

# **Lithium Royalty Corp.: Poised for Success as More Affiliates Reach Production**

written by InvestorNews | September 5, 2023

Lithium demand continues to surge each year, despite some year on year ("YoY") volatility in demand and prices. In 2021 the IEA forecast lithium demand to increase from 13x to 42x from 2020 to 2040. Trend Investing forecasts lithium demand to increase 35x from 2020 to 2037 as we move to a 100% electric vehicle world. Rio Tinto Group (NYSE: RIO | LSE: RIO) forecasts that the world will need 60 new lithium mines the size of Jadar. BMI forecasts that we will need 78 new lithium mines from 2022 to 2035.

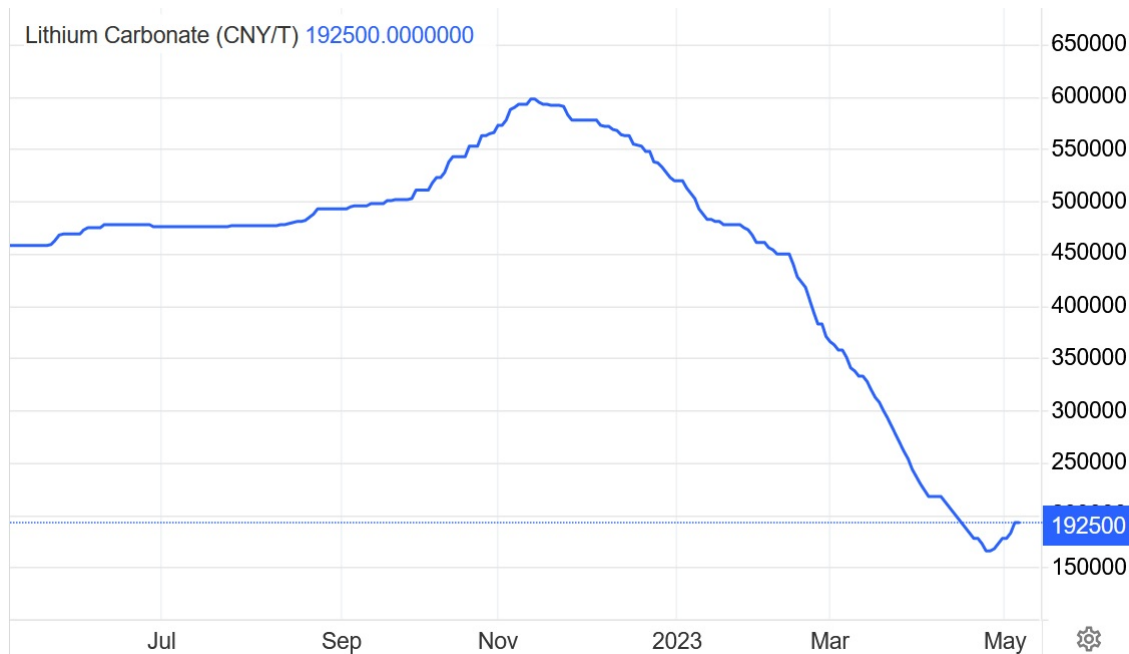
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# **Lithium Prices Recover as China EV Sales Rebound Reigniting Investor Interest in Albemarle & Tesla**

written by Matt Bohlsen | September 5, 2023

The first quarter in 2023 was a rough period for lithium stocks as the China lithium carbonate spot price crashed lower. However, the second quarter is looking a lot better.

**FIGURE 1: China lithium carbonate spot prices appear to be rebounding after hitting a low in late April 2023**



Source: [Trading Economics](#)

## Global and China EV sales recovered strongly in March and April 2023

March 2023 global plugin electric car sales were [over the 1 million mark](#) and were the 'second best month ever'. This was due to very strong sales in China and Europe, with the USA also contributing. It is already looking like the panic sell-off in lithium stocks has been overdone with stocks rebounding higher in the past 3 weeks.

Reports have it that Chinese lithium consumers are buying again after running down inventories in Q1/2023. Certainly, China plugin electric car sales have rebounded very strongly with over 500,000 sales in March and approximately 600,000 in April 2023. Those sales numbers are a huge increase over China's January sales which fell 8% Year-over-Year to [343,000](#) as new energy vehicle ("NEV") subsidies expired.

# Lithium stocks rallying again

Strong EV sales in China are leading to early signs of a China lithium price recovery. Lithium contract prices remain much higher than spot prices reflecting the past lithium price rise and the strong outlook for lithium demand in 2023 and beyond.

As shown on the chart below, February, March, and April saw the leading lithium stocks (Albemarle Corporation (NYSE: ALB), Sociedad Química y Minera de Chile S.A. (NYSE: SQM), Livent Corporation (NYSE: LTHM), and Pilbara Minerals Limited (ASX: PLS)) follow spot prices lower; however, in May we can see a potential price recovery starting (green arrow in chart below).

**FIGURE 2: Leading lithium stocks have been moving higher in May buoyed by improving EV sales and lithium prices (NYSE: ALB, NYSE: SQM, NYSE: LTHM, ASX: PLS)**



Source: [Yahoo Finance](https://finance.yahoo.com)

**Albemarle remains very positive on the lithium market with takeover offers and expansion plans**

During the lithium price collapse of early 2023, [Albemarle](https://www.albemarle.com) was

moving in the opposite direction as it made several key announcements that indicated its strong belief that the lithium market would rebound. Below is a brief summary:

- March 27, 2023 – Albemarle [announced a takeover offer for Liontown Resources at a 69% premium](#) to the 30-day VWAP.
- May 3, 2023 – Albemarle [announced plans to double lithium hydroxide output in Australia](#), effectively adding 50,000 tonnes per year of lithium refining capacity at their Kemerton plant.

Furthermore, Albemarle announced on May 3, a [net sales increase of 129% for Q1/2023](#). Albemarle CEO Kent Masters [commented](#):

*“Compared to last year, first quarter net sales more than doubled, adjusted diluted earnings per share more than quadrupled providing a robust start to the year. ... We see strong sales volume growth for the rest of the year but have modified our guidance to reflect softening lithium market pricing. We remain confident in the underlying market strength of our world-class asset base and our long-term growth strategy.”*

Albemarle knows the lithium market better than most, especially given it has been the industry leader for over a decade. Currently, they have numerous expansion plans globally including:

- The Salar Yield Improvement Project in Chile;
- The above-mentioned Kemerton trains III & IV lithium hydroxide production expansion in Australia;
- An under-construction lithium conversion facility in Meishan China; and,

- The Kings Mountain mine development in the USA that will eventually feed their planned new South Carolina lithium processing facility.

Added to these items is the attempted takeover of [Liontown Resources Limited](#) (ASX: LTR) for A\$2.50 or US\$1.66 per share in cash, which values Liontown at A\$5.2 billion or US\$3.4 billion on an enterprise basis, at the time of the offer.

Both Bank of America and Scotiabank have recently upgraded Albemarle. The latter assigned a [US\\$250 price target](#), which is well above the current price of US\$195 at the time of writing.

## Closing remarks

Several negative events in early 2023 caused a dramatic fall in China spot lithium carbonate prices. The lithium price had increased over 10x and was due for a fall, with Q1 typically being a weak quarter due to seasonal impacts causing lower EV sales.

Discussions about sodium-ion batteries did not help either. As it turns out, market participants are now realizing that lithium demand is still very strong, despite some short-term volatility. Sodium-ion batteries, at best, will have limited use cases in energy storage, and cheap, small EVs, mostly sold in China, due to inferior volumetric energy density.

For investors, the recent market dip in lithium stocks may prove to be a good time to go shopping. The long-term demand wave for lithium is a supercycle with 2037 demand forecast to be [35x higher](#) (according to [Trend Investing](#)) than 2020 levels.

Certainly, Albemarle, the lithium leader, remains extremely bullish on the lithium sector with a multi-billion dollar takeover offer and expansion plans.

The EV and stationary energy storage booms are here and will only grow stronger this decade. The [Tesla Inc.](#) (NASDAQ: TSLA) [Master Plan 3](#) reports that we need 240 TWh (240,000 GWh) of energy storage for the world to run on 100% renewable energy, most from lithium-ion batteries. Given global lithium-ion battery production in 2022 was only about 700 GWh you can draw your own conclusions. Albemarle and Tesla already have shown us what they think. The latter is [breaking ground on a new billion-dollar lithium refinery](#) in Texas this week.

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# Lithium Prices Soar as Demand Surges Amid EV Boom, But Is the Bull Run Sustainable?

written by InvestorNews | September 5, 2023

Most commodities are cyclical in nature. The ebb and flow of demand, potentially from a new application or general growth, which in turn makes the supply of that commodity scarce can cause prices to rise, sometimes dramatically. This is followed by a supply response that typically is too effective (because everyone wants to partake in the high commodity price) and eventually, the demand is outstripped by supply, commodity prices in turn fall or outright collapse and the cycle repeats.

In the case of lithium, we've been seeing demand surge as the electric vehicle (EV) revolution accelerates while the ever-increasing supply is failing to keep pace. There are lithium headlines in the news all the time now, with the likes of [General Motors Co.](#) (NYSE: GM) and [Tesla, Inc.](#) (NASDAQ: TSLA)

inking supply deals with producers or the speculation of deals. It would appear we are in the heart of a bull market for lithium...or are we?

## **Lithium Boom – 1950s**

This isn't the first lithium boom the world has seen. You may be surprised to learn that the first one began in the 1950s when the world's primary source of lithium came from North Carolina. Lithium was extracted from spodumene (hard rock) and was a key component of the military's H-bomb program. As a reference point, by the mid-1970s U.S. lithium production was roughly 2,900 tons per year. (1 US ton = 0.97 metric tonne)

## **Lithium Boom – 1990s**

Lithium's next rally occurred in the early 1990s when Sony first began production of the lithium-ion battery used in consumer electronics. By the end of 1991, Sony had ramped up production to 100,000 batteries a month. Enter Sociedad Química y Minera de Chile S.A., or SQM, the Chilean fertilizer and mining company which began selling lithium (from brine) in late 1996, almost immediately lithium carbonate prices fell by a third, to US\$2,000 a ton. This marked the end of the existing American lithium industry.

## **Current Lithium Production By Country (2021)**

Rank	Country	2021 Production (tonnes)	% of Total
#1	Australia 🇦🇺	55,416	52%
#2	Chile 🇨🇱	26,000	25%
#3	China 🇨🇳	14,000	13%
#4	Argentina 🇦🇷	5,967	6%
#5	Brazil 🇧🇷	1,500	1%
#6	Zimbabwe 🇿🇼	1,200	1%
#7	Portugal 🇵🇹	900	1%
#8	United States 🇺🇸	900	1%
	Rest of World 🌐	102	0.1%
<b>Total</b>		<b>105,984</b>	<b>100%</b>

Source: [World Economic Forum](#)

## Lithium Boom – Today!

Fast forward to today and in November we saw lithium prices surge above US\$80,000/tonne in a sign that supply was definitely not keeping pace with the huge increase in demand sparked by EVs. You have wildly [bullish forecasts](#) suggesting supply needs to grow somewhere between 150,000 to 200,000 tonnes every single year.

For more perspective, consider that Tesla is targeting the manufacture of 20 million EVs per year by 2030. In order to produce those vehicles in a year, Tesla will need more lithium than was produced in the world last year, which could explain why the market was all excited when [Bloomberg reported](#) Tesla has been discussing a possible bid for [Sigma Lithium Corporation](#) (TSXV: SGML | NASDAQ: SGML).

And speaking of Sigma Lithium, have a look at their 2 year chart!





Source: [StockCharts.com](https://stockcharts.com)

Investors should be very happy with a 10x move in just under 2 years. There have also been some pretty good runs for some of the Canadian hard rock lithium names. A quick look at the one-year chart for Critical Elements Lithium Corporation (TSXV: CRE | OTCQX: CRECF) and Patriot Battery Metals (TSXV: PMET | OTCQX: PMETF) and you'll see a double and another 10 bagger. It suggests that we may not be in the early innings of this game.

When all this starts to become prevalent in the news cycle, I start to get a little concerned. It's almost like fanatic optimism is a harbinger that the cycle is about to end. I know that isn't very scientific, but let's look a little closer at what I'm getting at. Capital solves problems. With the lithium price at current levels, lithium mines are some of the most profitable in the whole mining sector. One could surmise that supply might respond more rapidly than currently forecast with lots of capital being thrown at exploration and development at present. I wouldn't be surprised if Investment Bankers are cold-calling anyone involved with lithium right now to see if they would like to raise capital. On top of that, when you have the likes of Tesla, GM, etc. buying into producers it tends to

stretch valuations beyond anything that would otherwise seem reasonable. M&A, especially by companies not actually in the mining business, can often be considered a sign that we are getting close to a top. Again, not scientific by any stretch of the imagination but it also typically isn't sustainable behaviour.

## Is this a Market Top?

I'm not suggesting lithium is going back to US\$2,000/ton but we have seen the price retreat to just over US\$60,000/tonne largely due to the Chinese market seeing lower subsidies for electrified vehicles and weak consumer confidence. With that said, lithium is still worth eight times more than it was before 2021 and still wildly profitable for both hard rock and brine producers. Is this a sign that the current bull run for lithium prices is over or just taking a breather before it settles into a new price range or perhaps starts to climb again? I guess it depends on your time frame. Traders may want to look at taking a little profit off the table for now, long term buy and hold investors may not even be paying attention to the day-to-day noise in the market and be comfortable holding lithium equities for the foreseeable future.

My caution to anyone wildly bullish on lithium prices and the corresponding mining companies is this – there are a lot of smart capitalists out there and if a component becomes the most expensive part of your product, a lot of effort will be spent to try and find a replacement or an alternative. I also have a nagging concern that at some point in time, the rapid adoption of EVs may overwhelm the electric grid and put a hard stop to EV growth (at least temporarily). Either of these scenarios could have a sudden and very negative impact on lithium prices but not likely in the near future. So when it comes to investing in

lithium, make sure your risk tolerance matches your investment exposure.

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# With lithium demand skyrocketing here are 5 early-stage lithium junior miners to watch

written by InvestorNews | September 5, 2023

With lithium demand projected to increase [10-11](#) fold this decade, there is a huge opportunity for successful lithium junior miners to prosper. Last year Rio Tinto was [quoted as saying](#) that “filling the supply gap will require over 60 Jadar projects”.

Then just last month Tesla CEO Elon Musk said (Tesla Q1 2022 earnings call [transcript](#)): “...can more people please get into the lithium business? Do you like minting money? Well, the lithium business is for you...” Musk also [said on Twitter](#): “Price of lithium has gone to insane levels! Tesla might actually have to get into the mining & refining directly at scale unless costs improve.”

Of course, industry experts have been warning of EV metals supply deficits for some years, but it appears these warnings mostly fell on deaf ears. With this background in mind, today we take a look at some early-stage lithium junior companies with the potential to help fill the lithium supply gap in the second

half of this decade.

**China lithium carbonate spot prices – up about 6x over the past year due to lithium shortages**



Source: [Trading Economics](#)

## **5 early-stage lithium junior miners to watch out for in 2022 (in no particular order)**

1. Essential Metals Limited (ASX: ESS)
2. Green Technology Metals Limited (ASX: GT1)
3. Metals Australia Ltd. (ASX: MLS)
4. Lithium South Development Corporation (TSXV: LIS | OTCQB: LISMF)
5. Winsome Resources Limited (ASX: WR1)

### **Essential Metals Limited (ASX: ESS)**

Essential Metals is an Australian exploration company with 9 projects (lithium, gold, gold JV, and nickel JV) all in Western Australia (WA). Three of the projects are 100% owned and 6 are JV's with other companies, with ESS retaining a 20-30% interest (see below).

Essential Metal's flagship project is their 100% owned [Pioneer Dome Lithium Project](#) in WA. The Project is located in a known lithium corridor and the gold-rich Eastern Goldfields region of WA, which contains the Mt Marion, Bald Hill and Buldania lithium mines/projects. The Project has a reasonable sized JORC compliant [Total Resource of 11.2Mt at 1.21% Li2O](#), still with exploration upside. The Resource starts from or near surface. Drill assay results from the recent campaign are due out by the

[end of May 2022](#).

Essential Metals also has two other 100% owned gold projects in WA, namely the [Golden Ridge Project](#) (100% owned), 20kms from the Kalgoorlie super pit and the [Juglah Dome Project](#), 60km east-southeast of Kalgoorlie. In addition, the Company has numerous JV projects including [Acra Gold Project JV](#) (25% interest), [Kangan Gold Project JV](#) (30%), [Balagundi Gold Project Farmin/JV](#) (25%), [Larkinville Gold Project Farmin/JV](#) (25% gold interest) (hosts a JORC Resource of 19,700 t @ 3.02 g/t for 11,600 oz. Au), [Blair-Golden Ridge Nickel Farmin/JV](#) (25% nickel interest) and [Wattle Dam Nickel Joint Venture](#) (20% nickel interest).

Essential Metals trades on a market cap of [A\\$162 million](#).

**Essential Metals summary showing the Pioneer Dome Lithium Project location near other successful lithium mines and projects in WA**



Source: [Essential Metals company presentation](#)

### **[Green Technology Metals Limited](#) (ASX: GT1)**

Green Technology Metals (GT1) has multiple lithium projects (options to acquire, some at 80% interest others at 100% interest) spread over [39,982](#) hectares in Ontario, Canada. GT1's most advanced project is the Seymour Lithium Project with a JORC Total Mineral Resource of [4.8Mt @ 1.25%](#). Within the Seymour Project, drill results include an impressive [40m @ 1.54% Li2O](#). When combining all GT1's Ontario Lithium Projects the target resource is 50-60 MT @ 0.8-1.5% Li2O.

An updated resource estimate is targeted for Q2, 2022. Management is top tier and highly experienced.

Green Technology Metals trades on a market cap of [A\\$212 million](#).

**GT1's portfolio of multiple lithium projects in Ontario Canada**



Source: [GT1 website](#)

### **[Metals Australia Ltd.](#) (ASX: MLS)**

Metals Australia is an Australian junior miner with several projects. Their most advanced project is the [Lac Rainy Nord Graphite Project](#) in Quebec, Canada with an Indicated and Inferred Resource of [13.3Mt at 11.5% TGC for 1.529M tonnes of contained graphite](#).

With regards to lithium, Metals Australia 100% owns the promising Manindi Lithium and Zinc Project in WA. The Project has several lithium-cesium-tantalum (LCT) pegmatites spread over a total [3km strike length](#). Individual pegmatites have strike lengths of over 300m and widths of up to 25-30m. Past drilling includes intersections of [15m @ 1.2% Li<sub>2</sub>O, 117 Ta<sub>2</sub>O<sub>5</sub> from 34m](#). Drilling is ongoing notably at the Foundation pegmatite where consistently high grade lithium grab samples ([1% Li<sub>2</sub>O and >0.4% Rb](#)) have been detected over the entire 500m strike length. Assay results are expected shortly. Manindi also has an existing JORC 2012 Resource estimate of [1.08Mt at 6.52% Zn, 0.26% Cu and 3.19g/t Ag](#).

Metals Australia trades on a market cap of [A\\$54 million](#).

### **[Lithium South Development Corporation](#) (TSXV: LIS | OTCQB: LISMF)**

Lithium South Development Corporation (Lithium South) is already quite advanced at their 100% owned Hombre Muerto North Lithium Brine Project in Argentina. The Project lies near several billion-dollar projects such as Livent's lithium mine, Allkem's

Sal de Vida project, and POSCO's quite new project purchased for US\$280 million. Hombre Muerto is the premiere salar in Argentina, known for very high grade lithium and very low impurities.

The Hombre Muerto North Project has an [M&I Resource of 571,000t contained LCE](#), with an excellent grade of 756mg/L, and a very low Mg/Li ratio of 2.6:1. [Drilling is about to begin](#) at their Alba Sabrina claim with results to follow most likely later in Q2, 2022. The Resource has potential to grow significantly from here.

Lithium South trades on a market cap of only [C\\$68 million](#).

### **[Winsome Resources Limited](#) (ASX: WR1)**

Winsome Resources is a lithium explorer focused on their 4, 100% owned, projects spread over [50,000 Ha](#) in Quebec, Canada. The Projects are Cancet, Adina, Sirmac-Clappier, and Decelles (option to acquire 100%).

The flagship Cancet Lithium Project has had outstanding previous drilling success and boasts a JORC [Exploration Target of 15-25Mt @ 1-2% Li<sub>2</sub>O + 100-250ppm Ta<sub>2</sub>O<sub>5</sub>](#). The past drilling includes 59 holes for 5,216m averaging ~70m drill depth defining a shallow high-grade lithium deposit. Drilling will continue in 2022 with a substantial maiden Resource estimated expected later this year.

Winsome Resources trades on a market cap of [A\\$66 million](#).

### **Summary of Winsome Resources 4 lithium projects in Quebec, Canada**



Source: [Winsome Resources company presentation](#)

## Closing remarks

Investing in early-stage lithium juniors carries higher risk and reward.

Of the 5 companies discussed in this article three (Essential Metals, Green Technology Metals, Lithium South Development Corp.) already have a lithium resource, one (Winsome Resources) has defined a lithium deposit with a resource estimate due later in 2022, and the other (Metals Australia) has a graphite and a zinc-copper-silver resource with an exciting lithium project with drill results out soon.

I could also include [Avalon Advanced Materials Inc.](#) (TSX: AVL | OTCQB: AVLNF) in this group, but I already wrote on them recently [here](#), discussing their lithium projects, lithium resource, and plans for a JV lithium refinery in Thunder Bay which were given a huge boost recently as you can read [here](#).

Finally to answer Elon's question: "Can more people please get into the lithium business?" The problem is it takes at least 5-10 years to build a lithium mine from scratch. I will finish with two key quotes last month from lithium market experts:

- Benchmark Mineral Intelligence [was quoted stating](#): *"Battery capacity is currently growing at twice the speed of lithium raw material supply."*
- Mr. Lithium, Joe Lowry [was quoted stating](#): *"I believe there will be a day in the future when lithium is in oversupply, but it won't be in this decade....You can build a battery factory in two years, but it takes up to a decade to bring on a lithium project."*

*Disclosure: The author is long ALL the lithium companies mentioned in this article and intends to hold long term.*



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# Why have lithium miner stock prices fallen when lithium prices have surged higher?

written by InvestorNews | September 5, 2023

Investing in the stockmarket is part science and part art. The science part refers to the fundamental analysis and the art refers more to the instinct/understanding and timing of investments. What truly sets great investors apart from the average are two things – Spotting a winning trend early and investing when there is a market disconnect caused by negative sentiment.

Today's article is about just that. The winning trend is the EV and lithium boom, and the disconnect is the recent lithium price gains while the lithium miners stock prices fell. Did you know that in the past 3 months lithium carbonate spot prices in China have more than doubled ([up ~125%](#)), yet lithium miners stocks have fallen in many cases by 25% or more in the same time period?

**China lithium spot prices are up ~125% in the past 3 months and 10x the past 14 months**



[Source](#): Trading Economics

The chart below shows the stock price falls of several lithium producers and one highly promising junior. In the past 3 months (as lithium prices more than doubled) Albemarle Corporation

(NYSE: ALB) has fallen 32.40%, Livent Corporation (NYSE: LTHM) has fallen 28.43%, SQM (NYSE: SQM) is down 6.20%, Ganfeng Lithium (HK: 1772) is down 9.53%, and Lithium South Development Corp. (TSXV: LIS) is down 35.35%.

### **Leading lithium miners' stock prices the past 3 months have fallen significantly**



Source: [Yahoo Finance](#)

### **Why have lithium miner stock prices fallen when lithium prices have surged higher?**

The answer as to why is as follows:

- Several lithium miners sell their lithium on contract prices which are yet to properly reflect the market spot price for lithium. As these contracts expire they will be replaced with much higher contract prices or spot prices.
- Macro events and market sentiment – The general market has been selling off with the S&P500 down about 10% from its peak due to U.S. interest rates soon to rise and more recently the Russia-Ukraine crisis. Of course, this will pass and has almost zero impact on EV sales and/or lithium prices. In fact, current very high oil prices are helping EV sales. In my situation my new electric car costs me \$17 to drive 420kms compared to \$75 for my old gasoline car, that's about 4.5x less. Servicing costs are almost zero, with the main cost being tire replacements.

The recent disconnect between the more than doubling of lithium prices and lithium miners stock prices falling would only make sense if the sector was in trouble, yet EV sales are setting new records, up [108%](#) in 2021, and look set to grow well above 50%

each year this decade. Lithium demand is forecast to grow [11x](#) this decade with most analysts forecasting growing lithium deficits. So we have a winning trend and a huge disconnect caused by macro factors (Russia-Ukraine conflict, rising US interest rates). Great investors can see this huge disconnect and will move now to profit from it.

Two popular ETFs that track the stocks of EVs, batteries, lithium and EV metal companies also tell a similar story, having both fallen the past 3 months. The Global X Lithium & Battery Tech ETF (LIT) is now trading on a PE of just [26](#) and the Amplify Lithium & Battery Technology ETF (BATT) trades on a PE of only [21](#). Considering the sector's growth rate of well above 50%pa, this is plain crazy.

A final example could be Tesla (NASDAQ: TSLA). The stock is [down 26%](#) over the past 3 months despite reporting its best ever results in Q4, 2021 and smashing the competition. Tesla had an outstanding 2021 [growing revenues 71% YoY](#) and GAAP earnings by 665% YoY. Total vehicle production grew 83% YoY. 2022 looks to be even better for Tesla with 2 new gigafactories set to open and production likely to grow from ~936,000 electric cars in 2021 to somewhere near 1.7 million in 2022. One more key factor highlighting global EV demand, Tesla has an estimated [1.3 million pre-orders](#) for their Cybertruck. In total Tesla's pre-orders are so high that they don't even accept orders for Model Y in many countries as they cannot meet demand for some years.

**Tesla's electric cars have huge waiting lists and well over 1.5 million pre-orders**



**Closing remarks**

All forms of lithium prices (spodumene, Li hydroxide, Li carbonate) have been surging higher the past 14 months. In particular, the China lithium carbonate price has surged **125% higher** the past 3 months, while leading lithium miners and others fell between 6% and 35%. Albemarle, the leading lithium miner, has **fallen 32%** in the past 3 months. This is a huge disconnect, and frankly what great investors dream of. I will be topping up my positions in the EV companies and lithium miners as the EV and lithium boom has only just begun and current macro events have opened up a huge buying opportunity for investors. The last time I saw this happen was in the March 2020 Covid-19 low, with many lithium stocks surging higher once market sentiment improved.

My view is that the lithium miners are currently like a tightly sprung coil. As soon as the market sentiment and macro issues improve that coil should spring open propelling lithium miners stock prices higher and closing the current huge disconnect.

Don't miss this opportunity to buy into 'white gold' as lithium becomes the most critical element of the modern era.

*Disclosure: The author is long all the stocks and ETFs mentioned in this article.*

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## **Top 5 lithium junior mines with huge potential in a**

# booming lithium market

written by InvestorNews | September 5, 2023

The lithium sector has been the standout of all sectors in 2021, led by lithium prices surging higher from about US\$7,000/t to around [US\\$30,000/t](#) in 2021. Ordinarily, you could expect prices to fall back to earth, but in this case, lithium demand is so strong that prices are unlikely to fall back anytime soon.

Bloomberg recently [stated](#): “EVs have lithium booming – and this time, there is no bust in sight. Demand is expected to outstrip metal production for at least the next five years with few new mining projects on the horizon.”

Benchmark Mineral Intelligence recently [stated](#): “Right now lithium demand is growing at three times the speed of lithium supply.”

Furthermore, a November 2020 [UBS forecast](#) is for “lithium demand to lift **11-fold** from ~400kt in 2021 through to 2030.”

**Lithium carbonate price graph showing the extraordinary 2021 price gains**



Source: [Fastmarkets](#)

Given the above information, it makes very good sense to invest in the potential next tier of lithium miners. Added to this is the trend towards increasing market share of lithium iron phosphate (“LFP”) batteries, which will lead to greater demand for lithium carbonate, best sourced from lithium brine. Right now Argentina offers the best exposure to emerging lithium brine miners.

## Top 5 lithium junior miners (in alphabetical order)

1. Alpha Lithium Corporation (TSXV: ALLI)
2. Arena Minerals Inc. (TSXV: AN)
3. Argosy Minerals Limited (ASX: AGY)
4. Galan Lithium Ltd. (ASX: GLN)
5. Lithium South Development Corporation (TSXV: LIS | OTCQB: LISMF)

### Alpha Lithium Corporation

Alpha Lithium (Alpha) 100% own 27,500 hectares of the Tolillar Salar in Argentina and 5,072 hectares at one of the leading salars in Argentina, Hombre Muerto. The Tolillar Salar grades are lowish and in the [200-350 mg/L range](#) with Mg:Li ratios between 4.90 and 5.37 which is ok. A big plus is that Alpha has [100%](#) of the Tolillar salar to themselves and has now expanded into Hombre Muerto. Additionally, the two Projects have potential future synergies being only 10 kms from each other.

Alpha is testing their in-house developed Direct Lithium Extraction (DLE) process and has achieved some strong results including lithium concentrations of [9,474 mg/L](#) with significant rejection of impurities. They are also testing DLE with Lilac Solutions (private).

At Hombre Muerto drilling is yet to start but given it is the best salar in Argentina then results could potentially be very good. Alpha's Hombre Muerto tenements are on the outskirts of the POSCO property, noting POSCO paid [US\\$280 million](#) to acquire these from Galaxy Resources. Alpha Lithium is taking a fast-track approach towards reaching production, then planning to ramp up volumes thereafter.

Alpha Lithium trades on a market cap of [C\\$158 million](#) and has loads of potential.

## **Arena Minerals Inc.**

Arena Minerals (Arena) has [two projects](#) in Argentina which are Sal de la Puna (11,000 hectares) in the Pastos Grandes salar, Argentina and Antofalla (6,000 hectares) located immediately adjacent and south of Albemarle's tenements. Arena also own the [Atacama Copper Project](#) in Antofagasta, Chile.

At the Sal de la Puna Project Ganfeng Lithium has acquired a [35%](#) project share. Ganfeng also owns a [19.9%](#) equity stake in Arena. Lithium Americas also bought [\\$10 million](#) of shares in Arena recently.

Arena Minerals trades on a market cap of [C\\$206 million](#). Great partners but Arena has sold some Project share at Sal de la Puna. Possible takeover target. Copper in Chile is a bonus.

## **Argosy Minerals Limited**

Argosy Minerals (Argosy) owns a 77.5% interest (with a [right to move to 90%](#)) in their flagship Rincon Lithium Project on the Salar del Rincon in Argentina. Argosy also owns the Tonopah Lithium Project in Nevada, USA.

Argosy's Resource is still quite small but should potentially be easily expanded when needed. Lithium grade is a bit below average at 324-369mg/L and the Mg:Li ratio is a bit high. All this means is slightly higher operating costs which is not an issue these days with surging lithium demand and very good lithium prices. Argosy is fully-funded and [45% construction completed](#) towards their plan to expand to 2,000tpa lithium carbonate production with first product by mid-2022. Thereafter the plan is to expand by 10,000tpa lithium carbonate production to have 12,000tpa production.

The big deal about Argosy is that they are already producing at

pilot plant stage with large evaporation ponds already built. This makes them one of the most advanced lithium juniors globally.

Argosy Minerals trades on a market cap of [A\\$353 million](#). One of the very best and most advanced juniors.

**Argosy Minerals Rincon Project is already producing battery grade lithium carbonate and working towards 2,000tpa then 12,00tpa LCE**



Source: [Argosy Minerals website](#)

### **Galan Lithium Ltd.**

Galan Lithium (Galan) is developing their flagship Hombre Muerto West ("HMW") Project located on the west side edge of the world class Hombre Muerto Salar. Galan also has the nearby Candelas Lithium Project also at southern edge of the Hombre Muerto Salar. Galan also owns 80% of the exploration stage Greenbushes South Lithium Project which is only 3km south of the world-class Greenbushes mine.

At Hombre Muerto West, Galan has 2.3 million tonnes contained LCE at 946mg/L (very high grade) and a very low Mg/Li ratio of <2.0. When including Candelas, in total Galan has [3.0m tonnes contained LCE @858mg/L](#). Galan completed a very positive [PEA](#) in 2020 with a post-tax NPV8% of US\$684 million.

Galan is doing further drilling in Q4, 2021 with a FS planned for 2022.

Galan Lithium trades on a market cap of [A\\$472 million](#). Top class resource and looking like a future star performer.



**Hombre Muerto Salar – Galan tenements (blue outline), Livent (red), Galaxy now Orecobre (yellow), POSCO (white)**



Source: [Galan Lithium investor presentation](#)

### **Lithium South Development Corporation**

Lithium South Development Corp. (Lithium South) has 3,287 hectares of tenements [under purchase option](#) at their Hombre Muerto North (HMN) Project, on the northern edge of the Hombre Muerto salar. The Project lies just north of the POSCO and Orecobre projects, and near Livent's very successful lithium mine.

Lithium South has a [M&I Resource of 571,000t contained LCE](#), with a high lithium grade of 756mg/L and a very low Mg/Li ratio of 2.6:1. The Project has potential exploration upside. Lithium South is trialing DLE technology in parallel with proven evaporation technology. Their environmental baseline study is also underway with [Phase 1 recently completed](#). The Hombre Muerto North Project PEA ([based only on](#) some of the claims) resulted in a [post-tax NPV8% of US\\$217 million and 28% IRR](#), based only on 5,000tpa lithium carbonate production over a 30 year mine life. Initial CapEx was estimated at US\$93.3 million and OpEx at US\$3,112/t lithium carbonate. These are excellent numbers, albeit for an initial smaller size production project. Lithium South is working to further expand the resource following some good [TEM study results](#).

Lithium South trades on a market cap of [C\\$67 million](#). Looks very attractive on such a low market cap.

### **Closing remarks**

The above top 5 lithium juniors all have lithium brine projects

located in Argentina. All still have reasonably low market caps and all have great potential in the years ahead. The usual risks apply to lithium juniors such as country risk, exploration risk, funding risk, permitting risk, production risk etc. In the case of these juniors, many have run up in price recently so buying in stages can add safety in case there is a price pullback.

If looking to diversify away from Argentina then some other good juniors such as Critical Elements Lithium Corporation (TSXV: CRE | OTCQX: CRECF) (Canada lithium spodumene project), Global Lithium Resources (ASX: GL1) (Australian spodumene project), and Lithium Power International Ltd. (ASX: LPI) (Chile JV lithium brine high grade project) are worth considering.

Best to take a 5 year time frame and remember to diversify. The EV boom has only just begun so lithium still has a great decade ahead.

*Disclosure: The author is long all of the stocks mentioned in the article (except Livent and POSCO).*

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## **Can Avalon Advanced Materials ride the lithium tidal wave?**

written by InvestorNews | September 5, 2023

Lithium miners have been the best performing sector of almost every sector of the stock market over the past year. This has been due to a 'tidal wave' of new lithium demand as electric vehicle (EV) sales dramatically increased over the past year. For example global electric car market share more than doubled

from [4.2% in calendar year 2020](#) to [8.7% in the month of June 2021](#). This has led to a surge in lithium demand and subsequently lithium prices in 2021.

**Lithium prices (1 year chart) have risen rapidly due to a massive demand increase from booming EV sales**



Source: [Trading Economics](#)

One under the radar lithium junior is [Avalon Advanced Materials Inc.](#) (TSX: AVL | OTCQB: AVLNF) (“Avalon”). Avalon has six projects, providing investors with exposure to lithium, tin and indium, as well as rare earth elements, tantalum, cesium and zirconium. Avalon is currently focusing on developing their Separation Rapids Lithium Project near Kenora, Ontario, while looking at several new project opportunities, one being a lithium hydroxide (and other materials) refinery in Thunder Bay, Ontario, Canada. They are also working to advance their Lilypad Cesium-Tantalum Project, in Ontario, Canada.

**Separation Rapids Lithium Project (100% owned; Ontario, Canada) + possible lithium battery materials refinery (Thunder Bay, Canada)**

Avalon completed a [PEA](#) of their 100% owned Separation Rapids Lithium Project in 2018, resulting in a pre-tax NPV8% of [\\$156 million](#), post tax IRR of 22.7%, CapEx C\$77.7 million with a 20 year mine life.

Then in March 2021, Avalon [announced](#) a Letter of Intent (“LOI”) with Fort William First Nation (“FWFN”) to collaborate on the development of a lithium battery materials refinery located on industrial lands owned by FWFN in Thunder Bay, Ontario. As stated in the announcement: “This facility would be designed to

accept lithium mineral concentrates from Avalon's Separation Rapids Lithium Project (70 km north of Kenora) and Rock Tech's Georgia Lake Lithium Project (145 km northeast of Thunder Bay), as well as potentially other emerging, new lithium mining operations in northern Ontario, to produce lithium hydroxide and other lithium battery materials."

Then in May 2021, Avalon [reported](#) that their recent process testwork using dense media separation ("DMS") technology had proven to be successful at producing a high-quality petalite lithium mineral concentrate (4.0% – 4.2% Li<sub>2</sub>O) from their Separation Rapids Lithium Project. The concentrate is suitable for the needs of specialty glass-ceramic end-users. As a result, Avalon is now looking at acquiring their own DMS equipment so they can more quickly meet the needs of the many end-users that have expressed interest over the years in their petalite product samples. Avalon will also resume exploration work this summer on the western part of the Separation Rapids property to further work towards growing their resource.

### **Avalon Advanced Materials Separation Rapids Lithium Project – PFS & PEA completed**



Source: [Company presentation](#)

[Announced](#) in July 2021, Avalon is now in active discussion to potentially progress their lithium materials refinery in Thunder Bay. The release [stated](#): "On the lithium battery materials market development work, Avalon continues to engage with potential customers looking for new supply sources and are in active conversation with one group in Europe. With a firm commitment on off-take, Avalon can then proceed with its plans for establishing a lithium refinery in Thunder Bay."

## **Lilypad Cesium-Tantalum Project (100% owned; Ontario, Canada)**

Avalon's Lilypad Property, located 150 km northeast of Pickle Lake, Ontario, is an exploration stage project with cesium-tantalum-lithium mineralization. It has some potential to be a secondary lithium supply source for Avalon, however, cesium and tantalum are the key products for now.

In July 2021 news, Avalon [stated](#): "Following the closing of the recent flow-through financing, an exploration work program was initiated in June on its 100% owned Lilypad Cesium-Tantalum Project involving re-establishing a field camp and new grid on the property **in preparation for detailed mapping and geochemical sampling to commence later this month.** Additional cesium mineralized rock was collected from the Pollucite Dyke for continued process research on techniques to efficiently concentrate the rare cesium mineral pollucite, which continues to be in high demand. **Drilling is planned for later this year.**"

### **Avalon Advanced Materials project pipeline**



Source: [Company presentation](#)

### **Closing remarks**

As evidenced by a recent record lithium spodumene spot market price achieved this past week of [US\\$1,250/t](#) (around 3x the contract prices from 12 months ago), there is now a new realization that lithium supply is critically low. This means it is a great time to be a lithium miner and it generally acts to boost the sentiment of the sector thereby helping lithium juniors raise capital and hopefully reach production.

Avalon Advanced Materials is not only a junior lithium miner, as they have a total of 6 projects across multiple critical metals

and rare earths. Key critical metals Avalon has are lithium, tantalum, cesium and zirconium; all are on [the list of U.S critical materials](#). The Company trades on a market cap of only C\$52 million. One to watch.

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# Lithium: The Haves and the Have Nots

written by Jack Lifton | September 5, 2023

Too little attention is being paid in all of the chatter, both informed and uninformed, about a lithium supply “deficit” and its longevity, to the culling of both battery and vehicle manufacturers that such a deficit would (will[?]) entail.

There is not even the remotest possibility that [global lithium \(measured as metal\) production](#) could grow to this week’s prediction, for example, by the child-like prognosticators at Deloitte, that in 2030 32% of all newly manufactured motor vehicles would be battery electric vehicle (BEV). Even assuming no growth in total OEM automotive production, a CAGR of zero, there would be 100,000,000 cars and trucks manufactured in 2030, and, under this prediction, 32,000,000 of them would be BEVs. Using an average lithium-ion battery capacity per vehicle of 100 kWh and the requirement of 16 kg of lithium per 100 kWh this means a need in 2030, just for BEVs and excluding stationary storage (the so far un-named gorilla in the battery needs zoo) and personal portable electronics, of 512,000 tons of lithium or six times the new production level of 2020!

China’s [new economic plan](#) “only” calls for 20% of its domestic

OEM automotive production in 2025 to be BEVs. Again assuming no growth in OEM automotive output from 2020 levels this would mean the production in 2025 of 5,000,000 BEVs in and for the [Chinese domestic market](#). This would require, under the above usage of Lithium requirements, 100% of the lithium produced in 2020. But China is different. Today, in 2021, it already controls (owns or owns the output of) 60% of global lithium production and has today 82% of the global installed capacity for manufacturing lithium ion batteries of all types. Assuming that 65% of current lithium production is used for lithium ion batteries and the 100 kWh size of the average car battery and that it takes 9 GWh of battery making capacity to outfit 100,000 BEVs, this means that China today, with its installed capacity (in 2021) of 455 GWh of battery making capacity, could already produce 5,000,000 BEVs a year domestically. **In other words, China today has already enough battery making capacity to match its current supply of lithium that is allocated to BEV battery manufacturing, and, further, to already be in a position to achieve its 2025 target production of BEVs!**

There's really no comparison between the efficiency and **effectiveness** of China's mandarins as state resource allocation experts/executives and the bureaucrats/advisors of former Soviet Russia or today's Washington and Brussels.

China continues to acquire global lithium sources, build processing and manufacturing capacity for lithium-ion batteries, and increase production of BEVs to meet long-term state planning goals. In the West bureaucrats "study" the needs for capital allocation to do the same thing.

China seems acutely aware of the balance its needs for steady societal growth (in the standard of living) required when set against its need to allocate capital efficiently to meet security of supply. This is where Western politicians who lack

even a rudimentary understanding of economic planning have completely failed in their governance.

Yesterday I heard the chairman of a lithium junior in Argentina criticize China's Ganfang Lithium, the world's largest producer of lithium chemicals for batteries, for announcing that it is acquiring ownership of, what he called, a "crap" lithium junior in Argentina, Millennial Lithium Corp. (TSXV: ML | MLNLF: OTCQB). He failed to note that just this year Ganfeng has gone ahead with the building of a 20,000 ton per annum, lithium chloride production plant to be powered entirely by a 120 megawatt (Chinese manufactured) solar cell installation in Argentina, and also agreed to complete its purchase of Mexico's Bacanora Lithium PLC. Ganfeng with its \$120 billion market cap and its own cash along with the permission of the People's Bank of China is valuing Millennial above its current market price primarily for its holdings and its recent PEA and pilot plant success.

**Investing in junior lithium miners is not a bet on the US or the EU's future demands it is a bet on the value that China puts on its critical resource supply security.**

The "free" market allocation of capital in the West is not for the societal benefit it is for economic growth, supposedly for the benefit of society, but increasingly for the benefit of an oligarchy now in control of finance. China seems to be taking a different path to economic growth and perhaps a better one for the long haul.

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# Neo Lithium closes CATL strategic investment and looks to be the leading lithium junior miner

written by InvestorNews | September 5, 2023

It's not every day that the world's largest battery manufacturer chooses to invest in your company. There are literally almost one hundred junior lithium miners (not yet in production) to choose from. Yet the world's largest battery manufacturer, Contemporary Amperex Technology Co. Limited (CATL), has chosen to partner with [Neo Lithium Corp.](#) (TSXV: NLC | OTCQX: NTTHF), [with an initial 8% equity investment deal closing yesterday](#). Why did they choose Neo Lithium?

## Why Neo Lithium?

Neo Lithium has the best undeveloped global lithium brine project in the world. Here are 7 reasons why they are the best:

1. Neo Lithium 100% own, and has fully paid, their 3Q lithium project in Argentina. Neo Lithium own the entire salar, which covers 160Km<sup>2</sup> (6th largest salar in the world). This means they won't ever have an issue of competing for lithium from their salar, unlike several other lithium brine miners who share their salar.
2. The 3Q Project has the 4th highest lithium grade globally, or the 3rd highest if counting only their high grade core. The average grade to be mined for the first 10 years is forecast to be [1,000 mg/L](#) lithium.
3. The 3Q Project has the lowest level of impurities

globally. This should result in the 3Q Project having industry lowest quartile operating expenses (OpEx forecast of [US\\$2,914/t LCE](#)) and also low capital intensity; that is the CapEx required to produce a certain amount of lithium carbonate equivalent (LCE).

4. The 3Q Project has a significant lithium P&P reserve ([1.3Mt LCE](#)) and a very large lithium M&I Resource (4.0Mt LCE). Mine life is forecast at [35 years](#) taking into account only 1/3 of the known resource.
5. The 3Q Project has an [outstanding PFS](#), including a post-tax NPV8% of US\$1.144 million, post-tax IRR of 49.9%, and CapEx of US\$319 million, based on 20,000t pa LCE production, and assuming a life of mine lithium carbonate average price of US\$11,882/t. Payback is just 1 year and 8 months.
6. The 3Q Project is already at a fairly advanced stage. The 3Q project site is now advanced with construction including pilot ponds, improved access, and infrastructure. The Environmental Permit is granted for Exploration, Mining and Development. All permits are granted for the chemical plant. [Final Environmental permit](#) for construction has been presented to the government and is in the process of approval. An agreement is in place with local municipality to build the lithium processing plant in Fiambalaon on government land near town.
7. Neo Lithium is well cashed up with [C\\$37 million](#) in cash.

## **Neo Lithium is a standout on all metrics**



Source: [Neo Lithium company presentation](#)

Looking ahead Neo Lithium is targeting to complete a final Feasibility Study in Q2 2021, obtain the EIA for final

construction permit, then to ideally complete financing discussions with CATL to fund the project and assign off-take. All going well a final investment decision would then be made, project construction would occur over about 1 year, and then begin lithium production in 2022. Investors should note that miners don't always hit these targets, and should view them as aspirational.

## **About Contemporary Amperex Technology Co. Limited (CATL)**

CATL is China's and the world's largest battery manufacturer, based on 2019 figures. They are also one of [Tesla's](#) preferred battery suppliers for China. [CATL also supplies](#) PSA, Hyundai, Honda, BMW, Daimler AG, Toyota, Volkswagen, and Volvo. In China, CATL's clients include BAIC Motor, Geely Automobile, GAC Group, Yutong Bus, Zhongtong Bus, Xiamen King Long, SAIC Motor and Foton Motor.

[According to Fitch Ratings](#): "CATL had a global share of 28% of lithium-ion battery installation volume in 2019. CATL's strong market position is driven by the large Chinese electric vehicle (EV) market, which accounts for about 50% of global EV shipment, and CATL's dominant position (54% market share) in this segment."

CATL is currently in talks with Indonesia to build [a US\\$5 billion lithium-ion battery factory in Indonesia](#), with plans to commence production by 2024.

**CATL was the world's largest lithium-ion battery supplier in 2019**



Source: [Bloomberg Green](#)

## Closing remarks

Neo Lithium is looking like the most exciting lithium junior (non-producer) in the market right now. They have outstanding project metrics, a very strong PFS with a post-tax IRR of 49.9% with low CapEx/low OpEx and a 35 year mine life, an advanced stage project, and the world's largest battery manufacturer as their equity partner. What more could you want?

Neo Lithium trades on a market cap of just C\$175 million.

*Disclosure: The author is long Neo Lithium Corp. (TSXV:NLC).*