Lithium Ionic Corp.

LTH-TSX.V: \$1.78 (Mid-market) Rating: Speculative Buy Target: \$7.25 (was \$6.25)

Lithium loic Corp. (LTH-TSX.V)
Stock Data	
Previous Close (C\$)	\$1.78
52-Week High-Low	\$3.05 / \$1.28
Avg. Daily Volume (3M)	371,358
Basic SO (MM)	138
Fully Diluted SO (MM)	151
Market Cap. (C\$ MM)	\$246
Cash (C\$ MM)	\$20
Enterprise Value (C\$ MM)	\$229
Clarus Estimates	
NAVPS (C\$/share)	\$7.26
P/NAV	0.16x
Potential Return	303%
Company Information	
Projects (flagship)	Galvani / Itinga
Project Location	Minas Gerais, Brazil
Resource (maiden)	32.9 Mt
Grade (Clarus est.)	1.38% Li2O
Management	
CEO	Blake Hylands
President	Helio Diniz



Company

Lithium Ionic (LTH) has interests in 14,182 ha in Brazil's only lithium producing belt in Minas Gerais, the country's most mining friendly jurisdiction. The flagship claims are located within 800 m of the CBL Mine (private) that has been in production for multiple decades (since 1993, 36k tpy of SC5.5%) and <4 km from near-term producer, SGML (@ ~34k tpy LCE in SC6% from 2023). In June 2023, LTH announced 19.4 Mt at 1.42% and rapidly grew it by 84% to 32.3 Mt at 1.38% in October 2023. The company continues to explore while advancing the flagship Bandeira project towards production in an underground scenario, potentially in H2/2025. October 2023 PEA at Bandeira est. an NPV8% of US\$1.6 Bn and 121% IRR based on a US\$233 MM capex and 20 year mine life.

Solid Bandeira Updates: Resource Surges ~2x; A Powerhouse PEA – Brazil's Next Li Mine By H2/2025

October 19, 2023

Quick Hits

- Bandeira resource grows by ~84% in just ~3.5 months: Total global resource for Itinga now at ~33 Mt at 1.38% (incl. Galvani). We think LTH's resource base will ultimately be comparable to that of its neighbours (+45 Mt for LRS-ASX & +85 Mt for SGML-TSX);
- Bandeira alone is a PEA Powerhouse: Underground mine; +120% IRR; ~US\$1.6 Bn NPV (vs US\$0.74 Bn prior Clarus est.); AISC <US\$550/t SC5.5 Eq.; Capital Intensity comparable to LRS's Phase 1; Immense optionality from regional targets as Bandeira represents only ~1.2% of the land package;
- Brazil's next Li-spodumene mine: Underground operation limits surface footprint, expedites permitting process (LAC). Mine permit approval expected in summer-2024, first production potentially in H2/2025 – ahead of LRS-ASX by at least a year, in our opinion. We expect discussions around project financing (off-takes/lenders) to pick up speed on the back of the robust PEA;
- Raising Target To \$7.25: Our prior valuation of C\$980 MM was very conservative, based on Bandeira + Galvani using 1.0x NAV15%. We have updated our model to align with the Bandeira PEA, supporting a valuation of C\$1.44 Bn based on **0.60x NAV8%**. This results in our higher target price of \$7.25 per share (prior \$6.25/share).
- Strong re-rate potential just on catch-up to peers: On a P/NAV basis, LTH is trading at a 60% discount to LRS-ASX and 80% discount to Emerging Producers peer group.

Figure 1: Bandeira Updated Resource & PEA Highlights

Banderia			
Resource & PEA Summary			
Resource	Mt	Grade (% Li ₂ O)	LCE (kt)
M&I	13.7	1.40%	474.9
Inferred	15.8	1.34%	523.1
Global Bandeira Resource	29.5	1.37%	998.0
Project Economics			
Post-tax NPV8%		US\$ Bn	\$1.6 Bn
Post-tax IRR / Payback		% / months	121% / 14 months
Project Capital Costs		US\$ MM	\$232.8 MM
Economic Assumptions		US\$/t SC5.5	\$1,859/t
SC5.5 price		US\$/t SC3	\$865/t
SC3 price			
Production			
Mine Life		Years	20.0
LOM Ore		Mt	22.9
LOM Grade (diluted)		% Li ₂ O	1.23%
Annual Production SC5.5 Eq.		ktpa	218.0
Opex			
Operating Cash Cost		US\$/t SC5.5 Eq.	\$349/t
Transportation Costs		US\$/t SC	\$120/t
AISC (Clarus est.)		US\$/t SC5.5 Eq.	\$550/t

Source: Company Reports; Clarus Securities Inc.

Bandeira has delivered an impressive ~84% resource growth in just ~3.5 months, significant upside potential remains

- The updated global resource at Bandeira came in at 29.5 Mt at 1.37% Li₂O (prior 16 Mt at 1.4%). The M&I grew by almost 200% to 13.7 Mt at 1.4% (prior 4.6 Mt at 1.35%);
- Including Galvani's known resource (June 2023) of 3.4 Mt, takes the total global resource to ~33 Mt at 1.38%;
- We note that the there is potential for further resource expansion at Bandeira and significant upside from other targets, incl. Salinas (drilling ongoing) and several other regional targets;
- Overall, we see potential for LTH's resource base to continue to grow with additional drilling on the numerous regional targets and ultimately be comparable to that of its neighbours: LRS's Colina deposit +45 Mt at 1.34%, mkt cap C\$606 MM and SGML has 85.6 Mt at 1.43%, mkt cap. C\$3.9 Bn.

Highly attractive economics at Bandeira

- PEA is based on Bandeira deposit only and considers an underground mining scenario (similar to next door CBL mine that's in production since 1990s) on ~23 Mt at diluted head grade of 1.23%;
- Initial capex of ~US\$233 MM was ahead of street estimates likely due to more than expected underground development and mining fleet. We further note that the capital intensity is comparable to LRS's Phase 1 (Figure 3);
- 1.3 Mtpa throughput to support 218 ktpa SC5.5 Eq. production (187 ktpa SC5.5 and 56 ktpa SC3) over a ~20 year mine life;
- Recoveries of 67% for SC5.5 and 10.7% for SC3 which are both in line with LRS's Colina PEA and better than SGML's Xuxa at 62% and CBL at ~66%;
- High margin production with cash cost of US\$469/t SC5.5 Eq and AISC likely under US\$550/t SC5.5 Eq better than LRS which has an AISC of US\$599/t;
- Average annual revenue of US\$337 MM/yr and FCF of US\$243 MM/yr. NPV8% of ~\$1.6 Bn, IRR of 121% and a 14 months payback using US\$1,859/t SC5.5 price at spot price (~US\$2,300/t), we think the NPV would be ~US\$2.2 Bn and IRR +135%. Overall, this compares very favourably with our prior estimated corporate NAV of C\$980 MM or ~US\$745 MM for valuing LTH;
- While the focus is currently on advancing Bandeira towards production given its scale and more permitting friendly setting, mgmt. plans to include Galvani as well in the production profile at some point. Galvani is a 3.4 Mt deposit and mgmt. thinks it will require more time on the permitting front;
- The strong economics for Bandeira highlights the immense optionality from a meaningful discovery at LTH's large land package of +14,000 ha of which Bandeira only represents ~1.2%.

Brazil's next Li-spodumene mine

 As an underground operation, Bandeira will have a significantly smaller footprint as compared to peers in the region (SGML & LRS) that are both open-pit operations. Bandeira's smaller footprint allows permitting to be advanced under the Licença Ambiental Concomitante (LAC) route which has significant time efficiencies compared to a large-scale operating permits (as required by LRS due to its scale ~3.6 Mtpa vs LTH's 1.3 Mtpa);



- Mgmt. plans to submit the permitting application in November 2023 with permit approval expected in summer-2024;
- If this timeline holds, it will allow construction to commence in mid-2024 and first production by late 2025 (~18 months build);
- In our opinion, LTH could be in production at least 1 year ahead of LRS which is expected to be in production at the earliest by late 2026;
- We expect discussions around project financing with various lenders/strategic off-takers to pick up speed on the back of this robust PEA.

Attractively valued with significant re-rate potential just on catch-up to peers

- At C\$246 MM, LTH (explorer/developer stage) has the lowest market cap in the region with Sigma at ~C\$3.9 Bn (emerging producer stage), LRS C\$606 MM (explorer/developer stage) and ATLX C\$407 MM (pre-resource stage) despite the fact that LTH is on a path to be the next producer in the region in the next ~18 24 months;
- LTH is trading at 0.16x P/NAV which is a ~60% discount to its neighbour LRS that is trading at 0.38x as well as a significant discount to Emerging Producers group trading at 0.78x and Developer Peers group trading at 0.29x;
- Just on the current resource of 32.9 Mt (Bandeira & Galvani) LTH is trading at C\$202/t on EV/Resource (LCE) or a ~50% discount to LRS at C\$384/t. This implies that the current valuation does not attribute any value for the exploration upside and resource growth potential for LTH, which, in our opinion, could be material;
- We further note there is significant strategic interest in the area as recently confirmed by SGML. In addition, with players in the region rapidly advancing towards production (we think LTH will be the next mine, ahead of LRS & ATLX), we believe there is a good chance of an M&A event occurring and/or strategic investments getting announced in the region, which should lift the valuation for all players in the region.

Valuation Updated

We have updated our model and have aligned our estimates in line with the PEA. We are using a longterm pricing assumption of US\$1,800/t for SC5.5 and US\$800/t for SC3. We estimate an asset NAV8% of C\$2.0 Bn for Bandeira. At spot price (~US\$2,300/t SC5.5), our NAV8% estimate conceptually increases to C\$2.85 Bn. We have applied a 0.60x target setting multiple on our estimated asset NAV8%. We also account for 10 Mt at 1.72% Li_2O in our in-situ valuation for the combined Bandeira & Galvani resources that are not included in our mine model at C\$625/t. For our fully-funded corporate NAV estimate, we have assumed 60%/40% debt/equity assumption. We account for the debt under corporate adjustments and our estimated FD S/O of 198.4 MM reflects our assumption of equity dilution for project funding.

Our prior model was conservative, based only on a small-scale mine scenario at Galvani only, with Bandeira valued using in-situ valuation. This resulted in our prior estimated corporate NAV of C\$980 MM using a conservative 15% discount rate and 1.0x asset NAV or C\$6.20/share. Under our revised assumptions, we estimate a corporate NAV of C\$1.44 Bn or C\$7.26/share (using 8% discount rate and 0.60x multiple on asset NAV).

Milestones

- 1. Bandeira Definitive Feasibility Study (DFS) year-end 2023;
- 2. Completion of Environmental Impact Assessment (EIA) year-end 2023;
- 3. Mine permit approval summer-2024 (Clarus estimate);
- 4. FID & commencement of construction at Bandeira H2/2024 (Clarus estimate);
- 5. First production H2/2025 (Clarus estimate).

Price Target Calculator: Our 12-month target price is based on a 0.60x multiple to our estimated fully funded corporate NAV. Our corporate NAV includes a DCF based NPV8% for Bandeira and in-situ valuation at C\$625/t for 10.0 Mt at 1.72% Li₂O for the combined resource at Galvani & Bandeira outside of our mine model. In addition, we account for corporate adjustments, including our long-term debt assumption and ITM options and warrants.

Key Risks to Target Price: Please refer to the risks disclosed in the initiating report dated March 17, 2023.

Figure 2: LTH Developer Comps

Hard Rock Lithium Comps													VALUATION							
									GLOBAL RESOURCE LOM PARAMETERS											
												Prod.	AISC	Capex	Capital I	Intensity	EV / R	esource	EV/Prod.	
		Price	Mkt. Cap.	EV					Attri.	Attri.	Grade	kt	US\$/t		US\$/t	US\$/t	EV/t	EV/t	(C\$/LCE	1
Company	Ticker	(Local)	(C\$MM)	(C\$MM)	Project	Туре	Location	Stage	kt LCE	kt Li ₂ O	Li ₂ 0 %	SC/yr	Spod Con	US\$ MM	(Mtpa)	(SC)	(C\$/LCE)	(C\$/Li ₂ O %)	Prod.)	P/NA
DEVELOPERS																				
Atlantic Lithium Ltd	ALLA-LSE	0.26	\$269	\$255	Ewoyaa	SC	Ghana	DSF	795	322	1.27%	352	\$610	\$185	\$69	\$525	\$321	\$793	\$10,668	NA
Latin Resources Ltd	LRS-ASX	0.27	\$606	\$565	Salinas	SC	Brazil	PEA	1,473	597	1.32%	472	\$599	\$308	\$86	\$652	\$384	\$948	\$8,817	0.38
Leo Lithium Ltd	LLL-ASX	0.51	\$433	\$375	Goulamina	SC	Mali	DFS	3,570	1,445	1.37%	792	\$365	\$318	\$80	\$402	\$105	\$259	\$8,201	0.27)
Frontier Lithium Inc	FL-TSX.V	0.98	\$223	\$201	PAK	SC, Int.	Ontario	PFS	2,151	871	1.49%	153					\$93	\$231	\$9,655	0.21)
Rock Tech Lithium Inc	RCK-TSX.V	1.36	\$132	\$112	Georgia, Guben	SC, Conv.	ON; Germany	PEA/Eng.	357	144	1.09%	245					\$314	\$775	\$3,355	0.30
Group Average			\$332	\$302					1,669	676	1.37%	403	\$487	\$270	\$79	\$502	\$243	\$601	\$8,139	0.29
EMERGING PRODUCI	ERS																			
AVZ Minerals Ltd	AVZ-ASX	0.78	\$2,391	\$2,375	Manona	SC	DRC (Congo)	DFS	12,257	4,962	1.65%	1,239	\$306	\$546	\$121	\$440	\$194	\$479	\$18,817	0.78>
Core Lithium Ltd	CXO-ASX	0.35	\$640	\$523	Finniss	SC	Australia	Constr.	616	249	1.32%	175	\$450	\$127	\$127	\$728	\$848	\$2,095	\$22,042	0.37)
Critical Elements Lithium Corp	CRE-TSX.V	1.62	\$353	\$318	Rose	SC	Quebec	FS	826	335	0.98%	271	\$639	\$471	\$293	\$1,738	\$385	\$951	\$8,647	NA
Liontown Resources Ltd	LTR-ASX	2.79	\$5,337	\$5,318	Kathleen	SC	Australia	Constr.	5,394	2,184	1.40%	627	\$452	\$331	\$83	\$528	\$986	\$2,435	\$62,410	1.21>
Sigma Lithium Corp	SGML-TSX.V	35.99	\$3,937	\$4,012	GDC	SC	Brazil	Constr.	2,904	1,176	1.43%	766	\$523	\$286	\$68	\$373	\$1,382	\$3,413	\$38,556	0.76>
Piedmont Lithium Inc	PLL-NASDAQ	32.54	\$853	\$735	Multiple	SC, Int.	USA, Ghana	Permt.	2,420	980	1.09%	669					\$304	\$750	\$8,077	NA
Sayona Mining Ltd	SYA-ASX	0.09	\$760	\$519	Multiple	SC	Quebec	Permt.	2,428	983	1.05%	276					\$214	\$528	\$13,848	NA
Group Average			\$2,039	\$1,971					3,835	1,553	1.44%	575	\$427	\$352	\$115	\$572	\$616	\$1,522	\$24,628	0.78
Lithium Ionic Corp	LTH-TSX.V	1.78	\$246	\$226	Galvani	SC	Brazil	Expl.	1,119	453	1.38%	218	\$550	\$233	\$179	\$1,068	\$202	\$499	\$7,635	0.16>

Source: Refinitiv Eikon; Company Reports; Clarus Securities Inc.

Figure 3: LTH vs neighbours - Project Comparison

Project Summary		RESOU	JRCES		MINEABLE INVENTORY CAPEX					OPERATING PARAMETERS				
	M&I Global Resource		I Resource	(Mine Plan)			Intensity		Throughput	Recovery	Production	AISC	Mine Life	
	Mt	Grade Li ₂ O%	Mt	Grade Li ₂ O%	Mt	Grade Li ₂ O%	US\$ MM	US\$/t (Mtpa)	US\$/t (SC)	Mtpa	% SC5.5	ktpa SC5.5	US\$/t SC	Years
Sigma Lithium (Phase 1)	17.4	1.55%	21.2	1.56%	11.8	1.55%	\$130.6	\$89	\$484	1.5	65.0%	270	\$541	8.0
Sigma Lithium (Combined)	77.0	1.43%	85.6	1.43%	54.8	1.44%	\$285.5	\$68	\$373	4.2	54.2%	766	\$523	13.0
Latin Resources (Phase 1)					2.9	1.42%	\$253.0	\$169	\$993	1.5	67.2%	255	\$842	3.0
Latin Resources (Combined)	30.2	1.37%	45.2	1.32%	31.4	1.24%	\$308.0	\$86	\$653	3.6	67.2%	472	\$599	11.0
AVERAGE	41.5	1.43%	50.7	1.41%	25.2	1.39%	\$244.3	\$91	\$554	2.7	61.8%	441	\$592	8.8
Lithium Ionic (Bandeira only)	13.7	1.40%	29.5	1.37%	22.9	1.23%	\$232.8	\$179	\$1,068	1.3	66.5%	218	\$550	20.0

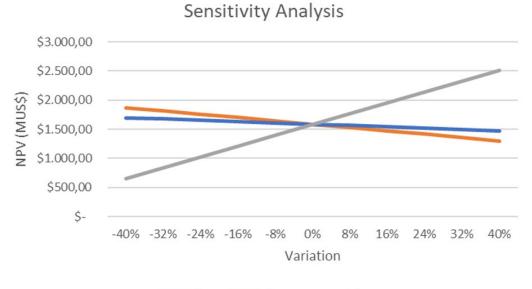
Operating Costs

			Unit C		Cash Cost				
	Strip Ratio w : o	Mining US\$/t	Processing US\$/t	G&A US\$/t	Shipping US\$/t SC	Royalty %	Cash Cost US\$/t SC	Cash Cost (w/ royalty) US\$/t SC	AISC US\$/t SC5.5
Sigma Lithium (Phase 1)	16.4 : 1	\$2.1	\$10.4	\$5.3	\$120	2.8%	\$408	\$539	\$541
Sigma Lithium (Combined)	14.7 : 1	\$2.2	\$7.8	\$3.2	\$120	2.8%	\$409	\$521	\$523
Latin Resources (Phase 1)					\$120	2.0%			\$842
Latin Resources (Combined)	17.6 : 1	\$3.4	\$6.6	\$2.7	\$120	2.0%	\$506	\$536	\$599
AVERAGE	16.2 : 1	\$2.6	\$8.3	\$3.7	\$120	2.4%	\$441	\$532	\$592
Lithium Ionic (Bandeira only)	NA	\$45.0	\$12.0	\$4.0	\$120	NA	\$469	\$469	\$550

Source: Company Reports; Clarus Securities Inc.



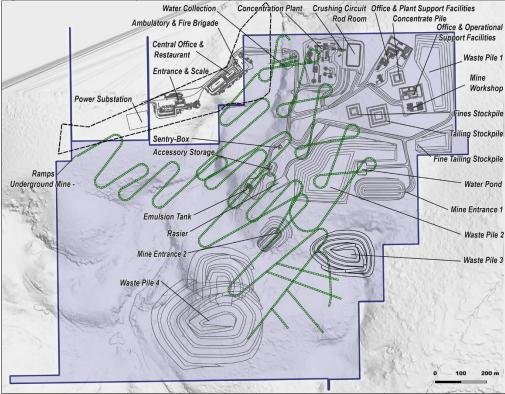
Figure 4: Bandeira NPV Sensitivity



Opex ——Capex ——Price



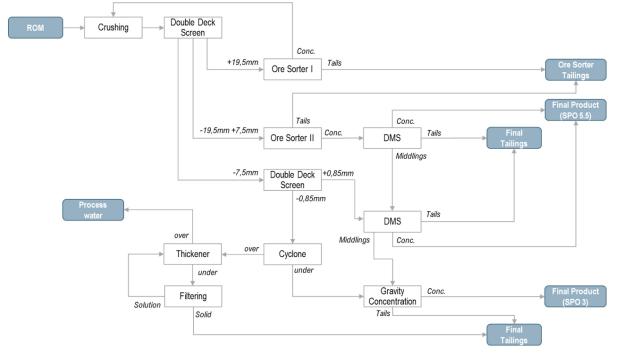




Source: Company Reports



Figure 6: Bandeira – Proposed Process Flowsheet



Source: Company Reports

Lithium Ionic Corp. (LTH-TSX.V), SPECULATIVE BUY, Target: C\$7.25

Rating 12-Month Return	SPECULATIVE E 307%	BUY					Target Price evious Close	\$7.25 \$1.78	Basic Sha	138.2 \$246 \$226			
All dollar amounts in U	JSD. unless other	wise noted											USD
CAPITAL STRUCTURE			Strike Price				Shares	FINANCIAL SUMMARY					
			\$/share				(MM)	CALENDAR YEAR	2023E	2024E	2025E	2026E	20278
Basic Shares Outstand	ing		<i>1</i> /				138.2	Spodumene Concentrate: Clarus Pric	e Deck				
ITM Warrants Outs	-		\$1.40				1.8	SC5.5% (US\$/t)	\$2,400	\$1,800	\$1,800	\$1,800	\$1,800
ITM Options Outsta	-		\$1.02				11.3	SC3% (US\$/t)	\$865	\$800	\$800	\$800	\$800
Assumed Equity Rai	-		1				47.1		1	,			,
FD Shares							198.4	EPS	(\$0.01)	(\$0.02)	(\$0.02)	\$0.29	\$0.77
								P/EPS	nm	nm	nm	4.5x	1.7x
NET ASSET VALUE								.,					
					Discount rate	C\$ MM	C\$/share	CFPS	(\$0.01)	(\$0.02)	(\$0.02)	\$0.39	\$1.04
Asset NAV					and and the	cy min	Sylviare	P/CFFOPS	(00.01) nm	(90.02) nm	(90.02) nm	3.4x	1.3x
Bandeira Undergrou	und (100.0%) Br	azil			8%	\$2,019	\$10.18	Target/CFPS	nm	nm	nm	13.7x	5.1x
Asset NAV Sub-Total	and (100.0%), bi	4211			070	\$2,019	\$10.18	Income Statement				10.78	MM
Target Setting Multipl	o on Accot NAV				0.60x	\$1,212	\$6.11	Revenue	\$0	\$0	\$0	\$93	\$248
Target Setting Multip	e on Asset NAV				0.00X	Ş1,212	\$0.11					1.1	
- chu trabuntine (eee								Operating Expenses	\$0 00	\$0 00	\$0 00	(\$25)	(\$68)
In-Situ Valuation (reso	Mt	Li ₂ O Grade	LCE					Depreciation	\$0 (\$1)	\$0 (\$1)	\$0 (\$1)	(\$3) (\$3)	(\$8) (\$8)
		-			a store ti			General & Adm.					
Galvani & Bandeira	10.0	1.72%	0.4 Mt		@ C\$625 /t	\$265	\$1.33	Exploration Exp.	(\$1)	(\$2)	(\$2)	(\$1)	(\$2)
In-situ Valuation Sub-1	total					\$265	\$1.33	Net Interest Expense	\$0	\$0	\$0	\$0	\$0
								Taxes Expense	\$0	\$O	\$0	(\$21)	(\$55
Corporate Adjustmen	ts							Net Income	(\$2)	(\$3)	(\$3)	\$40	\$107
Current Cash						\$20	\$0.10	Cash Flow Statement					MN
Value of ITM Instru	ments					\$14	\$0.07	Operating CF	(\$2)	(\$3)	(\$3)	\$54	\$143
Long-term Debt						-\$212	-\$1.07	Financing CF	\$0	\$268	\$0	\$0	(\$59
Future Equity Capita						\$141	\$0.71	Borrowings	\$0	\$161	<i>\$0</i>	\$0	<i>\$0</i>
Corporate Adjustmen	ts Sub-total					-\$37	-\$0.18	Repayments	\$0	<i>\$0</i>	<i>\$0</i>	\$0	(\$59)
Total Corporate NAV	(50% wt.)				C\$	\$1,440	\$7.26	Share Issuance	\$0	\$107	<i>\$0</i>	\$0	<i>\$0</i>
								Investing CF	\$0	(\$58)	(\$175)	(\$3)	(\$8
Target Price					C\$/share		\$7.25	Change in Cash	(\$1)	\$207	(\$178)	\$51	\$77
P/NAV							0.16x	Free Cash Flow (bef debt repay.)	(\$1)	(\$61)	(\$178)	\$51	\$135
								Free Cash Flow Yield	0%	-37%	-107%	31%	82%
PRODUCTION ESTIMAT	TES (100% basis)							Balance Sheet					MN
CALENDAR YEAR			2025E	20268		2028E	2029E	Cash & Equivalents	\$14	\$221	\$43	\$94	\$171
Bandeira Undergroun			-	52	138	224	224	Current Assets	\$119	\$221	\$43	\$94	\$171
Others	kt SC6%			-				Current Debt	\$0	\$0	\$0	\$15	\$59
Companywide	kt SC6%		-	52	138	224	224	Current Liabilities	\$90	\$1	\$1	\$59	\$59
								Long-term Debt	\$0	\$0	\$164	\$155	\$103
COST ESTIMATES (US\$,	/oz Au)							Shareholder Equity	\$781	\$104	\$98	\$178	\$392
CALENDAR YEAR			2025E	20268	2027E	2028E	2029E						
Total Cash Costs	US\$/t SC6%		Ş -	\$ 492	\$ 492	\$ 492	\$ 492	MODELLED MINEABLE INVENTORY					Mine
Sustaining Capex	US\$/t SC6%		\$ -	\$ 58	\$ 58	\$ 58	\$ 58	Spodumene		Mt	Li ₂ O %	kt Li₂O	Life (yr
AISC (site-level)	US\$/t SC6%		\$ -	\$ 550		\$ 550	\$ 550	Bandeira Underground (100.0%), B	razil	22.90	1.23%	281.7	20.0
Source: Clarus Securities				,	,	,	,					/	



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