SHARES in VALUE

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SPECIAL LITHIUM SECTOR REPORT

BY

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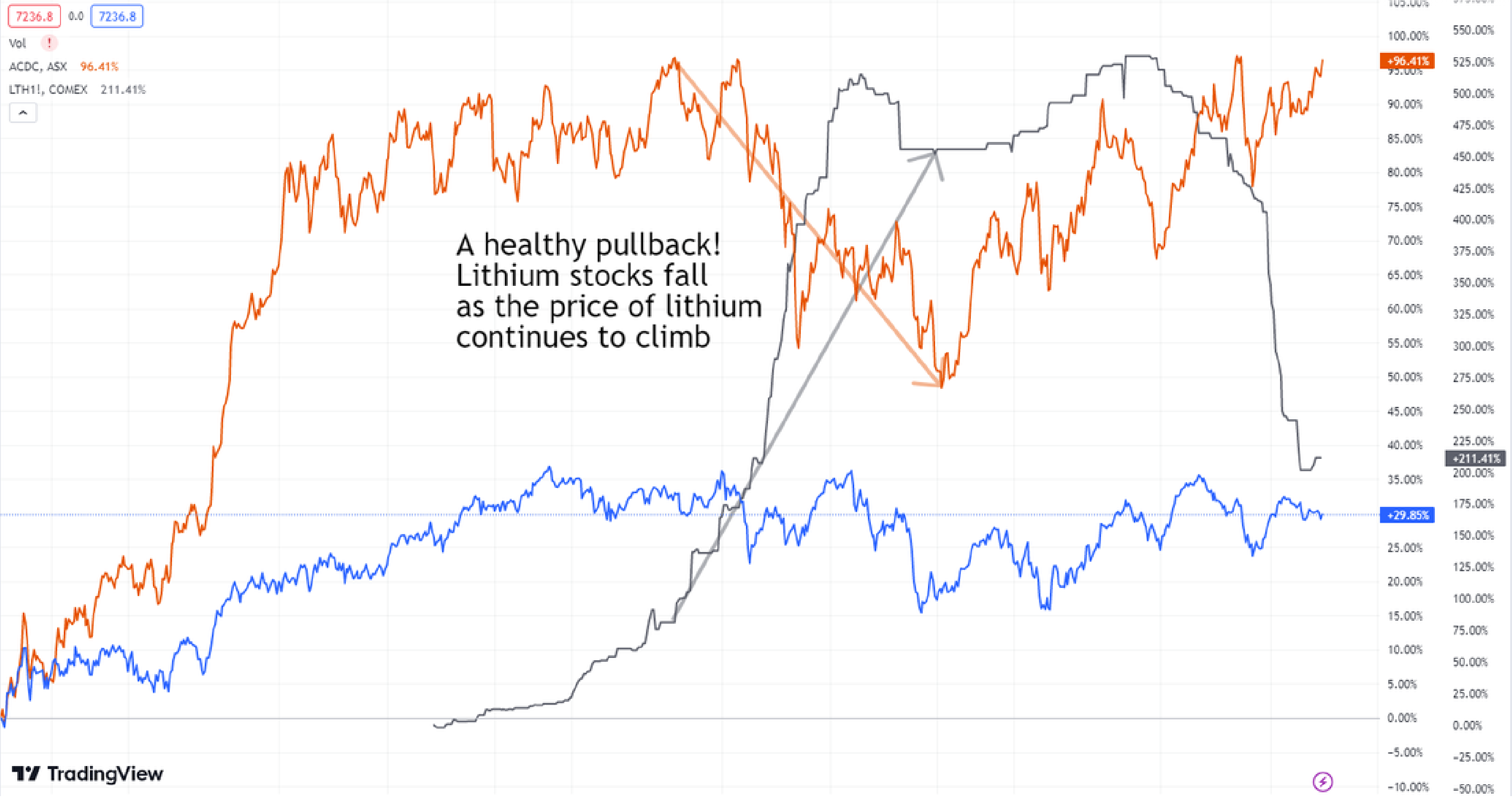


What's happening with lithium

Lithium has been a hot commodity globally for a few years. Its story is tied up with the rise of EVs and renewable energy and the ever-increasing demand for batteries that goes with the whole story. Fortunes have been made, but the journey hasn't been without its bumps. The price of Lithium stocks arguably outpaced the underlying economics, and we've seen a long period of consolidation on the ASX.

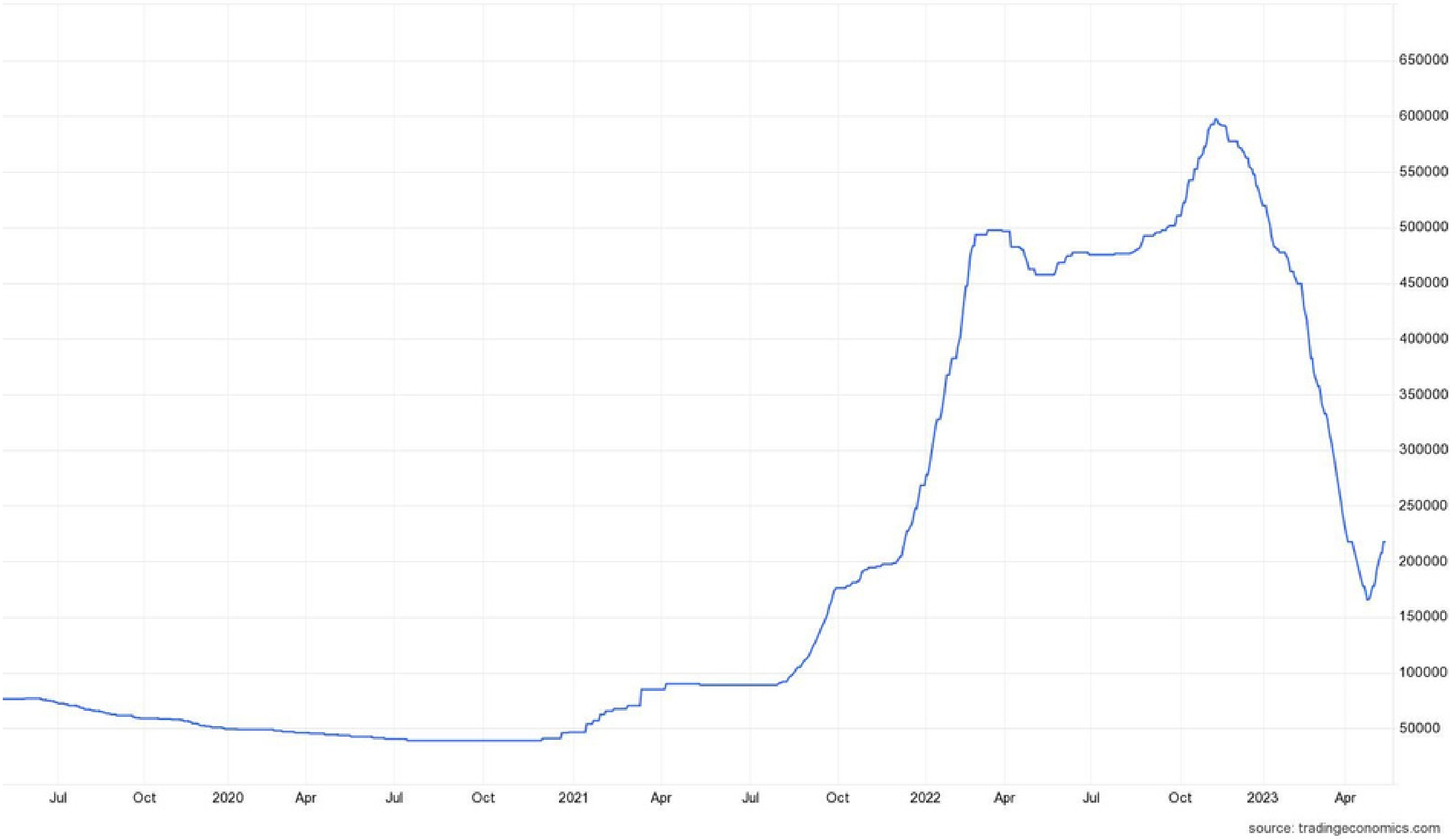
The chart above shows an ASX lithium miner ETF (ASX: ACDC) in orange. The S&P200 index of top ASX stocks is shown for context in blue. The light grey line shows the price of lithium futures.

Please take note of the difference in scale. While we don't show lithium futures data for the whole period, the price rises by over 500% in this chart. If we had data back to the same starting point as the other lines, it would show a peak increase of about 1200%.

While during that same period, the S&P200 tops out at about a 37% gain, while the lithium basket ETF has a gain approaching 100%.

Notice that the orange ETF line runs out of steam and has a healthy pullback, even while the price of lithium continues to take off exponentially. While lithium has since had a major pullback, it has consolidated and found footing at a much higher price from where it started.

This might be the pullback ASX stocks were nervously expecting in early 2022. The good news is that there is at least a short-term low in, and lithium is starting to look strong again. It could be headed for new highs. All the stock market needs is a sense of that possibility to get interest flowing again.
After all, the price of lithium is still up about 500% after the pullback.



The next chart gives us a better idea of the overall spot price of lithium.

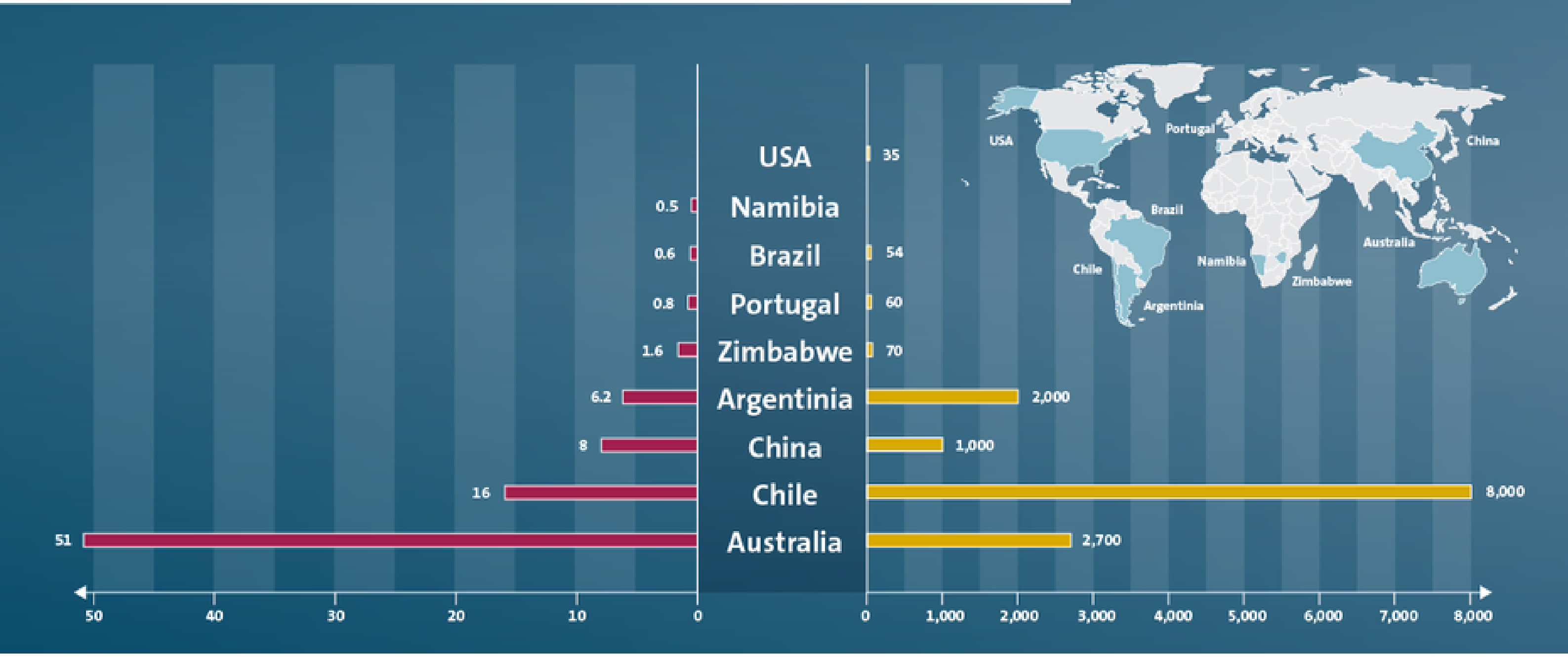
And that, ladies and gentlemen, is what a bubble bursting looks like! In this case, it seems that supply has started to catch up to the very real explosion in demand.

It's not a particularly scarce material, but finding the deposits and bringing them online still takes time. There are also constraints around how quickly the processing capacity can be built in. One thing's for sure, there doesn't seem to be anything but increasing demand for a long time.

With all this backdrop, the sector seems ripe for some strategic takeovers to play out. At my last count, there were more than 60 lithium-related stocks on the ASX. It's hard to keep track of them all! We've seen early signs of a shopping spree by some of the more established players. We'll talk about that in more detail a bit further on.

On top of that, geopolitics has thrown its ugly hat in the ring. You see, there are a few countries that are particularly known for lithium deposits. Australia is the biggest lithium producer, yet Chile has the largest lithium reserves. See the following chart of production vs reserves.

AUSTRALIA AND CHILE IN THE FRONT ROW
Countries with major Lithium production and reserves



Yet it's important to note that both countries extract the majority of their lithium in different ways. Australia has mostly hard rock. You might come across the words "spodumene", "lepidolite", "petalite", "amblygonite", or "eucryptite". That means hard rocks, which require mining, crushing, heating and dissolving in acid, among other steps to extract the lithium carbonate.

In Chile, lithium tends to be extracted as brine from large salt flats. In this case, solar evaporation ponds are used. The process can take a long time – up to years. Enough water needs to evaporate to collect a dense enough lithium content. While this process can take a long time, it tends to be much cheaper than hard rock mining, as the sun does most of the work. When lithium is cheap, many Australian lithium mines can't compete with low-cost brine lithium deposits.

However, things can change quickly.

You see, the Chilean government recently announced that it plans to nationalise its lithium mining industry.

Sound implausible?

They've done it before. Between 1967 and 1971, Chile nationalised existing copper deposits. Essentially stripping international companies of their assets.

What could possibly go wrong?

Similar – but more ambitious – plans announced last year were voted down by Congress. Another vote on the revised laws is planned for the second half of this year. Even if voted down again, this is clearly an issue that isn’t going away quietly. This is likely to dampen mining investment in the country for some time. No one wants to throw a bunch of resources into a mining plan, just to have it taken off them when all the hard work has been done.

And this brings the focus of lithium supply back to countries with both political safety and scale of resources. From the above chart, it's clear there's only one solution. Australia.

Evidence of a takeover spree?

The conditions are there for a lithium miner shopping spree on the ASX. So what's the evidence it's started? Let's take a look at a couple of examples that have transpired recently.

Liontown Resources Limited

We first recommended Liontown Resources Limited (ASX:LTR) in early 2021, when the price was 41.5 cents. In fact, we put out two buy recommendations on the stock in that year, with fantastic results.
In April this year, the company became the target of a takeover bid. Albemarle Corporation(NYSE: ALB) offered $2.50 per share, which Liontown rejected. Their share price has since rallied past the bid price to a high of $3.02. The following chart shows the Liontown share price since we first recommended it. Note the dramatic price jump after the takeover announcement.

Albemarle is on track to exceed US$10 billion in revenue this year and growing strongly. The company has a market cap of about US24.2 billion. That's roughly AUD $36.4 billion.

They have a 49% stake in Greenbushes in WA, the largest operating spodumene mine in the world. Also, brine deposits in Silver Peak Nevada, USA and Salar De Atacam, Chile.

Table 1: Pioneer Dome Lithium Project – Base Case Key Outcomes

SCOPING STUDY – BASE CASE KEY OUTCOMES	
Post-tax $NPV_{10\%}$ (real, post-tax)	**Base Case of $367M**
Internal Rate of Return (IRR)	Base Case of 40%
Payback Period	~1.7 Years
Life-of-Mine Production Target	8.8Mt @ 1.11% Li_2O
Life of mine	~7.3 Years
Pre-production capital cost	~$293M including $36M contingency
Average LOM cash operating cost	~$1,030/tonne (US$721/tonne) of 5.7% spodumene concentrate. *Cash operating costs include all mining, processing, transport and loading at Esperance port, site administration and overhead costs and state and private royalties.*
Design Annual Production	~193,745 tonnes of 5.7% spodumene concentrate

Essential Metals

We've already written about IGO Ltd (ASX:IGO) a couple of times this year. They have a joint venture with Tianqi Lithium Corporation called Tianqi Lithium Energy Australia (TLEA).

TLEA happens to be a 51% stakeholder of the Greenbushes mine, in which Albemarle has a stake. Well, earlier this year TLEA made a takeover attempt on Essential Metals (ASX:ESS) for $136 million. The deal seemed a sure thing, with the full backing of the ESS board.

Until...

Mineral Resources (ASX:MIN) killed the deal when they swooped in and bought up a 19.5% stake in the company. Let the games begin!

A scoping study of Essential's Pioneer Dome Lithium Project is summarised in the following table.

The following chart shows the large gap-up in price on the takeover offer. The share price has been up and down since then. Presumably, buying below the 50-cent offer price is a pretty safe bet, given any subsequent offers would be expected at a higher price.

We’ve also recently seen Allkem Ltd (ASX:AKE) and Livent (NYSE:LTHM) form a merger as equals to create a combined $15.7 billion company.

In January 2023, Sociedad Química y Minera de Chile S.A. (NYSE:SQM) forked out $20m for a 19.99% stake in Azure Minerals (ASX.AZS).

In February 2023, LG Chem Ltd (KRX: 051910) spent US$75 million for equity and an off-take agreement with Piedmont Lithum Inc (ASX:PLL).

There are clear signs of the start of a lithium acquisition spree during the first half of 2023. We've no reason to think this will be short-lived. The strategic importance of lithium continues to grow with the demand for batteries and EVs. We see a potential increase in M&A activity in this space that could last several years

How to identify a takeover target?

The ASX is awash with lithium companies. You can't throw a stick without hitting one. The problem is sifting out the good from the bad, and well the ugly. It's more complex than looking at something like market cap or estimated resources in isolation.

Large-cap companies get taken over just as easily as small-caps. Often they make for a much more compelling case.

To understand what we're looking for, let's do a thought experiment and put ourselves in the shoes of a big wig mining executive.

We saunter out of the boardroom meeting, smelling of fine scotch and Cuban cigars. Force a laugh at our boss's bad joke, our mouth sore from fake smiling. The personal assistant scurries around under our heels, chirping small pieces of information between our brief cordial remarks to our peers, and barked demands at our inferiors.

What's next in the diary? M and A targets? That's right! This week the head honcho wants us to find some companies to buy. Better get to that. In fact, "Cancel golf for this afternoon."

I know it sounds dramatic, putting off golf on a Wednesday! But the executive world is fast-paced. If we miss out on those acquisitions, the competition might get to them first.

But where to start? What makes for a company we want to buy?

Obviously, they have to be something we can get at a good price. If we have to pay up a little bit, well, that's fair enough. But we can't pay too much. They must bring meaningful scale improvement or some other kind of advantage, like access to new markets or IP. There's no point skipping golf just for a per cent or two to the bottom line. This needs to be out-of-this-world-performance-bonus stuff.
Ferrari in the driveway type of stuff.

We sit down at our desk and start writing a list. It looks something like this:

Strategic element of the deal

1. Synergies
2. Market position
3. Innovation
4. Supply chain control
5. Access to new markets

Attributes to assess

1. Scale
2. Value
3. Quality
4. IP

Let's take a step back from the executive thought experiment. While this process could be taking place in Lithium miners who want to grow through acquisition, it could also be happening with EV and battery makers who want to lock in certainty of supply. It could also be taking place in big miners like BHP and RIO, who're experts at mining and marketing commodities and looking for increased exposure to high-demand products.

Now, with all this in the back of your mind, let's look at some potential targets, who might be looking at them, and what makes them attractive.

TAKEOVER TARGETS

Pilbara Minerals Ltd (ASX:PLS)

Market Cap: $14.4b   Cash: $2.7b   Revenue: $3.1b
Planned Production: 1Mtpa   Mine Life: 25+ years

An established miner, sitting on a large proven resource. They have plenty of cash at $2.7 billion and revenue of over $3 billion annually. The company aims for an annual production capacity of 1Mt, with a mine life of 25+ years.

PLS is just as likely to be a buyer as they are to get bought. The company's strategic goals include "...to diversify along value chain and horizontally across more lithium assets."

Although they wouldn't be the cheapest acquisition, PLS offers instant scale. They could be an attractive addition for a large EV or battery manufacturer who wants to secure long-term, large-scale supply and is happy to pay a premium to do so.

Mineral Resources Ltd (ASX:MIN)

Market Cap: $14.5b
Cash: $1.7b
Revenue: $3.4b
Planned Production: 1.65Mtpa
Mine Life: 30 years

A diversified business with iron and gas assets and a mining services division. While still holding a substantial lithium resource portfolio of 330Mt, this isn't a lithium pure-play. Mineral Resources could be attractive to a large, established miner like Rio Tinto. They already have lithium assets and may be able to extract more value from the non-lithium assets as well.

The complicating factor with MIN is that they don't have full ownership of their lithium deposits. They own 50% of Mt Marion (50% Jiangxi Ganfeng Lithium Co. Ltd) with an estimated 71Mt of resources. Subject to regulatory approval of a project reconfiguration with Albemarle, they'll own 50% of the Wodgina mine, with a resource estimate of 259Mt, and 15% of the Kemerton Lithium Hydroxide Plant, which has a 50,000 tpa processing capacity.

MIN has expansion plans of their own, aiming to "...become a top five hydroxide producer and create a significant cost advantage through a fully-integrated business model."

This suggests they might be looking to expand further into processing capacity, given they have an existing substantial resource body to work with.

Liontown Resources Ltd (ASX:LTR)

Market Cap: $6.1b
Cash: $305m
Revenue: $0
Planned Production: 3Mtpa
Mine Life: 23 years

We’ve already mentioned Liontown earlier and the failed takeover attempt by Albemarle. It's worth mentioning that despite the recent price jump on the takeover, LTR still presents an attractive target. The company has a substantial 156Mt resource with an estimated high grade of 1.4% Li_2O in Kathleen Valley. They also have Buldania, which is currently under exploration, but already has a 15Mt resource.

On top of that, they have 100% ownership of their projects, making them a compelling case for other miners and EV and Battery companies alike.

There's a lot to like about Liontown, and we think they'll stay in the crosshairs of bigger miners for a while. We won't be surprised to see Albemarle return with a better offer.

Sayona Mining Ltd (ASX:SYA)

Market Cap: $2.1b
Cash: $98m
Revenue: $0
Planned Production: 1.5Mtpa
Mine Life: 20 years

Sayona could be a very interesting play. Their advanced projects are located in Quebec, Canada. There aren’t many lithium projects in North America. This could make SYA geographically attractive for US-based EV manufacturers like Tesla.

Additionally, while they’re sitting on a smaller known resource than the likes of PLS, MIN and LTR, they're still exploring their tenements in both Canada and WA. The opportunity for estimated resources to rise is quite strong. In the meantime, they have a pathway to revenue and a 20-year mine life project in their 75% owned North American Lithium JV with Piedmont Lithium (Nasdaq:PLL).

Sayona might well be overlooked by the market as they're not in a well-known lithium region. However, companies looking to lock in a guaranteed supply chain might assess SYA differently. The North American project's location could be a big advantage to US-based automakers like Tesla and Ford.

Core Lithium Ltd (ASX:CXO)

Market Cap: $2.0b	Cash: $97m	Revenue: $112.6m
Planned Production: 1Mtpa	Mine Life: 12 years

Core Lithium is at an exciting stage. The company has just hit revenue, with the first two shipments from its Finniss mine in the NT bringing in $112.6 million.

While CXO has a smaller lithium resource at 19.4Mt, the company has continually expanded the resource estimate with an ongoing drilling program. In 2023 they plan to increase their drilling budget to $25 million. So while it's a smaller player, there's potential upside here.

And that's just on the lithium front. CXO is a diversified explorer. While the world is transitioning energy sources, it's worth mentioning that they have exploration tenements in uranium as well. They're also exploring for gold, copper, zinc, lead and silver.

So this is certainly a diversified play, but there's revenue to keep things moving and potential upside on the lithium front. There’s potential for mid-sized miners to attempt a takeover of CXO.

Leo Lithium Ltd (ASX:LLL)

Market Cap: $904m Cash: $71m Revenue: $0
Planned Production: 0.5Mtpa Mine Life: Unknown

This is the second overseas-focused miner we've got on the list today. We’ve already discussed SYA with Canadian deposits. Well, Leo Lithium’s Goulamina mine is in Mali, West Africa. The company shows excellent value on the surface, with 50% ownership of a 142Mt resource and a respectable lithium content of 1.38% Li_2O. Production is slated for 2024, and as always, there's also the potential for resource upgrades.

As you can imagine, the project carries risk. Mining operations in Africa are fraught with political, legal and social instability. However, Leo’s market cap of $904m looks appealing, and by the company's estimates, this will be a very low-cost operation. To put their market cap into perspective, they estimate a net present value of US$2.9 billion for the project.

Leo provides a tempting target for companies that can handle the risk involved. We expect them to be a target for established lithium miners aiming to expand their scale cheaply.

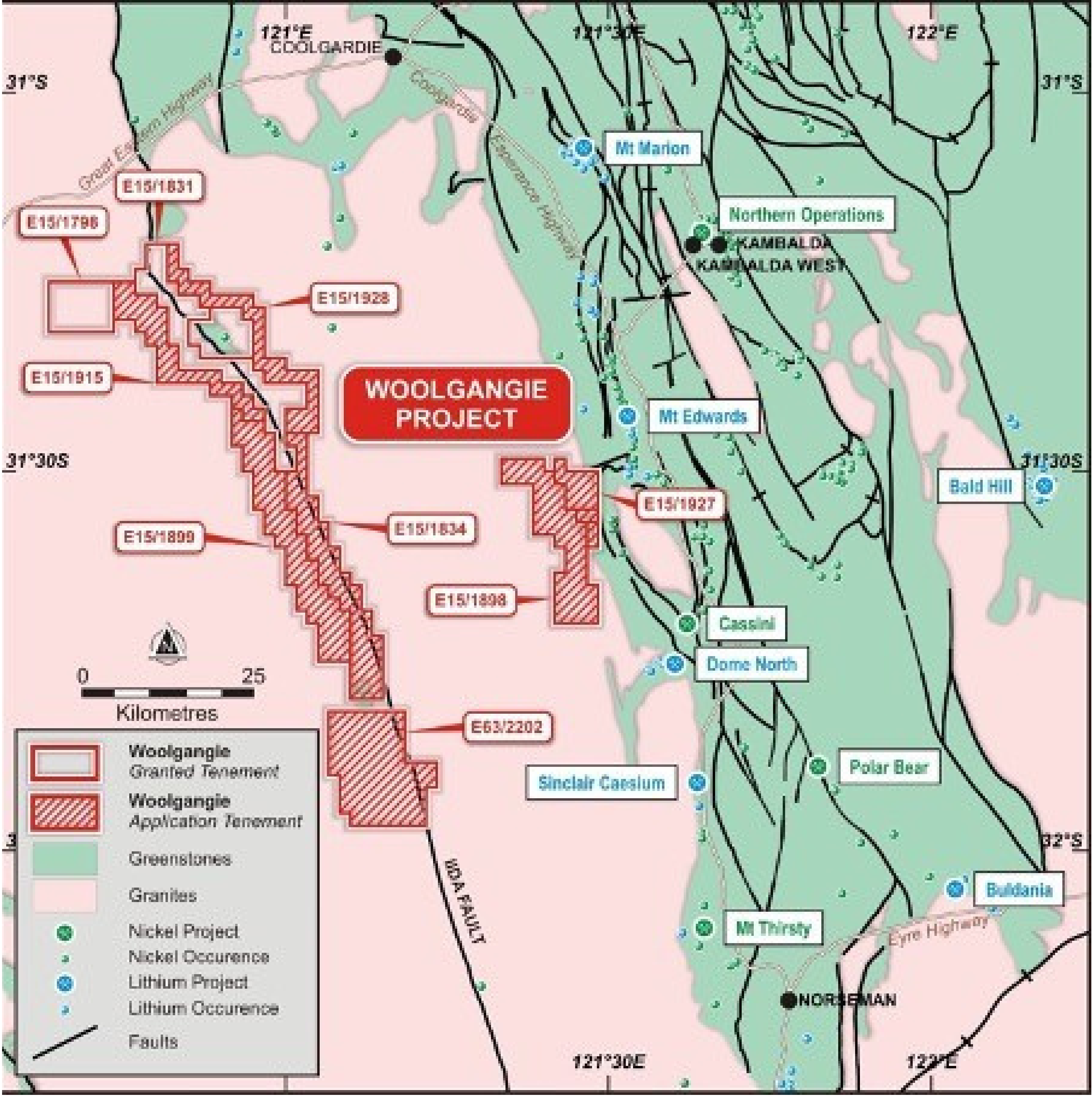
Delta Lithium Ltd (ASX:DLI)

Market Cap: $300m | Cash: $52m | Revenue: $0
Planned Production: Unknown | Mine Life:Unknown

Delta Lithium is the smallest company on this list with a known reserve. They have a market cap of just $300 million. They're also not a pure lithium play, with known gold deposits and exploration tenements for gold, zinc and lead.

Their Mt Ida, WA deposit is still in exploration phase, but already has an estimated lithium deposit of 12.7Mt @ 1.2% Li_2O and 318,000t @ 13.8g/t gold. The company’s other lithium exploration project is Yinnetharra, also in WA.

Delta offers a low-cost purchase to either an experienced senior explorer or an existing mid-tier lithium miner looking to expand their portfolio. We expect they'll be closely watched for any expansions in their resource estimates as a result of ongoing drilling programs.



St George Mining Ltd (ASX:SGQ)

Market Cap: $31.9m   Cash: $5.7m   Revenue: $0

Planned Production: Unknown   Mine Life: Unknown

We've included St George Mining as a pure exploration play. They have no known resources and a tiny market cap of just $31.9 million. This is certainly in the speculative end of town. They've just a small cash buffer and no revenue insight. Sounds dangerous? That's why the company is trading at the bargain price of $31.9 million.

What's interesting about SGQ is the location of their exploration tenements. They're in the same region as Mt Marion (Mineral Resources), Buldania (Liontown Resources), and Dome North (Essential Metals). The following diagram shows the location of their Woolgangie lithium exploration project.

The company also has copper, nickel and gold exploration projects.

We're putting them on the list to highlight another type of acquisition target that might not be as obvious. With the valuation of lithium companies going up, we might start to see more creative takeover plays occurring that explore the riskier end of town.

SGQ could be an attractive addition for a seasoned explorer or any other project operators in that area, including Mineral Resources and Liontown.

Summary of our Picks

The table below summarises the companies we've mentioned today as potential takeover targets. It's by no means an exhaustive list of the plays that could be made. But we think it's some of the more interesting ones.

Code	Name	Market Cap ($m)	Cash ($m)	Revenue ($m)	Project	Ownership %	Resource Est (Mt)	Li_2O (%)	Production Target (Ktpa)	Mine Life	Company Li_2O Est (Mt)	Mkt Cap / Li_2O ($m/Mt)
PLS	Pilbara Minerals	14,400	2,700	3,080	Pilgangoora, WA	100	305	1.10%	1,000	25	3.36	4292
MIN	Mineral Resources	14,500	1,700	3,420	Mt Marion, WA	50	71.3	1.37%	900	Unknown	0.49	7233
					Wodgina, WA	50	259.2	1.17%	750	30	1.52	
LTR	Liontown Resources	6,100	305	0	Kathleen Valley, WA	100	156	1.40%	3000	23	2.18	2614
					Buldania, WA	100	15	1.00%	Unknown	Unknown	0.15	
SYA	Sayona Mining	2,100	98	0	Abitibi Hub, Canada	75	75.4	1.18%	1500	20	0.67	1960
					Northern Hub,Canada	60	51.4	1.31%	Unknown	Unknown	0.40	
CXO	Core Lithium	2,040	97	113	Finniss, NT	100	19.4	1.37%	1000	12	0.27	7676
LLL	Leo Lithium	904	71	0	Goulamina, Mali	50	142	1.38%	506	Unknown	0.98	923
DLI	Delta Lithium	300	52	0	Mt Ida, WA	100	12.7	1.20%	Unknown	Unknown	0.15	1969
					Yinnetharra, WA	100	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
SGQ	St George Mining	31.9	5.7	0	Mt Alexander, WA	100	Unknown	Unknown	Unknown	Unknown	Unknown	Unknown
					Woolgangie, WA	100	Unknown	Unknown	Unknown	Unknown	Unknown	
					Mt Holland, WA	100	Unknown	Unknown	Unknown	Unknown	Unknown	

It’s important to keep in mind that we’ve worked on the assumption that any buyers are just looking at the lithium resources that these companies have. So we have not included the value of any other assets they own. Instead, we've considered them a bonus to any potential buyer, as this report is focused on lithium.

With that in mind, please use the following table as a reference and not a solid basis for valuation.

The Next Step

We hope this report inspires reflection and further research. This could be the right time to position for lithium takeover plays. There's rising demand and geopolitical uncertainty in Chile. It's a critical time for the industry that provides risks and opportunities. Automakers and battery manufacturers will look to lock in supply certainty. Lithium miners will try to cement their market position with quality and scale.

We have more detailed write-ups and recommendations for some companies in this report, available through our paid subscribers portal. Not only that, but we also have some very exciting Rare Earth Element plays. They're primed to ride the EV and renewable energy boom and provide just as much opportunity as lithium stocks.