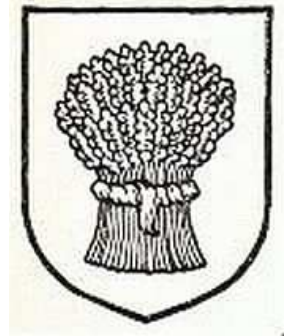


Tuesday, February 4, 2020



HALLGARTEN & COMPANY

Portfolio Strategy

Editor: Christopher Ecclestone
ceccestone@hallgartenco.com

Model Mining Portfolio: Feeble Start to the Year

Performance Review – January 2020

Model Mining Portfolio

Feeble Start to 2020

- + Gold and Silver are holding up in the face of the disease scare
- + Western economies continue to look better
- + Brexit took place without the much anticipated apocalypse
- + Iran tensions abated in the wake of airplane disaster, with a rapid decline in bellicosity from both sides
- ✗ Coronavirus has knocked metals and equities markets
- ✗ China likely to remain in a quasi-recessionary state
- ✗ Palladium continues to have the look of a fool's playground
- ✗ Base metals gave up all the gains of the first part of the year in the last week of the month

The LSE – Damned if You Do, Damned if You Don't

While it seems like a long while since the London market has been really perturbed, in fact it is roiling beneath the surface at the moment at least as far as miners are concerned. The chief driver of this turmoil is the negative perception of the AIM, where the bulk of the publicly listed miners are housed. Over recent decades, only the very biggest miners (RTZ, BHP etc.) have main board listings, the rest were herded in the AIM. It's worth noting that it is only with a premium listing that a company can be eligible for inclusion in the FTSE indexes.

An EU-inspired legislative change resulted in the creation of a new type of listing at the main LSE boards called a Standard Listing. For this category of listing, firms only have to comply with minimum EU requirements and pay lower fees. It is the Standard Listing regime that we will be focusing on here. The Alternative Investment Market, or AIM, is the LSE's exchange for smaller and growing organisations. It has a simplified regulatory environment designed for the needs of small and emerging companies. It was invented last century and replaced a category called the USM (Unlisted Securities Market).

These two listings carry widely differing reporting and operational requirements. The two markets allow businesses to treat their shareholders in entirely different ways. Both come with onerous conditions but differing in their onerousness.

Some of the most important ones include:

Minimum market cap – Companies looking for a Standard listing must have an expected market value of at least £700,000. There is no such requirement for AIM-listed entities.

Minimum Float – A Standard Listing requires at least 25% of a firm’s shares to be floated the market. There is no such requirement on AIM, except for investment companies (which must raise at least £6mn in cash).

Earnings history – For miners in the exploration game the fact that neither an AIM nor a Standard Listing requires a historic earning record to be provided prior to floating is a *sine qua non*. However, if an AIM firm has not been independent and earning revenues for at least two years, all investors holding at least 0.5% must be locked in for a year after listing.

NomAd – As we have noted in the past the Nominated Advisors (NomAd) function of the AIM is a “License to Steal” with the brokers offering this service charging high prices for a very low-value service. To list on AIM, a company must have a NomAd at all times “to advise and guide it on its obligations”. A NomAd is not required for firms who opt for a Standard listing.

Prospectus – A Standard Listing requires businesses to provide a prospectus that has been vetted and approved by the UK Listing Authority (UKLA). An AIM listing does not require a prospectus, but an admission document (often called a pathfinder prospectus) must be provided in accordance with AIM rules. This usually contains the same information as a prospectus, but does not need to include a proposed issuance price.

Corporate governance – Neither an AIM or Standard listing requires a company to say if it has complied with the UK corporate governance code in its annual financial report. However, a Standard listed firm must identify the corporate governance code it is subjected to in its directors’ report. Meanwhile, an AIM-listed organisation is expected to comply with corporate governance guidelines for smaller quoted companies. Details can be found on the London Stock Exchange website [here](#).

Shareholder approval of transactions – A Standard Listed company does not need to get shareholder approval for significant or related party transactions. However, an AIM firm must get shareholder approval for transactions like reverse takeovers or disposals resulting in a fundamental change to its business.

Yearly update – Standard Listed companies must annually file with the UKLA and publish a document containing all information provided to the public over the previous 12 months. AIM firms do not have to do this, but all notifications must be freely available on their website.

Financial report – A Standard Listing requires companies to publish an annual financial report within four months of the end of each financial year. AIM businesses must file their report within six months. Standard Listed companies must publish half-year financial reports within two months of the end of each half-year end while AIM firms have a three-month deadline.

Management statements – Companies with a Standard listing must publish an interim management statement in each six-month period of the financial year. AIM organisations are not required to do this.

Tax relief – Standard listed companies do not qualify for tax relief through an enterprise investment scheme or venture capital trust. AIM firms do qualify provided certain criteria are met. This is largely irrelevant to miners as most are not mining in the UK.

Graduating to other markets – It is also worth noting that if an AIM business wants to migrate to the main market then the normal process pertain with no fast track. In contrast, if a Standard-listed firm wants to take on a premium listing, it will not have to produce a prospectus unless it is also offering shares to the public.

Playing the Shell Game

We must admit to more than a passing knowledge of the process related to one of newer usages to which Standard-listings have been put and that is the blank-slate shell. These very much like The TSX-Vs Capital Pool Corporation or the SPAC in the US. However the promoters have managed to tarnish the usage in a way that even Vancouver’s promoters cannot. The fact that many of the London shells get to listing day without so much as having thought of what they might acquire to backfill the story is disturbing and has produced a bad vibe about the usage and a backlash towards promotional efforts since 2018.

However, the experience has been bad for investors as companies raise a decent amount of cash, then the bright idea of finding a project kicks in and by they have kicked a lot of tyres the cash in gone on maintaining lifestyles and no asset has been found or so much cash is burnt that a new financing is needed.

Therefore the LSE offering for junior miners suffers from a chicken & egg problem in that one doesn’t have a project, but has to raise substantially more money than would be raised by a CPC, which requires saying “trust me” to the investors and then relying on the power of prayer to find a project.

Pros & Cons

There are clear benefits to both types of listing for investors. After buying shares in a Standard-listed stock, an investor can be assured that financial reports, interim management statements, and annual

information updates are all required to be swiftly released to the public. A Standard listing also allows prospective investors to refer to a UKLA-authorized prospectus when deciding whether to participate in a company's IPO. However the blank slate format produces a prospectus that says virtually nothing, because it cannot talk of specifics on potential asset purchases.

Some have claimed that by investing in a Standard listed firm, shareholders potentially give up their right to have a say in potentially transformative decisions like acquisitions or large placings. However, small shareholders usually have a grasp of the fact they will be ridden roughshod over and no amount of legislative protection gives someone with 0.001% of the shares any relevant say in matters.

Some have pointed out that although buying shares in an AIM-listed firm brings a (theoretical) say in significant decisions, they don't always get to know what is going on due to more lenient reporting guidelines.

This dichotomy between the two types of listings is frankly not doing the London market any favours. The departure from the EU means that the rules which forced Standard listings to come into being could be repealed. However, such an action does not solve the fundamental problems with the AIM that have driven many new listings towards the Standard-list over the AIM.

Frankly, at this point, the Standard List looks way better to us than the AIM not just for de novo listings but also for secondary listings by ASX or TSX listed miners. It is the Lite-mode of a Main Board listing. At this time, we are tending to steer everyone in the direction of the Standard Listing unless they are serial diluters, where the AIM provides such companies a lingering refuge.

Portfolio Changes

There were no changes during the month.

Lake Resources – Riding Brine's Return to Favour

The Argentine presidential elections in 2019 knocked investor sentiment for a six. While the actual election was in October the primaries were in the middle of the year and they had signaled a major collapse of support for the Macri regime and a switch back to a Kirchnerista tack. Foreign investors had got it totally wrong, as per usual, falling in love with an IMF-inspired austerity campaign which massively backfired amongst the populace. Ever was it thus...

Despite this setback the Argentine brine projects are getting a strong second wind. Spodumene strapped on the suicide belt and blew itself up during its 2017-19 return to favour, with the travails of Pilbara and the Nemaska debacle. Brines came to be seen as the safe and reliable way to get to production, even if not without their own complications. Developers were also less likely to have a major capex blowout with brines.

Meanwhile Chile managed to again shoot itself in the foot with a degree of self-confusion as to whether it actually wanted development of its lithium potential or not. It had spent so long cossetting its producers (who also happened to be core members of the Lithium Mafia) that it could not or would not realise that Argentina was in the ascent. All of a sudden all the new projects are in Argentina and being backed by major players, irrespective of the political swings and roundabout East of the Andes.

The long-fermenting projects of Galaxy (Sal de Vida) and Orocobre (Olaroz) have managed to get to production while the Ganfeng/Lithium Americas tie-up (at Cauchari) seems to be getting traction and POSCO (Salar del Hombre Muerto) are serious players in their patch. Argosy Minerals (with their Rincon project – not to be confused with Sentient’s Rincon project) are now developing their Phase 2 step-up with Mitsubishi as the offtaker.

Chile is merely expansion of existing facilities these days. Chile’s attachment to an ancient Pinochet regulatory system, that required nuclear regulators (CCHEN) to clear Lithium projects, just showed that Chile could not get out of its own way. This reinforces the view that Chile is not the mining paradise that many would have us believe. Its arcane regulations make it look like they are trying to keep new kids out of the game, and that is just resulting in Argentina making all the running.

This leaves a few Argentine names still in the starting gates (and a swathe sent to the glue factory (to adapt our old horse-race analogy). The two that come most to mind are Lake Resources and Neolithium.

We shall however focus on the ASX-listed Lake Resources, which has the largest lithium lease holdings in Argentina. Its acreage totals close to 2,000 sq km and is 100% owned and operated by the company.

The portfolio covers both brine and pegmatite assets and is located in close proximity to some of the leading lights, including SQM, Lithium Americas, Orocobre and Advantage Lithium.

Lithium Brine Projects:

- Cauchari Project (10 sq km), Jujuy Province
- Olaroz Project (180 sq km), Jujuy Province
- Paso Project (290 sq km), Jujuy Province
- Kachi Project (690 sq km), Catamarca Province

Lithium Pegmatite Project:

- Catamarca Project (720 sq km), Catamarca Province

The main focus though is the 100%-owned Kachi Lithium Brine Project located within 100km south of Livent’s Fenix operation, which has been in production for over 20 years. Kachi comprises 690 sq km of leases and lease applications over a brine-bearing basin 20km long, 15km wide, and 400-800m deep

centred.

In November 2018, Lake announced a maiden JORC resource at Kachi of 4.4mn tonnes of contained Lithium carbonate equivalent (LCE), and an exploration target ranging between 8-17mn tonnes of LCE.

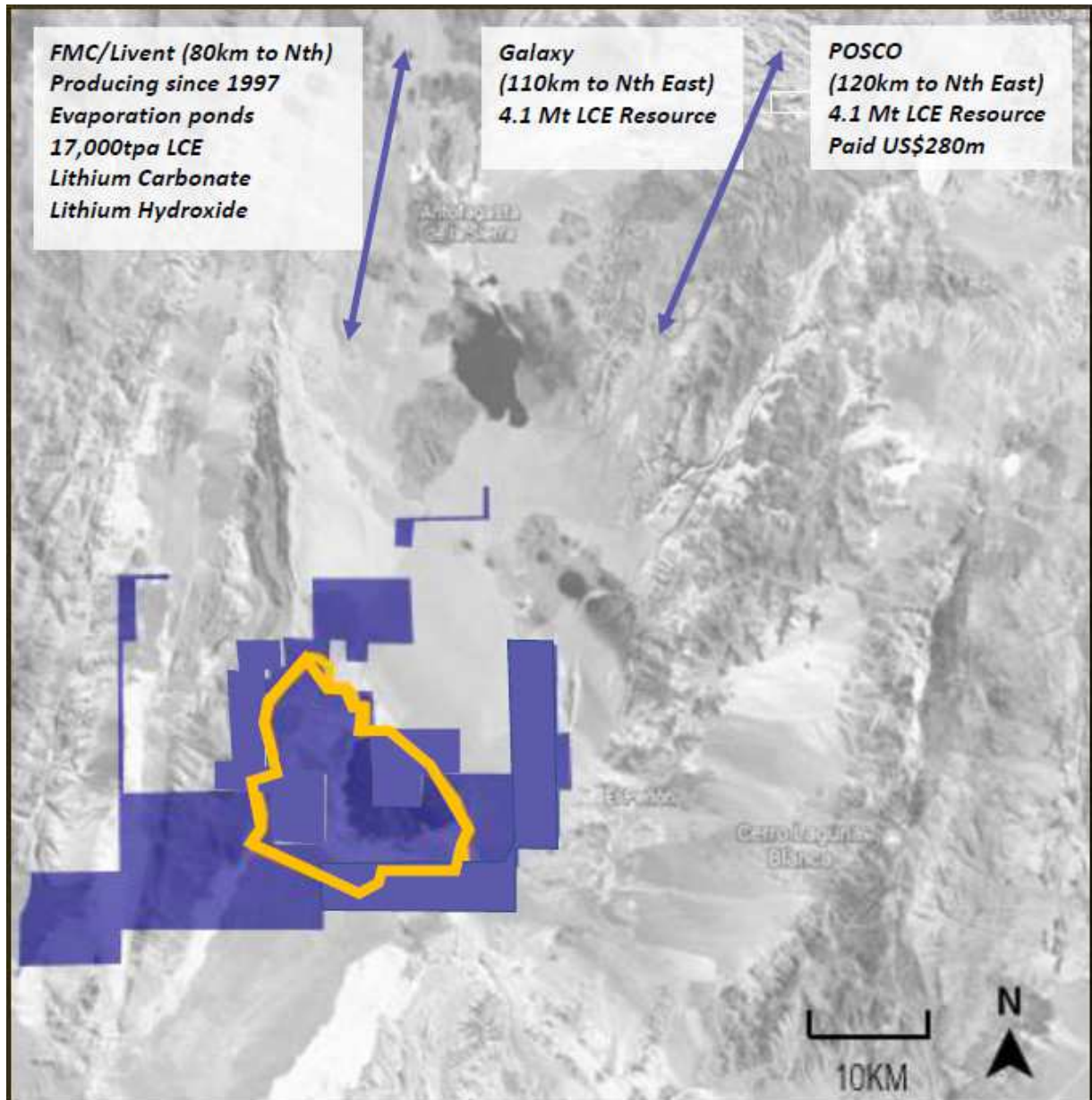
This ranks Kachi as one of the world's top 10 brine resources.



Kachi is the lowest point of a large drainage area covering 6800 sq km. An initial 15 exploratory drill

holes, spaced widely across the licence area over 11km, intercepted multiple horizons of lithium bearing brine sediments and yielded up to 326mg/l Li with a low magnesium ratio of around 4.3.

In May 2019, Lake initiated design and engineering works for a planned pilot plant based on US partner Lilac Solutions' direct extraction production technology. The pilot plant will test the potential for low-cost production with strong recoveries and minimal environmental impact.



A pre-feasibility study (PFS) is near completion for the Kachi project. The company claims that large volume high-purity Lithium carbonate, with very low impurities, can be produced from the Kachi project

for off-takers in Asia. It recently announced that 20,000 litres of brines are currently underway to arrive at pilot plant in California soon after the end of January 2020.

Management have targeted pre-production in early 2020 from a pilot plant using Lilac Solutions' direct extraction ion-exchange methodology which they expect to produce at the lower part of industry cost curve.

On the financing front the company has appointed the London-based firm, SD Capital Advisory Limited to secure debt funding of up to US\$25mn for the DFS, permitting and lithium pre-production at the Kachi project. The company currently has a raising underway with intent to repay outstanding convertible notes.

Lake Resources falls into the category of the larger non-producing developers, which is also inhabited by the likes of Neolithium. That may sound rather nuanced, but Lithium is nothing if not nuanced these days. Those "above" them in the food chain are the producers that we already cited, and also companies like Argosy, that have actually reached some form of production, albeit small or pilot.

We make this dichotomy because larger non-producing developers, in particular, face quite a number of challenges. Below them are the "nevergonnabes". Those are expiring like fireflies at the end of summer. However the wannabe producers that have not secured an offtaker/partner and have sizeable capexes are caught in some sort of seventh circle of hell as long as the Lithium price does not perk up and capital markets are lackluster for battery metal plays.

Lake hopes to break free by completing its DFS. It may need to switch to a tack like Argosy's and the market that it is committed to production. We shall watch the upcoming financing to see how this plays out.

SEI – Stealth Player in Tungsten

The field in the Tungsten stakes has been a constantly changing array of companies and projects over the last ten years since Tungsten hit its last high. Carbine Tungsten with its Mount Carbine project in Queensland was a persistent name mentioned as a possibility early on but subsequently faded from sight with the reappearance of its project in Speciality Metals International (SEI) being only a phenomenon of the last two years.

SEI has a joint venture with CRONIMET Australia Pty Ltd (subsidiary of the well-known German group) which is styled Mt Carbine Retreatment Management Pty Ltd.

Mt Carbine was discovered at the end of the 19th Century, and was a major tungsten producer in the past. The deposit is still relatively unexplored and there is considerable exploration potential for new tungsten mineralisation in the Mining Leases and Icon's surrounding exploration tenements. When it last operated between 1973 and 1987, the Mt Carbine mine produced exceptionally high-grade concentrate, and was in the lowest quartile of cost of production for global Tungsten producers. That

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being said Mt Carbine is low grade (the grade of the inferred hard-rock resource at Mt Carbine is 0.14%WO₃ at a cut-off of 0.05% WO₃).

Ore sorting was used at Mt Carbine between 1973 and 1986, however there have been major advances in the type and efficiency of ore sorters since they were last used at Mt Carbine. During late 2010, Carbine Tungsten carried out trials using an X-Ray ore sorter on bulk samples taken from the ~12 million tonne low-grade stockpile left untreated by the previous mining operation. The results were encouraging, with the sorting achieving a conservative upgrade of more than eight times the bulk sample grade. Therefore, in the short term, the focus will be on reprocessing tailings.

Mt Carbine is also an aggregates quarry and has been operating as such for many years. The quarrying operations have now been integrated into the SEI structure.

The company anticipates production from the tailings will be 50 tonnes of WO₃ per month (5,000 metric tonne units or MTU per month).

In recent days the company announced that its on-site team have been working throughout January 2020 to debottleneck individual equipment and increase throughput tonnages through the newly refurbished Mt Carbine Retreatment Plant, which can be seen below (raw material intake at front right; screening, crushing and jigging at center front; gravity circuit under shed).



The on-site team have been optimising processes to achieve longer sustained production throughputs at increasing plant feed rates.

Additional production staff to be added at the end of January boost current staff levels allowing production to move to a 24/7 operations during the month of February 2020 once all safety inductions and training has been completed.

During the December quarter the quarry operated profitably and should make a contribution to the

group's consolidated revenue. The quarry has tendered for several major projects, some of which are expected to be awarded in first quarter of 2020.

The chief problem that all Tungsten miners/developers have at the current time is the torpid state of the APT price. While it spent most of 2019 around \$215 per MTU (metric tonne unit) the year-end rally to \$240 was welcome but went thus far and no further, getting stuck at this new level. Prices in the last view years have been playthings of Chinese manipulation, the massive own goal of FANYA and then the chimaeric negative effect of the "trade" war.

Ideally we should see prices creep up during the current year to around \$280 per MTU and then breach the \$300 mark within six months of the first level being reached. Such a price will enable quite a few of the Iberian projects to get back on their feet again and by implication also stop the price from gaining much more ground. This slow pace though should stop any more players appearing. In any analysis it becomes clear that most of the current players and wannabes were around during the last strong price period a decade ago. New chums are thin on the ground. This augurs against an oversupply.

SEI is like a bat flying under the radar, and through the crevices of the Tungsten market. With small production from tailings it can find its feet and position itself (much as Almonty did) without making the major pratfalls that were the undoing of Wolf Minerals at Hemmerdon.

Without being privy to their economic model, or back-of-the-envelope ruminations, on the project we must keep a watching brief on this stock, as it has the seriousness to pursue a path like Almonty's, and the partner to do it, so it may be a future addition to our Model Mining Portfolio.

Parting Shot

We have said it before that Chinese growth in 2019 was likely near zero or even negative. This was disregarded by many who prefer to believe that the swings and roundabouts of Chinese activity will drive their favorite metals prices higher. Then, as per usual the Chinese came out with their "low-growth" statistic for the year just gone at 6.1%. Also, as per usual, within the tried and untrue band between 7% high- and 6% low-growth. We had to chuckle....

No sooner was the truce in the "trade war" signed and collective sighs of released by the "China is pivotal" crowd than the chickens (or was it bats or snakes?) came home to roost in the form of the *Coronavirus*. This showed that the Chinese really cannot get out of their own way. They had resisted creating a sanitarily sound foodchain (after the baby formula scandal) because it might have smacked of kow-towing (now there's a word) to the Western value system.

The fundamental distrust by foreigners (and locals) of the Chinese pronouncements on this front became evident with the rapidity of action of foreign governments to protect their populaces and citizens within China. If a state is based on the Big Lie then it is presumed that the lies have no limits even further down the chain of command whether it be copper warehouse stocks or deaths from a disease.

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If any case metals prices and mining stocks have taken a pummeling at the hands of the latest crisis to beset the Middle Kingdom. The various internal roadblocks (literally) that have been set up must be hampering economic activity quite significantly by this stage. Little has been revealed as to how industry in the quarantined zones is functioning. The blow to the economy from many areas having to skip the major New Year's holiday festivities, travel & tourism has not been totaled and may never be. The markets' reactions around the world would suggest this is the Spanish Flu all over again when instead the total (official) death toll is around the number of people that must die in China every second of natural causes on a regular day of the week.

So far the areas quarantined represent less than 4% of the Chinese population, so presumably the rest of the economy is ticking over. As we expected little of China in the recovery of metals prices, to us the whole scare is rather a lot of hooah but if you believed that Chinese growth was 6.1% in 2019 then you might be thinking Chinese growth will be a disastrous 5.5% (excuse us sniggering). In our camp we believe this will put China in recession, but what do we know!

As a strategist from Rabobank put it: "You wanted to know what a real decoupling from China might look like, and/or what a "What if everyone just stayed at home and didn't buy anything?" economic thought-experiment looks like? Well here you are, folks".

Is the scanty number of fatalities from this latest disease outbreak worthy enough to have sunk the price of copper and zinc in the way that it has? As usual this looks like a market over-reaction. The sooner the slavish nexus is broken between perceived China dominance and the fate of all metals, the better.

MODEL MINING PORTFOLIO						
	Security	Currency	Price	Change		12-mth Target
				last 12 mths	last mth	
Long Equities						
Diversified Large/Mid-Cap	Teck Resources (TECK.B)	CAD	17.10	-44%	-24%	\$30.00
	Metals X (MLX.ax)	AUD	0.08	-78%	0%	\$0.35
Uranium	Uranium Participation Corp (U.to)	CAD	3.85	-18%	-6%	\$4.90
	GoviEx (GXU.v)	CAD	0.13	0%	-19%	\$0.22
Zinc/Lead Plays	Zinc ETF (Zinc.L)	USD	7.03	-15%	-4%	\$8.10
	NorZinc (NZC.to)	CAD	0.085	-15%	-6%	\$0.22
	Myanmar Metals (MYL.ax)	AUD	0.05	-29%	0%	\$0.13
	Ascendant Resources (ASND.v)	CAD	0.35	-65%	9%	\$0.65
	Telson Mining (TSN.V)	CAD	0.11	-71%	-8%	\$0.25
Silver Producer	Excellon Resources (EXN.to)	CAD	0.85	-10%	-17%	\$1.35
Silver Explorer	Southern Silver Exploration (SSV.v)	CAD	0.39	105%	-5%	\$0.65
Silver ETF	iShares Silver ETF (SLV)	USD	16.82	13%	1%	\$18.50
Gold Producer	Para Resources (PBR.v)	CAD	0.09	-53%	-25%	\$0.58
Coking Coal	Colonial Coal (CAD.v)	CAD	0.34	-26%	6%	\$1.10
Project Generator	Altus Strategies (ALTS.v)	GBP	0.078	164%	25%	\$0.20
Copper Explorers	Western Copper & Gold (WRN.to)	CAD	0.89	-12%	-17%	\$1.65
	Panoro Minerals (PML.v)	CAD	0.09	-63%	13%	\$0.32
Tungsten Producer	Almonty Industries (All.v)	CAD	0.53	-16%	26%	\$1.00
Vanadium Developer	Vanadium Resources (VR8.ax)	AUD	0.03	-75%	0%	\$0.12
Lithium	Neometals (NMT.ax)	AUD	0.20	-9%	0%	\$0.28
	Lithium Power Intl (LPI.ax)	AUD	0.27	13%	0%	\$0.56
Scandium Developer	Scandium International (SCY.to)	CAD	0.08	-56%	-20%	\$0.18
Sc/PGM/Zinc	Platina Resources (PGM.ax)	AUD	0.02	-67%	0%	\$0.10
Gold Explorer	Banyan Gold (BYN.v)	CAD	0.08	33%	0%	\$0.15
	Cabral Gold (CBR.v)	CAD	0.12	-63%	0%	\$0.35
	Gunpoint Exploration (GUN.v)	CAD	0.53	29%	2%	\$0.75
Fertilizers	Verde Agritech (NPK.to)	CAD	0.39	-44%	-5%	\$1.36
Cesium et al.	Pioneer Resources (PIO.ax)	AUD	0.01	-50%	0%	\$0.06
Rare Earths	Northern Minerals (NTU.ax)	AUD	0.05	0%	-17%	\$0.10
	Neo Performance Materials (NEO.to)	CAD	10.9	-35%	-12%	\$18.00
Mining Media/Events	Aspermont (ASP.ax)	AUD	0.01	0%	0%	\$0.02
Short Equities						
Shorts	NioCorp (NIO.to)	CAD	0.82	28%	0%	\$0.40
	Texas Mineral Resources (TMRC)	USD	0.75	241%	-39%	\$0.30
	Abdn Standard Palladium Trust (PALL)	USD	216.04	65%	20%	\$115.00
	Galane Gold (GG.v)	CAD	0.09	80%	-25%	\$0.03

Important disclosures

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