

16 January 2021

On Friday's Close

Analyst : Warwick Grigor

Cobalt Blue is the go-to cobalt company in Australia

The first week of 2021 had almost everything looking good. Since then the enthusiasm has moderated though certain issues continue to be strong and overall sentiment has been improving.

Gold has failed to maintain the short uptrend that started late in November. It now looks like it was just a rally within the downtrend that has been in operation since early August. The failure of gold to rise on the news of the latest stimulus package in the US is not a good sign. There is no need to be piling back into gold right now, meaning that the focus will continue to be elsewhere with copper, battery stocks, rare earths and uranium being in the strongest uptrends.

Cobalt Blue has been surfing the EV wave

One of the most spectacular movers in the market over the last month has been Cobalt Blue (COB), rising from 11¢ early in December to a high of 38.5¢ on Monday. During the previous five months it was lagging the market while the capital raising of \$7.3m at 9.5¢ in July, was being digested. What has changed in such a short passage of time to have caused the price surge?

Firstly there has been a dramatic rush back into alternative energy and EV stocks, be they lithium, cobalt, anode or other battery focused companies. It has been more about the thematic rather than fundamental earnings analysis, with FOMO being the greatest driving force. Any improvement in the underlying commodity prices is being multiplied in the stock market due to the leverage that many of the companies offer.

We all know that the move away from hydrocarbon based electricity and transport vehicles has such momentum and government support that there can be no reversal, but analysts are all over the shop in their estimates.

Enthusiasm for the sector has been waxing and waning during 2020, partly because of the disruptions caused by the virus. Translating this to stock market performance of the various companies is very dependent on expectations of speculators and whether they are being whipped up or down. This is not dissimilar to what has been pushing investor sentiment for rare earth companies.

Cobalt prices have been moving higher

Cobalt prices fell to a virus-induced low of US\$12-13/lb earlier in the 2020. There was a recovery mid-year to US\$15-16/lb, before edging up to US\$19/lb and now US\$22/lb.

As with lithium, if the price runs too hard we will see an inevitable pushback as battery producers are very sensitive to manufacturing cost inputs. When cobalt prices ran above US\$40/lb in early 2018, manufacturers quickly announced plans to reduce the amount of cobalt in the next generation of batteries. That, together with increased supplies coming out of the DRC, caused the cobalt metal prices to collapse

to previous lows. What is the best guess demand for cobalt now?

Cobalt demand set to double in the near term

Companies such as Tesla are always talking their own book in promoting the development of cobalt reduced batteries, but there has been nothing to suggest that they can remove cobalt completely. We can't be certain of the figures, but the rumour is that the NCA batteries are using 6-7% cobalt. The NCM 8:1:1 batteries are still using 8-9% cobalt. Industry consultants are expecting cobalt demand from NiCoMn (NCM) and NiCoAl (NCA) cathodes to more than double from 22,800 t in 2020, to 49,000 t in 2022, even with the reduced cobalt usage per battery. If this is even loosely accurate, speculators would be forgiven for concluding that the cobalt price will move higher as a consequence of heavy demand.

Cobalt Blue is the purest cobalt play

Cobalt is never found in isolation. It is always found in conjunction with other metals, usually copper or nickel, which dominate the revenue equation. Cobalt Blue's Broken Hill Cobalt Project (BHCP) mineralisation is associated with pyrite mineralisation. Revenue from cobalt products will account for 80% of the value with elemental sulphur expected to generate 20%. Importantly, the ability to concentrate the cobalt into a 17% mass pull means that there is a significant capital cost saving in the processing plant, which needs to be only 20% of the capacity of the ROM tonnage. This is another advantage over the lateritic nickel plants. Not stopping there, the pressure oxidation plant for BHCP needs to operate at a lower temperature of 130° and 10 BAR, compared to 250° and 50 BAR with laterite nickel.

All about scaling up in 2021

The time to develop the BHCP is longer than some other mining projects due to the need to go through the pilot plant, then demonstration plant stages, to de-risk the process route and get marketable samples of product. The construction of the pilot plant is underway with commissioning due to commence in late February 2021, with a \$3m budget to secure 100 kg of product. From there, another \$7m is needed to upgrade to a demonstration plant size that will produce 2-3 tonnes, in the second half of 2021.

As the Company ramps up through these proving steps it expects to be able to attract a serious end user partner that will provide both funding and offtake agreements.

Current economics estimates look favourable

BHCP will have a project life of 20 years with production costs estimated to be in the lowest cost quartile, being US\$9.34/lb and AISC of US\$12.13/lb. Capital costs are estimated at A\$560m for a 3,500 tpa capacity. The capital intensity figure is estimated at US\$112,000 per tonne of

cobalt capacity, which is considerably less than for a number of potential competitors in the nickel sector. Recovery of cobalt to final product is expected to be 85-90%.

How confident is Cobalt Blue?

All junior companies need to demonstrate confidence as they embark on development projects. The difference is whether that confidence is well-founded, or just more of the promotional tripe that gets served up to us too often.

We have already mentioned favourable capital costs compared with the lateritic nickel sources, and less aggressive leaching conditions. The safe jurisdiction and conflict free product is an important consideration when compared with the DRC. Security of supply and the ability to offer battery companies long life offtake agreements with moderated volatility in Mixed Hydroxide Product (MHP) and high purity copper sulphate product pricing can protect customers from the more extreme vagrancies of cobalt metal prices. It is no wonder that the Company has received serious enquiries from no less than 15 potential customers, including LG International, Mitsubishi Corporation and Sojitz Corporation.

Balancing fundamental value with market thematics

With a share price of 31.5¢, the market capitalisation of COB is \$94m. What should it be? Does that even matter? Markets are driven more by perceptions and thematics in the alternative energy space because of the difficulty in getting a reliable grip on what the fundamentals actually are. If a share looks like going higher because of more buyers than sellers, then today it is cheap. As COB increases in size it will become more attractive to institutional investors that may have longer time horizons than the average punter in the market. As COB advances the pilot and the demonstration plants and provides product to potential customers, the closer it gets to signing strategic deals with partners and customers. All these events could be significant value adding.

Celsius reports a maiden resource of 313 Mt

Celsius Resources (CLA) has reported a maiden Indicated and Inferred Resource of 313.8 Mt at 0.48% Cu and 0.15 gpt Au, at its MCB Project in the Philippines, with 92% of this being in the Indicated category. The high grade core comprises 93.7 Mt at 0.8% Cu and 0.28 gpt gold. It is a typical porphyry Cu/Au/Mo deposit, with potential for additional discoveries on the licence.

One may be tempted to say that the grade is low but that need not be an impediment to a profitable mining

operation. By comparison, Caravel Minerals (CVV) has a Indicated and Inferred Resource of 372 Mt at 0.35% Cu and 69 ppm Mo. MCB has a better grade, with gold, but CVV has a better jurisdiction in WA, as well as a number of technical advantages. Both companies are confident on the economics stacking up for their respective projects. Both companies are well placed to take advantage of the renewed market enthusiasm for copper.

CLA has benchmarked the project against other operations in the Philippines that employ block cave mining, saying that a 5-10 Mtpa underground operation could be mined for US\$7-10 pt and processed for US\$4-7 pt. Economies of scale come into play, but the capital cost will be high and likely necessitate a joint venture with a major company when it comes to financing and developing. We will have a better idea when the Company releases the Scoping Study on which it is currently working.

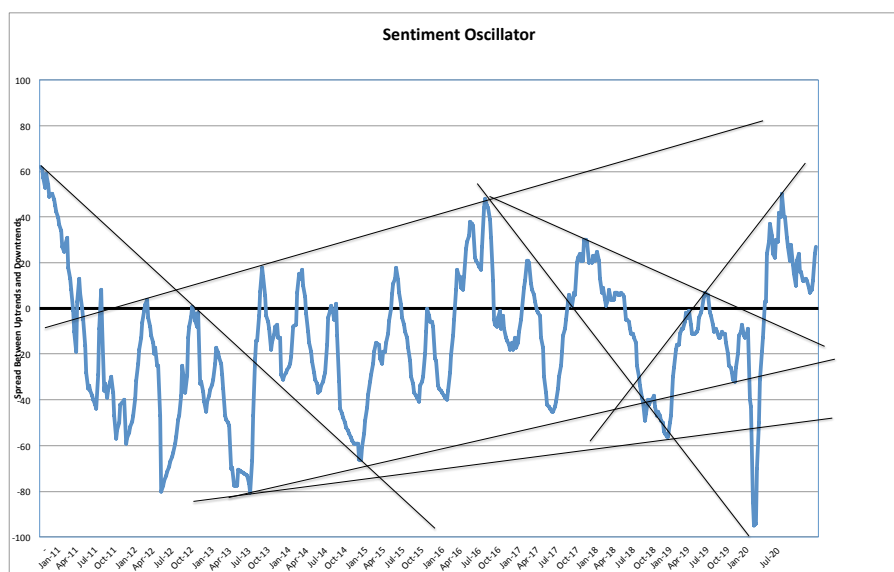
The market capitalisation is currently around \$40m with the shares at 5.2¢, but more shares will be issued when the MCB acquisition deal is settled. There is a tranche of 100 mill. shares to be issued to the vendors upon approval at the forthcoming AGM, with a further 100 million shares as deferred consideration in two parcels. After all shares have been issued, post acquisition, the issued capital will be 980 million shares, giving a market capitalisation of \$51m. That leaves plenty of room for upside.

Importantly, the deferred consideration for the acquisition of the MCB Project is payable only after two events occurring within 36 months of settlement. Firstly, a financial and technical assistance agreement (FTAA) or a mineral production sharing agreement (MPSA) is achieved with the Philippines Government, and secondly, a economically viable DFS is produced within the same time frame. Both events could be materially positive for the share price.

Disclosure: Interests associated with the author own shares in Celsius and Caravel and FEC has received capital raising fees from Caravel.

We have added Hazer Group Ltd (HZR) to the chart coverage, to keep an eye on what the market feels about this hydrogen/graphite company, and to see how it tracks with overseas listed hydrogen companies. The uptrend is strong, similar to the uptrend in First Graphene (FGR) which has been developing a green hydrogen production process with some similarity.

Sentiment Oscillator: Sentiment improved slightly due to there being fewer stocks in downtrends. There were 54% (54%) of the charts in uptrend and 27% (30%) in downtrend on Friday's close.



Detailed Chart Comments

NB. Only the bold comments have been updated. Comments in grey type are from previous weeks and will be less relevant. Please note that this list is a cross section of the market. It IS NOT a list of recommendations.

Indices	Code	Trend Comment	
All Ordinaries	XAO	new high	
Metals and Mining	XMM	new high	
Energy	XEJ	new high	
Stocks	Code	Trend Comment (updated comments in bold)	Main Interest
Alpha HPA	A4N	testing uptrend	HPA
Adriatic Resources	ADT	testing uptrend again	zinc, polymetallic
Aeon Metals	AML	down	copper + cobalt
Alkane Resources	ALK	breached uptrend, heading down	gold, zirconia
Alicanto Minerals	AQI	testing downtrend	base metals, silver, gold
Allegiance Coal	AHQ	surge through downtrend, then pullback	coking coal
Alliance Resources	AGS	down	gold predevelopment
Alto Metals	AME	down	gold exploration
American Rare Earths (was BPL)	ARR	short term down	rare earths
Apollo Consolidated	AOP	down	gold exploration
Arafura Resources	ARU	new high again	rare earths
Aurelia Metals	AMI	down	gold + base metals
Australian Potash	APC	holding shallower uptrend	potash
Auteco Minerals	AUT	testing downtrend	gold exploration
BHP	BHP	another new high	diversified, iron ore
Base Resources	BSE	new high	mineral sands
BBX Minerals	BBX	holding shallower uptrend	gold exploration
Beach Energy	BPT	surged higher	oil and gas
Beacon Mining	BCN	sideways	gold production
Bellevue Gold	BGL	off its highs	gold exploration

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Blackstone Minerals	BSX		breached downtrend	nickel
Blue Star Helium	BNL		spike through downtrend	gas, helium
Boab Metals	BML		named change from Pacifico Minerals	silver/lead
Breaker Resources	BRB		testing downtrend	gold exploration
Buru Energy	BRU		surge higher	oil
Calidus Resources	CAI		down	gold
Capricorn Metals	CMM		holding shallower uptrend	gold
Caravel Minerals	CVV		steeply higher	copper
Celsius Resources	CLA		strong uptrend	uptrend
Central Petroleum	CTP		sideways	oil/gas
Chalice Gold	CHN		new high	nickel, copper, PGMs, gold exploration
Chase Mining	CML		sideways at lows	nickel/copper/PGE
Chesser Resources	CHZ		holding shallower uptrend	gold exploration
Cobalt Blue	COB		strongly higher	cobalt
Cyprium Metals	CYM		fallen back to support line	copper
Dacian Gold	DCN		strongly higher	gold
Danakali	DNK		surge out of downtrend	potash
Davenport Resources	DAV		rising	potash
De Grey	DEG		shallower downtrend	gold
E2 Metals	E2M		correcting lower, ST downtrend	gold exploration
Ecograf (was Kibaran)	EGR		pullback	graphite
Element 25	E25		new high	manganese
Emerald Resources	EMR		new high again	gold
Euro Manganese	EMN		new high	manganese
Evolution Mining	EVN		down	gold
Firefinch	FFX		strongly higher	gold
First Graphene	FGR		new high	graphene
Fortescue Metals	FMG		rising again	iron ore
Galaxy Resources	GXY		new high	lithium
Galena Mining	G1A		surge higher	lead
Galilee Energy	GLL		down	oil and gas, CBM
Genesis Minerals	GMD		down	gold
Gold Road	GOR		holding shallower uptrend	gold
Hazer Group	HZR		uptrend	hydrogen
Highfield Resources	HFR		rising	potash
Hillgrove Resources	HGO		breached support line	copper
Iluka Resources	ILU		strong rise	mineral sands
Image Resources	IMA		falling back to support line	mineral sands
Independence Group	IGO		surge through resistance line	gold
ioneer (was Global Geoscience)	INR		steeply higher	lithium
Ionic Rare Earths (Oro Verde)	IXR		new high	rare earths
Jervois Mining	JVR		rising again	nickel/cobalt
Jindalee Resources	JRL		surge to new high	lithium
Kin Mining	KIN		breached uptrend	gold

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Kingston Resources	KSN		rising gently	gold
Kingwest Resources	KWR		back to support line	gold
Legend Mining	LEG		breaching downtrend	nickel exploration
Lepidico	LPD		new uptrend forming	lithium
Lindian Resources	LIN		trying to recapture uptrend	bauxite
Lithium Australia	LIT		new high	lithium
Los Cerros	LCL		holding shallower uptrend	gold exploration
Lotus Resources	LOT		new high	uranium
Lucapa Diamond	LOM		breaking downtrend	diamonds
Lynas Corp.	LYC		new high	rare earths
Mako Gold	MKG		down again	gold exploration
Manhattan Corp	MHC		testing downtrend	gold exploration
Marmota	MEU		drifting lower	gold exploration
Marvel Gold (was Graphex)	MVL		down	gold exploration
MetalTech	MTC		testing downtrend	gold
Meteoric Resources	MEI		rising	gold exploration
MetalsX	MLX		strongly higher	tin, nickel
Metro Mining	MMI		at lows	bauxite
Mincor Resources	MCR		rising	gold/nickel
Musgrave Minerals	MGV		down	gold exploration
Myanmar Minerals	MYL		breaching downtrend	lead, zinc, silver
Nelson Resources	NES		new high	gold exploration
Neometals	NMT		new high	lithium
Northern Minerals	NTU		surge to new high	REE
Northern Star Res.	NST		breached downtrend	gold
NTM Gold	NTM		new high	gold exploration
Oceana Gold	OGC		surge through downtrend	gold
Oklo Resources	OKU		down	gold expl.
OreCorp	ORR		rising again	gold development
Orocobre	ORE		rising	lithium
Oz Minerals	OZL		at recent highs	copper
Pacific American Holdings	PAK		down	coal
Pantoro	PNR		commenced secondary uptrend	gold
Panoramic Res	PAN		holding shallower uptrend	nickel
Peak Resources	PEK		correcting	rare earths
Peel Mining	PEX		new uptrend forming	copper
Peninsula Energy	PEN		new high	uranium
Poseidon Nickel	POS		breached uptrend	nickel
Pensana Metals	PM8		new high	rare earths
Perseus Mining	PRU		holding shallower uptrend	gold
Pilbara Minerals	PLS		new high	lithium
Polarex	PXX		testing downtrend	polymetallic exploration
Queensland Pacific Metals	QPM		surge to new high	nickel/cobalt/HPA
Ramelius Resources	RMS		rallying	gold production

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Red5	RED		holding shallower uptrend	gold
Red River Resources	RVR		new high	zinc
Regis Resources	RRL		down	gold
Regergen	RLT		back to support line	gas, helium
Resolution Minerals	RML		sideways at lows	gold exploration
Resolute Mining	RSG		testing downtrend	gold
RIO	RIO		new high	diversified, iron ore
Rumble Resources	RTR		rallied to resistance line	gold exploration
Salt Lake Potash	SO4		down again	potash
Saracen Minerals	SAR		down	gold
St Barbara	SBM		secondary downtrend	gold
Sandfire Resources	SFR		breached downtrend	copper
Santos	STO		strongly higher	oil/gas
Saturn Metals	STN		secondary downtrend	gold exploration
Sheffield Resources	SFX		rising	mineral sands
Sky Metals	SKY		back in downtrend	gold exploration
St George Mining	SGQ		down	nickel
Silex Systems	SLX		steeply higher	uranium enrichment technology
Silver Mines	SVL		on support line	silver
Sipa Resources	SRI		down	general exploration - Ni,Cu, Co, Au
Stanmore Coal	SMR		breached steepest downtrend	coal
Strandline Resources	STA		still in downtrend	mineral sands
Sunstone Metals	STM		down	
Talga Resources	TLG		fallen back to support line	graphite
Technology Metals	TMT		surge out of downtrend	vanadium
Tesoro Resources	TSO		down	gold exploration
Theta Gold Mines	TGM		new high	gold
Thor Mining	THR		down	gold exploration
Tietto Minerals	TIE		down	gold
Titan Minerals	TTM		sideways	gold
Vango Mining	VAN		down	gold
Venturex	VXR		testing uptrend	zinc
Vimy Resources	VMY		steeply higher	uranium
West African Resources	WAF		holding shallower uptrend	gold
Westgold Resources	WGX		rising again	gold
West Wits Mining	WWI		off its highs	gold
Western Areas	WSA		rising	nickel
Whitehaven Coal	WHC		rising	coal
Wiluna Mining	WMX		down	gold
Yandal Resources	YRL		down	gold exploration
Zinc Mines of Ireland	ZMI		secondary downtrend	zinc
Totals	54%	80	Uptrend	
	27%	40	Downtrend	
		149	Total	

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Guides to Chart Interpretations

- Charts usually go pass from one trend (up or down) into the other via a period of indecision and uncertainty during which the trend can either recover or change. This period is signified by the orange colour. The orange represent both the greatest risk and greatest reward possibilities.
- Once a chart is in confirmed up or downtrends it is not uncommon for 10-20% of that trend to have already transpired.
- There are trends within trends. The focus of this chart review is the immediate trend that affects the sentiment i.e. it can be a downtrend within a long-term uptrend.
- Not every chart warrants a new comment every week. The new comments are in bold type. Grey type comments may be dated.
- Individual charts provide a single view. It is valuable to look at charts of other companies in similar commodities, and the overall sentiment is also very valuable. Not many stocks can swim against the tide.
- We periodically add or delete charts, some times for obscure reasons. If a chart consistent gives poor signals or is very erratic, we may delete it. Sometimes we add a chart because we want to see what all the fuss is about. We do have a preference for charting stocks that we cover in our research as well.
- Errors and omissions may occur from time to time, especially in fast moving markets.

Amber Lights in Tables: Just a reminder if when the amber light is used in the table – it is when the charts are ambiguous or when there is a change of trend taking place. If a chart is breaching a downtrend it can either be a positive sign or a trap. Only once it has done more work can it be confirmed as a new uptrend. Maybe it is a new uptrend (or conversely a new downtrend); the risk takers can decide to jump on board early (or sell). They will maximise their profits (or minimise their losses if indeed it is the start of the new uptrend (downtrend). More risk-averse investors should wait a little longer, being prepared to give up some of the gains in return for greater certainty.

Weightings of Sectors Represented in the Company Charts			
Sector	No. of Companies	Weighting	
Gold	37	24.8%	
Gold Exploration	26	17.4%	
Nickel	12	8.1%	
Oil/Gas	7	4.7%	
Lithium	8	5.4%	
Zinc/Lead	7	4.7%	
Rare Earths	7	4.7%	
Copper	9	6.0%	
Mineral Sands	5	3.4%	
Iron Ore/Manganese	5	3.4%	
Potash/Phosphate	5	3.4%	
Coal	4	2.7%	
Uranium	4	2.7%	
Graphite	2	1.3%	
Bauxite	2	1.3%	
Silver	2	1.3%	
Cobalt	1	0.7%	
Tin	1	0.7%	
Diamonds	1	0.7%	

Other	4		
Total	149		

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