

Back to Bismuth; this Week another Tennant Creek Company

The All Ordinaries is correcting low and has started a downtrend but the Metals and Mining Index is breaking new highs. The firm gold price obviously helps but the sentiment is being assisted by the copper price that keeps walking higher, breaking upside of the sideways pattern that has had it range bound for the last five years. It all looks positive for mining stocks, especially seeing as US Government policy is working to encourage non-China supply across the board. Bismuth is firmly in its sights.

Back to Bismuth - a new player in the field

My ears pricked up last week when I was told of a company that had the "largest" bismuth deposit in the world. Wow. Given my coverage of Castile's bismuth as a suddenly valuable by-product of the Rover Project in the Northern Territory, I thought I should have a closer look.

The company concerned is CuFe Ltd (CUF). Its share price was down below 1.5¢, but it spiked to 5-6¢ in October, as the story got out when it raised \$5.4m at 1.7¢ with a 1 for 2 option. Apparently, only four parties took stock in the placement.

Rich production history 25 km NW of Tennant Creek

Like Castile, CUF's 55%-owned Orlando/Gecko Project is near Tennant Creek in IOCG-style mineralisation. Going back to 1962, the great Peko-Wallsend company started the underground Orlando mine. Ownership passed to Normandy Gold in 1991, which commenced open pit mining, before closing it down in 1997, due to unfavourable economics. Emmerson subsequently acquired the ground, joint ventured it with Evolution, and eventually it was purchased by Chinese interests. CUF bought its 55% interest for \$5m in cash and \$5m in shares, and agreed to spend the first \$10m on the project. So far it is about half way through this spend and it has increased the JORC resource by 350%, adding significant scale to the project.

Geology and Mineralisation

We are looking at typical Tennant Creek style mineralisation here. Orlando is a pipe-like orebody within a shear zone hosting multiple mineralisation phases. The 15-20m wide, sub-vertical lenses contain stacked and continuous mineralised domains with chalcopyrite being the primary copper mineralisation. Gold, bismuth, silver and cobalt are also contained.

The orebodies have been identified down to depths of 550m, and have been mined down to 400m depths. CUF would look to mine both remnant and fresh positions with there also being some opportunity for open pit mining.

The oxide copper is generally leached to a depth of 60m and by 80m the ore bodies are typically comprised of fresh sulphides .

Scoping Study last July

The numbers from the Scoping Study, before the resource upgrade, suggest a 0.85 Mtpa plant that would cost \$136m all up, including infrastructure. The NPV was estimated at \$352m for 100% of the project at long term pricing and at over \$500m, at spot pricing. Another \$78m in sustainable capital will be required. However, the scope of the project is changing rapidly.

Update Resource in November

CUF announced an updated resource of 24.4 Mt at 1.8% Cu and 0.55 gpt Au, including 18,244 tonnes of contained bismuth. This was up from the earlier figure of 7 Mt.

Bismuth Recovery

The jewel in the crown of this project may well be the bismuth. Importantly, Peko used to produce a bismuth concentrate in the past, recovering 70-80%. It would mine and campaign treat the bismuth rich ore to produce a bismuth concentrate rather than just throw it in with the copper concentrate, where it would attract penalties. CUF can do the same

The USA Defence Department is looking for bismuth

CuFe is right in the sights of the US Department of Defence as it scours the geopolitically safe world to secure bismuth for the strategic stockpile it is building.

DLA Strategic Materials intends to acquire bismuth in slab or ingot form for the National Defense Stockpile. The standard grade for DoD applications of bismuth metal is the same as commercial grade, 99.99% purity, also referred to as 4N purity. DLA Strategic Materials intends to purchase a maximum of 5.1 Mlb of commercial bismuth metal over a five-year ordering period. DLA Strategic Materials received authority to procure bismuth metal in the FY2025 National Defense Authorization Act (NDAA). Click on the following link for more details.

<https://sam.gov/opp/a919962aa5c8402a97ffe5993fb688c4/view>

Yarram Iron Ore Project, NT

Although small and not the main game, Yarram comprises a high grade DSO resource of 5.6 Mt at 60% Fe and 7.1 Mt of lower grade ore only 110 km from the Darwin Port. Favourable logistics and infrastructure could enable operating costs of around US\$40 pt FOB, giving an operating margin of around A\$300m at today's iron ore price. It could be a useful profit spinner, depending upon capital costs. Coincidentally, both Mark Hancock (CEO) and Matt Ramsden (Geologist) used to work for Atlas Iron, so they know the space well.

The Bottom Line

The emergence of another bismuth play is good as it shows the start of a new mini-sector and opens the door to comparative analysis. Here, Castile can be assessed on

fundamentals as it has been a serious pre-development company for some time. As the new kid on the block, CuFe is just getting the ball rolling.

The brownfields nature of CUF's projects mean there is considerable historic data available and approval and development timelines should be shorter than a greenfield project like Castile's. As usual this is early days and aspirational, so promotion is an important active ingredient. There is still much work to do before contemplating serious operational economics, but the project definitely has merit even if just because of improved metal prices.

The value of the bismuth is the wild card, particularly because of early interest from the US Defence Department that is looking to build a strategic stockpile. China has the bismuth supply chain in a stranglehold and the USA regards this as unfavourable.

CUF certainly has some noteworthy shareholders, including Tony Sage and Terra Capital. One thing is for certain - we can expect to see more activity in the stock as the story develops. The share price has risen strongly from its lows and seems to be pausing for the minute, but that doesn't mean it can't move much higher. These guys are fast lane operators, not shrinking violets. Perhaps the smart thing to do is to watch the chart for when it breaks out of the correcting pattern it is now in.

Why Do We Buy Shares in Mining Companies?

The answer should be obvious. We buy shares because we want to sell them later, for a profit. But how often are we successful? Probably not as often as you would like.

Let's not be too sanctimonious. There is nothing noble in buying mining company shares per se, regardless of how much you might support mining. You have to make money. It can be by careful stock selection and processing news flows efficiently and having the confidence to back your judgement. It can be by being in the know as to who is buying and promoting. It can be by following a trend rather than undertaking too much specific analysis. All strategies can work, up to a point.

Mining and exploration stocks fluctuate wildly over short time frames. They provide frequent trading opportunities. In contrast, industrial shares move in extended time frames. They do offer opportunities to buy and hold for long term

growth. You can rarely say that in the volatile resources sector where trading strategies are more relevant.

The stock market is full of mining companies with high aspirations as opposed to real operating businesses, unless you call promotion a business in its own right, which it may be given the level of activity and the amount of money involved. Production is a disciplined real life activity. Promotion is ... what you want it to be.

The question for stock market players is simply this; do you want to be slogging it out in the real industrial world of mining and processing, or do you want the excitement of backing stock promoters? Do you want to seem "responsible" or do you just want to have fun and make money? I am sure that most of you want the latter.

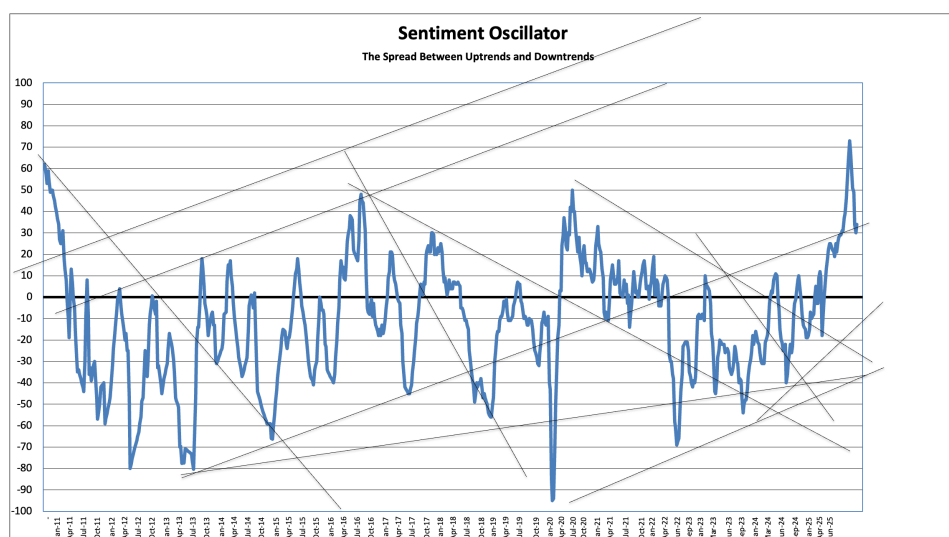
If that is correct, how do we increase our odds in the game? You have to get onto a story early. You have to be talking to the smart market players but be wary of self interests of the same people. Being able to see over the horizon helps. You have to constantly reassess your positions and be aware of changing narratives. There are so many stories in play that it can be confusing. You have to be in sync with market trends and of course, timing is everything.

Reading this Weekly can be helpful but it is just another tool. Sometimes it will focus on the real world and fundamentals. Sometimes it is more about reading the pulse and discerning the trends. Coverage of individual stocks is by random selection but it is often tied to the efforts companies are making to promote themselves when there is a story to tell.

Agua Research Report - 4th December

Yesterday we released a special report on Agua's phosphate project, placing it in perspective with Brazil's surging demand and its desire to reduce dependence on imported synthetic fertiliser. It should be on your emails but if not, go to the Research tab on www.fareastcapital.com.au and you can find it there.

Disclosure: Interests associated with the author own shares and options in Agua and the author is Executive Chairman.



Sentiment Oscillator: Sentiment recovered usefully during the week, bouncing off a trend line. There were 56% (56%) of shares under coverage in uptrend, and 22% (26%) 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		down	
Metals and Mining	XMM		rising	
Energy	XEJ		breached downtrend	
Stocks	Code		Trend Comment (updated comments in bold)	Main Interest
Agua Resources	AGR		rallying from lows	phosphate, gold
Alkane Resources	ALK		off its highs	gold
Alicanto Minerals	AQI		spiked higher	base metals, silver, gold
Alligator Energy	AGE		testing downtrend	uranium
Almonty Industries	AIL		surge to new high	tungsten
Alpha HPA	A4N		down	HPA
American Rare Earths	ARR		back to support line	rare earths
Anax Metals	ANX		sideways through uptrend	copper
Andean Silver	ASL		heavy correction	silver
Arafura Resources	ARU		back to support line	rare earths
Ardea Resources	ARL		correcting lower	nickel
Ark Mines	AHK		new high	rare earths
Astral Resources	AAR		new high	gold
Aureka	AKA		spiked higher	gold exploration
Auric Mining	AWJ		testing uptrend	gold
Aurora Energy Metals	1AE		testing uptrend	uranium
Aurelia Metals	AMI		recovering	copper + base metals
Aurum Resources	AUE		trying to recover uptrend	gold
Australian Gold and Copper	AGC		rising	base metals, silver, gold
Australian Rare Earths	AR3		heavy slump	rare earths
Australian Strategic Materials	ASM		heavy correction	rare earths
BHP	BHP		rallying strongly	diversified, iron ore
Ballard Mining	BM1		rising	gold
Ballymore Resources	BMR		rising	gold exploration
Barton Gold	BGD		rising again	gold exploration
Beach Energy	BPT		at resistance line	oil and gas
Beetaloo Energy	BTL		breached uptrend	breached down trend
Bellevue Gold	BGL		higher	gold
Besra Gold	BEZ		down heavily	gold
Black Cat Syndicate	BC8		breached uptrend	gold
Boab Metals	BML		spike then a placement	silver/lead

*This commentary is provided at no charge and in good faith from sources believed to be reliable and accurate. Far East Capital Ltd directors and employees do not accept liability for the results of any action taken on the basis of information provided or for any errors or omissions contained therein. Readers should seek investment advice from their professional advisors before acting on information contained therein. Please see **Disclosure of Conflicts of Interest** at the end of this commentary.*

Brazilian Rare Earths	BRE		down	rare earths
Brightstar Resources	BTR		consolidating	gold
Caravel Minerals	CVV		rising	copper
Carnaby Resources	CNB		rising	copper
Castile Resources	CST		testing support line	gold/copper/cobalt
Catalyst Metals	CYL		testing uptrend	gold
Cazaly Resources	CAZ		breached uptrend	rare earths
Centaurus Metals	CTM		rising	nickel/cobalt/HPA
Challenger Gold	CEL		on support line	gold
Cobalt Blue	COB		holding trend line	cobalt
CuFe	CUF		rising	bismuth
Cyprium Metals	CYM		higher	copper
Emerald Resources	EMR		back to highs	gold
Emmerson Resources	ERM		new high	gold
EQ Resources	EQR		rising	tungsten
Estrella Resources	ESR		down	manganese
Evolution Mining	EVN		new high	gold
Felix Gold	FXG		heavy slump	gold exploration, antimony
Finder Energy	FDR		spiked to new high	oil/gas
First Graphene	FGR		breached uptrend	graphene
Flagship Minerals	FLG		sideways through uptrend line	gold
Genesis Minerals	GMD		surge to new high	gold
Globe Metals and Mining	GBE		correcting lower	niobium
Gold 50	G50		surge higher	gold exploration + gallium
Golden Horse	GHM		rising	gold exploration
Great Boulder Resources	GBR		steeply higher	gold exploration
Green360 Tech	GT3		rallying	kaolin
Hamelin Gold	HMG		down	gold exploration
Hawk Resources	HWK		down	scandium
Heavy Minerals	HVY		new high	garnet
Hillgrove Resources	HGO		weaker	copper
Iltani Resources	ILT		correcting lower	antimony
Iluka Resources	ILU		correcting lower	mineral sands
Investigator Resources	IVR		near its highs	silver
Jupiter Mines	JSM		improving	manganese
Kairos Minerals	KAI		rising	gold
Kaiser Reef	KAU		new high	gold
Kalamazoo Resources	KRZ		rising	gold
Kalina Power	KPO		good rise	carbon sequestration
Koba Resources	KOB		off its highs	uranium
Larvotto Resources	LRV		return to highs	gold, antimony
Lindian Resources	LIN		rising	rare earths + bauxite
Lotus Resources	LOT		rising again	uranium
Lynas Corp.	LYC		heavy slump	rare earths

This commentary is provided at no charge and in good faith from sources believed to be reliable and accurate. Far East Capital Ltd directors and employees do not accept liability for the results of any action taken on the basis of information provided or for any errors or omissions contained therein. Readers should seek investment advice from their professional advisors before acting on information contained therein. Please see **Disclosure of Conflicts of Interest** at the end of this commentary.

Many Peaks	MPK		breaching downtrend	gold exploration
Marmota	MEU		higher	gold/uranium exploration
Matsa Resources	MAT		rising	gold
Meeka Gold	MEK		at highs	gold
MetalsX	MLX		new high	tin, nickel
Meteoric Resources	MEI		new high	rare earths
Metro Mining	MMI		rising again	bauxite
Midas Minerals	MM1		testing uptrend	lithium
Native Mineral Resources	NMR		down	gold
New Murchison	NMG		rising	gold
New World Resources	NWC		rising	copper
Nexgen Energy	NXG		rising again	uranium
Northern Star Res.	NST		rising again	gold
Nova Minerals	NVA		heavy fall	gold exploration
Novo Resources	NVO		spike higher	gold exploration
Omega Oil	OMA		rising	oil
Pacific Gold	PGO		spiked higher on gold acquisition	gold exploration
Pacific Lime & Cement	PLA		rising gently	renewables, cement
Paladin Energy	PDN		testing downtrend	uranium
Pantoro Gold	PNR		heavy correction	gold
Patriot Battery Metals	PMT		rising	lithium
Peninsula Energy	PEN		down	uranium
Perseus Mining	PRU		new high	gold
Prairie Lithium	PL9		new low	lithium
QMines	QML		sideways	copper
Queensland Pacific Metals	QPM		rising	nickel/cobalt/HPA
Regis Resources	RRL		rising	gold
Renegen	RLT		heavy pullback	gas, helium
Revolver Resources	RRR		breached uptrend	copper
Richmond Vanadium	RVT		down	vanadium
RIO	RIO		rising	diversified, iron ore
RTG Mining	RTG		improving	copper
Rumble Resources	RTR		sideways	zinc exploration
S2 Resources	S2R		down	gold exploration
Santana Minerals	SMI		rising	gold
Santos	STO		slump	oil/gas
Sarytogan Graphite	SGA		sideways	graphite
Scorpion Minerals	SCN		correcting lower	gold exploration
Siren Gold	SNG		spiked higher	gold exploration
Southern Palladium	SPD		spiked higher	PGMs
Stanmore Coal	SMR		improving	coal
St George Mining	SGQ		rising again	rare earths, niobium
Stellar Resources	SRZ		corrected to trend line	tin
Sun Silver	SS1		higher	silver

This commentary is provided at no charge and in good faith from sources believed to be reliable and accurate. Far East Capital Ltd directors and employees do not accept liability for the results of any action taken on the basis of information provided or for any errors or omissions contained therein. Readers should seek investment advice from their professional advisors before acting on information contained therein. Please see **Disclosure of Conflicts of Interest** at the end of this commentary.

Sunrise Metals	SRL		rising	scandium
Talga Resources	TLG		down	graphite
Tamboran Resources	TBN		rising	gas
Terra Uranium	T92		correcting lower	uranium
Theta Gold Mines	TGM		down	gold
Toro Energy	TOE		spiked higher	uranium
Torque Metals	TOR		down	gold exploration + lithium
Toubani Resources	TRE		breached short term downtrend	gold
Trigg Minerals	TMG		correcting lower	antimony
Verity Resources	VRL		down	gold
Vertex Minerals	VTX		down	gold
Waratah Minerals	WTM		down	gold exploration + gallium
Westgold Resources	WGX		new high	gold
West Wits Mining	WWI		rising	gold
Whitehaven Coal	WHC		rising again	coal
White Cliff Minerals	WCN		down	copper exploration
WIN Metals	WIN		down	gold
Yandal Resources	YRL		down	
Totals	56%	78	Uptrend	
	22%	30	Downtrend	
		139	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	37	26.6%	
Gold Exploration	19	13.7%	
Copper	14	10.1%	
Rare Earths	12	8.6%	
Uranium	10	7.2%	
Oil/Gas/Hydrogen	7	5.0%	

Iron Ore/Manganese	4	2.9%	
Lithium	2	1.4%	
Graphite/graphene	3	2.2%	
Nickel	3	2.2%	
Silver	4	2.9%	
HPA/Kaolin	2	1.4%	
Tungsten	2	1.4%	
Tin	2	1.4%	
Antimony	3	2.2%	
Coal	2	1.4%	
Niobium	2	1.4%	
Potash/Phosphate	1	0.7%	
Vanadium	1	0.7%	
Zinc/Lead	1	0.7%	
PGMs	1	0.7%	
Mineral Sands	1	0.7%	
Bauxite	1	0.7%	
Cobalt	1	0.7%	
Other	4	2.9%	
Total	139		

FEC Disclosure of Interests: It is a requirement of ASIC that holders of AFS licences prominently disclose any conflicts of interest. At all times readers should be aware that Far East Capital Ltd is an active investor. It shares its research and opinions free of charge to other investors and it aims to do so on an ethical basis. Accordingly, when it is writing about stocks in which it holds interests, these will be disclosed. The author is chairman of First Graphene and one of the largest shareholders, through a number of entities. Over the last three years FEC has received capital raising fees from a number of companies but it does not receive payment for research. See individual disclosure notes in the body of the Weekly where they are relevant. Its primary business is investing and managing its own money, but it does occasionally raise money for resource companies.

Disclaimer: This Research Report has been prepared exclusively for Far East Capital clients and is not to be relied upon by anyone else. In compiling this Commentary, we are of necessity unable to take account of the particular investment objectives, financial situation and needs of any of our individual clients. Accordingly, each client should evaluate the recommendations obtained in this Commentary in the light of their own particular investment objectives, financial situation and needs. If you wish to obtain further advice regarding any recommendation made in this Commentary to take account of your particular investment objectives, financial situation and needs, you should contact us. We believe that the advice and information herein are accurate and reliable, but no warranty of accuracy, reliability or completeness is given and (except insofar as liability under any statute cannot be excluded) no responsibility arising in any other way for errors or omissions or in negligence is accepted by Far East Capital Limited or any employee or agent. For private circulation only. This document is not intended to be an offer, or a solicitation of an offer, to buy or sell any relevant securities (i.e. securities mentioned herein or of the same issuer and options, warrant, or rights with respect to or interests in any such securities). We do not guarantee the accuracy or completeness of the information herein, or upon which opinions herein have been based. At any time we or any of our connected or affiliated companies (or our or their employees) may have a position, subject to change, and we or any such companies may make a market or act as principal in transactions, in any relevant securities or provide advisory or other services to an issuer of relevant securities or any company therewith. Unless otherwise stated all views expressed herein (including estimates or forecasts) are solely those of our research department and subject to change without notice. This document may not be reproduced or copies circulated without authority. Copyright © Far East Capital Ltd 2023.