



Lithium-Ion Bull

ISSUE 86. JULY 11, '23

(ROCKY) LITHIUM 3.0

1H 2023 ended on a substantial high note as Rodney Hooper joined me for two weeks in North America, the highlight of which was our joining and presenting to a record number of registrants at **Fastmarkets'** 15th annual Lithium conference in Las Vegas.

1,100 industry lithium producers, developers, mining AND oil majors, auto and battery OEMs, bankers, sell-side analysts, hedge funds, dialogued about future supply agreements, financing and M&A. A sense that Rocky Lithium – often a taunted underdog – is now experiencing the exponential growth of a typical S-curve and has a long, long bull run ahead of it --was palpable.

I presented my retrospective of 14 years narrating bull through the boom/bust lithium 1.0 (2009-12) and 2.0 cycles (2016-2020) and how the Lithium 3.0 Rush since **Tesla's** September 2020 Battery Day will continue to spawn multiple new unicorns.

I presented these thoughts (and a larger market commentary) not only at Fastmarkets, but at the recent 121 Mining Conference- shortly after Rodney's discussion on Q1 destocking & how it won't change the shortage thesis.

Watch both these conversations on the **Rock Stock Channel**, or on the **Lithium-Ion Rocks podcast**.



Other recent highlights:

- **Lithium Royalty Corp**, as well as lithium brine services provider **Zelandez**, started sponsoring the Rock Stock Channel!
- **Atlantic Lithium** released their DFS and **Global Lithium** received positive results from their Manna project's recent ore-sorting.
- The Loan Projects Office announced a loan of up to \$9.2bn to **Ford & SK On's** joint venture. Big Money Biden & the Battery Arms Race in action.
- **Champion Electric Metals** closed CAD \$4m in equity financing.
- We hosted the Declaration of Independents – now on Twitter Spaces and soon to be released as a podcast.

Watch now on 

THE DECLARATION OF #LITHIUM INDEPENDENTS



Also in this issue:

- Rocky Lithium III. Gonna Fly Now?: Slides & Notes from the 121 Mining Conference
- Rodney's key takeaways on the Fastmarkets Conference, Atlantic Lithium's DFS and potential producers.
- June 2023 RK Equity Scoreboards: Lithium, Nickel, Graphite.

- *Howard Klein*





Fastmarkets Insights from Rodney Hooper

Thank you to Fastmarkets for a great conference in Las Vegas. It was well organized and great to attend.

Lithium is definitely on the map with over 1100 attendees, including banks and various hedge funds. It was a nice moment for Howard and myself, as well as many people who have been backing the industry. Good to see it finally getting recognition.

Demand's still looking strong. In particular, I'm going to make an outlier call and say that **ESS will be a 1TW market by 2030 or sooner**. That's double where Fastmarkets is at and even triple where some of the brokers are at.

Having spoken to players in China and discussed some of the battery plants coming online specifically for ESS. I think it's going to be a huge surprise on the upside.

Brazil's lithium star is definitely on the rise with a number of great spodumene deposits there, and good progress being made.

There are a lot of projects coming online and being listed. However, we don't yet see the depth of skills in the industry for all these projects to be built, and one needs to be very specific about what you choose.

There also seems to be **a flood of projects coming online** in Canada. We do think big winners will be there, but we also think there's risk.

In no particular order, my key takeaways from the conference:

1. Lithium has gone mainstream, there were a large number of representatives from banking, investment and hedge fund organizations present.
2. There is an undersupply of lithium but an oversupply of lithium companies. The RK Equity scoreboard is struggling to keep up with all the new listings (especially those focused on Canada). In my opinion, less than 25% of exploration and development projects will be built. There aren't sufficient industry skills, plenty of mediocre assets & there will be inevitable permitting delays or refusals. 50MT is the new 20MT.
3. ESS demand is far greater than analyst forecasts. What will the market share split between lithium-ion and sodium ion be? I need to do more work to decide.
4. It's no secret we like low capex/opex hard rock projects - that said I believe certain brine companies (large resource / high grade) have been overlooked and offer good relative value.
5. I caught up with Asian lithium traders & the consensus is that prices could rally higher in Q4 2023 or Q1 2024. **RK**



Atlantic Lithium's Definitive Feasibility Study

Rodney discusses Atlantic Lithium's recent release of their shallow-depth Li assay results and a word on **production hopefuls**.

On Atlantic Lithium's recent DFS

The recent report from Atlantic Lithium shows a capex that is slightly higher than my forecast, as well as delay on start of production. Otherwise, the insights are very much in line with what I had, recently published in my latest research note – available on rkequity.com.

If you adjust the expected spodumene price going forward, the model aligns with mine in terms of NPV, and looks to be that the company still trades at a deep discount on a price to NPV.

Is that fair? I don't think so.

The question could be *will they need to do an equity raise to fill up their required share of the capex to develop the plant?*

However, given how much demand for spodumene there is, they must be able to do something on the pre-payment side.

All in all, a surprise with the share price on that one.

A word on production hopefuls

In other news, having been to the Fastmarkets conference with Howard in Las Vegas, there are definitely an increasing number of deposits heading towards and beyond 50 million tonnes.

However, it is critical to acknowledge that the hurdle for getting into production is substantial: it's simply not possible for all of these projects to be manned, staffed and funded. These constraints, among other factors, are a bar which is constantly being raised – and means that a number of these projects will not be built.

That said, investors need to be cautious of what they are choosing, and consider important aspects on a case-by-case basis. I'd advise having a look at permitting, at infrastructure, capex (DMS only or does it need floatation?), and what are the complexities and costs of the project will be. Taking the time to be discerning is worthwhile and helps filter the wheat from the chaff. **RK**

Any questions for Rod?

Support us on Patreon for \$300/mo and join Howard and Rodney for a quarterly 1-1, 60-minute conversation tailored to your needs.

[Find out more](#)

Gonna Fly Now? @ 121 Mining Conference

Today's installment will revive a narrative I started in 2018 comparing Tier One producer Livent to the Oscar-winning Rocky franchise.

Spun out of FMC, **Survivor Livent**, led by CEO Paul Graves' Eye of the Tiger, is now hitting its stride, with an agreed merger of equals with peer Allkem to create a \$10B+ market cap globally diversified lithium pure play.

The 5-year period since Livent's IPO have been like Rocky I and Rocky II.

Livent is now entering its Rocky III phase, from which I predict it will be well positioned to take down the biggest Rocky IV challenge - a supersized China Drago.

Before discussing Livent, I will say a few words of update since I spoke here last October.

A few weeks after my October 6 121 presentation in which I said Lithium was **Bound for Glory**, the spot China lithium prices peaked and began a 70% drop over the next 5 months

In March, my partner Rodney Hooper and I interviewed Matt Fernley, to discuss their shared prediction that the **Free Fallin'** lithium price should bottom in a few weeks. And be followed by a sharp bounce.

The China spot lithium carbonate price has **rallied 70% in the last five weeks**. As an aside, I'd encourage all of you in the audience and those viewers who will be watching this presentation on YouTube shortly, to register your email at rkequity.com, follow me on Twitter at @LithiumIonBull and subscribe to Rock Stock Channel on YouTube.



121 MINING INVESTMENT

And please remember, I am not a financial advisor and nothing I say in this presentation is financial advice.

October 6, 2022: Li Fe is Good. Gold is Old.

Date	GDX	COPX	URA	PICK	AA	XLE	NUE	FMG	ALB	SQM
YTD	-15%	-17%	4%	-10%	-29%	24%	19%	-8%	29%	89%
3-year	-6%	84%	116%	57%	95%	64%	139%	189%	384%	307%
Since Jan 2017	12%	37%	40%	61%	11%	43%	139%	356%	230%	281%

June 5, 2023: Gold is the new Lithium?

Date	GDX	COPX	URA	PICK	AA	XLE	NUE	FMG	ALB	SQM	SPX
YTD	10%	5%	6%	-2%	-23%	-8%	8%	-1%	-4%	-10%	12%
SINCE OCT 6, 2022	25%	27%	3%	14%	-12%	-1%	21%	16%	-26%	-21%	14%
3-Year	-4%	141%	106%	88%	-45%	-6%	249%	95%	173%	213%	3%
SINCE JAN 2017	59%	110%	88%	106%	26%	42%	178%	572%	162%	226%	91%

To keep myself honest, I have updated this table from October's presentation, which highlighted that Li Fe in lithium and iron ore has been much better than old gold, copper and other metals.

Gold proxy ETF GDX is up 25% since then, while lithium proxies Albemarle and SQM are down more than 20%

So, is Gold the new lithium? I don't think so.

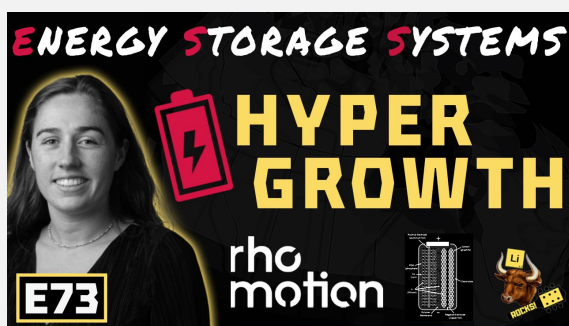
My Lithium Song Remains The Same. Buy the Dip. All-time Higher Love is coming.

Lithium, and in particular the precursor mined spodumene - remains, as Elon Musk has pointed out - the new Software.

CONFERENCE NOTES

Our first episode – and our most repeated mantra when thinking about lithium investment opportunities -- took inspiration from **KISS; Keep it Simple Stupid.**

KISS



We discussed this recently with Lola Hughes of consultancy **Rho Motion**. In 2019 Rodney and I augmented the lithium-ion bull newsletter I've written since 2015 with our podcast Lithium-ion Rocks.

My partner Rodney Hooper has not changed his thesis that a **structural deficit in lithium is here to stay** as far as they eye can see.

Recent price falls are due largely to one-off de-stocking in China, which is largely seasonal in nature.

And was exacerbated by a build up last year in cathode and cell capacity in anticipation of the lapsing of certain subsidies for EVs.

I'd encourage you to watch Rodney's widely viewed presentation at last month's 121 conference in London for this broader discussion.

And point you as well to Rodney banging the drum that upside surprises to lithium demand are likely from the hypergrowth in an often-underestimated segment – **Energy Storage.**

Those following these guiding principles have generated enormous wealth over the past few years:

- Commodity equities follow commodity prices
- Go Long what Tesla is Short
- Go Long what China is short

Chris Ellison – billionaire founder of **Mineral Resources'** Albemarle's JV partner in Australia – has famously said "if you own your own rock, you're God, otherwise you're screwed, by us"

With the Biden Administration's acceleration of policies supportive both of Electric Vehicles AND ex-China critical minerals sourcing, it is my opinion that **if you own your own North American spodumene rock, you're God.**

KISS Rocky Lithium. KISS Spodumene Software.

The volatile China spot lithium price often influences short-term sentiment and equity market prices.

Which makes it harder to raise equity for lithium development stories.

Which serves to slow development and hence feed our structural deficit thesis.

But strategics across the supply chain – namely auto and battery OEMs - who must take a long-term view of how they can supply their huge downstream investments with upstream raw materials, have been making more substantive investments/supply agreements with key producers and near-term producers.

See the next slide for a subset of the growing number of deals in motion.

CONFERENCE NOTES

2023 so far has been the year that Auto OEMs – and incumbent lithium producers - have begun to get serious.

Strategic Lithium

Ford signs five lithium deals to secure North American and IRA-compliant supply

Elon Musk and Texas Gov. Greg Abbott break ground on Tesla lithium refinery

ALBEMARLE CORPORATION ANNOUNCES NEW U.S. LITHIUM MEGA-FLEX PROCESSING FACILITY IN SOUTH CAROLINA



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Strategic Lithium

Piedmont Lithium Amends Agreement With Tesla

GM invests \$650m in Lithium Americas to develop Thacker Pass mine

LG Chem secures spodumene from Piedmont Lithium for US operations

Lithium miner Liontown soars as it snubs \$3.7 bln Albemarle bid

Allkem and Livent agree to \$10.6bn lithium merger



TESLA



LithiumAmericas



RK Equity

CONFERENCE NOTES



In January, **Tesla** replaced low, fixed priced spodumene off-take with Piedmont to market-based pricing

GM, then announced a \$650M investment in Lithium Americas for development of the \$2.3B Thacker Pass project.

LG Chem invested \$75M in **Piedmont**.

Tesla broke ground at Corpus Christi Texas – focused on 40-50kta of lithium hydroxide for it's most S3XY vehicles, in addition to Cybertruck and Semi.

Ford signed 5 substantial lithium supply deals with **Albemarle, Nemaska, SQM, Compass, Energy Source Minerals**

Albemarle bid \$3.5B for spodumene pre-producer **Liontown**, a bid which has been rejected as too low. Liontown stock price today is materially higher than ALB's \$2.5 bid

Albemarle also announced \$1.5B investment in South Carolina Megaflex which targets 100,000 tons hydroxide capacity in coming years.

And **Livent** and **Allkem** agreed a friendly merger of equals creating the #3 largest producer globally.

I have often used **Allkem** and its predecessor Orocobre to articulate how the often 30, 50 and 70% retracements in quality lithium equities present "**buy the dip**" gifts.

From its 2007 IPO around 20c and 25m market cap Allkem has explored, developed, permitted, financed and began producing lithium 6+ years ago from conventional brine operation in Argentina.

A few years ago it merged with Galaxy Resources – another lithium 1.0 success story -- which provided the merged Allkem experience with spodumene rock.

Allkem's little **lithium engine that could** is now merging with Livent at an all-time Higher Love price.

It is a testament to Allkem's success over 15 years that its shareholders will receive 56% of the merged company while 80-year old Livent – which has higher production and generally produces lithium to higher quality specifications than Allkem - will receive 44%.

Rodney and I have recently been taking advantage of changes Elon Musk has made to Twitter, in particular, through Sunday morning live discussions on Twitter Spaces.

CONFERENCE NOTES

I discussed last month Livent's Rocky history since IPO and some strategic mistakes made by its CEO Paul Graves.

But it is my strong opinion that the Livent/Allkem merger is a master stroke that will be Paul's legacy.

You can listen to this May 14 Twitter spaces through my Twitter handle or the repurposed segment we recently published as a Lithium-ion Rocks podcast available on Spotify and Apple podcasts.

My biggest strategic takeaway is summed up in this Bloomberg quote from Livent CEO Paul Graves.

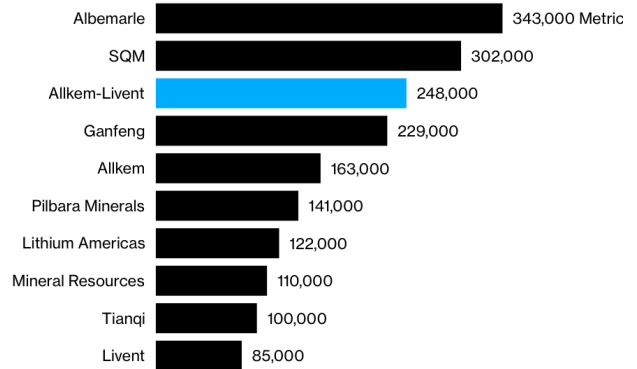
"America-centric is a big differentiator for us with customers, with investors." China, where US-based Livent has refineries, "will not be a focus of growth for us in the future...the growth area is really investing in Argentina, investing in Canada, investing in localized Western supply chains," Graves said.

IRA-compliant lithium chemicals is key as Big Money Biden has supercharged America's positioning in the Battery Arms Race.

Livent and Allkem today produce and sell some 35,000 tons of lithium chemicals and 150,000 of spodumene. By 2027 they expect lithium chemical capacity of nearly 250,000. To put this number in perspective, 250,000 is larger than the entire battery grade lithium market just a few years ago. Like many, I was surprised to hear of this merger, despite the obvious strategic logic.

Allkem-Livent Merger Creates a Top 3 Lithium Producer

■ Forecast 2027 output capacity in lithium carbonate equivalent



Because I thought either Livent and/or Allkem would more likely get bought by a company like Rio Tinto – who has been active developing its own lithium assets and bought challenged lithium brine project Rincon last year for over \$800M.

Never underestimate Big Mining to continue to make strategic mistakes.

Talk on Wall Street buy and sell-side was that both Livent and Allkem were too small for Big Mining. But, post merger, they'll be ripe for a Rio-like bid.

Lithium will likely experience in the next few years a Rio/Alcan moment – a time when Big Mining, having waited too long, will miscalculate and overpay for growth at a market top

And that will be the moment into which I would be selling most of my lithium equity exposure. **RK**

WATCH MORE ON
ROCK STOCK
channel

ROCKY LITHIUM III GONNA FLY NOW?

Livent
Allkem

121 MINING INVESTMENT

RK Equity




LITHIUM SCOREBOARD

June 30, 2023


NOT INVESTMENT ADVICE. DO YOUR OWN RESEARCH

Ticker	Exchange	Share Price (05/31/23)	Market Cap (USDMM)	1 mo	3 mo	YTD	3 yr	5 yr	Location	Type	
Chemical Producers											
Albemarle	ALB	NYSE	\$ 223.09	\$ 26,176	14%	2%	4%	201%	154%	Chile, Nevada, Australia	Brine
SQM	SQM	NYSE	\$ 72.62	\$ 20,743	10%	-3%	-1%	230%	100%	Chile, Australia	Brine, Rock
Ganfeng	1772.HK	HKSE	\$ 51.10	\$ 16,005	1%	3%	-13%	58%	125%	China, Australia, Argentina, Mex	Rock, Brine
Tianqi Lithium	002466.SZ	Shenzhen	¥ 69.91	\$ 15,032	-1%	-5%	-10%	210%	80%	China, Australia	Rock
Allkem	AKE.AX	ASX	\$ 16.02	\$ 6,953	8%	33%	45%	575%	195%	Argentina, Japan, Australia, Quebec	Brine, Rock
Livent	LTHM	NYSE	\$ 27.43	\$ 4,928	17%	29%	4%	363%	68%	US, Argentina, China, Quebec	Brine, Rock
Argosy Minerals Limited	AGY.AX	ASX	\$ 0.39	\$ 382	-16%	-12%	-30%	550%	77%	Argentina	Brine
Spodumene Producers											
Pilbara Minerals	PLS.AX	ASX	\$ 4.89	\$ 9,843	9%	23%	39%	1937%	480%	Australia	Rock
Mineral Resources	MIN.AX	ASX	\$ 71.43	\$ 9,326	-1%	-11%	-4%	239%	365%	Australia	Rock
Sigma Lithium	SGML	TSX-V	\$ 40.30	\$ 4,333	1%	6%	59%	3347%	2764%	Brazil	Rock
AMG Advanced Metallurgical	AMG.AS	Netherlands	€ 47.49	\$ 1,689	12%	24%	37%	203%	-2%	Brazil	Rock
Sayona Mining	SYA.AX	ASX	\$ 0.17	\$ 1,214	-5%	-15%	-8%	94%	430%	Quebec	Rock
Core Lithium	CXO.AX	ASX	\$ 0.90	\$ 1,122	-11%	3%	-11%	1700%	1737%	Australia	Rock
Piedmont Lithium	PLL	NASDAQ	\$ 57.71	\$ 1,107	1%	1%	35%	945%	312%	Australia	Rock
Emerging Projects											
Liontown Resources	LTR.AX	ASX	\$ 2.83	\$ 4,180	2%	9%	131%	2595%	9737%	Australia	Rock
Lithium Americas	LAC	NYSE	\$ 20.21	\$ 3,235	-3%	-6%	13%	370%	282%	Argentina, Nevada	Brine, Clay
Patriot Battery Metals	PMET.V	CSE	\$ 15.05	\$ 1,108	-1%	10%	164%			Quebec	Rock
Leo Lithium	LLL.AX	ASX	\$ 1.07	\$ 860	15%	15%	114%	118%		Mali	Rock
Standard Lithium	SLIV	TSX-V	\$ 6.00	\$ 774	8%	20%	55%	500%		Arkansas	DLE Brine
Latin Resources Ltd	LRS.AX	ASX	\$ 0.32	\$ 553	73%	178%	230%	4471%	144%	Argentina, Brazil	Rock
Lithium Royalty Corp	LIRC.TO	TSX	\$ 13.21	\$ 546	-14%	-18%	-18%			Global	Other
American Battery Technology	ABML	OTC	\$ 0.77	\$ 523	1%	-13%	77%	370%	438%	Nevada	Rock
ioneer	INR.AX	ASX	\$ 0.34	\$ 478	-1%	13%	-8%	162%	17%	Nevada	Rock
Vulcan Energy Resources	VUL.AX	ASX	\$ 4.19	\$ 470	13%	-26%	-33%	642%	1576%	Germany	DLE Brine
American Lithium	LIV	TSX-V	\$ 2.66	\$ 427	5%	-14%	-5%	202%		Nevada	Clay
Premier African Minerals	PREM.L	AIM	\$ 0.46	\$ 336	-19%	-50%	-6%	496%	170%	Zimbabwe	Rock
Frontier Lithium	FLV	TSX-V	£ 1.87	\$ 315	1%	-7%	-8%	884%		Ontario	Rock
Delta Lithium (ex Red Dirt Metals)	RDT.AX	ASX	\$ 0.86	\$ 295	30%	120%	90%	514%	289%	Australia	Rock
Lake Resources	LKE.AX	ASX	\$ 0.30	\$ 286	-43%	-36%	-60%	757%	223%	Argentina	DLE Brine
Critical Elements Corporation	CRE.V	TSX-V	\$ 1.73	\$ 281	-10%	-31%	-18%	477%		Quebec	Rock
Global Lithium Resources	GLI.AX	ASX	\$ 1.56	\$ 271	9%	8%	-11%			Australia	Rock
Li-FT Power	LIFT.CN	CSE	\$ 9.10	\$ 267	4%	14%	-13%			North Western Territories	Rock
Lithium Ionic Corp.	LTH.V	TSX-V	\$ 2.47	\$ 224	6%	12%	63%			Brazil	Rock
Atlas Lithium	ATLX	NASDAQ	\$ 21.42	\$ 213	-2%	27%	207%			Brazil	Rock
Galan Lithium	GLN.AX	ASX	\$ 0.87	\$ 196	-10%	-19%	-16%	480%	248%	Argentina	Brine
Atlantic Lithium	ALLL	AIM	\$ 25.00	\$ 189	-21%	-12%	-35%	163%	-9%	Ghana	Rock
Winsome Resources	WR1.AX	ASX	\$ 1.63	\$ 186	-3%	-11%	1%			Quebec	Rock
Alpha Lithium	ALLI.NE	TSX-V	\$ 1.37	\$ 185	3%	56%	25%	61%		Argentina	Brine
International Battery Metals	IBAT.CN	CSE	\$ 1.24	\$ 181	25%	-1%	-47%	1278%		Global	Tech
Rock Tech Lithium	RCK.V	TSX-V	\$ 2.03	\$ 147	-12%	-23%	-5%	250%		Ontario	Rock
Andrada Mining (ex AfriTin)	ATM.L	AIM	\$ 7.55	\$ 144	26%	80%	40%	190%	175%	Namibia	Rock
Green Technology Metals	GT1.AX	ASX	£ 0.73	\$ 135	6%	-1%	-9%			Ontario	Rock
Anson Resources	ASN.AX	ASX	\$ 0.16	\$ 129	-16%	-14%	-14%	520%	172%	Utah	Brine
Lithium Power International	LPI.AX	ASX	\$ 0.29	\$ 128	-8%	-11%	-28%	64%	9%	Chile	Brine
Lithium Chile Inc.	LITH.V	TSX-V	\$ 0.80	\$ 123	3%	-6%	48%	248%		Chile	Brine
Kodal Minerals	KOD.L	AIM	£ 0.47	\$ 122	-32%	1%	80%	877%	247%	Mali	Rock
E3 Lithium	ETLV	TSX-V	\$ 2.31	\$ 116	-5%	-18%	22%	772%		Alberta	DLE Brine
Brunswick Exploration Inc.	BRW.V	TSX-V	\$ 0.78	\$ 109	-12%	-14%	63%	457%		Canada	Rock
European Metals Holdings	EMH.AX	AIM	£ 0.83	\$ 107	41%	34%	34%	186%	172%	Czech	Rock
Century Lithium	LCE.V	TSX-V	£ 0.97	\$ 107	3%	-5%	9%	273%		Nevada	Clay
Savannah Resources	SAV.L	AIM	\$ 4.70	\$ 106	28%	57%	104%	129%	-62%	Portugal	Rock
European Lithium	EUR.AX	ASX	\$ 0.10	\$ 100	0%	52%	35%	104%	-55%	Australia	Rock
Wealth Minerals	WML.V	TSX-V	\$ 0.37	\$ 89	-12%	-8%	-20%	363%		Chile	Brine
Essential Metals	ESS.AX	ASX	\$ 0.41	\$ 74	-7%	-14%	30%	277%	118%	Australia	Rock
Jindalee Resources	JRL.AX	ASX	\$ 1.75	\$ 67	-14%	-33%	-7%	454%	524%	Oregon	Clay
Zinnwald Lithium	ZNWD.L	AIM	\$ 10.15	\$ 60	-26%	2%	47%	66%	-20%	Germany	Rock
Arizona Lithium	AZL.AX	ASX	\$ 0.03	\$ 59	-29%	-40%	-48%	146%	-6%	Arizona	Clay
Lepidico	LPD.AX	ASX	\$ 0.01	\$ 56	-12%	0%	-27%	57%	-71%	Australia	Tech
CleanTech Lithium	CTL.L	AIM	\$ 42.00	\$ 55	-9%	-19%	8%			Chile	Brine
Lithium Energy Ltd	LEL.AX	ASX	\$ 0.87	\$ 55	-7%	31%	17%			Argentina	Brine
Prospect Resources	PSC.AX	ASX	\$ 0.16	\$ 53	23%	0%	39%	4491%	949%	Africa	Rock
Power Metals Corp.	PWM.V	TSX-V	\$ 0.42	\$ 44	83%	35%	35%	35%		Ontario	Rock
Tantalex Lithium Resources	TLX.CN	CSE	\$ 0.12	\$ 44	-8%	-12%	21%	1050%		Africa	Rock
LithiumBank	LBNK.V	TSX-V	\$ 1.38	\$ 43	-2%	10%	52%			Alberta	DLE Brine
Critical Resources	CRR.AX	ASX	\$ 0.04	\$ 42	-5%	-7%	0%	233%	-17%	Canada	Rock
Snow Lake Resources	LITM	NASDAQ	\$ 2.27	\$ 41	-7%	18%	0%			Manitoba	Rock
Evergreen Lithium	EG1.AX	ASX	\$ 0.33	\$ 40	-10%	10%	10%			Australia	Clay
Noram Lithium Corp	NRM.V	TSX-V	\$ 0.60	\$ 39	-13%	2%	-14%	422%		Nevada	Rock
Pure Energy Minerals	PEV	TSX-V	\$ 1.54	\$ 38	62%	157%	328%	185%		Nevada	Brine
Lithium South Development Corp	LIS.V	TSX-V	\$ 0.49	\$ 35	-22%	-24%	-3%	62%		Argentina	Brine
Morella Corporation (ex Altura)	1MC.AX	ASX	\$ 0.01	\$ 32	-11%	-11%	-33%	-87%	-98%	Australia, Nevada	Rock, Brine
Ophir Gold Corp.	OPHR.V	TSX-V	\$ 0.49	\$ 32	69%	96%	277%	390%		Quebec	Rock
Battery Age Minerals Ltd	BM8.AX	ASX	£ 0.53	\$ 28	68%	33%	6%			Australia	Rock
Infinity Lithium	INF.AX	ASX	\$ 0.09	\$ 27	-22%	-45%	-22%	14%	8%	Spain	Rock
Lithium Australia	LIT.AX	ASX	\$ 0.03	\$ 27	-18%	-3%	-28%		-66%	Australia	Tech
Champion Electric Metals	LTHM.CN	CSE	£ 0.17	\$ 26	-8%	26%	26%			Quebec, Idaho	Rock



RK Equity				GRAPHITE SCOREBOARD June 30, 2023					
Ticker	Exchange	Share Price (05/31/23)	Market Cap (USDM)	1 mo	3 mo	YTD	Location		
Syrax Resources	SYR.AX	ASX	\$ 0.90	\$ 443	3%	-46%	-55%	Mozambique, USA	
Talga Group	TLG.AX	ASX	£ 1.49	\$ 359	17%	-5%	5%	Sweden	
Novonix	NVX.AX	ASX	\$ 0.99	\$ 337	6%	-15%	-30%	Australia	
Renascor Resources	RNU.AX	ASX	\$ 0.19	\$ 323	-3%	-24%	-14%	Australia	
Nouveau Monde Graphite	NOU.V	TSX-V	£ 4.14	\$ 188	-4%	-41%	-21%	Quebec	
NextSource Materials	NEXT.TO	TSX	\$ 1.91	\$ 178	-3%	-17%	-30%	Madagascar	
Sovereign Metals	SVM.AX	ASX	\$ 0.47	\$ 148	15%	7%	21%	Malawi	
Graphite One	GPH.V	TSX-V	\$ 1.19	\$ 112	-13%	-18%	14%	Alaska	
Magnis Energy Technologies	MNS.AX	ASX	\$ 0.14	\$ 104	-15%	-45%	-63%	Tanzania, Australia, USA	
Black Rock Mining	BKT.AX	ASX	\$ 0.11	\$ 86	-24%	-15%	-19%	Tanzania	
SRG Mining	SRG.V	TSX-V	\$ 0.89	\$ 75	37%	46%	35%	Guinea	
Gratomic	GRAT.V	TSX-V	\$ 0.31	\$ 46	19%	29%	7%	Namibia	
Tirupati Graphite	TGR.L	LON	£ 33.00	\$ 46	-9%	21%	-5%	India, Madagascar	
EcoGraf	EGR.AX	ASX	\$ 0.14	\$ 42	-7%	-20%	-38%	Tanzania, Australia	
Walkabout Resources	WKT.AX	ASX	\$ 0.10	\$ 42	-2%	-8%	-25%	Tanzania	
Westwater Resources	WWR	NASDAQ	\$ 0.82	\$ 41	-6%	-23%	-1%	Alabama	
Northern Graphite	NGC.V	TSX-V	\$ 0.38	\$ 36	0%	-27%	-16%	Canada	
Triton Minerals	TON.AX	ASX	\$ 0.03	\$ 35	6%	10%	-11%	Mozambique	
Volt Resources	VRC.AX	ASX	£ 0.01	\$ 26	5%	-9%	-29%	Tanzania	
Evolution Energy Minerals	EV1.AX	ASX	\$ 0.19	\$ 25	-14%	-24%	-17%	Tanzania	
Greenwing Resources	GW1.AX	ASX	£ 0.23	\$ 25	-13%	10%	-16%	Madagascar	
Mineral Commodities	MRC.AX	ASX	\$ 0.05	\$ 25	8%	-7%	-23%	Norway, Australia	



RK Equity		NICKEL SCOREBOARD June 30, 2023						
		Ticker	Share Price (05/31/23)	Market Cap (USDM)	1 mo	3 mo	YTD	Location
Producers								
Glencore	GLNCY	\$ 11.26	\$ 69,930	8%	3%	-10%	Canada	
IGO Limited	IGO.AX	\$ 15.20	\$ 7,727	4%	21%	17%	Australia	
Lundin Mining	LUN.TO	\$ 10.38	\$ 6,000	6%	17%	24%	Various	
Nickel Mines Nickel Industries	NIC.AX	\$ 0.88	\$ 1,796	-3%	-2%	-7%	Indonesia	
Panoramic Resources	PAN.AX	\$ 0.09	\$ 126	-12%	-32%	-47%	Australia	
Sherrit International	S.TO	\$ 0.48	\$ 142	-4%	-11%	-11%	Cuba, Canada	
Vale	VALE	\$ 13.42	\$ 58,659	3%	-15%	-16%	Canada	
Developers								
Mincor Resources NL	MCR.AX	\$ 1.40	\$ 509.00	0%	-1%	-5%	Australia	
Horizonte Minerals	HZM.L	£ 144.00	\$ 480.00	7%	5%	-1%	Brazil	
Centaurus Metals	CTM.AX	\$ 0.89	\$ 256.00	20%	-5%	-17%	Brazil	
Talon Metals	TLO.TO	\$ 0.35	\$ 224.00	17%	-5%	-27%	USA	
Canada Nickel Company	CNC.V	\$ 1.25	\$ 128.00	-2%	-22%	-35%	Canada	
Queensland Pacific	QPM.AX	\$ 0.10	\$ 117.00	-9%	-9%	-9%	Australia	
FPX Nickel	FPX.V	\$ 0.47	\$ 95.00	-8%	7%	7%	Canada	
Poseidon Nickel	POS.AX	\$ 0.04	\$ 84.00	-20%	3%	-5%	Australia	
Legend Mining	LEG.AX	\$ 0.04	\$ 79.00	-15%	-18%	-2%	Australia	
Galileo Mining	GAL.AX	\$ 0.56	\$ 74.00	-14%	-21%	-32%	Australia	
Magna Mining Inc.	NICU.V	\$ 0.60	\$ 72.00	-8%	-42%	-29%	Canada	
Sunrise Energy Metals ex-Clean TeQ	SRL.AX	\$ 1.06	\$ 64.00	-5%	-42%	-48%	Australia	
Aston Minerals	ASO.AX	\$ 0.08	\$ 58.00	-4%	-38%	-4%	Canada	
Alliance Nickel (ex GME)	AXN.AX	\$ 0.09	\$ 46.00	3%	0%	11%	Australia	
Widgie Nickel	WIN.AX	\$ 0.22	\$ 43.00	-15%	-27%	-28%	Australia	
Ardea Resources	ARL.AX	\$ 0.35	\$ 42.00	-7%	-26%	-52%	Australia	
Blackstone Minerals	BSX.AX	\$ 0.12	\$ 39.00	-11%	-25%	-8%	Vietnam	
NICO Resources Limited	NC1.AX	\$ 0.47	\$ 28.00	-10%	-6%	-21%	Australia	
St George Mining	SGQ.AX	\$ 0.04	\$ 22.00	-7%	-26%	-41%	Australia	

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14 YEARS OF EXPERIENCE WITH LITHIUM BATTERY METALS DEVELOPERS

