

Niobium: The contrast between exploration hype and project development

The gold price is holding comfortably above US\$3,000/oz, but still we see that many gold company share prices reacted rather mutedly. Though, positive drilling results are being embraced by the speculators.

Rebalancing the portfolio

We have seen the abandonment of graphite, lithium and rare earth stocks in the market place. Some of this money has gone into exotic metals such as antimony, gallium and tungsten, to name a few, but these are usually very thin and certainly not mainstream.

We have rebalanced the stocks under coverage to remove their negative influence on the Sentiment Oscillator, as well as cleaning out dogs such as diamond companies. We have retained a few of the leading stocks in their fields even though they are on the outer as it is useful to monitor money flows should they start to recover at some point.

Generally, the market is getting back to normal, led by gold companies. While the market is in the recovery mode it is helpful to see it responding appropriately to news flows and performance is becoming more balanced. However, there is still the problem of funding for many companies and the negative implications of placements being done at huge discounts that continue to undermine the future share price performance. You will notice that the best performing share prices after placements are those that are not heavily discounted, and don't have attaching options.

We have further purged the list, removing the following due to bad capital raising decisions; Antoetch, Brazilian Critical Minerals and Lucapa Diamonds. Other removals are looking like zombie stocks; Averina, Hastings Technology Metals, Ioneer, Jindalee Resources, Li-S Energy, Nagambie Resources, Neometals, Newfield Resources, Summit Resources and Vanadium Resources. They could recover at some point, at which they may be reinstated, but there is no point in being weighed down by them if it causes us to miss better opportunities.

Globe Metals and Mining - a serious niobium co.

We first looked at Globe back in May 2024, when we posed the question "Could we be having a Syrah scenario in niobium?" At the time WA1 Resources was \$18.00 on the way to \$22.00 (it has since traded down to \$12.00, where it carried a \$900m market capitalisation). WA1 is all about speculation and fantasy whereas Globe is more about prospective production and fundamentals. Globe's market capitalisation is a paltry \$20m, down from \$35m a year ago. A few weeks ago we received a company update that we are now reporting on.

Kanyika has the potential to become the first new globally significant niobium mine in 50 years, with an average nameplate production capacity of 3,267 tpa. of niobium

pentoxide, (Nb₂O₅) and 136 tpa of tantalum pentoxide (Ta₂O₅) over the 27-year life of mine. The Nb₂O₅ and Ta₂O₅ products will be high-purity products with grades exceeding 99.5% and 99.0% respectively.

The project is being designed with two Phases;

Phase 1 - US\$46m capex, 86,000 tpa ROM and 1,760 tpa of 20% concentrate (70% recovery rate), to produce a 97% refined product. It will supply only 3% of market demand for oxides, and ...

Phase 2 - US\$300m capex, capacity of 1.5 Mtpa ROM and 17,700 tpa of concentrates.

Phase 1 involves a construction time of 12-15 months. At current prices it is expected to earn revenue of US\$20m p.a. and achieve gross operating margins of 65%.

Background

The 100% owned Kanyika Niobium Project is located in central Malawi, 55 km NE of the regional centre of Kasangu. It has been tested with 33.8 km of percussion and core drilling to enable the calculation of 69 Mt at 2,283 ppm Nb₂O₅ and 135 ppm Ta₂O₅ at a 1,500 ppm lower cut-off grade. Lifting that cut-off grade to 3,000 ppm delivers 22.8 Mt at 4,220 ppm Nb₂O₅ and 190 ppm Ta₂O₅.

The head grade to the plant is expected to be 0.3-0.4% Nb₂O₅, which the Company says is similar to 2.8% CuEq. Feedstock is all near surface oxidised granite with a waste to ore ratio of 1:1.

Current status of Kanyika, Malawi

Globe has advised that it has been issued all licences to facilitate production. The technical process is well understood and a revised economic study is scheduled for release in April.

A second, non-binding offtake agreement has been signed a week ago, meaning that 57% of Kanyika's Phase 1 niobium pentoxide and 100% of tantalum production are now committed to agreements that cover the first three year's production. They have to be firmed up to make them binding.

Financing is always a challenge for juniors

Phase 1 of the project has an estimated capital cost of US\$46m. Last December, Globe signed a non-binding term sheet for a US\$10m convertible loan for the updating of the BFS, detailed front-end engineering and design (FEED) and other early works. IDC can convert the debt for up to a 25% equity interest in the Malawi Project holding company, with a second conversion option for up to 19.9% equity in Globe itself.

Adding the IDC facility to the US\$15m debt coming from Ecobank Malawi accounts for 54% of the expected capital cost of the Phase 1 operation. Since that news the

Company has secured a short term loan of US\$1.2m from a director, carrying a 20% interest rate.

The IDC is pencilled in for a US\$100m debt facility for Phase 2, costing US\$300m, but this is obviously subject to many preconditions.

A fully integrated process design

Rather than going down the route of producing concentrates for sale, Globe will mine, concentrate and refine on site using the proven hydrofluoric acid/solvent extraction (HF/SX) refining technology to produce oxides for sale.

Niobium in tight supply with 95% from three mines

Three mines account for 95% of global mining supply with 82% coming from the CBMM Mine in Brazil. This has a high grade in the weathered zone of 2.5-3% Nb₂O₅ (25,000-30,000 ppm). Reserves are sufficient for a 500 year mine life. A second mine in Brazil, owned by Anglo American Niobium Brazil, contains 10 Mt at 1.34% Nb₂O₅ and the underground Niobec Mine in Quebec, owned by IAMGOLD Corp, has a smaller resource of 2.6 Mt at 0.41% Nb₂O₅. Thus the supply curve is really dictated by CBMM. To some extent new entrants to the sector would be advised to ensure good relations with CBMM.

The Bottom Line

The immediate task for the board is to raise another US\$20m to fully fund Phase 1. Then, after establishing the economics, another US\$300m will be required for Phase 2. These numbers are somewhat of a challenge for a company with a market capitalisation of only \$20m, so one should realistically expect that funding will come from a strategic partner or investor.

Apollo Investments, the largest shareholder with a 51% stake, is a family office company controlled by a director, Alice Wong. That will obviously have to be diluted for Phase 1.

The niobium price hasn't done much over the last year, softening from US\$55-58/kg to be quoted at US\$45-50/kg, so there is not a shortage of the product driving the price higher. The ability for Globe to make money will depend upon its ability to fit into the cost structure of the sector and the establishment of a reputation as a reliable supplier, as an alternative or supplementary source to the dominance of CBMM.

Globe stand in strong contrast to WA1. Globe is real with a proper development opportunity. WA1 is just wild speculation and gambling. Globe has a market capitalisation of \$20m whereas WA1 is \$933m. If you want a touch of reality, place both of these on the Lassonde Curve.

Disclosure: Interests associated with the author own shares in Globe.

Scorpion - a focused WA Exploration Stock

There are plenty of junior gold stocks with valuable resources in the ground that can be turned into cash flow, with that being a useful alternative to relying on equity issues to fund growth. They are a good way to play the gold

bull market but there is another type of gold play that is more speculative and which could be even more exciting; exploration stocks. We looked at a good example of one of these last week; Scorpion Minerals (SCN).

Capitalised at around \$14m with \$3m in the bank (after settlement of placement and other shares and options), Scorpion is focusing on the Big Bell Shear Corridor in the Murchison Goldfield in WA. This has been in the headlines in the last couple of years with Spartan Resources (SPR) achieving spectacular, life saving exploration success at Never Never and Pepper. Spartan has just been valued at \$2.4bn with the Ramelius takeover bid.

Think about how the gold gets there

Being in the right address with proximity to other gold discoveries and mines is a prerequisite to gaining the attention of speculators, but that doesn't mean being right next door. Think about events that could inject gold bearing fluids into the geology i.e. a plumbing system. Structural faults and shear zones are classical conduits for upward transportation of rich fluids. When you combine these with cross cutting faults that open up trap sites for the these fluids to accumulate you start to get the right structural environment for gold deposits.

Exploration companies take inspiration from such structural settings but they always have to drill them as efficiently as possible to minimise discovery costs. As each hole goes down it provides additional information to be analysed as geologists try and figure out what is going on. Companies can be lucky and jag a discovery early, or it might take many holes in what can be a frustrating exercise.

Middle Bore is where Scorpion is starting

Interestingly, Middle Bore is located 60-70 km NE of the 2 Moz Big Bell deposit that has been mined previously. Big Bell itself is a similar distance from Dalgaranga where Spartan has made the big discoveries. So, for those who believe in distribution of orebodies along spatial distribution patterns, there is a big tick. Add that to its location over a NW trending splay off the structural corridor and you can start to get a little excited. The next requirement is to find evidence of gold in the system.

A number of explorers that have held the ground previously have already done that, including BHP Gold. There has been enough historical work done to show both high and low grade mineralisation from RAB and RC intercepts.

Follow-up RC drilling is about to commence with first assays expected by the end of April. Scorpion is planning for about 2,000m with this being funded by a recent \$1.5m placement at 2¢ a share.

EGM to be held on 17 April - share and options

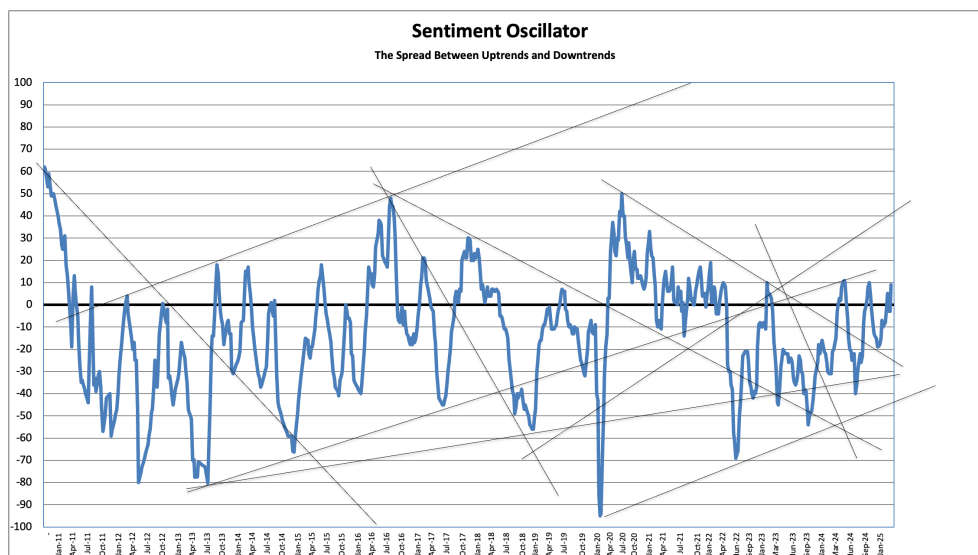
The market capitalisation has been adjusted for the placement of 35 mill. shares and 32.5 mill. shares under rules 7.1 and 7.1A, along with 33.75 mill. options. Additionally, 22.5 mill. shares and 11.125 mill. options are up for approval, with these going to contractors. Yet more shares (4.35 mill.) and options (2.175 mill) to related parties are up for approval and if that wasn't enough, a director is seeing approval to take 7.5 mill. shares and 3.75 mill. options. What a mouthful; 99.35 mill. shares plus the options.

The Bottom Line

Scorpion is at the starting gate. Anything could happen. The first news flow will be assays from the RC drill program about to commence. Then it is a matter of “sucking and seeing”. The ground is good, the management is experienced and the company is adequately funded just now. It will always be looking to raise more money down the track as \$3m doesn’t go far, so there is pressure on the

geologists to come up with good results early. It could provide some good trading opportunities and if you are lucky, and patient enough to hold on, there might even be a big discovery.

We have added Scorpion to our chart coverage.



Sentiment Oscillator: There was a good improvement in sentiment over the week but much of this was attributable to the rebalancing. There were 44% (39%) in uptrend and 35% (43%) in downtrend.

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	correction turned into downtrend	
Metals and Mining	XMM	weaker	
Energy	XEJ	down further	
Stocks	Code	Trend Comment (updated comments in bold)	Main Interest
Agua Resources	AGR	strong recovery	phosphate, gold
Alkane Resources	ALK	forming a wedge	gold
Alicanto Minerals	AQI	pullback	base metals, silver, gold
Alligator Energy	AGE	breached uptrend	uranium
Almonty Industries	All	surge to new high	tungsten
Alpha HPA	A4N	down	HPA
American Rare Earths	ARR	rising gently	rare earths
Anax Metals	ANX	new low after placement	copper
Andean Silver	ASL	testing uptrend	silver
Arafura Resources	ARU	rising	rare earths

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Ardea Resources	ARL		new uptrend	nickel
Arizona Lithium	AZL		new low	lithium
Astral Resources	AAR		sideways below resistance line	gold
Aureka	AKA		rising after name change from Navarre	gold exploration
Auric Mining	AWJ		down	gold
Aurora Energy Metals	1AE		testing downtrend	uranium
Aurelia Metals	AMI		rising	copper + base metals
Aurum Resources	AUE		rising	gold
Australian Gold and Copper	AGC		breached steepest downtrend	base metals, silver, gold
Australian Rare Earths	AR3		down again	rare earths
Australian Strategic Materials	ASM		testing downtrend	rare earths
BHP	BHP		secondary downtrend in play	diversified, iron ore
Ballymore Resources	BMR		back to lows	gold exploration
Barton Gold	BGD		gently higher	gold exploration
Beach Energy	BPT		rising	oil and gas
Bellevue Gold	BGL		testing downtrend	gold
Besra Gold	BEZ		still down	gold
Black Cat Syndicate	BC8		new high	gold
Boab Metals	BML		breached support line	silver/lead
Brazil Critical Minerals	BCM		new low - two tranche plus 1 for 3	rare earths
Brazilian Rare Earths	BRE		back to downtrend	rare earths
Brightstar Resources	BTR		less steep uptrend	gold
Caravel Minerals	CVV		improving	copper
Carnaby Resources	CNB		breaching downtrend	copper
Castile Resources	CST		testing downtrend	gold/copper/cobalt
Catalyst Metals	CYL		surge higher	gold
Cazaly Resources	CAZ		new low	rare earths
Celsius Resources	CLA		at lows	copper
Centaurus Metals	CTM		rising	nickel/cobalt/HPA
Challenger Gold	CEL		rising	gold
Cobalt Blue	COB		testing downtrend	cobalt
Cyprium Metals	CYM		continuing down	copper
Delta Lithium	DLI		down	gold/lithium
Emerald Resources	EMR		back to highs	gold
Empire Energy	EEG		breached uptrend	gas
Emmerson Resources	ERM		uptrend	gold
EQ Resources	EQR		rising	tungsten
Evolution Mining	EVN		rising	gold
Felix Gold	FXG		spiked higher	gold exploration, antimony
First Graphene	FGR		steep rise	graphene
Fortescue Metals	FMG		down	iron ore
Genesis Minerals	GMD		rising	gold
Globe Metals and Mining	GBE		sideways	niobium

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Gold 50	G50	■	breached uptrend	gold exploration + gallium
Golden Horse	GHM	■	rising	gold exploration
Great Boulder Resources	GBR	■	steeply higher	gold exploration
Green360 Tech (was Suvo)	GT3	■	testing downtrend	kaolin
Hamelin Gold	HMG	■	testing downtrend	gold exploration
Heavy Minerals	HVY	■	new high	garnet
Hillgrove Resources	HGO	■	new low	copper
Iltani Resources	ILT	■	rising again	antimony
Iluka Resources	ILU	■	new low	mineral sands
Jupiter Mines	JSM	■	improving	manganese
Kaiser Reef	KAU	■	improving	gold
Kalina Power	KPO	■	down	carbon sequestration
Larvotto Resources	LRV	■	new high	gold, antimony
Lindian Resources	LIN	■	down	rare earths + bauxite
Lotus Resources	LOT	■	continuing down	uranium
Lynas Corp.	LYC	■	rising again	rare earths
Many Peaks	MPK	■	rising	gold exploration
Marmota	MEU	■	spiked higher on titanium discovery	gold/uranium exploration
Matsa Resources	MAT	■	strongly higher	gold
Mayur Resources	MRL	■	rising again	renewables, cement
Meeka Gold	MEK	■	uptrend	gold
MetalsX	MLX	■	rising	tin, nickel
Meteoric Resources	MEI	■	new low	rare earths
Metro Mining	MMI	■	off its highs	bauxite
Midas Minerals	MM1	■	spiked higher, then pullback	lithium
Native Mineral Resources	NMR	■	steeply higher	gold
New Murchison	NMG	■	sideways	gold
Nexgen Energy	NXG	■	down	uranium
Northern Star Res.	NST	■	rallying	gold
Nova Minerals	NVA	■	down	gold exploration
Novo Resources	NVO	■	testing downtrend	gold exploration
Pacific Gold	PGO	■	new low	gold exploration
Paladin Energy	PDN	■	collapse	uranium
Pantoro	PNR	■	new uptrend	gold
Patriot Battery Metals	PMT	■	pullback after strong rally	lithium
Peninsula Energy	PEN	■	down	uranium
Perseus Mining	PRU	■	correcting lower	gold
QMines	QML	■	back to lows	copper
Queensland Pacific Metals	QPM	■	down	nickel/cobalt/HPA
Regis Resources	RRL	■	new high	gold
Regergen	RLT	■	surged higher	gas, helium
Richmond Vanadium	RVT	■	down	vanadium
RIO	RIO	■	down	diversified, iron ore
RTG Mining	RTG	■	strong recovery	copper

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Rumble Resources	RTR		testing uptrend	zinc exploration
S2 Resources	S2R		down	gold exploration
Sandfire Resources	SFR		off its highs	copper
Santana Minerals	SMI		rising	gold
Santos	STO		breaching downtrend	oil/gas
Sarytogan Graphite	SGA		still down	graphite
Scorpion Minerals	SCN		testing downtrend	gold exploration
Siren Gold	SNG		rising	gold exploration
Southern Palladium	SPD		pullback	PGMs
Stanmore Coal	SMR		down	coal
St George Mining	SGQ		collapse to new low	rare earths, niobium
Stellar Resources	SRZ		gently lower	tin
Sun Silver	SS1		down	silver
Talga Resources	TLG		rallying, about to meet resistance line	graphite
Tamboran Resources	TBN		breached uptrend	gas
Terra Uranium	T92		rallying	uranium
Theta Gold Mines	TGM		rising again	gold
Toro Energy	TOE		steep rise	uranium
Torque Metals	TOR		back to lows	gold exploration + lithium
Vintage Energy	VEN		sideways	gas
Vertex Minerals	VTX		testing uptrend	gold
Warriedar Resources	WA8		testing downtrend	gold exploration
West Cobar	WC1		new low	rare earth + lithium
Westgold Resources	WGX		spiked higher	gold
West Wits Mining	WWI		rising	gold
Whitehaven Coal	WHC		down	coal
Totals	44%	54	Uptrend	
	35%	43	Downtrend	
		123	Total	

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	30	24.4%	
Gold Exploration	17	13.8%	
Copper	12	9.8%	
Rare Earths	11	8.9%	
Uranium	9	7.3%	
Oil/Gas/Hydrogen	6	4.9%	
Iron Ore/Manganese	4	3.3%	
Lithium	3	2.4%	
Graphite/graphene	3	2.4%	
Nickel	3	2.4%	
Silver	3	2.4%	
HPA/Kaolin	2	1.6%	
Tungsten	2	1.6%	
Tin	2	1.6%	
Antimony	2	1.6%	
Coal	2	1.6%	
Niobium	2	1.6%	
Potash/Phosphate	1	0.8%	
Vanadium	1	0.8%	
Zinc/Lead	1	0.8%	
PGMs	1	0.8%	
Mineral Sands	1	0.8%	
Bauxite	1	0.8%	
Cobalt	1	0.8%	
Other	3	2.4%	
Total	123		

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