

# Lithium Report

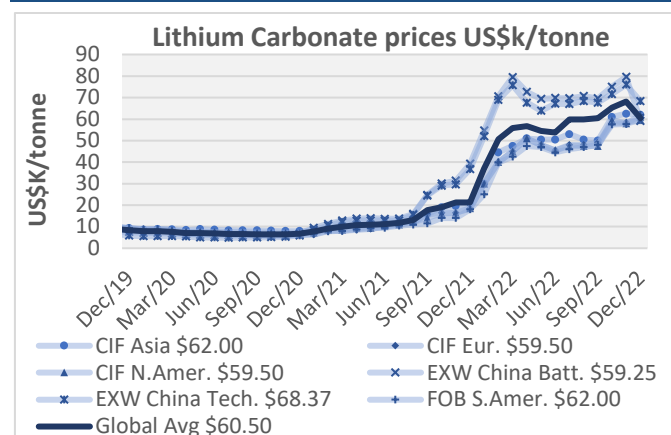
## Electric Opportunities: Stronger for Longer Lithium Prices to Drive Up Valuations, M&A Opportunities, and Investor Returns with Alpha Lithium & American Lithium

**Two Different Sides of the Lithium Sector Coin:** We are resuming coverage of Alpha Lithium (ALLI-NEO, Speculative Buy, \$1.95/shr PT), a company with bright M&A prospects given the 100% ownership of the entire, well-situated Lithium Triangle salar (see company [report](#)), and American Lithium (LI-TSXV, Speculative Buy, \$7.75/shr PT), which has two of the largest Americas-based lithium projects under development (see company [report](#)). We believe these companies' projects are well-positioned to potentially meet regional supply requirements for a North American battery industry seeking to catch up to Asian and European industry, specifically in relation to the US Inflation Reduction Act, which aims to re-shore the US's critical minerals and EV supply chain, which could open a regional supply imbalance that will need to be met.

**Industry Valuations Reflect Too Conservative a Lithium Price:** In determining our valuations and price targets weighed against observed development risk multiples, we generally find that the market is discounting a long-term lithium carbonate equivalent ("LCE") price of approximately US\$25,000/tonne, in part because industry generally uses the three-year trailing average price (which as of December 2022 was US\$25,830/tonne LCE) to evaluate cash flow, and in part because of expectations of a pullback from the dramatic recent run-up in prices to as high as the US\$70,000/tonne LCE level. As it becomes evident that stronger for longer prices are here to stay, and the trailing three-year average adjusts upward, we expect that the price used to project cash flows and value projects will also increase. In our view, this presents a compelling reason to expect share price appreciation, ongoing M&A, and shareholder returns.

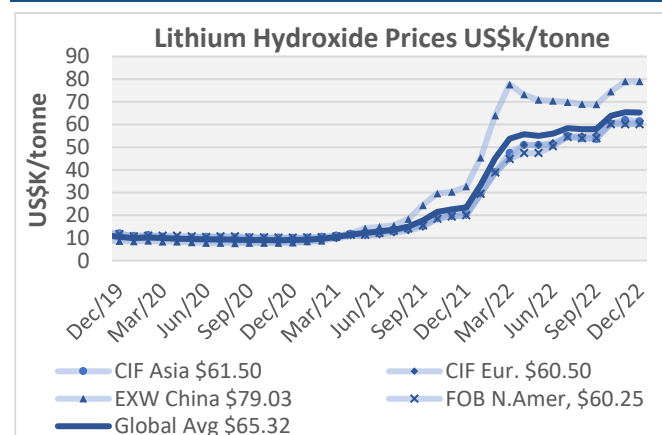
**Supply & Demand Dynamics Support Stronger for Longer Pricing:** We are fundamentally positive on the lithium minerals development sector given the growing demand for electrified transportation and grid-scale battery storage, owing to lithium's favourable weight and high energy density characteristics versus other energy storage technologies, and the continual projected catch up in supply. We believe that lithium chemical prices will remain robust, and look for well-financed companies with large projects in geographically attractive regions that can drive investor returns either through M&A and/or projects of significant enough scale to feed a growing global, and more importantly, regional supply gap. Supporting our view of robust prices are an examination of supply and demand trends ([page 5](#)), growing regional demand for electric vehicle demand and regional supply/demand imbalances ([page 7](#)), cost curves ([page 8](#)), and global reserves ([page 9](#)).

### Exhibit 1 – Lithium Hydroxide Price



Source: Company Reports

### Exhibit 2 – Lithium Carbonate Price



Source: Company Reports

**The Year Lithium Prices Tripled:** 2022 saw the spot price of lithium carbonate nearly triple over 2021 with a 185% increase (**Exhibit 1**) and the spot price of lithium hydroxide prices followed with a 178% increase (**Exhibit 2**) from the year before. Both chemicals are precursors to the lithium compounds used in lithium-ion battery cathodes and electrolytes. The price increase largely came from a marginal spot demand increase driven by a government policy-induced increase in the production and sale of battery packs for light commercial electric vehicles (“EV”) in China, which saw the segment’s sales grow in two years from just 1% of all light commercial vehicle sales to 10%. China has the largest light commercial vehicle market in the world according to Bloomberg NEF, and medium and heavy commercial EVs in China are also picking up sales traction. Potentially adding to aggregate demand is the growing commercial adoption of Lithium-Iron-Phosphate batteries, which are less expensive (albeit also less energy dense) than lithium-ion batteries, and which are also finding their way into less expensive EVs and energy storage solutions.

**Stronger for Longer Lithium Prices:** Recent commentary has narrowed on to how sustainable lithium prices are given the massive run-up in prices, with one global investment bank calling for a significant price drop in 2023. Weighed against lithium supply, which was expected to increase in 2023 regardless of rising prices, we believe prices and demand are likely to remain robust driven by both government policy designed to increase adoption and lower battery pack prices sustained by increasing manufacturing capacity. Europe alone was recently estimated to be increasing its battery production sixfold to 2030, as it and North America catch up to Chinese manufacturing capacity.

We believe increasing lithium prices won’t necessarily drive much higher battery prices or significantly dent demand so as to cause supply to overshoot demand and dramatically reduce prices. Battery pack prices did record their first-ever annual increase in prices in 2022, with the average price of a pack rising to US\$151/kWh, up from US\$141/kWh in 2021, after a rapid decline from US\$732/kWh in 2013 as global battery gigafactory capacity expanded. A 2017 article from Bloomberg estimated that a doubling of lithium prices, which at that time hovered around US\$17,000/tonne of lithium carbonate, would only increase battery pack prices by 8%. Given further production efficiencies and economies of scale, we expect that figure will remain roughly the same even as the value of lithium cells in a battery pack has increased from 70% to 80% (i.e., relative to electronic components) from 2017 to 2022.

It is important to note that while the majority of market demand is still met by privately negotiated, long-term supply contracts, the growing demand for and supply of lithium chemicals is expected to tighten the difference between long-term contract prices and spot prices. A growing supply market will also likely encourage the growth of traded contracts, increasing price transparency against an historically opaque dealer market.

Underpinning our overall view is that most demand projections have supply playing continual catch up with demand, resulting in small but persistent negative supply deficits (3-4% of demand). The prevalent narrative is that there is enough lithium to meet global demand, but regional supply and demand imbalances will intermittently produce sharp price movements such as what was witnessed in 2022 with Chinese demand. With North America in particular moving to rapidly develop its productive capacity, we believe an area of opportunity continues to exist for Americas-based projects to meet burgeoning regional demand. This is the reason, for instance, that Canada has begun to take a nationalist stance with respect to lithium supplies, such as when it required Canadian incorporated and listed companies to divest any shared project ownership held by Chinese state-run companies.

Risks to this view are that lithium battery packs – or indeed any alternative power source – have not yet reached price parity with internal combustion fuels, and they may never without further government incentives or taxes on internal combustion fuels to meet net-zero carbon targets. The risk is that demand for lithium falls short of projections owing to the implied cost of government supports or taxes on internal combustion fuels, as all else equal, consumers will tend to choose the most economical alternative. However, this is balanced by the potential costs of not reining in global carbon emissions to carbon neutral levels, and without a viable technological alternative (as of yet), lithium will likely be the dominant mobile (and preferred stationary) energy storage solution. Additionally, recently emerging short-term risks include the extent to which Chinese and global demand is tempered by the former’s abandonment of its COVID-zero policy, and the potential negative economic impact of another global COVID wave.

In determining our valuations and price targets weighed against observed industry multiples and development risk benchmarks, we generally find that the market is discounting a long-term LCE price of approximately US\$25,000/tonne,

likely because industry uses the three-year trailing average price (which as of December 2022 was US\$25,830/tonne LCE) to evaluate cash flow with. However, recent demand trends have pushed prices to as high as the US\$70,000/tonne LCE level. We expect prices to remain elevated (i.e., above US\$50,000/tonne) for the foreseeable future given supply and demand dynamics; and as simple as it is, as the three-year trailing average price increases, so too will the price used to discount development projects, with a potentially significant impact on valuations, M&A, and investor returns.

### Exhibit 3 – Lithium Exploration and Developer Comps

		Price	Return	Return	Return	% of 52	52 Week	Shares	Mkt.Cap.	Cash	EV		Resource/Project	Attrib. LCE (Mt)				EV / t LCE (US\$)				
Company	Ticker	1/30/2023	1-Month	3-Month	YTD	Week High	Low/High	O/S (M)	(US\$M)	(US\$M)	(US\$M)	P/NAV	Location(s)	P&P	M&I	Inf.	M&I+Inf.	P&P	M&I	M&I+Inf.		
Hard Rock / Clay Developers																						
Liontown Resources	LTR-ASX	A\$1.62	26%	-10%	26%	52%	\$0.88/\$2.22	9.8	\$2,540.5	\$312.2	\$2,207.3	1.0	Australia	0.0	4.5	1.2	5.7	NA	\$491	\$390		
AVZ Minerals	AVZ-ASX	A\$0.78	0%	0%	0%	41%	\$0.68/\$1.37	0.0	\$1,956.4	\$42.0	\$1,912.8	0.8	DRC	2.2	6.6	3.2	9.8	\$878	\$291	\$195		
Sayona Mining	SYA-ASX	A\$0.28	55%	26%	55%	51%	\$0.11/\$0.39	0.0	\$1,728.8	\$136.2	\$1,647.3	1.4	Quebec	0.7	1.8	0.6	2.4	\$2,211	\$934	\$687		
Piedmont Lithium	PLL-ASX	A\$0.94	45%	1%	45%	62%	\$0.49/\$1.08	37.2	\$1,226.7	\$118.1	\$1,073.8	0.4	N.Carolina, Ghana, Quebec	1.0	1.7	1.1	2.8	\$1,037	\$634	\$387		
American Lithium	LI-V	C\$4.76	67%	142%	67%	73%	\$1.56/\$4.90	19.1	\$820.6	\$27.5	\$739.7	0.4	Nevada, Peru	0.0	9.8	5.6	15.4	NA	\$76	\$48		
Ioneer Limited	INR-ASX	A\$0.45	22%	-14%	22%	38%	\$0.32/\$0.84	2.2	\$664.4	\$94.1	\$566.9	0.6	Nevada	0.6	1.1	0.2	1.3	\$984	\$522	\$453		
Frontier Lithium	FL-V	C\$2.31	12%	14%	12%	45%	\$1.30/\$3.89	10.6	\$407.4	\$9.7	\$379.2	0.5	Ontario	0.0	0.5	0.7	1.1	NA	\$820	\$338		
Critical Elements Lithium	CRE-V	C\$2.30	12%	23%	12%	68%	\$1.18/\$2.53	2.3	\$372.2	\$23.4	\$344.6	0.5	Quebec	0.6	0.8	0.1	0.9	\$542	\$420	\$390		
Rock Tech Lithium	RCK-V	C\$2.85	37%	-16%	37%	34%	\$1.99/\$6.34	6.9	\$208.2	\$30.1	\$163.1	0.4	Ontario	0.0	6.6	6.7	13.3	NA	\$25	\$12		
Firefinch Limited	FFX-ASX	A\$0.20	0%	0%	0%	11%	\$0.19/\$1.33	0.0	\$167.9	\$108.3	\$73.2	NA	Mali	1.0	1.2	0.4	1.5	\$75	\$61	\$47		
Cypress Development	LCE-V	C\$1.09	40%	9%	40%	38%	\$0.84/\$2.14	2.6	\$122.9	\$23.0	\$97.7	0.3	Nevada	1.3	6.3	1.0	7.2	\$76	\$16	\$13		
Iconic Minerals	ICM-V	C\$0.10	33%	-5%	33%	41%	\$0.07/\$0.19	0.0	\$9.8	\$0.1	\$11.0	NA	Nevada	0.0	0.0	14.7	14.7	NA	NA	\$1		
Spearmin Resources	SPMT-CSE	C\$0.05	0%	-18%	0%	21%	\$0.04/\$0.16	0.0	\$8.7	\$0.7	\$8.0	NA	Nevada	0.0	0.8	0.2	1.0	NA	\$10	\$8		
Nevada Lithium	NVLH-CSE	C\$0.18	39%	23%	39%	35%	\$0.10/\$0.38	0.0	\$8.3	\$0.0	\$8.3	NA	Nevada	0.0	0.0	3.7	3.7	NA	NA	\$2		
Brine / LDE Developers																						
Lithium Americas	LAC-T	C\$29.94	16%	-13%	16%	45%	\$23.80/\$50.42	0.5	\$3,047.3	\$392.2	\$2,884.0	0.5	Argentina, Nevada	5.7	26.7	7.3	34.0	\$505	\$108	\$85		
Standard Lithium	SLI-V	C\$5.55	44%	3%	44%	36%	\$3.85/\$11.58	8.8	\$731.0	\$90.4	\$601.4	0.4	Arkansas	0.0	3.1	1.2	4.3	NA	\$191	\$139		
Arena Minerals	AN-V	C\$0.67	14%	36%	14%	72%	\$0.33/\$0.68	0.0	\$227.4	\$3.7	\$192.3	0.7	Argentina	0.0	0.0	0.4	0.4	NA	NA	\$524		
Alpha Lithium	ALL-NEO	C\$1.16	21%	27%	8%	66%	\$0.64/\$1.32	8.1	\$148.4	\$24.2	\$112.9	0.6	Argentina	0.0	2.1	1.2	3.3	NA	\$53	\$34		
E3 Lithium	ETL-V	C\$2.34	20%	11%	20%	60%	\$1.59/\$2.91	7.0	\$123.7	\$12.4	\$98.7	0.2	Alberta	0.0	0.0	23.4	23.4	NA	NA	\$4		
Lithium Chile	LTH-V	C\$0.68	19%	17%	19%	42%	\$0.44/\$1.21	2.1	\$101.5	\$29.5	\$70.1	NA	Argentina, Chile	0.0	1.1	1.0	2.1	NA	\$66	\$34		
Highwood Asset Mgmt	HAM-V	C\$10.60	-6%	33%	-6%	66%	\$5.00/\$12.00	0.0	\$47.9	\$0.1	\$48.0	NA	Alberta	0.0	0.0	18.1	18.1	NA	NA	\$3		
Lithium South Development	LIS-V	C\$0.53	6%	6%	6%	43%	\$0.42/\$0.92	7.2	\$41.3	\$7.9	\$30.3	NA	Argentina	0.0	0.6	0.0	0.6	NA	\$53	\$53		
LithiumBank Resources	LBK-V	C\$1.06	27%	30%	27%	38%	\$0.62/\$2.10	0.0	\$29.6	\$0.0	\$29.6	NA	Alberta	0.0	0.4	5.8	6.2	NA	\$75	\$5		
Pure Energy Minerals	PE-V	C\$0.54	47%	-2%	47%	N/A	\$0.31/\$1.70	0.1	\$13.5	\$0.3	\$13.1	NA	Nevada	0.0	0.0	0.2	0.2	NA	NA	\$60		
Hard Rock / Clay Average												0.6								\$829	\$358	\$212
Hard Rock / Clay Adjusted Average (Excluding 10%/90% Outliers)												0.6								\$703	\$315	\$183
Brine / LDE Average												0.5								\$505	\$91	\$94
Brine / LDE Adjusted Average (Excluding 10%/90% Outliers)												0.5								NA	\$76	\$52
Global Average												0.6								\$789	\$269	\$163
Global Adjusted Average (Excluding 10%/90% Outliers)												0.5								\$670	\$219	\$125

Source: Company Reports, Echelon Capital Markets, Capital IQ (share price data, P/NAV consensus estimates)

### Exhibit 4 – Lithium Demand and Supply (2017-2026E)

	2017A	2018A	2019A	2020A	2021A	2022E	2023E	2024E	2025E	2026E
<b>Demand - Non-Battery (000 t, LCE)</b>										
Glass and ceramics	46.00	46.40	47.38	47.23	47.51	47.66	47.77	47.92	48.08	48.24
Lubricant and grease	21.98	21.76	20.70	17.45	19.78	20.59	22.54	23.59	24.09	24.16
Catalyst	7.20	7.34	7.35	7.11	7.54	7.77	7.96	8.21	8.48	8.76
Other	49.66	49.91	50.01	48.36	49.23	49.69	50.05	50.53	51.03	51.53
<b>Demand - Non-Battery</b>	<b>124.85</b>	<b>125.42</b>	<b>125.45</b>	<b>120.15</b>	<b>124.06</b>	<b>125.79</b>	<b>128.34</b>	<b>130.25</b>	<b>131.69</b>	<b>132.69</b>
<b>Demand - Battery (000 t, LCE)</b>										
Passenger plug-in EVs	35.37	65.34	84.34	134.39	272.52	417.28	558.10	734.99	916.96	1,091.70
Electronics	49.89	49.63	50.73	50.15	63.55	63.35	66.00	69.50	72.43	74.40
Energy storage	2.93	6.41	5.02	8.67	19.59	36.21	50.97	66.66	74.28	77.96
Electric bikes and motorbikes	6.02	6.67	7.24	7.97	9.19	9.55	9.93	10.32	10.62	10.92
Other batteries	14.43	15.49	16.34	14.62	26.21	37.89	56.56	85.52	125.41	160.24
<b>Demand - Battery</b>	<b>108.64</b>	<b>143.54</b>	<b>163.66</b>	<b>215.81</b>	<b>391.06</b>	<b>564.27</b>	<b>741.55</b>	<b>966.99</b>	<b>1,199.69</b>	<b>1,415.21</b>
<b>Total Lithium Demand</b>	<b>233.48</b>	<b>268.96</b>	<b>289.10</b>	<b>335.96</b>	<b>515.12</b>	<b>690.06</b>	<b>869.88</b>	<b>1,097.24</b>	<b>1,331.38</b>	<b>1,547.90</b>
Y/Y Change	11%	15%	7%	16%	53%	34%	26%	26%	21%	16%
<b>Supply (000 t, LCE)</b>										
<b>Raw Material Supply</b>	<b>401.58</b>	<b>453.91</b>	<b>456.87</b>	<b>445.52</b>	<b>601.17</b>	<b>763.88</b>	<b>959.38</b>	<b>1,222.18</b>	<b>1,524.02</b>	<b>1,776.42</b>
Y/Y Change	-15%	13%	1%	-2%	35%	27%	26%	27%	25%	17%
<b>Chemical Supply</b>	<b>235.40</b>	<b>276.00</b>	<b>377.00</b>	<b>409.29</b>	<b>503.96</b>	<b>668.28</b>	<b>873.89</b>	<b>1,081.77</b>	<b>1,281.69</b>	<b>1,510.89</b>
Y/Y Change	20%	17%	37%	9%	23%	33%	31%	24%	18%	18%
<b>SxD Balance (000 t, LCE)</b>	<b>1.92</b>	<b>7.04</b>	<b>87.90</b>	<b>73.34</b>	<b>(11.16)</b>	<b>(21.78)</b>	<b>4.00</b>	<b>(15.47)</b>	<b>(49.69)</b>	<b>(37.01)</b>

Source: S&P Global Market Intelligence, Echelon Capital Markets. Data as of December 19, 2022. Passenger plug-in EVs include BEV and PHEV.

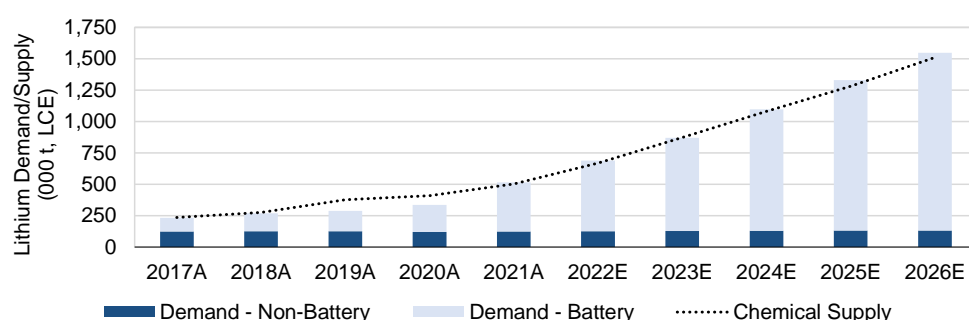
### Supply and Demand Fundamentals

**Demand:** The following discussion on demand and supply is based on reported data from S&P Global Market Intelligence. Based on the lithium demand and supply projections shown in **Exhibit 4**, lithium demand is expected to

grow at a 24.6% CAGR from 2021A to 2026E. Forecast growth over that period is largely driven by demand from batteries (+29.3% CAGR), particularly from passenger EVs (+32% CAGR), with all other battery segments growing at a 22.2% CAGR and accounting for about a quarter of total battery demand in 2026E, down from a third in 2021A. All other non-battery demand sources (glass, ceramics, lubricants etc.) are estimated to grow at just 1.4% CAGR to 2026A. Continued demand is expected from momentum accounted for by achieving global climate goals, specifically carbon neutrality by 2050. EVs are a major focus for international decarbonization efforts, as reflected by the IEA's estimate that adoption is expected to grow at a 27% CAGR from 2020 to 2030, generally in line with S&P Global Market Intelligence forecasts.

In 2017A, 47% of total lithium demand was from battery-based applications with passenger EVs accounting for 33% of total battery-based demand; by 2021A, 76% of total lithium demand was from battery-based applications with passenger EVs accounting for 70% of total battery-based demand. By 2026E, 91% of total lithium demand is expected to come from battery-based applications, with passenger EVs accounting for 77% of total battery-based demand.

### Exhibit 5 – Lithium Supply and Demand Summary Chart (Battery vs. Non-Battery Demand)



Source: S&P Global Market Intelligence, Echelon Capital Markets. Data as of December 19, 2022.

China remains a robust driver of the EV transition, representing half of global passenger EV sales in 2021. Despite the weaker economic environment characterized by earlier pandemic restrictions leading to reduced foot traffic and closed showrooms, passenger EV sales were up marginally at 0.4% m/m in October, relative to overall auto sales that were down 4.6% over the same period. China is expected to continue dominating global EV sales, maintaining a 50-55% market share (**Exhibit 6**), despite slowing to a 2022E through to 2026E CAGR of 32% (from a 2017A to 2021A CAGR of 57%), and compared to a rest-of-world 2022E through to 2026E CAGR of 28% (from a 2017A to 2021A CAGR of 50%).

### Exhibit 6 – Global Passenger Plug-in Electric Vehicle Sales

	2017A	2018A	2019A	2020A	2021A	2022E	2023E	2024E	2025E	2026E
<b>Total Passenger Plug-in Electric Vehicle Sales (000s)</b>										
China	556	1,017	1,061	1,247	3,334	6,483	7,528	9,389	11,719	13,259
EU27	224	294	390	1,046	1,746	1,783	3,154	4,134	5,277	5,962
Norway	48	73	80	106	152	139	150	164	158	157
UK	45	58	73	175	305	177	488	291	339	383
Japan	54	50	44	29	44	76	109	146	184	232
South Korea	15	34	37	40	109	133	164	199	246	195
US	196	361	327	302	568	891	1,158	1,516	1,998	2,411
Other	61	112	142	194	361	481	689	1,120	1,563	2,119
<b>Total Passenger PEV Sales</b>	<b>1,198</b>	<b>1,999</b>	<b>2,152</b>	<b>3,139</b>	<b>6,619</b>	<b>10,164</b>	<b>13,440</b>	<b>16,960</b>	<b>21,485</b>	<b>24,718</b>
<b>Y/Y Change</b>	<b>54%</b>	<b>67%</b>	<b>8%</b>	<b>46%</b>	<b>111%</b>	<b>54%</b>	<b>32%</b>	<b>26%</b>	<b>27%</b>	<b>15%</b>

Source: S&P Global Market Intelligence, Echelon Capital Markets. Data as of December 19, 2022.

By and large, demand for lithium in battery applications is expected to remain strong owing to a mix of real consumer demand for differentiated products (i.e., the perceived premium and convenience of home/work charging of battery EVs), as well as from policy-induced demand that seeks to reduce the cost of passenger EVs relative to internal combustion engines, due to global mandates for an end to internal combustion engine vehicle sales (in Europe by 2030, Canada by 2035, US by 2035, etc.).

**Supply:** Per S&P Global Market Intelligence data, in 2021 50% of global lithium chemical supply (in LCE terms) came from Australia and 32% came from Latin America (mainly Argentina & Chile), with China, North America and other countries making up the rest of supply. The three largest producing companies, controlling 47% of global supply in 2021, were Albemarle Corp. (ALB-NYSE, NR) with 21% of global production, Sociedad Química y Minera de Chile (SQM-NYSE, NR) with 18%, and Pilbara Minerals Ltd. (PLS-ASX, NR) with 8% of global production. As of 2021, 48% of global lithium chemical supply came from brine sources; by 2026, that amount is estimated to fall to 35.5% with 64.5% coming from conventional hard rock sources and 1.0% coming from emerging clay sources.

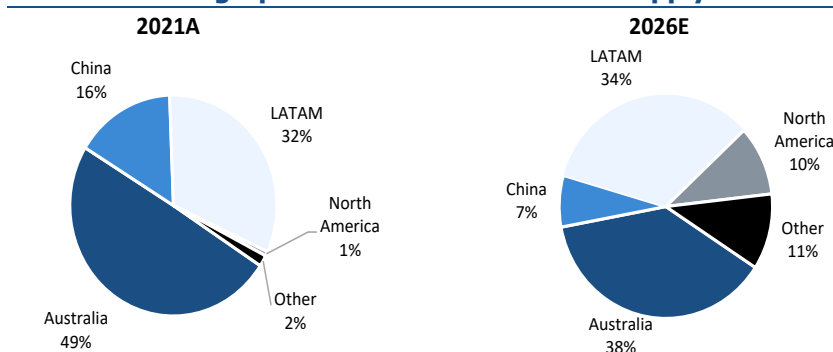
### Exhibit 7 – Geographic Lithium Supply Breakdown (LCE Tonnes)

	2017A	2018A	2019A	2020A	2021A	2022E	2023E	2024E	2025E	2026E
<b>Lithium Raw Material Supply</b>										
Australia	239,410	271,075	248,692	213,518	298,300	389,705	461,057	550,531	620,868	671,253
China	39,510	45,867	53,050	65,449	94,214	113,286	118,864	126,300	130,271	131,954
Portugal	1,236	1,236	1,546	618	1,546	1,546	1,546	1,546	1,546	1,546
Finland	0	0	0	0	0	0	0	0	3,658	9,145
<b>South America</b>										
Argentina	30,311	33,898	33,555	30,965	31,595	37,018	79,189	137,422	190,956	254,327
Chile	79,999	86,666	100,164	111,578	149,495	195,306	237,559	265,409	278,186	289,754
Brazil	1,717	3,114	7,997	12,893	14,229	14,229	20,416	32,790	50,232	50,713
<b>North America</b>										
Canada	0	0	0	0	0	0	9,000	26,000	82,207	127,004
US	4,619	5,827	3,561	2,189	3,483	4,478	5,473	6,717	18,076	33,956
Mexico	0	0	0	0	0	0	0	0	11,099	18,488
<b>Africa</b>										
Zimbabwe	4,778	6,232	8,309	8,309	8,309	8,309	11,277	24,912	52,482	63,846
DRC	0	0	0	0	0	0	15,000	40,000	60,000	90,000
Mali	0	0	0	0	0	0	0	10,000	20,000	30,000
Namibia	0	0	0	0	0	0	0	555	4,436	4,436
<b>Total Raw Material Supply</b>	<b>401,581</b>	<b>453,915</b>	<b>456,874</b>	<b>445,519</b>	<b>601,171</b>	<b>763,877</b>	<b>959,381</b>	<b>1,222,181</b>	<b>1,524,017</b>	<b>1,776,424</b>
<b>% Brine Supply</b>	<b>35.6%</b>	<b>35.6%</b>	<b>38.5%</b>	<b>40.4%</b>	<b>38.7%</b>	<b>39.2%</b>	<b>40.6%</b>	<b>39.5%</b>	<b>36.4%</b>	<b>35.5%</b>
<b>Lithium Chemical Supply</b>										
<b>Brine</b>	<b>142,807</b>	<b>161,471</b>	<b>175,861</b>	<b>180,094</b>	<b>232,925</b>	<b>299,427</b>	<b>389,425</b>	<b>483,187</b>	<b>554,708</b>	<b>631,331</b>
China	27,878	35,080	38,581	35,362	48,352	62,625	67,203	73,639	76,609	78,293
Argentina	30,311	33,898	33,555	30,965	31,595	37,018	79,189	137,422	190,956	254,327
US	4,619	5,827	3,561	2,189	3,483	4,478	5,473	6,717	8,956	8,956
Chile	79,999	86,666	100,164	111,578	149,495	195,306	237,559	265,409	278,186	289,754
<b>Hardrock</b>	<b>92,593</b>	<b>114,529</b>	<b>201,139</b>	<b>229,198</b>	<b>271,039</b>	<b>368,857</b>	<b>484,463</b>	<b>598,585</b>	<b>718,657</b>	<b>866,619</b>
<b>Clay</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8,324</b>	<b>12,942</b>
<b>Total Chemical Supply</b>	<b>235,400</b>	<b>276,000</b>	<b>377,000</b>	<b>409,292</b>	<b>503,964</b>	<b>668,284</b>	<b>873,888</b>	<b>1,081,773</b>	<b>1,281,689</b>	<b>1,510,892</b>

Source: S&P Global Market Intelligence, Echelon Capital Markets. Data as of December 19, 2022.

In terms of yearly supply growth, raw material and total chemical supply are estimated to grow at a 22.9% and 23.3% CAGR, respectively, between 2021A and 2026E, versus a total lithium demand CAGR of 24.6% over the same period. On a regional basis, between 2021A and 2026E, the biggest supply growth CAGR is estimated to come from North America to supply a growing US-based supply chain playing catch up to Europe and China, then Latin America, Australia, and China (**Exhibit 8**).

### Exhibit 8 – Geographic Lithium Raw Material Supply Breakdown, 2021A and 2026E



Source: S&P Global Market Intelligence, Echelon Capital Markets. Data as of December 19, 2022.



**Supply & Demand Balance, Forecast Prices:** The global market for lithium chemicals was in balance up to 2019A/2020A (**Exhibit 9**) when a large surplus was reported due to pandemic-related economic shutdowns and the global recession. With the global economy largely recovering through 2021A, a modest 2.2% deficit (of demand) accelerated to a 3.2% deficit in 2022E. While not a large deficit overall, prices increased from an average of US\$13,313/tonne LCE (CIF Asia) in 2021 to an average of US\$51,125/tonne LCE (reaching a high of US\$62,500/tonne in December) in 2022E. 2023E is estimated to see a small 0.4% supply surplus, in part as the Pilangoora mine, the fourth-largest producer globally, completes a A\$300M expansion to increase output by over 17% late in the year. After 2023E, persistent supply deficits of 3-4% are projected to 2026E.

As we've indicated, the rapid increase in 2022 prices is attributed to large increases in marginal spot demand for light commercial vehicle battery pack production and sales in China, which is mainly supplied from overseas. However, as we've also indicated, we believe that the majority of the market was being supplied by long-term contracts at around the US\$38,000/tonne LCE level in mid-2022. As such, we believe that the lithium price forecasts noted below are a reasonable estimate assuming small, persistent supply deficits.

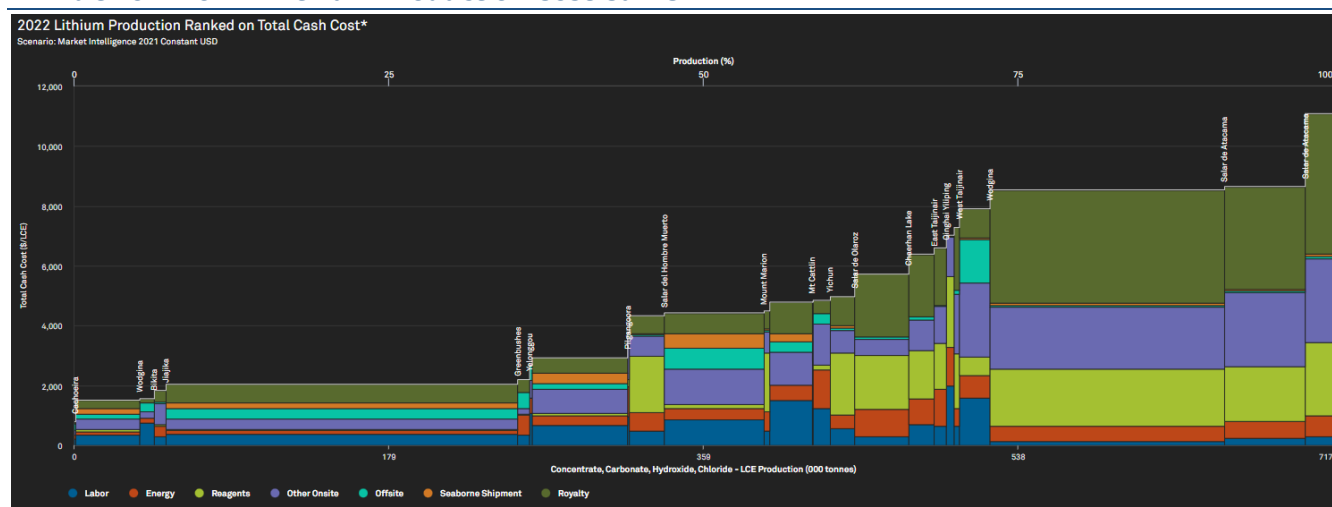
### Exhibit 9 – Supply/Demand Balance & Lithium Price Forecast

	2017A	2018A	2019A	2020A	2021A	2022E	2023E	2024E	2025E	2026E	
Lithium Supply / Demand (000 t, LCE)											
Raw Material Supply	402	454	457	446	601	764	959	1,222	1,524	1,776	
Y/Y Change	-15%	13%	65%	-2%	35%	27%	26%	27%	25%	17%	
Chemical Supply	235	276	377	409	504	668	874	1,082	1,282	1,511	
Y/Y Change	260%	17%	3659%	9%	23%	33%	31%	24%	18%	18%	
Chemical Demand	233	269	289	336	515	690	870	1,097	1,331	1,548	
Y/Y Change	11%	15%	7%	16%	53%	34%	26%	26%	21%	16%	
Balance	2	7	88	73	-11	-22	4	-15	-50	-37	
Lithium Pricing											
Lithium carbonate min. 99.2% CIF Asia price	US\$/t	\$18,125	\$17,063	\$11,675	\$8,400	\$13,313	\$51,125	\$46,667	\$41,350	\$41,915	\$42,093
Y/Y Change		49%	-6%	-32%	-28%	58%	284%	-9%	-11%	1%	0%

Source: S&P Global Market Intelligence, Echelon Capital Markets. Data as of December 19, 2022.

**Supply Costs:** For 2022E, the average weighted total cash cost of production across approximately 94% of total sector production is US\$4,846/tonne LCE, or US\$3,275/tonne LCE excluding royalties (taxes, carried interests, private or government royalties) at 2021 USD constant dollars, based on industry cost curve data shown in **Exhibit 10**.

### Exhibit 10 – 2022E Lithium Production Cost Curve



Source: S&P Global Market Intelligence, Echelon Capital Markets

Excluding royalties, the lowest cost LCE production comes from the aggregate of spodumene concentrate production from Australia's Wodgina (Albemarle 60%, Mineral Resources Ltd. 40%), Greenbushes (Albemarle 49%, Tianqi Lithium 26.01%, IGO 24.99%), Pilangoora (Pilbara 100%), and Mt. Cattlin (Allkem Ltd. 100%) hard rock mines, which produce at an average cash cost of US\$2,058/tonne LCE. Besides a small amount of LCE produced from lithium chloride at Salar de

Hombre Muerto (Livent 100%) for US\$3,892/tonne, the next highest average cost LCE production comes from the aggregate of lithium carbonate production at an average cash cost of US\$4,616/tonne, mainly (from lowest to highest cost) from Argentina, China, and Chile. Finally, LCE production from lithium hydroxide production tends to have the highest cost at an average of US\$6,658 and mostly comes from producers at Chile's Salar de Atacama; higher costs are from additional processing required to produce lithium hydroxide (i.e., it is a higher value-added product) from either spodumene concentrates or lithium carbonates.

Globally, royalties account for an average of 32% of total cash costs. Regionally however, royalties across all product categories (concentrates, chloride, carbonate, hydroxide) in the largest producing countries add the most to total cash costs in Chile (accounting for 43% of total cash costs), China (30%), Australia (21%), Argentina (16%), and Brazil (5%).

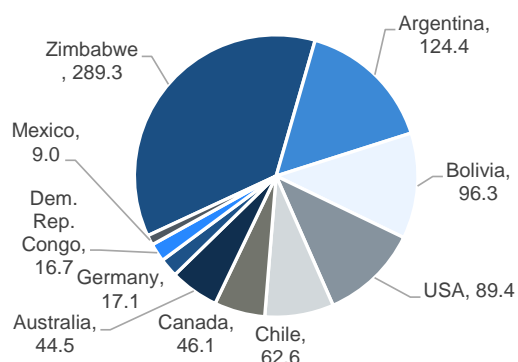
Again, excluding royalties, hard rock deposits tend to have lower average cash costs because of the higher lithium-grade nature of spodumene and other hard rock sources of lithium. Globally, that average is significantly reduced by the preponderance of production coming from the large, low-cost Australian producers, especially the Greenbushes mines. Conversely, brines tend to be higher cost because of the lower comparable grade and larger consumption of reagents to produce lithium hydroxides, though these higher costs are offset by far lower labour costs.

It's worth mentioning that the foregoing discussion of average costs across different products and their sources won't necessarily apply in all cases for comparing new projects coming online, especially when these are using Direct Lithium Extraction (or "DLE", a novel but commercially untested set of processing approaches to extract lithium from brines without passive evaporation), and for lithium clays, largely because these projects tend to be lower grade than their conventional brine or hard rock counterparts.

**Global Reserves:** Interestingly, in geographic and project terms it is Zimbabwe that has the largest lithium reserves and resources with the Bikita property reportedly having 116.2M tonnes of lithium oxide ( $\text{Li}_2\text{O}$ ). Next is Argentina with a total of 50.4M tonnes  $\text{Li}_2\text{O}$  out of which Atacama has 23.9M tonnes  $\text{Li}_2\text{O}$ , Cauchari-Olaroz has 9.9M tonnes  $\text{Li}_2\text{O}$  and Olaroz has 6.6M tonnes  $\text{Li}_2\text{O}$ ; Bolivia's Uyuni Salt Flat with 39M tonnes of  $\text{Li}_2\text{O}$ ; the US has 36.2M tonnes  $\text{Li}_2\text{O}$  including the Bonnie Claire's 8.4M tonnes  $\text{Li}_2\text{O}$  and Thacker Pass' 7.3M tonnes  $\text{Li}_2\text{O}$ ; Chile with 25.4M tonnes  $\text{Li}_2\text{O}$ ; and Canada with 18.7M tonnes  $\text{Li}_2\text{O}$  of which the Bashaw District accounts for 9.9M tonnes  $\text{Li}_2\text{O}$ .

S&P Global Market Intelligence reports the top 10 countries for lithium reserves and resources as having a combined 322.2M tonnes  $\text{Li}_2\text{O}$ , which equates to roughly 795M tonnes of LCE. The reserves and resources of three of the largest four currently producing countries of Australia, Chile and Argentina make up a combined 231M tonnes of LCE; notably, despite being the third-largest producer among them, China does not make the top 10 countries for lithium in reserves and resources. Canada has the world's sixth-largest reserves and resources at 18.7M tonnes  $\text{Li}_2\text{O}$  (or 46.1M tonnes LCE) including the western prairie petro-brines which account for 66.4% of its total; the remaining 6.28M tonnes  $\text{Li}_2\text{O}$  of conventional lithium would still put it in the top 10 global reserves and resources. The US is in fourth among the top ten with 36.2M tonnes of  $\text{Li}_2\text{O}$  though well over half of that is from lithium clays that are not yet in production, and the remaining are from conventional sources.

#### Exhibit 11 – Global Reserves and Resources (Million Tonnes of LCE)



Source: S&P Global Market Intelligence, Echelon Capital Markets

An important caveat is that the stated reserves and resources include conventional and unconventional lithium reserves for which economically feasible extraction has been estimated, and resources for which economically feasible extraction has not been estimated and cannot be guaranteed.



# Alpha Lithium Corp.

## M&A & Exploration Value Potential at The Tolillar and Hombre Muerto Projects in the Lithium Triangle

ALLI-NEO: \$1.16  
Speculative Buy  
\$1.95 Target

Projected Return: 68.1%

**A Fully Controlled Lithium Salar with M&A Demand:** We are resuming coverage of Alpha Lithium ("Alpha", "ALLI", or "the Company") with a Speculative Buy rating and \$1.95/shr price target. Alpha's flagship asset is the 100%-owned Tolillar project, which is on the eponymous Tolillar Salar, that Alpha controls entirely, and which we believe presents a strong development opportunity for an interested buyer. Alpha is well financed with \$33M in cash to complete an updated Tolillar resource estimate, construct a pilot plant to demonstrate its direct lithium extraction ("DLE") process, and begin drilling its second, earlier-stage Hombre Muerto project.

**Tolillar Project Highlights:** Tolillar currently contains 2.1M tonnes of lithium carbonate equivalent ("LCE") in the Indicated category and 1.2M tonnes of LCE in the Inferred category; a resource update upgrading confidence and expanding resources is expected in Q123. The Company is developing a proprietary DLE process to recover lithium, though Tolillar brine lithium may also be amenable to conventional evaporation recovery. We estimate that a 50,000 tonnes per year ("tpy") production scenario could produce an NPV(12%) of US\$2.26B using a US\$22,500/tonne LCE long-term price. A 60tpy LCE pilot plant is planned to be built by Q223-end to demonstrate Alpha's LCE process commerciality.

**Hombre Muerto Project:** Alpha's second, earlier-stage 5,000ha Hombre Muerto project is located less than 20km away from Tolillar, on the eponymous high-grade (+700mg/L) salar that has been in production for over 20 years. Alpha is in the process of doubling its landholding at Hombre Muerto and has recently begun drilling the project. Vertical Electrical Sounding ("VES") surveys have confirmed the continuity of saturated stratigraphy from adjacent projects.

**Attractive M&A Potential:** The cancelled November 2021 Uranium One Group transaction option for up to 50% of the Tolillar project, then prior to its initial resource estimate and with the global average price of lithium carbonate at US\$21,260/tonne, valued the project at US\$430M. Alpha's current cash and development plans allow it to continue to de-risk and increase project value into H123, ahead of alternate JV/M&A opportunities to continue funding Tolillar on better terms. We believe the Hombre Muerto project could also provide JV/M&A potential to further develop the project and capitalize the Company.

**Upcoming Catalysts:** 1) Ongoing drilling at Tolillar, initial drilling at Hombre Muerto – Q123, 2) Updated resource estimate at Tolillar – Q122, 3) Start of pilot processing plant at Tolillar for completion in Q223-end, 4) Preliminary Economic Assessment ("PEA") at Tolillar – H223.

**Resuming Coverage with a Speculative Buy Rating and 12-Month \$1.95 Price Target:** Our valuation is based on a fully-funded, fully-diluted Tolillar DCF, discounted at 12% given that a PEA and demonstration of the commercial scalability of Alpha's proprietary DLE process are pending. We value Hombre Muerto at a nominal \$75M based on land transaction comparables. Using a US\$22,500/tonne LCE long-term price yields a total NAV of US\$2.6B, or \$6.23 per fully diluted share. We apply a 0.3x target multiple, which we believe is commensurate with comparable lithium brine development companies. Noting the next six months' catalysts, we believe Alpha could quickly re-rate to a higher valuation. **As outlined in our [industry overview](#), supply and demand fundamentals argue for higher long-term prices to project cash flows than what we believe the market is using; in terms of leverage, an increase in long-term prices from our base-case US\$22,500/tonne LCE to US\$44,250/tonne LCE (+88%) increases our price target by +144%** all else equal, though we caution our estimate is based on conceptual parameters versus what an optimized, engineered PEA might otherwise estimate.

Market Data				
Market Cap. (C\$M)	\$188.0			
Cash Eq. & ST Inv. (C\$M)	\$33.2			
Total Debt (C\$M)	\$0.2			
Enterprise Value (US\$M)	\$113.6			
Basic Shares O/S (M)	162.1			
Fully Diluted Shares O/S (M)	224.3			
Avg. 3-M Daily Volume (M Shr)	218.4			
Avg. 3-M Daily Turnover (C\$M)	\$0.2			
52-Week Range (C\$)	\$0.64 - \$1.32			
Div. Yield (%)	0.0%			
Financial Summary				
Annual	2021A	2022E	2023E	2024E
Revenue (M)	0.0	0.0	0.0	0.0
Adj. EBITDA (M)	-7.5	-12.2	-12.7	-12.7
Net Income (M)	-9.2	-13.1	-12.7	-12.7
EPS	-0.08	-0.08	-0.08	-0.07
P/E	NM	NM	NM	NM
CFPS	-0.08	-0.06	-0.06	-0.06
P/CF	NM	NM	NM	NM
Cash, ST Inv.	47.0	24.1	8.9	13.7
Quarterly	Q1/22A	Q2/22A	Q3/22A	Q4/22E
EPS	-0.03	-0.02	-0.02	-0.02
CFPS	-0.02	-0.01	-0.01	-0.02

**Company Description**  
Alpha Lithium Corp. is a mineral exploration company focused on the development of its Tolillar and Hombre Muerto lithium brine salar projects in Argentina. The company is led by Brad Nichol, President and CEO. The company is headquartered in Vancouver, Canada.

### 12-Month Price History



Source: FactSet, Historical Data – Company Filings, Forecasts/estimates – Echelon Wealth Partners  
Figures in C\$ unless otherwise noted

## Data Sheet

FINANCIALS (C\$M)	2020A	2021A	2022E	2023E	2024E
<b>INCOME STATEMENT</b>					
Total Revenue	0.0	0.0	0.0	0.0	0.0
Cost Of Goods Sold	0.0	0.0	0.0	0.0	0.0
Gross Profit	0.0	0.0	0.0	0.0	0.0
SG&A	4.2	8.9	11.9	10.0	10.0
Operating Expenses	2.3	3.2	3.5	2.7	2.7
Operating Income	-6.5	-12.1	-15.3	-12.7	-12.7
Net Interest Expense	-0.1	0.1	0.3	0.0	0.0
Net Non-Operating	0.1	-4.5	-3.4	0.0	0.0
Pretax Income	-6.5	-7.6	-12.3	-12.7	-12.7
Income Tax Expense	0.0	1.6	0.8	0.0	0.0
Minority Interest	0.0	0.0	0.0	0.0	0.0
Extraordinary/Pref.Div	0.0	0.0	0.0	0.0	0.0
Net Income	-6.5	-9.2	-13.1	-12.7	-12.7
Adj. Net Income	-6.5	-9.2	-13.1	-12.7	-12.7
<b>CASH FLOW</b>					
Op. Cash Flow bef. WC	-4.2	-9.2	-8.8	-10.0	-10.0
Change in WC	-0.4	0.8	-3.1	0.0	0.0
Cash From Operations	-4.7	-8.4	-12.0	-10.0	-10.0
Capital Expenditure	0.0	-0.3	-5.5	-11.0	-4.0
Other Investing Activities	-0.8	-5.6	-9.8	0.0	0.0
Cash from Investing	-0.8	-5.9	-15.3	-11.0	-4.0
Dividends	0.0	0.0	0.0	0.0	0.0
Issue Of Common, Net	11.5	48.0	0.0	0.0	18.8
Issue Of Debt, Net	-0.1	0.0	0.0	0.0	0.0
Other Financing	2.9	4.2	3.6	5.7	0.0
Cash from Financing	14.3	52.2	3.5	5.7	18.8
Net Change in Cash	0.0	7.6	-7.1	0.4	2.9
<b>BALANCE SHEET</b>					
Cash, ST Investments	9.1	47.0	24.1	8.9	13.7
Other Current Assets	0.1	0.7	1.6	1.6	1.6
Total Current Assets	9.2	47.7	25.7	10.5	15.3
PP&E, Net	12.3	19.6	36.8	47.8	51.8
Other Long-Term Assets	9.2	48.2	29.7	14.4	19.2
Total Assets	21.6	67.8	66.5	62.2	71.0
Payable/Other ST Liabilities	1.9	5.0	5.4	5.4	5.4
Current Debt	0.0	0.0	0.0	0.0	0.0
Total Current Liabilities	1.9	5.0	5.4	5.4	5.4
LT Debt/Capital Leases	0.0	0.0	0.2	0.2	0.2
Other Long-Term Liabilities	1.9	5.0	6.2	6.2	6.2
Total Liabilities	1.9	5.0	6.4	6.4	6.4
Total Equity	19.7	62.8	60.1	55.9	64.7

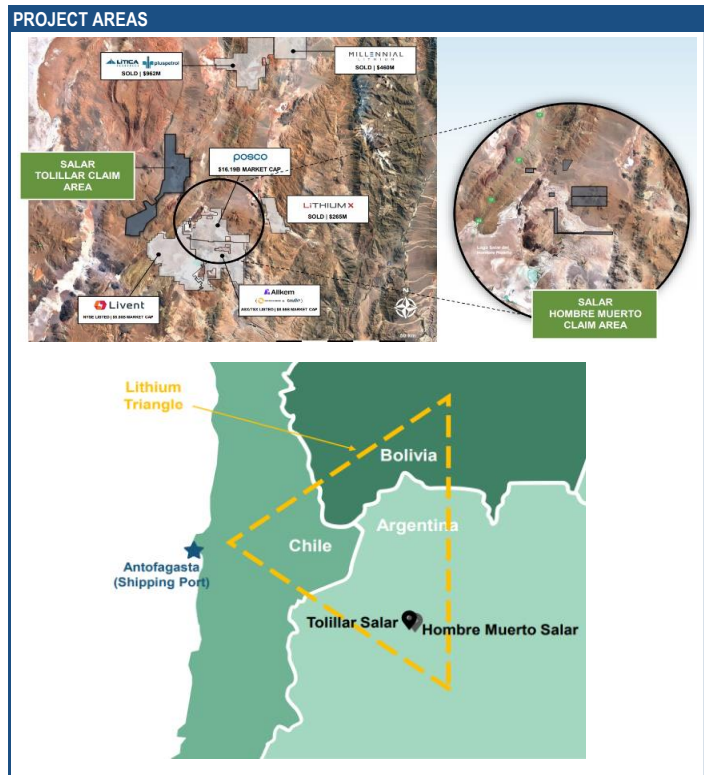
RATIOS	2020A	2021A	2022E	2023E	2024E
Basic EPS (US\$)	-0.12	-0.08	-0.08	-0.08	-0.07
P/E	NM	NM	NM	NM	NM
Adj. Basic EPS (US\$)	-0.12	-0.08	-0.08	-0.08	-0.07
DPS (US\$)	0.00	0.00	0.00	0.00	0.00
Dividend Yield (%)	0%	0%	0%	0%	0%
CFPS (US\$)	-0.08	-0.08	-0.06	-0.06	-0.06
P/CF	NM	NM	NM	NM	NM
EBITDA (US\$M)	-6.4	-7.5	-12.2	-12.7	-12.7
EV/EBITDA	NM	NM	NM	NM	NM

PROFIT & SOLVENCY	2020A	2021A	2022E	2023E	2024E
EBITDA, %	0%	0%	0%	0%	0%
FCFPS	-0.09	-0.08	-0.11	-0.13	-0.08
ROE, %	-33%	-15%	-22%	-23%	-20%
ROA, %	-30%	-14%	-20%	-20%	-18%
Current Ratio	5.0x	9.5x	4.7x	1.9x	2.8x
Net Debt to Equity	-0.5	-0.7	-0.4	-0.2	-0.2

Source: Company Reports, CapitalIQ, Echelon Capital Markets

PRICE DECK	2020A	2021A	2022E	2023E	2024E
Li Carbonate (US\$/tonne)	\$8,942	\$13,665	\$55,742	\$45,000	\$30,000
Li Hydroxide (US\$/tonne)	\$9,825	\$15,011	\$54,010	\$42,500	\$27,500
CAD/USD	0.75	0.80	0.77	0.75	0.75

RESOURCES					
Project/Category	Bm <sup>3</sup>	Avg. Li (mg/L)	Li2CO3 Eq. (tonnes)	Avg. K (mg/L)	In-situ K (tonnes)
<b>Tolillar (Argentina)</b>					
Indicated	1.6	242	2,119,000	2,315	3,873,000
Inferred	1.1	191	1,158,000	2,201	2,510,000
<b>Total</b>	<b>2.8</b>	<b>221</b>	<b>3,277,000</b>	<b>2,291</b>	<b>6,383,000</b>



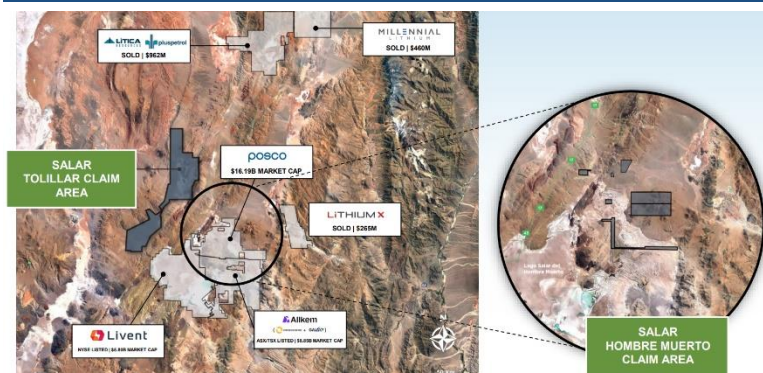
Source: Company Reports

INSTITUTIONAL OWNERSHIP	
Institution	% Held
Mackenzie Financial Corporation	0.5%
IG Investment Management, Ltd.	0.4%
Canada Life Investment Management Ltd.	0.2%
Alterarea Eafi, SL	0.0%
Almanack Investment Partners, LLC	0.0%

## Investment Thesis

Alpha Lithium is focused on the development of its 100%-owned Tolillar and Hombre Muerto lithium brine salar projects in Argentina (**Exhibit 1**). The 27,500ha Tolillar project covers 100% of the entire Tolillar Salar, one of the last undeveloped salars in the Lithium Triangle (**Exhibit 2**), which hosts many world-class, producing and developing lithium salars. The Tolillar project resource contains a 2.2M tonne Indicated resource grading 242mg/L Li, and 1.2M tonne Inferred resource grading 191mg/L Li. An updated resource estimate is expected in early Q123, and work on a PFS will be soon underway for completion in early H223. Alpha's second project, Hombre Muerto, is a 5,000ha property within the producing 93,000ha Hombre Muerto Salar. Alpha has begun drilling the first wells at Hombre Muerto.

### Exhibit 1 – Alpha Lithium Claims



Source: Company Reports.

### Exhibit 2 – Lithium Triangle



Source: Company Reports

We are resuming coverage of Alpha Lithium with a Speculative Buy rating and \$1.95/shr PT. We believe that Alpha's ownership of the entire Tolillar Salar provides attractive project development and further resource growth potential. Given the increasing global demand for lithium for its role in high-energy density battery storage, we also believe Alpha's Tolillar project can attract increasing takeover interest as the project continues to advance. In November 2021, prior to the maiden resource estimate in August 2022, Alpha attracted a US\$30M investment in Tolillar from Uranium One Group, a private energy company backed by Rosatom, for a 15% project interest with an option to acquire a further 35% for an additional US\$185M and valuing Tolillar at US\$430M. The transaction was cancelled in March 2021. Since then, Alpha has remained focused on continuing to increase project value through resource development and the demonstration of its DLE process with a pilot plant planned to be completed near Q223-end. Alpha has also begun drilling its first holes at Hombre Muerto in 2022. The Company is well financed with approximately \$33M in cash, which we estimate will be enough to build and operate a pilot plant at Tolillar.

### Exhibit 3 – Maiden Tolillar Project Resource Estimate

Category	Brine Vol (Mm <sup>3</sup> )	Avg. Li (mg/L)	In-situ Li (tonnes)	Li <sub>2</sub> CO <sub>3</sub> Eq. (tonnes)	Avg. K (mg/L)	In-situ K (tonnes)	KCl Eq. (tonnes)
Indicated	1,645	242	398,000	2,119,000	2,315	3,873,000	7387000
Inferred	1,141	191	218,000	1,158,000	2,201	2,510,000	4786000
<b>Total</b>	<b>2,786</b>	<b>221</b>	<b>616,000</b>	<b>3,277,000</b>	<b>2,291</b>	<b>6,383,000</b>	<b>12,173,000</b>

Cutoff grade: 100 mg/L lithium based on claims by Beyond Lithium LLC for their proprietary lithium extraction method.

Estimated calculated by multiplying polygon areas by the unit thickness, porosity and grade.

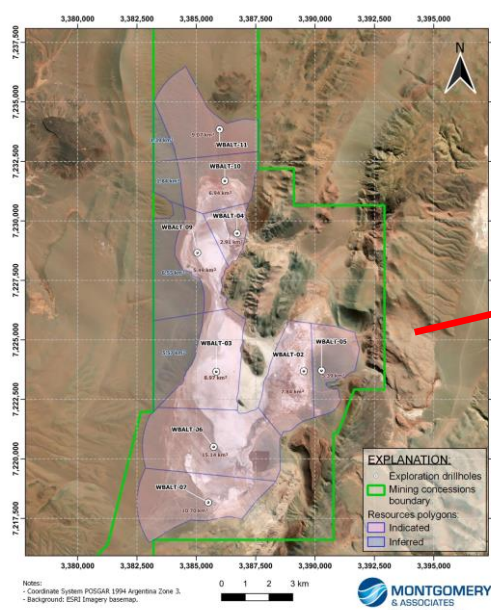
Source: Company Reports, Echelon Capital Markets

**Resource Growth Potential at Tolillar:** The maiden Tolillar project resource (**Exhibit 3**) was announced in August 2023, partly to backstop the Company's value following the cancellation of the Uranium One Group transaction in March, while a more comprehensive resource estimate expected in Q123 is completed. The resource was estimated from drilling to a maximum depth of ~385m in the main salar area. Mineralization is still open to depth in certain areas and could also carry higher grades. Recently reported exploration results confirmed concentrations of up to 360mg/L. Drilling to date has only covered 32% of the total Tolillar project concession surface area (**Exhibit 4** and **Exhibit 5**), suggesting that both additional vertical and lateral resource development are possible. Drilling for the water required



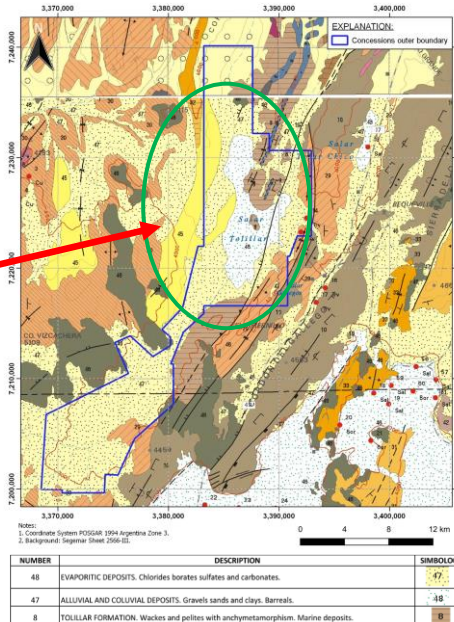
for a processing plant also recently identified an uncontested aquifer with a 400m<sup>3</sup>/hour flow rate from two wells, which can be increased with additional wells and would be more than sufficient for a 75,000tpy plant.

#### Exhibit 4 – Maiden Resource Polygons



Source: Company Reports

#### Exhibit 5 – Tolillar Property, Main Stratigraphic Units



Source: Company Reports

**Ongoing Resource Development, Pilot Plant, and PEA:** The Company is planning on updating the Tolillar resource estimate in Q123, mainly to upgrade the Inferred category resource into the Indicated category to improve confidence in potential production estimates, but also to expand resources and possibly also improve grade if ongoing drilling to greater depths supports it. In July 2022, the Company announced that it engaged IMEC Ingeniería 360°, an industrial engineering firm, to complete detailed engineering work for a 60tpy LCE pilot plant to test the commercial viability of the proprietary DLE technology developed in-house through its partnership with Beyond Lithium LLC. Lab-scale tests conducted by Beyond Lithium reported a 9,474 mg/L lithium concentration after starting with a 200 mg/L brine sample, with approximately 90% recovery. The pilot plant is expected to be completed by Q223-end at a cost of \$5M, plus related infrastructure. Work on a PEA for the design and costing of twin 25,000tpy LCE processing plant modules for a combined 50,000tpy production scenario is expected to begin shortly, for completion in H223, with Ausenco Limited recently announced to lead the study.

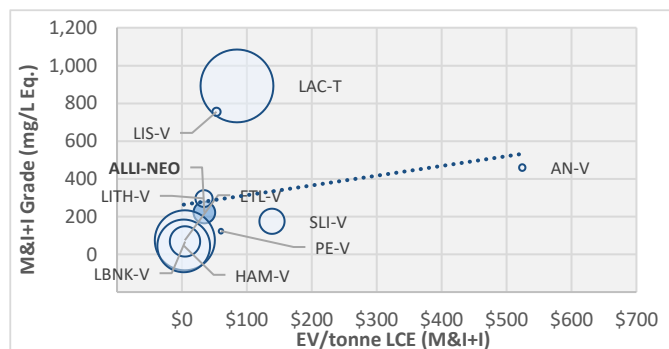
Tolillar is well situated for production given that it is only ~15km away from the Salar del Hombre Muerto, which has been in production for over 20 years and operated by Livent (LTHM-NYSE, NR), POSCO Chemical Co. (003670-KRX, NR), and Allkem (AKE-ASX, NR). Nearby infrastructure includes 375kV power lines, a natural gas pipeline, and a railway.

**Project Comparables, Revaluation Potential:** The August 2023 resource estimate's 3.3M tonnes LCE (Indicated + Inferred) values the Company at only US\$46/tonne LCE versus the lithium brine peer group average of US\$125/tonne or US\$69/tonne excluding outliers. As such, with further resource growth, project development and de-risking, we see the opportunity for increasing value potential from the Tolillar project. Of the lithium brine developer comparable group tracked by Echelon Capital Markets, shown in **Exhibit 6**, the closest comparables in terms of size and project development are Lithium Chile (LITH-TSXV, NR), whose nearby but slightly less advanced Arizaro salar project is smaller in terms of overall and attributable resources, albeit at slightly higher-grade, and Standard Lithium (SLI-TSX, NR), whose Arkansas Smackover/LANXESS petro-brine lithium is also being advanced using DLE processing. Arena Minerals (AN-TSXV, NR), recently acquired by Lithium Americas (LAC-TSX, NR) has a smaller (Inferred only) but higher-grade project, with Gangfeng Lithium (002460-SHE, NR) also as an investor/partner, located in the Sal de la Puna salar, next to Pluspetrol (Private) and Lithium Americas (LAC-TSX, NR), which also holds the Thacker Pass lithium clay project in

Nevada. We believe that based on the size and state of development of comparable companies, Alpha Lithium can continue to increase in terms of valuation relative to its comparable companies as the Tolillar project moves forward.

The trio of lower-grade but larger resource companies are E3 Lithium (ETL-TSXV, NR), Highwood Asset Management (HAM-TSXV, NR), and Lithium Bank Resources (LBNK-TSXV, NR), whose projects are earlier-stage Canadian prairie petro-brine projects.

### Exhibit 6 – LCE Resource EV/Tonne, Grade, Size Comparables



Source: Echelon Capital Markets

**Hombre Muerto:** Alpha's Hombre Muerto property covers 5,072ha over several non-contiguous claims (**Exhibit 1**), which the Company has acquired for approximately US\$1.53M. The Hombre Muerto claims are adjacent to POSCO's Sal de Vida north (acquired from Galaxy Resources, now Allkem in 2018) and Allkem's Sal de Vida south claims (acquired through the combination of Orocobre and Galaxy Resources in 2021), and near to Livent's claims which have been in production for over 25 years – all on the same Hombre Muerto Salar. The Company recently completed a VES survey over a portion of the Hombre Muerto claims, showing low to moderate resistivity, from 0.3 to 2.3 Ohm-m in an upper unit and 2 to 12 Ohm-m in the middle unit on the Santo Tomas claim. We believe values between 0 to 4 Ohm-m generally show very good potential for coinciding with the presence of productive aquifers and potential brine saturation. The Company is in the process of finalizing the purchase of an additional 5,700m of claims for the Hombre Muerto project, and has budgeted approximately US\$6M to drill 10 test wells in 2023. Holes on POSCO's claims drilled within 300m of Alpha's Hombre Muerto Santo Tomas claim are reported to have returned grades over 700mg/L, which is in line with POSCO and Allkem's Hombre Muerto resources grades.

## Estimates, Valuation & Rating

**Tolillar Discounted Cash Flow Model:** We consider the development of a 50,000tpy LCE production scenario based on the Company's plans for processing plant design capacity. We use a 12% discount rate considering the relatively early stage of Tolillar's development, noting that a PEA is now underway, providing growing certainty to potential project economics and an eventual reduction in our discount rate. Our long-term LCE price is US\$22,500/tonne, which gives an NPV(12%) of \$2.26B. We recognize that our long-term price is conservative given that the current price of lithium carbonate is hovering around US\$68,000/tonne off the back of a major policy-driven increase in demand from China. However, our work on valuation suggests that the market is still discounting a long-term lithium price of closer to US\$25,000/tonne LCE for development projects, which is approximately the trailing three-year average price. In using a conservative US\$22,500/tonne price, we assume a potential near-term pull-back in prices which have risen very rapidly, before settling to a potentially higher long-term range of over \$45,000/tonne.

The major difference between our current estimates following resumption of coverage and Echelon Capital Markets' estimates prior to our change in rating to Under Review, is a 50,000tpa LCE production scenario we conservatively estimate at US\$800M in capex versus 10,000tpa LCE production costing US\$185M in capex previously, and the inclusion of US\$15/year of sustaining/maintenance capital (US\$500/tonne of LCE produced per year) versus no ongoing sustaining/maintenance cost previously. At year 0 (construction start), this produces an NPV(12%) of US\$2.26B versus US\$444M previously. Echelon's previous long-term price assumption was US\$15,000/tonne LCE. Alpha recently announced that it has appointed Australian-based Ausenco to lead the Tolillar PEA, for a proposed 50,000tonn/year operation with a 40-year mine life.

**Hombre Muerto Valuation:** POSCO's claims surrounding Hombre Muerto were purchased from Galaxy Resources (now part of Allkem) in 2018 for US\$110/tonne LCE in M&I+Inferred and US\$15,300/ha. In 2021, Lithium Americas purchased Millennial Lithium and its Pastos Grandes, 60km north of Hombre Muerto, for US\$72/tonne LCE M&I+Inferred and US\$28,000/ha. For now, we assign a nominal value of US\$75M, which considers a US\$15,000/ha land value assuming no additional work on the project. Assuming that drilling produces productive wells with grade near the Hombre Muerto Salar average of 700mg/L, and the project land package expands to 10,000ha, we believe Alpha's Hombre Muerto project could rapidly increase in value to anywhere between US\$150M to US\$250M in terms of pre-production land value, implying between US\$15,000/ha to US\$25,000/ha, given that it is located on one of the most productive salars in the Lithium Triangle. Further development, including a resource and PEA, would be required to assess the project in discounted cash flow terms.

### Exhibit 7 – Valuation

12 Month Fwd	Disc. Rate	US\$M	US\$/Shr	C\$/Shr
<b>Assets</b>				
Tolillar DCF	12%	\$2,255.9	\$5.60	\$7.47
Hombre Muerto		\$75.0	\$0.19	\$0.25
<b>Asset Sub-total (US\$M)</b>		<b>\$2,330.9</b>	<b>\$5.79</b>	<b>\$7.72</b>
<b>Corporate</b>				
Working Capital (C\$M)		\$8.5	\$0.02	\$0.02
Long-term Debt/Leases (C\$M)		-\$0.2	-\$0.00	-\$0.00
Project Debt (Pro-Forma)		-\$503.4	-\$0.94	-\$1.25
Dilutive ITM Proceeds (C\$M)		\$5.7	\$0.01	\$0.01
<b>Corporate Sub-total (C\$M)</b>		<b>-\$489.3</b>	<b>-\$0.91</b>	<b>-\$1.22</b>
<b>Total NAV (C\$M)</b>		<b>\$2,618.5</b>	<b>\$4.88</b>	<b>\$6.51</b>
<b>Target Multiple</b>			<b>0.30x</b>	
<b>Adjusted NAV</b>			<b>\$1.46</b>	<b>\$1.95</b>

Source: Echelon Capital Markets

### Exhibit 8 – Target Price Sensitivity

	LCE Price (US\$/tonne)					
	\$1.95	\$10,250	\$22,500	\$32,500	\$42,500	\$52,500
Multiple	0.20x	0.15	1.30	2.24	3.19	4.13
	0.30x	0.22	1.95	3.37	4.78	6.19
	0.40x	0.29	2.60	4.49	6.37	8.26
	0.50x	0.37	3.25	5.61	7.96	10.32
	0.60x	0.44	3.90	6.73	9.56	12.38


Source: Echelon Capital Markets

**Valuation and Rating:** We assign Alpha Lithium a 12-month forward price target of \$1.95 with a Speculative Buy rating. Our valuation considers Tolillar fully financed and the Company fully diluted to production, based on a 65% debt/35% equity financing, assuming 100% ownership of the project. We use a 12% discount rate considering that potential project economics based on a PEA are pending, and that the proposed DLE process is proprietary and subject to pilot plant testing. In general, a PEA and more detailed feasibility-level work and greater certainty around processing and



production would entail a lower discount rate and higher multiple. Permitting is another consideration, however, we note that Argentina generally has a straightforward, state-level permitting regime that provides for exploration licenses to be converted to exploitation licenses provided that an Environmental Impact Assessment is submitted and accepted by the appropriate state authority. We apply a 0.3x NAV multiple, which we believe is in line with early to mid-stage lithium brine explorers.

A sensitivity around our target multiples and long-term LCE price is shown in **Exhibit 8**, with our target price in bold. In our view, the balance of risks is to the upside, given that we believe the market is still discounting a long-term LCE price of around US\$25,000/tonne, whereas recent prices, and supply and demand trends likely support adjusting long-term price expectations to higher prices.

**Balance Sheet and Financial Assumptions:** As of Q322-end, Alpha was well financed with \$33M in cash and equivalents and no significant liabilities. We estimate that Alpha could spend approximately US\$15M to Q423-end, including the Tolillar pilot plant, PEA, and exploration drilling at Hombre Muerto.

### Exhibit 9 – Projected Financial Estimates

FINANCIALS (C\$000)	Q1/22A	Q2/22A	Q3/22A	Q4/22E	2022E	Q1/23E	Q2/23E	Q3/23E	Q4/23E	2023E	Q1/24E	Q2/24E	Q3/24E	Q4/24E	2024E
<b>INCOME STATEMENT</b>															
Total Revenue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Of Goods Sold	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gross Profit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SG&A	3,109	3,107	3,156	3,000	12,372	3,000	3,000	3,000	3,000	12,000	3,000	3,000	3,000	3,000	12,000
Operating Expenses	1,483	767	458	750	3,459	750	750	428	750	2,678	750	750	428	750	2,678
Operating Income	-4,592	-3,874	-3,614	-3,750	-15,831	-3,750	-3,750	-3,428	-3,750	-14,678	-3,750	-3,750	-3,428	-3,750	-14,678
Net Interest Expense	38	110	182	-3	327	-3	-3	-3	-3	-13	-3	-3	-3	-3	-13
Net Non-Operating	-593	-1,429	-1,336	0	-3,357	0	0	0	0	0	0	0	0	0	0
Pretax Income	-4,037	-2,556	-2,460	-3,747	-12,800	-3,747	-3,747	-3,424	-3,747	-14,665	-3,747	-3,747	-3,424	-3,747	-14,665
Income Tax Expense	0	0	752	0	752	0	0	0	0	0	0	0	0	0	0
Minority Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extraordinary/Pref.Div	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net Income	-4,037	-2,556	-3,212	-3,747	-13,552	-3,747	-3,747	-3,424	-3,747	-14,665	-3,747	-3,747	-3,424	-3,747	-14,665
Adj. Net Income	-4,037	-2,556	-3,212	-3,747	-13,552	-3,747	-3,747	-3,424	-3,747	-14,665	-3,747	-3,747	-3,424	-3,747	-14,665
Basic EPS (US\$)	-0.03	-0.02	-0.02	-0.02	-0.09	-0.02	-0.02	-0.02	-0.02	-0.08	-0.02	-0.02	-0.02	-0.02	-0.07
Adj. Basic EPS (US\$)	-0.03	-0.02	-0.02	-0.02	-0.09	-0.02	-0.02	-0.02	-0.02	-0.08	-0.02	-0.02	-0.02	-0.02	-0.07
EBITDA (US\$M)	-4,017	-2,556	-2,428	-3,744	-12,744	-3,744	-3,744	-3,421	-3,744	-14,653	-3,744	-3,744	-3,421	-3,744	-14,653
<b>CASH FLOW</b>															
Op. Cash Flow bef. WC	-2,557	-1,785	-2,002	-2,997	-9,341	-2,997	-2,997	-2,997	-2,997	-11,987	-2,997	-2,997	-2,997	-2,997	-11,987
Change in WC	-94	5	-1,443	-1,600	-3,132	0	0	0	0	0	0	0	0	0	0
Cash From Operations	-2,651	-1,780	-3,445	-4,597	-12,473	-2,997	-2,997	-2,997	-2,997	-11,987	-2,997	-2,997	-2,997	-2,997	-11,987
Capital Expenditure	-101	-44	-377	-2,000	-2,522	-16,000	-16,000	-2,000	-2,000	-36,000	-2,000	-2,000	-2,000	-2,000	-8,000
Other Investing Activities	-1,386	-4,524	-3,889	0	-9,800	0	0	0	0	0	0	0	0	0	0
Cash from Investing	-1,487	-4,568	-4,266	-2,000	-12,322	-16,000	-16,000	-2,000	-2,000	-36,000	-2,000	-2,000	-2,000	-2,000	-8,000
Dividends	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Issue Of Common, Net	0	0	0	0	0	0	28,200	0	0	28,200	0	0	28,200	0	28,200
Issue Of Debt, Net	0	0	-6	0	-6	0	0	0	0	0	0	0	0	0	0
Other Financing	1,132	102	2,316	0	3,550	3,817	0	1,923	0	5,739	0	0	0	0	0
Cash from Financing	1,132	102	2,310	0	3,544	3,817	28,200	1,923	0	33,939	0	0	28,200	0	28,200
Net Change in Cash	8	8	8	8	-7	8	8	8	8	0	8	8	8	8	0
CFPS (US\$)	-0.02	-0.01	-0.01	-0.02	-0.06	-0.02	-0.02	-0.02	-0.02	-0.07	-0.02	-0.02	-0.02	-0.01	-0.06
<b>BALANCE SHEET</b>															
Cash, ST Investments	44,000	37,879	33,246	26,649	26,649	11,469	20,672	17,598	12,601	12,601	7,604	2,607	25,810	20,813	20,813
Other Current Assets	635	820	1,567	1,567	1,567	1,567	1,567	1,567	1,567	1,567	1,567	1,567	1,567	1,567	1,567
Total Current Assets	44,635	38,699	34,812	28,215	28,215	13,035	22,239	19,164	14,167	14,167	9,171	4,174	27,377	22,380	22,380
PP&E, Net	20,678	23,513	31,807	33,807	33,807	49,807	65,807	67,807	69,807	69,807	71,807	73,807	75,807	77,807	77,807
Other Long-Term Assets	45,166	42,011	38,769	32,173	32,173	16,992	26,196	23,121	18,125	18,125	13,128	8,131	31,334	26,337	26,337
Total Assets	65,844	65,524	70,577	65,980	65,980	66,800	92,003	90,929	87,932	87,932	84,935	81,938	107,141	104,144	104,144
Payable/Other ST Liabilities	4,449	3,202	7,046	5,446	5,446	5,446	5,446	5,446	5,446	5,446	5,446	5,446	5,446	5,446	5,446
Current Debt	0	0	78	0	0	0	0	0	0	0	0	0	0	0	0
Total Current Liabilities	4,449	3,202	7,125	5,446	5,446	5,446	5,446	5,446	5,446	5,446	5,446	5,446	5,446	5,446	5,446
LT Debt/Capital Leases	0	0	79	157	157	157	157	157	157	157	157	157	157	157	157
Other Long-Term Liabilities	4,449	3,202	7,877	6,198	6,198	6,198	6,198	6,198	6,198	6,198	6,198	6,198	6,198	6,198	6,198
Total Liabilities	4,449	3,202	7,955	6,355	6,355	6,355	6,355	6,355	6,355	6,355	6,355	6,355	6,355	6,355	6,355
Total Equity	61,395	62,322	62,621	59,625	59,625	60,444	85,648	84,573	81,577	81,577	78,580	75,583	100,786	97,789	97,789

Source: Company Reports, Echelon Capital Markets

## Investment Risks

**Processing Design Risk:** Alpha Lithium is developing a DLE process to extract lithium directly from brine rather than using the conventional evaporation process for concentration and production of a saleable product. DLE technology provides certain advantages over evaporation, including potentially better scalability of operations. Alpha Lithium's DLE process bench testing, conducted by its partner, Beyond Lithium LLC, has succeeded in producing high-purity lithium carbonate and hydroxide products. However, given that DLE technologies across the lithium industry are mostly proprietary and still largely under development, there are greater uncertainties to benchmarking their performance and commercial scalability compared to more conventional processes.

**Production, Cost & Capital Estimates:** The Tolillar PEA will provide additional production and cost details that could differ from our estimates. We are taking what we believe to be a conservative approach to our model with US\$800M in upfront capex (versus Company estimates of somewhere closer to \$700M, for instance) and adding \$10M/year (\$500/tonne LCE) in sustaining/maintenance capex, which were not previously included in Echelon Capital Market's estimates before moving our rating to Under Review. As we've noted, our long-term price assumption is on the conservative side given current lithium prices.

**Argentina Economic, Political Risk:** Although Argentina and the Salta and Catamarca provinces are mining friendly, the country is considered a higher-risk jurisdiction in political and economic terms. At present, Argentina is facing high rates of inflation that may cause some supply chain issues and difficulty in obtaining capital equipment, although this may favour operating costs in USD terms. Capital controls on the repatriation of earnings are currently in place, though the potential risks of this are somewhat mitigated by favourable exchange rates for capital investment. The current President of Argentina is Alberto Fernandez, of the left-leaning Peronist coalition. Elections are scheduled for October 2023.

**Strategic Resource Nationalism:** The Canadian government recently ordered three lithium companies to divest their ownership of Chinese state-controlled entities in their projects/assets located in Argentina. We don't believe these actions will increase capital scarcity or have a material impact on the ownership or development of strategic resources in Argentina, particularly given Argentina's need for foreign investment. However, resource nationalism is potentially on the rise, and is a trend that investors should be aware of.

These risks are in addition to the typical risks associated with mineral development and mining companies, including commodity price risks, operating risks, capital and operating cost risks, financial market risks, and sovereign/country risks.

## Investment Thesis

### Investment Thesis

We rate Alpha Lithium a Speculative Buy; our Speculative qualifier considers that the Company is pre-production and depends on external financing for ongoing development of its projects, although the company is currently well funded to continue its project development program. We believe that the Tolillar project has the potential to become a significant, 50,000tpy LCE producer of lithium chemicals. The previous, now cancelled, JV with Uranium one for Tolillar demonstrated the potential attractiveness of Alphas ownership of the entire Tolillar salar. The Company's second project, Hombre Muerto, also provides Alpha with further value potential for JV/M&A and capitalization opportunities.

### Valuation

Our \$1.95/shr (rounded) price target is based on a fully financed, fully diluted DCF(12%) for Tolillar, and a nominal project comparables value for Hombre Muerto. We apply a 0.3x P/NAV target multiple, which we believe is commensurate with comparable development-stage lithium companies.

### Investment Risks

Alpha Lithium depends on external financing and capital market conditions to fund its operations. That said, we believe the current high price of lithium chemicals will persist in the near-to-medium term, providing ample interest in funding the Tolillar and Hombre Muerto projects. Whilst not devoid of risks that, among other things, include currency and capital export controls, Argentina is generally considered a higher-risk jurisdiction politically, although it is noted for having a straightforward and amenable mineral extraction regime.

These risks are in addition to the typical risks associated with mining and mineral-related investments, including but not limited to operating, financial, political/sovereign, labour, and commodity price risks.

Source: Echelon Capital Markets

### Valuation Summary

12 Month Fwd	Disc. Rate	US\$M	US\$/Shr	C\$/Shr
<b>Assets</b>				
Tolillar DCF	12%	\$2,255.9	\$5.60	\$7.47
Hombre Muerto		\$75.0	\$0.19	\$0.25
<b>Asset Sub-total (US\$M)</b>		<b>\$2,330.9</b>	<b>\$5.79</b>	<b>\$7.72</b>
<b>Corporate</b>				
Working Capital (C\$M)		\$8.5	\$0.02	\$0.02
Long-term Debt/Leases (C\$M)		-\$0.2	-\$0.00	-\$0.00
Project Debt (Pro-Forma)		-\$503.4	-\$0.94	-\$1.25
Dilutive ITM Proceeds (C\$M)		\$5.7	\$0.01	\$0.01
<b>Corporate Sub-total (C\$M)</b>		<b>-\$489.3</b>	<b>-\$0.91</b>	<b>-\$1.22</b>
<b>Total NAV (C\$M)</b>		<b>\$2,618.5</b>	<b>\$4.88</b>	<b>\$6.51</b>
<b>Target Multiple</b>			<b>0.30x</b>	
<b>Adjusted NAV</b>			<b>\$1.46</b>	<b>\$1.95</b>

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**Company:** Alpha Lithium Corp. | ALLI-NEO

I, Gabriel Gonzalez, hereby certify that the views expressed in this report accurately reflect my personal views about the subject securities or issuers. I also certify that I have not, am not, and will not receive, directly or indirectly, compensation in exchange for expressing the specific recommendations or views in this report.

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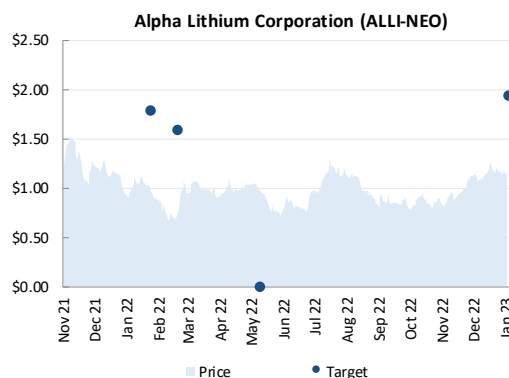
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Does the Analyst or any member of the Analyst's household have a financial interest in the securities of the subject issuer? If Yes: 1) Is it a long or short position? No position ; and, 2) What type of security is it? None	No
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<b>Buy</b>	The security represents attractive relative value and is expected to appreciate significantly from the current price over the next 12 month time horizon.
<b>Speculative Buy</b>	The security is considered a BUY but in the analyst's opinion possesses certain operational and/or financial risks that are higher than average.
<b>Hold</b>	The security represents fair value and no material appreciation is expected over the next 12-18 month time horizon.
<b>Sell</b>	The security represents poor value and is expected to depreciate over the next 12 month time horizon.
<b>Under Review</b>	While not a rating, this designates the existing rating and/or forecasts are subject to specific review usually due to a material event or share price move.
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Number of recommendations	33	38	4	0	9	3	2
% of Total (excluding Restricted)	39%	45%	5%	0%	11%		
Number of investment banking relationships	14	23	0	0	6	3	1
% of Total (excluding Restricted)	33%	53%	0%	0%	14%		

**PRICE CHART, RATING & PRICE TARGET HISTORY**


Coverage Initiated: Feb 25, 2022. Resumed/Transferred Coverage Jan 29, 2023

Data sourced from: S&amp;P Capital IQ

# American Lithium Corp.

**Bigger is Better: Two Large-Scale, Strategically Located Projects to Meet the Upcoming Lithium Supply Deficits**

LI-TSXV: \$4.76  
**Speculative Buy**  
\$7.75 Target

**Strategically Located, Large-Scale Lithium Resource Developer:** American Lithium (“the Company” or “LI”) is a lithium developer controlling among the top 5 largest junior-held lithium resources, at a combined 15.4M tonnes lithium carbonate equivalent (“LCE”) (M&I-Inferred) resource with the TLC and Falchani projects. The strategically located TLC project in Nevada could be estimated to produce up to 50,000 tonnes/year LCE. The Falchani project in Peru already has a Preliminary Economic Assessment (“PEA”) estimating up to 85,000 tonnes/year LCE, with additional opportunities to produce valuable fertilizer and caesium by-products.

**Strategically Important TLC Project:** TLC is a large-scale lithium clay project located near the Tesla (TSLA-NASDAQ, NR) Nevada Gigafactory, which was built understanding the importance of a regional, secure North American lithium supply hub given the state’s lithium-rich basin deposits. We estimate that the upcoming PEA could outline up to 50,000 tonnes/year of LCE production at around US\$7,000/tonne, with an initial pre-expansion US\$700M (US\$950M total) investment, producing an estimated NPV(8%) of US\$2.3B and 31% IRR based on a US\$22,500/tonne LCE price.

**Falchani Among the Largest Potential Lithium Producers Worldwide:** Falchani is a unique breccia-tuff-sediment hosted hard-rock lithium deposit, located in Peru’s southern altiplano. The initial 2020 Falchani PEA outlined a phased production scenario producing up to 85,000 tonnes/year LCE at an average LOM opex of \$4,000/tonne. For comparison, Pilbara Minerals’ (PLS-ASX, NR) giant Pilangoora mine would produce an annual equivalent of some 105,000/tonnes LCE in spodumene concentrate. We believe Falchani is of strategic importance to Peru, given not only lithium production, but also from potential fertilizer production which the country depends on imports for.

**Macusani Uranium Spin-Out:** The Company recently announced that it will be spinning out its PEA-stage Macusani Uranium project, near the Falchani project. Given renewed interest in the role nuclear power could take to provide carbon-free baseload energy, the spin-out could unlock value for American Lithium investors.

**Catalysts:** 1) Initial TLC Project PEA – early CQ123, 2) Updated Falchani PEA incorporating Sulfate of Potash (fertilizer), caesium, and other by-products – mid-CH123, 3) Macusani Project spin-out – CH123. The Company recently listed its shares on the NASDAQ, which should improve its visibility and liquidity.

**Resuming Coverage with a Speculative Buy Rating and \$7.75 PT:** Our price target is based on a fully diluted/financed NAV assuming production at TLC (in C2028) and Falchani (in C2027). In our view, both projects could garner a higher valuation with their near-term catalysts & de-risking (particularly with the TLC project PEA), given their strategic location and size, whether American Lithium ultimately builds both, builds one and JV/sells the other, or sells both projects. On an EV/tonne basis, the Company trades at US\$48/tonne (or US\$116/tonne LCE using the higher TLC cut-off resource) versus the peer group at US\$212/tonne. **As outlined in our [industry overview](#), supply and demand fundamentals argue for higher long-term prices to project cash flows than what we believe the market is using; in terms of leverage, an increase in long-term prices from our base-case US\$22,500/tonne LCE to US\$44,250/tonne LCE (+88%) increases our price target by +105%** all else equal, though we caution our TLC DCF estimate is based on conceptual parameters versus what an optimized, engineered PEA might otherwise estimate.

**Projected Return: 62.8%**

## Market Data

Market Cap. (C\$M)	\$990.9
Cash Eq. & ST Inv. (C\$M)	\$42.3
Total Debt (C\$M)	\$0.3
Enterprise Value (US\$M)	\$695.9
Basic Shares O/S (M)	208.2
Fully Diluted Shares O/S (M)	254.5
Avg. 3-M Daily Volume (M Shr)	658.8
Avg. 3-M Daily Turnover (C\$M)	\$2.3
52-Week Range (C\$)	\$1.56 - \$4.90
Div. Yield (%)	0.0%

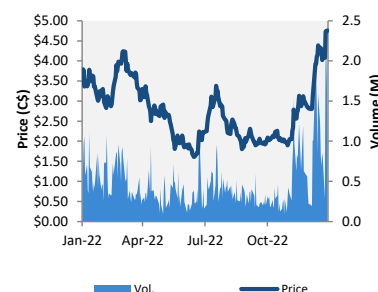
## Financial Summary (Feb. Fiscal YE)

Annual	2021A	2022A	2023E	2024E
Revenue (M)	0.0	0.0	0.0	0.0
Adj. EBITDA (M)	-13.0	-23.4	-32.2	-24.6
Net Income (M)	-13.0	-23.5	-32.4	-24.7
EPS	-0.12	-0.13	-0.16	-0.12
P/E	NM	NM	NM	NM
CFPS	-0.08	-0.06	-0.11	-0.09
P/CF	NM	NM	NM	NM
Cash, ST Inv.	5.5	55.9	34.0	42.0
Quarterly	Q1/23A	Q2/23A	Q3/23E	Q4/23E
EPS	-0.04	-0.05	-0.03	-0.03
CFPS	-0.03	-0.04	-0.02	-0.02

## Company Description

American Lithium Corp. is engaged in the development of large-scale, strategically located lithium projects in mining friendly jurisdictions. Its principal assets are the 100% owned TLC project in Nevada and Falchani project in Peru, with a combined 15.4M tonnes LCE in resource (all categories). The Company is led by Simon Clarke (CEO & Director), Dr. Laurence Stefan (President & COO), and Andrew Bowering (Chairman).

## 12-Month Price History



Source: FactSet, Historical Data – Company Filings, Forecasts/estimates – Echelon Wealth Partners  
Figures in C\$ unless otherwise noted



## Data Sheet

FINANCIALS (C\$M)	2021A	2022A	2023E	2024E	2025E
<b>INCOME STATEMENT (Feb. Fiscal YE)</b>					
Total Revenue	0.0	0.0	0.0	0.0	0.0
Cost Of Goods Sold	0.0	0.0	0.0	0.0	0.0
Gross Profit	0.0	0.0	0.0	0.0	0.0
SG&A	7.5	5.5	8.5	8.0	8.0
Operating Expenses	5.4	17.8	23.3	16.0	16.0
Operating Income	-12.9	-23.4	-31.8	-24.0	-24.0
Net Interest Expense	0.0	0.0	0.6	0.7	1.7
Net Non-Operating	0.0	0.2	0.0	0.0	0.0
Pretax Income	-13.0	-23.5	-32.4	-24.7	-25.7
Income Tax Expense	0.0	0.0	0.0	0.0	0.0
Minority Interest	0.0	0.0	0.0	0.0	0.0
Extraordinary/Pref.Div	0.0	0.0	0.0	0.0	0.0
Net Income	-13.0	-23.5	-32.4	-24.7	-25.7
Adj. Net Income	-13.0	-23.5	-32.4	-24.7	-25.7
<b>CASH FLOW (Feb. Fiscal YE)</b>					
Op. Cash Flow bef. WC	-8.9	-11.2	-23.3	-18.7	-19.7
Change in WC	-0.1	-2.3	2.7	0.0	0.0
Cash From Operations	-9.1	-13.4	-20.5	-18.7	-19.7
Capital Expenditure	0.0	0.0	0.0	0.0	0.0
Other Investing Activities	-0.6	-33.4	-4.5	0.0	0.0
Cash from Investing	-0.6	-33.5	-4.5	0.0	0.0
Dividends	0.0	0.0	0.0	0.0	0.0
Issue Of Common, Net	0.0	50.0	0.0	0.0	0.0
Issue Of Debt, Net	0.0	-0.6	-1.1	0.0	0.0
Other Financing	14.4	11.8	3.7	26.6	69.8
Cash from Financing	14.4	61.2	2.6	26.6	69.8
Net Change in Cash	0.0	7.6	-7.1	0.4	2.9
<b>BALANCE SHEET (Feb. Fiscal YE)</b>					
Cash, ST Investments	5.5	55.9	34.0	42.0	92.1
Other Current Assets	0.1	1.1	0.9	0.9	0.9
Total Current Assets	5.6	57.0	34.9	42.9	93.0
PP&E, Net	11.5	135.6	144.8	144.8	144.8
Other Long-Term Assets	5.7	57.9	35.8	43.8	93.9
Total Assets	17.2	193.5	180.6	188.6	238.7
Payable/Other ST Liabilities	0.4	1.5	4.1	4.1	4.1
Current Debt	0.4	0.4	0.0	0.0	0.0
Total Current Liabilities	0.8	1.9	4.1	4.1	4.1
LT Debt/Capital Leases	0.8	0.8	0.3	0.3	0.3
Other Long-Term Liabilities	0.8	1.9	4.1	4.1	4.1
Total Liabilities	1.6	2.7	4.3	4.3	4.3
Total Equity	15.6	190.8	176.3	184.2	234.4

RATIOS	2021A	2022A	2023E	2024E	2025E
Basic EPS (US\$)	-0.12	-0.13	-0.16	-0.12	-0.11
P/E	NM	NM	NM	NM	NM
Adj. Basic EPS (US\$)	-0.12	-0.13	-0.16	-0.12	-0.11
DPS (US\$)	0.00	0.00	0.00	0.00	0.00
Dividend Yield (%)	0%	0%	0%	0%	0%
CFPS (US\$)	-0.08	-0.06	-0.11	-0.09	-0.08
P/CF	NM	NM	NM	NM	NM
EBITDA (US\$M)	-13.0	-23.4	-32.2	-24.6	-25.7
EV/EBITDA	NM	NM	NM	NM	NM

PROFIT & SOLVENCY	2021A	2022A	2023E	2024E	2025E
EBITDA, %	0%	0%	0%	0%	0%
FCFPS	-0.09	-0.08	-0.10	-0.09	-0.08
ROE, %	-83%	-12%	-18%	-13%	-11%
ROA, %	-75%	-12%	-18%	-13%	-11%
Current Ratio	7.1x	30.6x	8.6x	10.5x	22.8x
Net Debt to Equity	-0.3	-0.3	-0.2	-0.2	-0.4

PRICE DECK	2021A	2022A	2023E	2024E	2025E
Li Carbonate (US\$/tonne)	\$8,942	\$12,699	\$43,072	\$22,500	\$22,500
Li Hydroxide (US\$/tonne)	\$9,825	\$13,953	\$40,380	\$15,500	\$15,500
CAD/USD	0.74	0.80	0.78	0.75	0.75

RESOURCES					
LITHIUM	Tonnes	Li Grade	Li	Li2CO3	LiOH*H2O
Project/Category/Cut-off	(Mt)	(ppm)	(Mt)	Eq. (Mt)	Eq. (Mt)
TLC (Nevada)					
M&I - 500 ppm	2,052	809	809	1.66	8.86
Inferred - 500 ppm	486	713	713	0.35	1.86
Total M&I+Inf. - 500 ppm	2,538	791	791	2.01	10.72
M&I - 1000 ppm	481	1,227	1,227	0.59	3.14
Inferred - 1000 ppm	53	1,154	1,154	0.06	0.32
Total M&I+Inf. - 1000 ppm	534	1,220	1,220	0.65	3.46
M&I - 1200 ppm	214	1,402	1,402	0.30	1.60
Inferred - 1200 ppm	14	1,315	1,315	0.02	0.11
Total M&I+Inf. - 1200 ppm	228	1,397	1,397	0.32	1.71
Falchani (Peru) - 1000ppm					
Indicated	61	2,954	2,954	0.18	0.96
Inferred	260	2,706	2,706	0.70	3.74
Total Indicated + Inf.	321	2,753	2,753	0.88	4.70
URANIUM			Tonnes	Li Grade	U308
Category/Cut-off			(Mt)	(ppm)	(Mlbs)
Macusani (Peru)					
Indicated - 75 ppm			95.2	248	52.0
Inferred - 75 ppm			130.0	251	71.9
Total - 75 ppm			225.2	250	124.0
Indicated - 200 ppm			33.5	445	32.8
Inferred - 200 ppm			41.6	501	46.0
Total - 200 ppm			75.1	476	78.8

CONSENSUS	3-M	Current	Return
Ratings			
Rating:	Buy	Buy	Ratings Distribution:
Average:	8.63	9.00	89%
Median:	8.63	8.63	81%
High:	9.00	12.50	163%
Low:	8.25	6.25	31%
Consensus Ratings: B=Buy, OW=Overweight, Hold, UW=Underweight, S=Sell			

Source: Company Reports, CapitalIQ, Echelon Capital Markets

## Investment Thesis

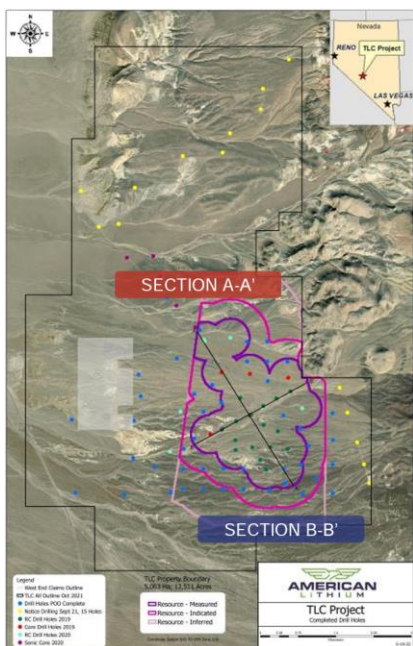
American Lithium controls among the largest (globally top 5) wholly owned lithium resources held by an explorer/developer globally, with the 10.7M tonne (M&I+Inferred) LCE TLC project in Nevada, and the 4.7M tonne (M&I+Inferred) LCE Falchani project in Peru. Both projects have significant near-term catalysts, with the upcoming TLC project's maiden PEA expected in early CH123, and an updated Falchani PEA to include project economics enhancing sulphate of potash ("SOP") and caesium recoveries in mid-CH123. TLC is strategically located near Nevada's lithium battery production hub, and we estimate it could support production of up to 50,000 tonnes/year of LCE for a total of close to 1.0M tonnes of LCE. The Falchani project PEA has estimated production of up to 85,000 tonnes/year for a total of 2.0M tonnes of LCE.

We are resuming coverage of American Lithium with a Speculative Buy rating and 12-month forward price target of \$7.75/shr. We see the scale of American Lithium's projects, which potentially represent up to 110,000 tonnes/year of LCE production, their upcoming development/de-risking catalysts, coupled with an expected and persistent global demand and supply deficit, as providing a compelling case to invest in the Company. Against a backdrop of historically high lithium prices and bullish sector sentiment, the shares are trading slightly below their 52-week range of \$1.56/shr to \$4.49/shr. Our target price represents an 85% potential estimated return.

## TLC (Tonopah Lithium Claims) Project

The TLC project is a 100% owned, 5,062-hectare claystone deposit in southwest Nevada (**Exhibit 1**), containing a large, recently updated lithium resource (**Exhibit 2**) with existing nearby highways, high-voltage electrical, rail lines, and natural gas supply. The project is strategically well located: set in Nevada's lithium sedimentary basin, and about 3.5 hours' drive south-east from the Tesla Nevada Gigafactory, near the town and Nye County seat of Tonopah, and roughly midway along the highway between Reno and Las Vegas.

### Exhibit 1 – TLC Project Location



Source: Company Reports

### Exhibit 2 – TLC Project Resources

	Cut-off	Tonnes (Mt)	Li (ppm)	Li <sub>2</sub> CO <sub>3</sub> (Mt)
<b>TLC - November 29, 2022</b>				
M&I	500	2052	809	8.86
Inferred	500	486	713	1.86
<b>Total M&amp;I+Inferred</b>	<b>400</b>	<b>2538</b>	<b>791</b>	<b>10.72</b>
M&I	1,000	481	1227	3.14
Inferred	1,000	53	1154	0.32
<b>Total M&amp;I+Inferred</b>	<b>1,000</b>	<b>534</b>	<b>1220</b>	<b>3.46</b>
M&I	1,200	214	1402	1.6
Inferred	1,200	14	1315	0.11
<b>Total M&amp;I+Inferred</b>	<b>1,200</b>	<b>228</b>	<b>1397</b>	<b>1.71</b>

Source: Company Reports

**Resource Estimate & Upcoming PEA:** The recently updated November 2022 resource increased the project's base-case 500ppm cut-off LCE Measured & Indicated (M&I) resources by 65% to 8.86Mt LCE, and increased overall (M&I+Inferred) resources by 50% to 10.72Mt LCE, over the previous 400ppm cut-off estimate. The new estimate was based on 53 new core holes drilled over 9,070 metres, up from 29 core holes drilled over 2,836 metres. The Company is currently completing a PEA, expected in early CQ123 (versus CH222 previously, due to COVID-related delays), around

which we expect base-line production assumptions to use the 1,200ppm cut-off resource of 1.6Mt LCE M&I and 0.11Mt LCE Inferred.

Based on our conceptual estimates, including a 96.5% process recovery, we believe that resource could support a phased production scenario of 22,000t LCE to 25,000t LCE for the first five years and between 46,000t LCE to 50,000t LCE for another 18 years, with the potential for an extended mine life based on the remaining lower-grade, lower cut-off resources. We estimate capex on the order of US\$700M for a Phase 1, 12,000tpd mining/production operation including a sulphuric acid plant, and US\$250M for a Phase 2 expansion to 22,000tpd, with opex of around or below US\$7,000/t LCE. At a lithium carbonate price of US\$22,500/tonne, we estimate the TLC PEA would produce an NPV(8%) of US\$2.3B (at project inception) with an after-tax IRR of close to 31% over a total 23-year production period.

**Metallurgy:** The Company recently announced metallurgical batch-testing results in support of the upcoming PEA, highlighting a 97.7% extraction of lithium through sulphuric acid leach (see Exhibit 3), and overall lithium recovery of 88.1% following filtration, neutralization, crystallization and reaction with sodium carbonate to yield a 99.4% pure lithium carbonate product. Final refining to remove potassium and calcium is expected to yield a battery-grade carbonate or hydroxide product.

TLC's metallurgical characteristics compare well in our view to similar clay deposits in Nevada. For example, Lithium Americas' (LAC-TSX, NR) Thacker Pass Project PFS estimated an overall recovery 87.7%, and Cypress Developments (CYP-TSXV, NR) Clayton Valley Project PFS estimated an overall 83% recovery. The TLC project appears to have a somewhat faster sulphuric acid leach residence time of about two hours than comparable clay projects at three hours and above, under similar assumed conditions (ie. temperature/acid concentration); this is a potential benefit TLC's more weakly bonded lithium to the clays.

Past metallurgical tests have evaluated also other lithium extraction methods, including hydrochloric and salt roast-water leaching. The benefit of sulphuric acid leaching is higher lithium extraction to solution, though partially offset by a higher initial capex for the construction of a sulphuric acid plant that is in turn partially offset by production of electricity from the waste heat generated.

### Exhibit 3 –Metallurgical Test Results

Date Announced	Lithium Extraction Process Tested	Lithium Extraction
January 9, 2023	Sulphuric Acid Leach	97.70%
September 15, 2021	Salt Roast - Water Leach	up to 89.4%
August 25, 2021	Sulphuric Acid Leach	97.40%
August 5, 2021	Hydrochloric Acid Leach	95.10%
June 29, 2021	Salt Roast - Water Leach	82%
May 7, 2020	Sulphuric Acid Leach	92.10%

Source: Company Reports

**Royalty Buyback:** The Company recently announced the buyback of the 1% Gross Overriding Royalty on the project for 950k shares (approximately \$3.9M when announced), giving the Company 100% control over the project economics.

**Lithium Clay Deposits Overview:** Lithium clay deposits are generally lower grade (typically grading around 1,000ppm Li) than other conventional hard rock deposits like spodumene or lepidolite pegmatites (typically +2,500ppm Li). On the other hand, clay deposits are typically much larger than their conventional deposit counterparts, making them potentially amenable to scalable, large-scale production with rapid recovery. Meeting skyrocketing battery application demand, where conventional deposits are not abundant enough to meet strategic regional supply requirements, has opened the door for the engineering of designs using well-understood processes to extract lithium from clay deposits. Recognizing the potential of the Nevada basin's lithium clay deposits, the first Tesla Gigafactory was built near Reno, facilitating these clay deposits' potential ability to meet strategic regional supply requirements in North America. Several lithium clay deposits are currently under resource and pre-production development, including Lithium America's (LAC-TSX, NR) soon-to-be spun-out Thacker Pass project, Ioneer's (INR-ASX, NR) Rhyolite Ridge project, and Iconic Minerals' (ICM-TSXV, NR) and Nevada Lithium's (NLVH-CSE, NR) Bonnie Claire JV project.

## Falchani Lithium Project

Falchani is located in the southern Peruvian altiplano, in the region of Puno, approximately 396km by road from Cusco to the northwest and 210km from Juliaca to the southeast (**Exhibit 4**), with airport service to both cities, and 25km from the town of Macusani to the southeast. The Company controls over 93,000 hectares of contiguous concessions within which the Falchani lithium and Macusani uranium (see **Macusani Uranium Project** below) projects are located.

### Exhibit 4 – Falchani Project Location



Source: Company Reports

### Exhibit 5 – Falchani Project Resources

Stratum	Tonnes (Mt)	Li (ppm)	Li2O (%)	LCE (Mt)
-- Indicated --				
UBX	6.2	1,510	0.33	0.05
LRT1	7.5	3,709	0.80	0.15
LRT2	22.0	3,300	0.71	0.39
LRT3	13.0	3,690	0.79	0.26
LBX	12.2	1,816	0.39	0.12
<b>Total Indicated</b>	<b>60.9</b>	<b>2,954</b>	<b>0.64</b>	<b>0.96</b>
-- Inferred --				
UBX	13.8	1,730	0.37	0.13
LRT1	24.0	3,346	0.72	0.43
LRT2	62.3	3,155	0.68	1.05
LRT3	37.2	3,324	0.72	0.66
LBX	122.8	2,275	0.49	1.49
<b>Total Inferred</b>	<b>260.1</b>	<b>2,706</b>	<b>0.58</b>	<b>3.75</b>
<b>Total Ind.+Inf.</b>	<b>321.0</b>	<b>2,753</b>	<b>0.60</b>	<b>4.71</b>

Source: Company Reports

**Resource Estimate and PEA:** Lithium mineralization at Falchani is predominantly contained in well-defined vertical zones consisting of an upper breccia (UBX), higher-grade lithium-rich tuff sequences, and a lower breccia (LBX) unit (**Exhibit 5**). The upper breccia and lithium-rich tuffs are prominently exposed at surface, though covered in some areas by non-mineralized upper-rhyolites which results in a fairly low strip ratio of 0.97:1.

The 2020 PEA base-case scenario outlined a phased expansion, 32-year production plan of up to 85,000 tonnes/year for a total of 2.08M tonnes of lithium carbonate at a process unit cost of US\$3,443/tonne LCE, and a US\$1.97B capital cost. The PEA assumes a sulphuric acid leach metallurgical recovery of 80% of the processed lithium. Using a then three-year trailing price of US\$12,000/tonne LCE, the project generates an after-tax NPV(8%) of US\$1.55B and 19.7% IRR (**Exhibit 6**). The smaller, alternative case scenario in **Exhibit 6** estimated project value without the previously disputed Ocasasa-4 concession (See **Investment Risks – Falchani and Macusani Concession Dispute**), which we consider an unlikely possibility. Opportunities for optimisation of the project include:

- Potentially improved lithium recoveries for which a 2.5% increase would add US\$110M to our base-case NPV(8%) estimate holding everything else constant;
- Building a sulphuric acid plant that trades off higher capex with lower opex and reduced dependency on sulphuric acid from nearby smelters;
- The production and sale of SOP which we estimate would add US\$250M to our base-case NPV(8%) estimate holding everything else constant, and also of caesium sulphate; both are under analysis for incorporation into the project's economics.

The PEA update expected in mid-CH123 will address the foregoing potential optimisations. We note that holding all else equal to the PEA, with only our higher base-case forecast lithium carbonate price of US\$22,500/tonne versus the PEA's US\$12,000/tonne, our NPV(8%) estimate to project inception increases to US\$4.8B from US\$1.55B.

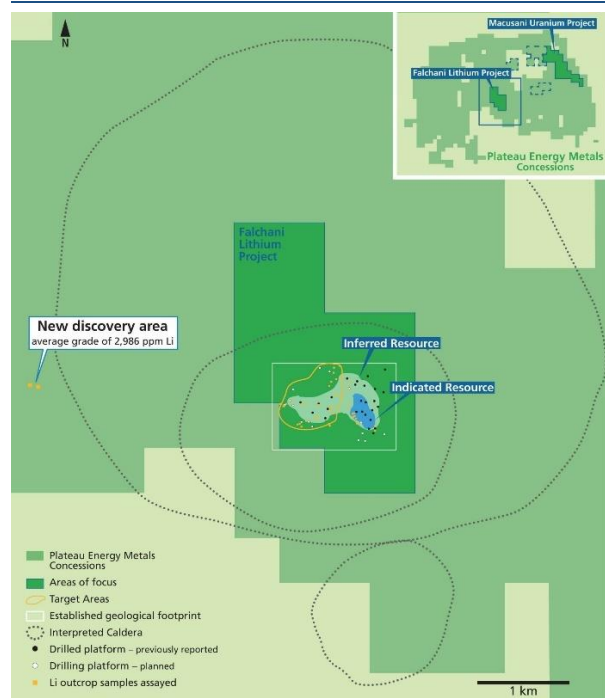
## Exhibit 6 – Falchani PEA Base-Case And Alternative Case Estimates

Falchani PEA Summary	Unit	Base-Case Value	Alternative-Case Value
Mine Life (LOM)	(years)	33	26
Avg. Processing Rate (P1 / P2 / P3)	(Mtpa)	1.5 / 3.0 / 6.0	1.5 / 3.0 / NA
Avg. Throughput (LOM)	(tpa)	4,407,687	2,421,780
Avg. Annual LCE Production (P1 / P2 / P3)	(tpa LCE)	22,678 / 44,227 / 85,230	22,731 / 41,252 / NA
Avg. Annual LCE Produced (LOM)	(tpa LCE)	63,034	33,842
Total LCE Produced (LOM)	(tonnes)	2,080,113	879,895
Unit Opex (P1)	(US\$/t LCE)	\$4,438	\$4,438
Units Opex (LOM)	(US\$/t LCE)	\$3,958	\$4,333
Initial Capex (P1)	(US\$M)	\$587	\$587
Total Capex (LOM)	(US\$M)	\$1,970	\$1,082
After-Tax NPV-8%	(US\$M)	\$1,554	\$844
After-Tax IRR	(%)	19.7%	18.8%
Payback	(years)	4.7	4.6
Modeled LCE Price	(US\$/t LCE)	\$12,000	\$12,000

Source: Company Reports

**Further Exploration And Resource Growth Potential:** Continuing directly to the west of the current resource area is the Tres Hermanas Target, whose three prominent ridges are interpreted to be lithium-rich tuff similar to the main lithium resource-bearing tuff sequence. Only limited trenching and sampling have been conducted at Tres Hermanas, but on that basis and geographical mapping, the Company has established a conceptual exploration target of between 7.5M to 12.5M tonnes grading between 1,125ppm to 3,650ppm lithium, or between 0.05M to 0.24M tonnes of LCE. Another area, Quelccaya, approximately 6km west of the main Falchani deposit returned an average of 2,986ppm from surface sampling Li in an outcropping area that has been mapped over a distance of 1.5km north-south. We believe that American Lithium's large land package presents additional significant resource growth potential to be tapped in the future.

## Exhibit 7 – Falchani Project Location



Source: Company Reports



## Macusani Uranium Project

The Macusani uranium project is located ~20-25km east of its Falchani Lithium project in Peru (see **Exhibit 4** and **Exhibit 14**). The project contains 51.9Mlbs U<sub>3</sub>O<sub>8</sub> grading 248ppm in the M&I category, and 72.1Mlbs U<sub>3</sub>O<sub>8</sub> grading 251ppm in the Inferred category. The 2016 PEA outlined a 10-year mine life generating a US\$603M NPV(8%) (after-tax) and an IRR of 40.6% (after-tax) using a U<sub>3</sub>O<sub>8</sub> price of US\$50/lb, with total production of approximately 70Mlbs U<sub>3</sub>O<sub>8</sub> (**Exhibit 8**). Cost assumptions under the PEA included a US\$299.8M initial capital cost with US\$17.30/lb LOM cash operating costs. The PEA assumed mine production was predominantly open pit with supplementary underground extraction and heap-leach processing. The spot price of U<sub>3</sub>O<sub>8</sub> is currently US\$49.88/lb, up from a November 2016 low of US\$18.00/lb. Work since the 2016 PEA has shown the potential to double the head-grade through pre-concentration and further enhance and optimize potential recoveries, which should produce project economics improvements.

### Exhibit 8 – Macusani PEA

Macusani PEA Summary	Unit	Value
Mine Life (LOM)	(years)	10
LOM Total Production	(Mlbs U <sub>3</sub> O <sub>8</sub> )	~70
Avg. Annual Production (LOM)	(Mlbs U <sub>3</sub> O <sub>8</sub> )	6.1
Avg. Annual Tonnes Mined	(Mt)	10.9
LOM Head Grade (75 ppm Cut-Off)	(ppm U <sub>3</sub> O <sub>8</sub> )	289
Open Pit Strip Ratio		2.05:1
Processing Methodology		Heap Leach
Uranium Recovery	(%)	88%
Acid Consumption	(kg/t H <sub>2</sub> SO <sub>4</sub> )	10
Avg. Production Costs	(US\$/lb U <sub>3</sub> O <sub>8</sub> )	\$17.3
Initial Capex	(US\$M)	\$299.8
Sustaining Capex	(US\$M)	\$43.9
After-Tax NPV-8%	(US\$M)	\$603
After-Tax IRR	(%)	40.6%
Payback	(years)	1.8
Modeled Uranium Price	(US\$/lb U <sub>3</sub> O <sub>8</sub> )	\$50.00

Source: Company Reports, Echelon Capital Markets Estimates

### Exhibit 9 – Spot/Long-Term Uranium Price



Source: UxC, TradeTech, Cameco Corp. (cameco.com), Echelon Capital Markets

**Likely Spin-Out:** The Company recently announced that it is proposing to spin out the Macusani project into an independent publicly traded company to better realize value for the asset considering the current spot price of U<sub>3</sub>O<sub>8</sub> and the Company's expected work program for the asset, which includes updating the PEA and moving to Feasibility work in C2023. The spin-out proposal involves transferring the uranium-focused assets to an existing publicly traded company in exchange for the Company's common shares, and then distributing all, or the majority, of those common shares to American Lithium's existing shareholders on a pro rata basis. Considering the renewed interest in nuclear energy as a means of reducing grid reliance on fossil fuels, we believe that the spin-out of the uranium-focused Macusani concessions presents an attractive value-unlocking opportunity.

There are several risks to consider with respect to fully unlocking the Macusani project's value in a spinout, including congressional ratification of the regulatory framework for the export of uranium from Peru, a process that could still be anywhere between 6 to 24 months out considering the current political situation in the country. An agreement with the government on preservation of pre-Columbian rock wall paintings on certain Macusani concessions that are currently being catalogued by archaeological surveying will also likely be required to permit a mining operation. Considering the natural erosion already occurring on these paintings, their removal and preservation in a museum could be a straightforward solution.



## Valuation & Rating

**Valuation assumptions:** Our valuation is based on a sum-of-the-parts NAV that includes:

- A **Falchani DCF** that values the project to our 12-month price target horizon at US\$2.7B, using a 10% discount rate in view of the comprehensive PEA-stage project design and relatively heightened country risk in Peru. We assume a two-year construction period beginning in C2025, and production in C2027. Our DCF uses the base-case assumptions from the C2020 PEA, and we don't include potential upcoming upside from the production and sale of SOP or caesium sulphate, though we've noted in our discussion of the project what we estimate the sale of SOP could be worth. Compared to Echelon's previous assumptions, we now use a US\$22,500/tonne LCE price versus US\$15,000/tonne LCE previously, assume construction begins in 2025 versus 2023, and use a 10% discount rate versus 12%, resulting in a US\$2.7B versus US\$1.03B NPV. The project's net NPV/tonne value (including the debt we assume – see **Exhibit 11**) equates to US\$511/tonne LCE;
- A preliminary, back-of-the-envelope **TLC DCF** that values the project to our 12-month forward horizon at US\$1.1B using a 12% discount rate given that our estimates are pre-PEA. Though considering the PEA is expected in early C2023, changing the discount rate to 10% like we use for Falchani would increase the project value to US\$1.5B, which roughly equates to around an \$0.70/shr increase to our NAVPS. We assume a two-year construction period beginning in C2026 and production in C2028. Compared to our current DCF, Echelon's previous estimates were based on an in-situ value of US\$831.9M based on US\$15,000/t LCE applied to 1.0% of the Measured & Indicated resource and 0.1% of the Inferred resource. The project's net NPV/tonne value (including the debt we assume – see **Exhibit 11**) equates to US\$424/tonne LCE;
- An **EV/lb in-situ valuation for the Macusani project**, based on a US\$2.30/lb U<sub>3</sub>O<sub>8</sub> value for the higher-cut-off 78.8Mlb (Indicated + Inferred) resource, implying a US\$180M value. Applying the US\$180M estimate to the lower cut-off resource of 124.0Mlbs (Indicated + Inferred) implies an EV/lb value of \$1.45/lb. Our US\$2.30/lb target value is based on a selection of comparable companies trading at US\$2.68/lb U<sub>3</sub>O<sub>8</sub> and US\$1.82/lb U<sub>3</sub>O<sub>8</sub> excluding outliers (**Exhibit 10**). In our view, the Macusani PEA already partially de-risks the project, warranting a valuation at least in line with the peer average. Echelon's previous valuation was based on US\$1.50/lb applied to the lower-cut off's 124Mlb resource, for a US\$200M value.

### Exhibit 10 – Uranium EV/lb Comparables

Company	Ticker	Last Price	52 Week Low-High	Shares Out. (M)	Mkt.Cap. (US\$M)	Cash (US\$M)	EV (US\$M)	Project Location(s)	Attrib. U3O8 (Mlbs)			EV/lb U3O8
									M&I	M&I+Inf.	M&I+Inf. (ppm)	
Paladin Energy Ltd.	PDN-ASX	\$0.80	\$0.53-0.97	2980.0	\$1,680.6	\$182.5	\$1,635.5	Namibia, Australia,	292.3	377.1	1,906	\$4.34
Uranium Energy Corp.	UEC-NYAmex	\$3.86	\$2.34-6.60	369.8	\$1,425.6	\$21.0	\$1,404.6	USA, Paraguay	116.3	149.1	673	\$9.42
Fission Uranium Corp.	FCU-T	\$0.88	\$0.56-1.14	687.7	\$453.0	\$24.6	\$428.7	Saskatchewan	102.4	135.2	17,839	\$3.17
Consolidated Uranium Inc.	CUR-V	\$1.85	\$1.43-3.09	96.9	\$134.2	\$15.9	\$118.3	Australia, Canada,	176.8	271.4	361	\$0.44
Berkeley Energia Ltd.	BKY-ASX	\$0.32	\$0.21-0.64	445.8	\$100.6	\$56.4	\$44.2	Spain	59.8	89.4	491	\$0.49
Toro Energy Ltd.	TOE-ASX	\$0.01	\$0.01-0.03	4358.9	\$33.8	\$3.1	\$30.7	Australia	40.6	46.1	909	\$0.67
Green Shift Commodities Ltd.	UWE-T	\$0.15	\$0.10-0.34	76.2	\$8.6	\$2.9	\$5.6	Colombia	1.5	21.4	1,116	\$0.26
<b>Average</b>												<b>\$2.68</b>
Average Exc. Outliers												<b>\$1.82</b>
Note: Outliers include >10% / <90% percentiles.												

Source: Company Reports

**Target Price:** Our 12-month forward \$7.75/shr price target is based on the foregoing valuation assumptions, with Falchani and TLC fully financed and diluted to production (**Exhibit 11**). Our price target assumes a long-term Lithium Carbonate price of US\$22,500/tonne and a 0.55x target multiple that is based on an average of comparable hard-rock lithium exploration and development companies trading at an average of 0.6x. Considerations around our target multiple (instead of either 0.5x or 0.6x) are the very near-term receipt of the TLC PEA with which we could reduce our discount rate to 10% from 12%, as well as what we believe to be a relatively low LCE price being used for lithium explorer/developer valuations. We believe the market is currently discounting an average lithium carbonate equivalent price of around US\$25,000/tonne, which is the current trailing three-year average trailing price. Global average lithium

carbonate spot prices are near US\$60,000/tonne LCE. We have included a sensitivity table in **Exhibit 12** with various ranges to our assumed Lithium Carbonate metal price and target multiple.

We note that our construction/production timelines for the TLC and Falchani projects are aggressive, both in terms of timing and with both projects entering into production one year from each other. However, considering the incentive that the current lithium spot price provides to acquire, develop, and build projects, coupled with as-yet unmet North American infrastructure and supply, we believe there is a strong motivation to get projects quickly underway to meet regional demand. Holding both projects back a year reduces our price target by ~\$0.70/shr to \$7.05/shr. On the other hand, considering the financial requirements of building both projects separately relative to American Lithium's size, the possibility that a more senior lithium/metals miner could offer to acquire one project to build or JV with American Lithium, thus providing American Lithium with additional resources to build the other, we believe that both projects could be more fully valued by the market over our 12-month price target horizon as they are led through more advanced PEA/Feasibility study and de-risking.

### Exhibit 11 – Valuation

12 Month Fwd	Disc. Rate	US\$M	US\$/Shr	C\$/Shr
<b>Assets</b>				
Falchani NPV	10%	\$2,716.5	\$8.23	\$10.98
TLC In-Situ NPV	12%	\$1,100.6	\$3.34	\$4.45
Macusani Uranium		\$180.0	\$0.55	\$0.73
<b>Asset Sub-total (US\$M)</b>		<b>\$3,997.1</b>	<b>\$12.11</b>	<b>\$16.15</b>
<b>Corporate</b>				
Working Capital (C\$M)		\$22.2	\$0.05	\$0.07
Long-term Debt/Leases (C\$M)		-\$0.3	-\$0.00	-\$0.00
Falchani Project Debt - Pro forma		-\$314.8	-\$0.72	-\$0.95
TLC Project Debt - Pro forma		-\$375.4	-\$0.85	-\$1.14
Minority Interest		\$0.0	\$0.00	\$0.00
Dilutive ITM Proceeds (C\$M)		\$1.7	\$0.00	\$0.01
<b>Corporate Sub-total (C\$M)</b>		<b>-\$666.5</b>	<b>-\$1.51</b>	<b>-\$2.02</b>
<b>Total NAV (C\$M)</b>		<b>\$4,663.0</b>	<b>\$10.60</b>	<b>\$14.13</b>
<b>Target Multiple</b>			<b>0.55x</b>	
<b>Adjusted NAV</b>			<b>\$5.83</b>	<b>\$7.77</b>

Source: Company Reports

### Exhibit 12 – Target Price Sensitivity

Multiple	Metal Prices				
	-20%	-10%	0%	10%	20%
0.35x	\$3.80	\$4.35	\$4.95	\$5.55	\$6.10
0.45x	\$4.85	\$5.60	\$6.35	\$7.10	\$7.85
0.55x	\$5.95	\$6.85	\$7.75	\$8.70	\$9.60
0.65x	\$7.05	\$8.10	\$9.20	\$10.25	\$11.35
0.75x	\$8.10	\$9.35	\$10.60	\$11.85	\$13.10

Source: Company Reports

**Balance Sheet and Financial Assumptions:** As of FQ222-end (August 31, 2022), American Lithium had \$5.8M in cash and equivalents, plus \$36.5M in term deposits that mature between November 28, 2022 and August 25, 2023. Other than \$3.9M in accounts payable, the Company does not have any significant current or long-term liabilities. We assume ongoing exploration and development expenditures of \$16M/year and SG&A of \$8M/year. Considering the Company's most recently disclosed \$42M in cash and equivalents (including term deposits) and proceeds from potentially in-the-money warrants (at our price target), we see very little financing risk over the next two years. See **Exhibit 13** for our financial estimates. Our financing assumptions for the TLC and Falchani projects are based on 65% debt financing and 35% equity financing at an assumed raise price of \$7.00/shr fiscal year 2026 which begins on March 1, 2025.

**Exhibit 13 – Projected Financial Estimates**

FINANCIALS (C\$000) (FY End Feb 28)	Q1/23A	Q2/23A	Q3/23E	Q4/23E	2023E	Q1/24E	Q2/24E	Q3/24E	Q4/24E	2024E	Q1/25E	Q2/25E	Q3/25E	Q4/25E	2025E
<b>INCOME STATEMENT</b>															
<b>Total Revenue</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cost Of Goods Sold	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Gross Profit</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SG&A	1,274	3,186	2,000	2,000	8,461	2,000	2,000	2,000	2,000	8,000	2,000	2,000	2,000	2,000	8,000
Operating Expenses	7,625	7,705	4,000	4,000	23,330	4,000	4,000	4,000	4,000	16,000	4,000	4,000	4,000	4,000	16,000
<b>Operating Income</b>	<b>-8,899</b>	<b>-10,892</b>	<b>-6,000</b>	<b>-6,000</b>	<b>-31,791</b>	<b>-6,000</b>	<b>-6,000</b>	<b>-6,000</b>	<b>-6,000</b>	<b>-24,000</b>	<b>-6,000</b>	<b>-6,000</b>	<b>-6,000</b>	<b>-6,000</b>	<b>-24,000</b>
Net Interest Expense	70	151	206	183	610	165	142	121	228	656	205	530	505	480	1,720
Net Non-Operating	-45	0	0	0	-45	0	0	0	0	0	0	0	0	0	0
<b>Pretax Income</b>	<b>-8,924</b>	<b>-11,043</b>	<b>-6,206</b>	<b>-6,183</b>	<b>-32,356</b>	<b>-6,165</b>	<b>-6,142</b>	<b>-6,121</b>	<b>-6,228</b>	<b>-24,656</b>	<b>-6,205</b>	<b>-6,530</b>	<b>-6,505</b>	<b>-6,480</b>	<b>-25,720</b>
Income Tax Expense	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Minority Interest	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Extraordinary/Pref.Div	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Net Income</b>	<b>-8,924</b>	<b>-11,043</b>	<b>-6,206</b>	<b>-6,183</b>	<b>-32,356</b>	<b>-6,165</b>	<b>-6,142</b>	<b>-6,121</b>	<b>-6,228</b>	<b>-24,656</b>	<b>-6,205</b>	<b>-6,530</b>	<b>-6,505</b>	<b>-6,480</b>	<b>-25,720</b>
Adj. Net Income	-8,924	-11,043	-6,206	-6,183	-32,356	-6,165	-6,142	-6,121	-6,228	-24,656	-6,205	-6,530	-6,505	-6,480	-25,720
Basic EPS (US\$)	-0.04	-0.05	-0.03	-0.03	-0.16	-0.03	-0.03	-0.03	-0.03	-0.12	-0.03	-0.03	-0.03	-0.03	-0.11
Adj. Basic EPS (US\$)	-0.04	-0.05	-0.03	-0.03	-0.16	-0.03	-0.03	-0.03	-0.03	-0.12	-0.03	-0.03	-0.03	-0.03	-0.11
EBITDA (US\$M)	-8,863	-10,983	-6,201	-6,178	-32,225	-6,160	-6,136	-6,116	-6,223	-24,636	-6,200	-6,525	-6,500	-6,475	-25,700
<b>CASH FLOW</b>															
Op. Cash Flow bef. WC	-5,556	-8,342	-4,706	-4,683	-23,287	-4,665	-4,642	-4,621	-4,728	-18,656	-4,705	-5,030	-5,005	-4,980	-19,720
Change in WC	833	1,914	0	0	2,747	0	0	0	0	0	0	0	0	0	0
<b>Cash From Operations</b>	<b>-4,723</b>	<b>-6,428</b>	<b>-4,706</b>	<b>-4,683</b>	<b>-20,540</b>	<b>-4,665</b>	<b>-4,642</b>	<b>-4,621</b>	<b>-4,728</b>	<b>-18,656</b>	<b>-4,705</b>	<b>-5,030</b>	<b>-5,005</b>	<b>-4,980</b>	<b>-19,720</b>
Capital Expenditure	-10	0	0	0	-10	0	0	0	0	0	0	0	0	0	0
Other Investing Activities	65	-4,601	0	0	-4,536	0	0	0	0	0	0	0	0	0	0
<b>Cash from Investing</b>	<b>55</b>	<b>-4,601</b>	<b>0</b>	<b>0</b>	<b>-4,546</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Dividends	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Issue Of Common, Net	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Issue Of Debt, Net	-8	-1,051	0	0	-1,059	0	0	0	0	0	0	0	0	0	0
Other Financing	2,093	488	0	1,079	3,661	0	631	26,016	0	26,647	69,795	0	0	50	69,845
<b>Cash from Financing</b>	<b>2,085</b>	<b>-563</b>	<b>0</b>	<b>1,079</b>	<b>2,601</b>	<b>0</b>	<b>631</b>	<b>26,016</b>	<b>0</b>	<b>26,647</b>	<b>69,795</b>	<b>0</b>	<b>0</b>	<b>50</b>	<b>69,845</b>
<b>Net Change in Cash</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>-7</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>0</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>0</b>
CFPS (US\$)	-0.03	-0.04	-0.02	-0.02	-0.11	-0.02	-0.02	-0.02	-0.02	-0.09	-0.02	-0.02	-0.02	-0.02	-0.08
<b>BALANCE SHEET</b>															
Cash, ST Investments	53,352	42,311	37,605	34,001	34,001	29,336	25,326	46,721	41,992	41,992	107,082	102,052	97,047	92,117	92,117
Other Current Assets	778	933	933	933	933	933	933	933	933	933	933	933	933	933	933
<b>Total Current Assets</b>	<b>54,130</b>	<b>43,244</b>	<b>38,537</b>	<b>34,934</b>	<b>34,934</b>	<b>30,269</b>	<b>26,259</b>	<b>47,653</b>	<b>42,925</b>	<b>42,925</b>	<b>108,015</b>	<b>102,984</b>	<b>97,979</b>	<b>93,049</b>	<b>93,049</b>
PP&E, Net	135,602	144,834	144,834	144,834	144,834	144,834	144,834	144,834	144,834	144,834	144,834	144,834	144,834	144,834	144,834
Other Long-Term Assets	54,958	44,077	39,370	35,767	35,767	31,102	27,092	48,486	43,758	43,758	108,848	103,817	98,812	93,882	93,882
<b>Total Assets</b>	<b>190,560</b>	<b>188,911</b>	<b>184,204</b>	<b>180,601</b>	<b>180,601</b>	<b>175,936</b>	<b>171,926</b>	<b>193,320</b>	<b>188,592</b>	<b>188,592</b>	<b>253,682</b>	<b>248,651</b>	<b>243,646</b>	<b>238,716</b>	<b>238,716</b>
Payable/Other ST Liabilities	2,005	4,085	4,085	4,085	4,085	4,085	4,085	4,085	4,085	4,085	4,085	4,085	4,085	4,085	4,085
Current Debt	374	69	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total Current Liabilities</b>	<b>2,379</b>	<b>4,154</b>	<b>4,085</b>	<b>4,085</b>	<b>4,085</b>	<b>4,085</b>	<b>4,085</b>	<b>4,085</b>	<b>4,085</b>	<b>4,085</b>	<b>4,085</b>	<b>4,085</b>	<b>4,085</b>	<b>4,085</b>	<b>4,085</b>
LT Debt/Capital Leases	829	188	257	257	257	257	257	257	257	257	257	257	257	257	257
Other Long-Term Liabilities	2,379	4,154	4,085	4,085	4,085	4,085	4,085	4,085	4,085	4,085	4,085	4,085	4,085	4,085	4,085
<b>Total Liabilities</b>	<b>3,208</b>	<b>4,342</b>	<b>4,342</b>	<b>4,342</b>	<b>4,342</b>	<b>4,342</b>	<b>4,342</b>	<b>4,342</b>	<b>4,342</b>	<b>4,342</b>	<b>4,342</b>	<b>4,342</b>	<b>4,342</b>	<b>4,342</b>	<b>4,342</b>
<b>Total Equity</b>	<b>187,352</b>	<b>184,569</b>	<b>179,862</b>	<b>176,259</b>	<b>176,259</b>	<b>171,594</b>	<b>167,584</b>	<b>188,978</b>	<b>184,250</b>	<b>184,250</b>	<b>249,340</b>	<b>244,309</b>	<b>239,304</b>	<b>234,374</b>	<b>234,374</b>

Source: Company Reports, Echelon Capital Markets estimates

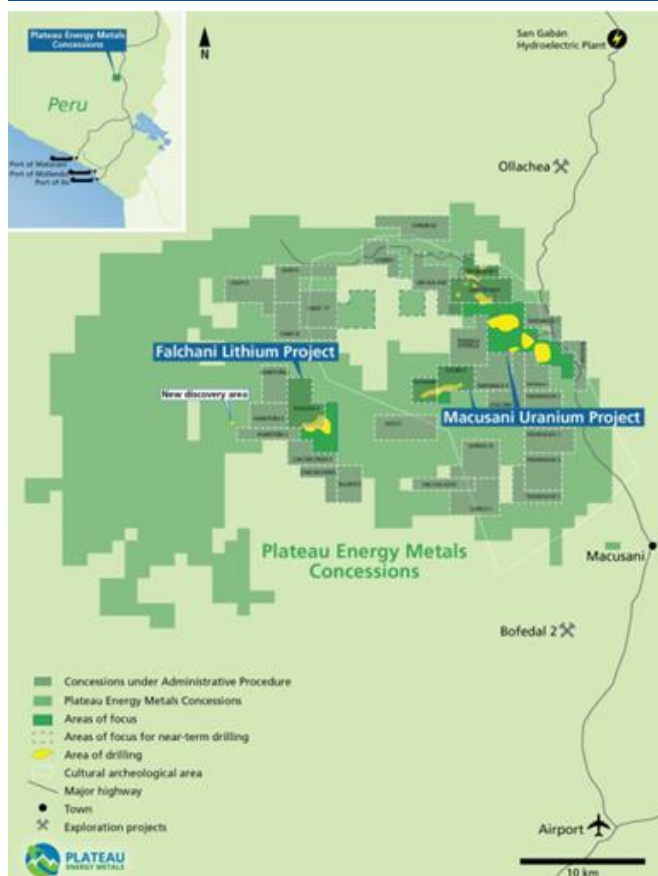
## Investment Risks

**Peru Political Risks:** The last ten years have seen ongoing political instability in Peru, with seven different presidents and only the first of these, Ollanta Humala, serving a full four-year term. The instability stems from hyper-congressional party politics and public dissatisfaction with governance and the economy. We don't currently see a sustainable resolution to the country's political situation, which in practical terms may lead to slower turnaround for exploration and production permits and intermittent disruptions to localized supply chains. Recent suggestions of increasing mining industry taxes and royalties have come and gone, partially from push-back from the mining industry which is among the largest contributors to GDP, though also because any substantive changes to mining regulation would likely require an overhaul of the constitution which would be much harder to achieve.

**Falchani and Macusani Concession Dispute:** We have extensively covered the concession dispute that emerged in C2019, in which INGEMMET, the Peruvian government department in charge of administering mining concessions, sought to invalidate the Company's ownership of 32 of the Falchani/Macusani project concessions based on an application of administrative procedures ultimately determined to have been illegal and unconstitutional. In November 2021, Peru's Superior Administrative Court decision upheld the Company's ownership over all of the concessions. An appeal over the decision was submitted by INGEMMET based on standard government procedure, and we believe that the appeal is unlikely to succeed based on the Superior Administration Court's ruling.

Nonetheless, we have included the smaller Falchani Alternative-Case production scenario's estimated project value summary in **Exhibit 6** for investors to consider. Similarly, 46% of the Macusani uranium resource would be directly impacted by revocation of ownership, though no analysis of the economic impact on the C2016 PEA has been estimated. **Exhibit 14** shows the concessions (in dark green) that are subject to the dispute.

### Exhibit 14 – Falchani Lithium and Macusani Uranium Concession Map



Source: Company Reports

**Social, Environmental, Permitting Risks:** Being in Nevada, and on Federal Bureau of Land Management areas, these projects are subject to federal, wildlife, social license, and National Environmental Policy Act (“NEPA”) Review requirements for permitting which can be lengthy (upward of +8 years) but also fast-tracked at the executive level. Thacker Pass is presently the most advanced project and in final permitting, having been fast-tracked by the Trump Administration, but is currently facing legal opposition from the nearby Fort McDermitt Paiute and Shoshone Tribe reserves people over the project’s potential disturbance of their ancestors’ resting place and areas of cultural significance. Rhyolite Ridge is being designed around the sensitivity to flora that is locally endemic only to that area, and to strict water use and treatment requirements in Esmeralda County. We are currently unaware of any similar social, wildlife, or water concerns that may affect the TLC project.

Similar social risks should be considered in relation to the Falchani and Macusani projects. The Puno region is generally considered to be pro-mining, although in recent years parts further south of Peru have become increasingly activist in their opposition to certain mining projects. Provided a community license is obtained, and environmental and social impact assessment studies are properly filed, project permitting at the government level is fairly straightforward and can be completed within two years.

**These risks are in addition to the typical risks associated with mineral development and mining companies, including commodity price risks, operating risks, capital and operating cost risks, financial market risks, and sovereign/country risks.**

## Investment Thesis

### Investment Thesis

We rate American Lithium a Speculative Buy with a \$7.75/shr price target. Our Speculative qualifier considers that the Company is not in production and depends on external financing for ongoing development of its projects, increasing financing risks. We believe that its large, strategically located lithium projects, Falchani and TLC, give the Company a solid footing in the race to develop secure production of lithium chemical products to supply the regional demand requirements for the ongoing electrification of transportation and energy grids. Ongoing M&A activity in the lithium sector also lends a market bid to the Company's projects.

### Valuation

Our \$7.75/shr (rounded) price target is based on a fully financed, fully diluted DCF for the Falchani and TLC projects, and an in-situ valuation for the Macusani uranium project. We apply a 0.55x P/NAV target multiple, which we believe is commensurate with comparable development-stage hard-rock lithium companies.

### Investment Risks

American Lithium depends on external financing and capital market conditions to fund its operations. That said, we believe the current high price of lithium chemicals will persist in the near-to-medium term, providing ample interest in funding the Falchani and TLC projects. Specific risks include social and environmental permitting risks in Nevada for the TLC project, sovereign/political risks in Peru given the country's recent instability, and the need to move metallurgical processes for both projects toward feasibility stage to provide a more de-risked view of project economics.

These risks are in addition to the typical risks associated with mining and mineral-related investments, including but not limited to, operating, financial, political/sovereign, labour, and commodity price risks.

### Valuation Summary

12 Month Fwd	Disc. Rate	US\$M	US\$/Shr	C\$/Shr
<b>Assets</b>				
Falchani NPV	10%	\$2,716.5	\$8.23	\$10.98
TLC In-Situ NPV	12%	\$1,100.6	\$3.34	\$4.45
Macusani Uranium		\$180.0	\$0.55	\$0.73
<b>Asset Sub-total (US\$M)</b>		<b>\$3,997.1</b>	<b>\$12.11</b>	<b>\$16.15</b>
<b>Corporate</b>				
Working Capital (C\$M)		\$22.2	\$0.05	\$0.07
Long-term Debt/Leases (C\$M)		-\$0.3	-\$0.00	-\$0.00
Falchani Project Debt - Pro forma		-\$314.8	-\$0.72	-\$0.95
TLC Project Debt - Pro forma		-\$375.4	-\$0.85	-\$1.14
Minority Interest		\$0.0	\$0.00	\$0.00
Dilutive ITM Proceeds (C\$M)		\$1.7	\$0.00	\$0.01
<b>Corporate Sub-total (C\$M)</b>		<b>-\$666.5</b>	<b>-\$1.51</b>	<b>-\$2.02</b>
<b>Total NAV (C\$M)</b>		<b>\$4,663.0</b>	<b>\$10.60</b>	<b>\$14.13</b>
<b>Target Multiple</b>			<b>0.55x</b>	
<b>Adjusted NAV</b>			<b>\$5.83</b>	<b>\$7.77</b>

Source: Echelon Capital Markets



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**Company: American Lithium Corp. | LI-TSXV**

I, Gabriel Gonzalez, hereby certify that the views expressed in this report accurately reflect my personal views about the subject securities or issuers. I also certify that I have not, am not, and will not receive, directly or indirectly, compensation in exchange for expressing the specific recommendations or views in this report.

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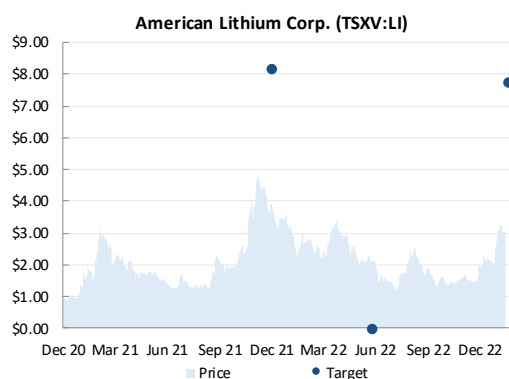
Is this an issuer related or industry related publication?	Issuer
Does the Analyst or any member of the Analyst's household have a financial interest in the securities of the subject issuer? If Yes: 1) Is it a long or short position? No position ; and, 2) What type of security is it? None	No
The name of any partner, director, officer, employee or agent of the Dealer Member who is an officer, director or employee of the issuer, or who serves in any advisory capacity to the issuer.	No
Does Echelon Wealth Partners Inc. or the Analyst have any actual material conflicts of interest with the issuer?	No
Does Echelon Wealth Partners Inc. and/or one or more entities affiliated with Echelon Wealth Partners Inc. beneficially own common shares (or any other class of common equity securities) of this issuer which constitutes more than 1% of the presently issued and outstanding shares of the issuer?	No
During the last 12 months, has Echelon Wealth Partners Inc. provided financial advice to and/or, either on its own or as a syndicate member, participated in a public offering, or private placement of securities of this issuer?	No
During the last 12 months, has Echelon Wealth Partners Inc. received compensation for having provided investment banking or related services to this Issuer?	No
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Has the Analyst or any Partner, Director or Officer been compensated for travel expenses incurred as a result of an onsite visit with the Issuer within the last 12 months?	No
Has the Analyst received any compensation from the subject company in the past 12 months?	No
Is Echelon Wealth Partners Inc. a market maker in the issuer's securities at the date of this report?	No

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<b>Buy</b>	The security represents attractive relative value and is expected to appreciate significantly from the current price over the next 12 month time horizon.
<b>Speculative Buy</b>	The security is considered a BUY but in the analyst's opinion possesses certain operational and/or financial risks that are higher than average.
<b>Hold</b>	The security represents fair value and no material appreciation is expected over the next 12-18 month time horizon.
<b>Sell</b>	The security represents poor value and is expected to depreciate over the next 12 month time horizon.
<b>Under Review</b>	While not a rating, this designates the existing rating and/or forecasts are subject to specific review usually due to a material event or share price move.
<b>Tender</b>	Echelon Wealth Partners recommends that investors tender to an existing public offer for the securities in the absence of a superior competing offer.
<b>Dropped Coverage</b>	Applies to former coverage names where a current analyst has dropped coverage. Echelon Wealth Partners will provide notice to investors whenever coverage of an issuer is dropped.

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Recommendation Hierarchy	Buy	Speculative Buy	Hold	Sell	Under Review	Restricted	Tender
Number of recommendations	33	38	4	0	9	3	2
% of Total (excluding Restricted)	39%	45%	5%	0%	11%		
Number of investment banking relationships	14	23	0	0	6	3	1
% of Total (excluding Restricted)	33%	53%	0%	0%	14%		

**PRICE CHART, RATING & PRICE TARGET HISTORY**


Date	Target	Rating
9 Dec 2021	\$8.20	Spec Buy
3 Jun 2022	NA	Under Review
29 Jan 2023	\$7.75	Spec Buy

Coverage Initiated: Dec 9, 2021. Resumed/transferred coverage Jan 25, 2023 Data sourced from: S&P Capital IQ

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