply comes online in relatively large increments (step-function) following abrupt downstream re-stocking and cyclical EV demand – an extended tight supply/demand cycle that lasts well into the second half of this decade is to be expected. See Cormark's recent update on the state of global EV demand (November 20, 2024) for additional colour on current market demand.

**Technical Risk**

Mining operations are subject to unforeseen risks such as labour strikes, rock bursts, geological interruptions, and equipment failure, all of which may negatively affect a company's performance. Ore reserves and resources risk is another technical risk that is derived from the subjective nature of geological interpretation. Competent, qualified personnel calculate ore reserves and resources, and in most cases have a high accuracy, but any significant variation in reserves could drastically impact a company's operations and the value of its shares.

Lithium Ionic has published two resource updates and two technical studies (PEA, FS) for the Bandeira project. It has also published resource estimates for secondary assets Outro Lado and Salinas. The resource estimations were calculated by GE21 Consultoria Mineral Ltda, a Brazilian mining-specialized consulting firm, in accordance with the CIM Definition Standards for Mineral Resources And Mineral Reserves and the FS was completed by AtkinsRéalis (previously SNC-Lavalin), a globally recognized engineering firm. Although both firms are reputable and an FS strives to achieve the best project plan based on reserves with a high degree of accuracy, the estimates utilized in these studies are subject to potential adjustments with ongoing engineering and optimization work.

**Exploration Risk**

In some cases, the market may build in expectations for exploration success before the actual exploration work has taken place. In the event that results do not meet with the market's expectations, the company's shares may be negatively affected.

Lithium Ionic's Bandeira project is defined to the highest degree of accuracy (Proven and Probable Reserves). However, additional drilling since the latest resource will likely result in a third resource update, which may change the scope of a future planned Bandeira operation. Cormark's NAV estimate for Lithium Ionic is based largely on the Bandeira FS as defined, with consideration for additional (future) resources to be potentially incorporated into the mine plan and for the in-situ value of the Salinas project resource to the north. The blue-sky potential for the remaining targets in Lithium Ionic's 17,000 ha land package is not included in Cormark's price calculation as it will require additional drilling to be defined.

**Cost Risk**

Both capital and operating costs may be affected by changes in input prices (fuel, steel, chemicals, labour, etc.) and by relative currency changes. The company may be at risk of unexpected cost escalation as a result of these potential threats.

Although the Bandeira FS is currently the best project plan to date based on reserves (November 2023 cut-off) estimated with a high degree of accuracy, the price estimates utilized in this study are subject to potential adjustments with contract finalization, inflation, and additional engineering work, among other changes.

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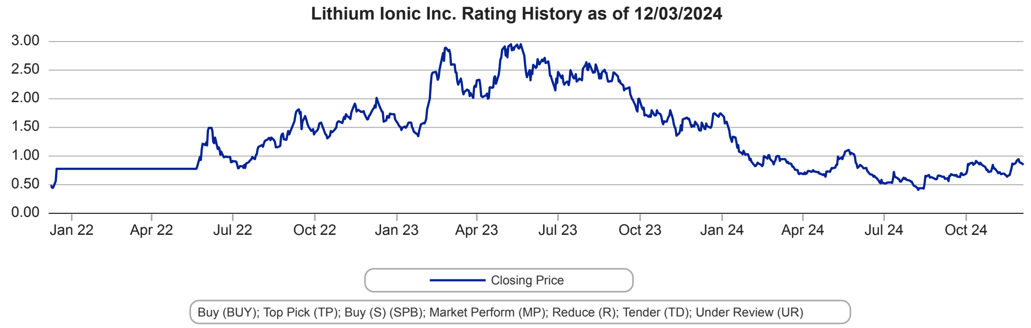
Updated December 4, 2024
*Information updated monthly on or about the 5th of each month

## Price Chart and Disclosure Statement




* Cormark has this percentage of its universe assigned as the following:

| | |
|---|---|
| *Buy or Top Pick* | 80% |
| *Market Perform* | 15% |
| *Reduce or Tender* | 3% |
| *Not Rated* | 2% |

The analyst viewed the material operations of Lithium Ionic Inc..
The company paid for certain travel expenses related to a site visit by the analyst.

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CORMARK SECURITIES INC.

RESEARCH REPORT

WEDNESDAY, DECEMBER 4, 2024

**Recommendation Terminology**

Cormark's recommendation terminology is as follows:

**Top Pick** our best investment ideas, the greatest potential value appreciation

**Buy** expected to outperform its peer group

**Market Perform** expected to perform with its peer group

**Reduce** expected to underperform its peer group

**Tender** clients are advised to tender their shares to a takeover bid

**Not Rated** currently restricted from publishing, or our recommendation is under review

Our ratings may be followed by "(S)" which denotes that the investment is speculative and has a higher degree of risk associated with it.

Additionally, our target prices are set based on a 12-month investment horizon.